

The culture of present days as a general notion may differ greatly from the culture of ancient times, and this difference is literally huge. Civilizations have developed and advanced with centuries however it is still fair to state that ancient culture is something timeless. People will agree that everything that they can see in the museums or in the sights in countries with a long history dating back to ancient times is really beautiful. All the artifacts and places of interest which have survived the centuries and even thousands of years, the remains of ancient civilizations are the evidence of their past vigor and sophistication. This is particularly true regarding the art and culture of ancient Greece and Rome as it is known today.

The goal of this paper is to contemplate one of the aspects of Greek or Roman art, and to consider it from the general perspective of the time period during which it triumphed as well as in more detail – in order to evaluate it in and of itself and in a proper manner. The topic of choice for this research is the architecture of ancient Greece, and the period under discussion is known as Classical with special focus upon the Doric order.

Generally, there are four periods in the history of ancient Greece – the Geometric, Archaic, Classical and Hellenistic periods. The Geometric period (about 1,000 BC) is also entitled the Dark Ages, and it is important to state that very little is known about it. The Archaic period of about 800-500 BC, and it is marked by the genesis of all art forms – sculpture, architecture, and painting. The next period of interest for this research is Classical – dating back to about 500-350 BC and significant for flourishing of arts (music, poetry, sculpture, architecture), as well as politics and philosophy. Finally, the Hellenistic period of 350-140 BC and is known for the rule of Alexander the Great. Furthermore, with the end of this period the existence of ancient Greece as an independent state ceased for it became the province of the Roman Empire.

In general, the Classical period in Greek history is marked with the Persian Wars, the establishment of democracy and the end of aristocratic state, the dominance of Athens under Pericles, the Peloponnesian war, the rise and fall of Sparta and finally, the rise of Macedon.[1] This is a very difficult period in a political means for the country, and a very productive one in means of culture. Arts began their development, and sculptors learnt how to depict people in a very naturalistic way, and gods were depicted in all their might and perfection. The paintings of Greek painters of the Classical period were never found, however the drawings on the vessels and vases shows their skills and proves the level of development and skills of artists. Finally, architecture flourished, and many architectural monuments which have remained until the present are still the examples of art of building. Some of these monuments will be considered in this research.

Thus, it is time to begin considering the architecture of Classical period in Greece. Generally, this term, 'Classical' is usually used to define architectural style which developed in the times of antiquity[2]. This term is also used to define the types of buildings which were built in Greece in the time period of about 500-340 BC. The important point in this case is the origin and the meaning of this title. 'Classical' in this context and meaning implies the definition of art which has reached the state of perfection. This is particularly applicable to architecture since in this period of time the best (say the least of it) temples and other buildings were erected. The conclusion can be made that the style title has been transferred to the title of the period to define it in general, and it suggests that the architectural style was that much important and meaningful and as a result the entire period in the Greek history was entitled after it. Thus, in these means, the Classical style in architecture is defined by the Greek temples built in those days, and the style itself consists to a greater degree of the rules regulating the "post and lintel system of construction using columns"[3]. When columns are considered, it is fair to mention that there are three styles developed by the Greek architects used in

the construction, and they are the Doric, Ionic and Corinthian styles. And Classical architecture is defined by the Doric columns in particular, if mainland Greece is viewed.

Doric and Ionian architecture is not native to Greek lands, as both these nations are considered immigrants in the mainland Greece. Historians still doubt about where these people have come from. However it is known that their language belonged to Aryan group, they were fair-haired and they brought to Greece the new style of architecture and building – using timber.[4] The intervention of strange tribes happened very naturally through assimilation, and thus local people never suffered from any kind of extermination.

It is also necessary to state that Doric and Ionic architecture does not represent or characterize different eras or time periods. It is possible and even apparent that these two styles existed and developed simultaneously, however in different locations. Doric population prevailed in European part of Greece, while Ionic people inhabited the coasts of Asia Minor.[5] Thus, there can be observed a mutual and to some degree united cultural progress.

However, initially, the two styles – Doric and Ionic – differed. Ionic tribes situated in Asia Minor used to build their cities according to Asiatic tradition. On the other hand, in the mainland Greece another style developed and was used in the art of building – the Doric one.[6] And Ionic people adhered to their own style, as a result nowadays very few Doric temples can be found in lands which have been known as Ionic. With the development of sea communication however, both of the styles started influencing each other in a more active way.

One more important issue to be discussed when the topic of Classical architecture is studied, is the fact that in those days of Classical period the attention of Greek architects was focused upon public buildings while private dwellings were of much less interest and focus for them. And when public buildings are viewed, the most attention was paid to religious buildings, namely temples of the gods. “It was long before the agora or market-place, with its fortuitous assemblage of administrative and commercial buildings, took on the monumental character of the Roman forum, with formal colonnades and peristyles. Likewise buildings for educational or athletic purposes, such as the gymnasium and palaestra and stadium, were at first unpretentious or temporary structures”. [7] Thus, it is understandable that in the days of Classical period Greek architecture was focused upon religious buildings.

And it is necessary to mention that Greek religion also developed with time which led to the development of religious architecture. In the early days of the development of Greek religion it was rather primitive which required only altars in some open spaces to worship the gods.[8] Also, first temples (primitive ones, too) started appearing long before the Doric invasion of the Mainland Greece. It is true to say that temples in the Classical period of Greek history were the most important buildings in the society, and thus they required the most of the architects’ attention. In the times of the rise of Athens it is not an unusual practice to build temples in places where ruined palaces previously stood. And the importance of temples never decreased whatever the political order – a monarchy, a republic or an oligarchy.[9] Much attention is paid to the development of relationships between people and the gods. Religion in Greece differs a lot from what people are used to at present. It was not that strict as it is today, and people believed they were living in close vicinity to their gods – patrons of their cities (as some god or goddess was a patron of each city) as well as spirits indwelling in each plant or rock – satyrs and fauns, as well as nymphs and dryads. In different life situations depending upon the needs people could appeal to different gods and ask for help and support. And this type of unification with the gods resulted in peculiarities of the Classical Greece

religious architecture. Temples in this period had their characteristic traits. They were similar to more ancient megarons, but they were close to people in their figurative meaning – temples were open and literally transparent. Passers-by could see the statue of a god inside the temple from the outside, and the colonnade only contributed to this. The inner hall was usually surrounded by a colonnade and a portico could be used to symbolize the entrance. Outside an altar was usually placed.

But the development of a typical Greek temple form came a long way as first it and evolved from a circle form into a rectangular one which also took years if not centuries to happen. Eventually, the temple developed into a rectangular building. Its peculiarities included a long ridged roof with gables as well as porch either open with corner posts or closed with some kind of a doorway.[10] Furthermore, there can be mentioned the introduction of columns in the open front as well as removal of the side walls of a temple. Thus, the inner hall, a megaron was often surrounded by columns, and a pronaos (portico) functioned as a porch. There can or cannot be a vestibule between a portico and a cella (inner hall of the temple), and if it is omitted it resembles the Mycenæan shrines of more ancient times.[11]

Among the typical elements of the Doric architecture can be viewed a capital with cushion and heavy square abacus; a frieze with receded metops and fluted triglyphs placed between cornice and architrave; as well as “moules – hanging plates on the under side of the cornice”.[12] Columns were tapered from bottom to top, and there could also be a slight curve – entasis. In the Doric architecture columns were rather firm and stout when compared to Hellenistic columns of a later period. And generally, the Doric columns rested on the very platform without implementation of an additional molded base. One more interesting fact about the columns in Doric temples proves that the columns usually lean inward. Furthermore, upward curving in the columns caused optical deception and made people think columns (and the temple itself) were reaching the sky. As for the common base called stylobate, it was usually furnished through raising the portico above the natural surrounding.[13]

An interesting mathematical problem has been discovered by scientists and archaeologists and architects in the process of studying of Doric temples. The problem is connected with the frieze and it lies in the inconsistency or even contradiction of the basic rules of the Doric style. According to Rule 1, “the triglyph must stand over each column and one over each intercolumniation”.[14] The second rule, 2, stated “at each of the four angles of the frieze the two triglyphs which stand above each of the angle columns must be in contact: a pair of metopes or half-metopes must not stand at the corner”.[15] Finally, Rule 3 required every triglyph standing above a column or an intercolumniation to stand particularly above the centre of that column or intercolumniation. This was controversial to the rule 2, and thus the mathematical problem was in the basis of the architectural work. For this very reason Doric temples soon disappeared as an architectural type – soon with the beginning of the Hellenistic period as architects simply did not wish searching for the solutions and loopholes to build shrines the plans of which conflicted with rules of architecture. However, Doric architects conveniently found solutions and the curves or inconsistencies were amended by means of adding certain elements such as half-metopes, or by making the distance between columns differ from the center to the sides.

The number of columns in different temples varied. And the style of the temple was usually defined by the amount of columns built. For instance, tetrastyle meant the occurrence of four columns, while decastyle mean ten columns in the front portico. The colonnaded portico was thus a must. Furthermore, the style of a temple was also defined by the colonnade types, thus, if only a portico

was colonnaded it was called prostyle, while amphi-prostyle defined the existence of colonnades in the front and the rear of the temple. Peristylar (or peripteral) meant a big amount of columns, often a surrounding colonnade.[16] In the front and the rear of the roof there were gables, or pediments.

The temples were built of limestone, and the columns as well as entablatures, and cella walls were developed from this permanent material. Marble which was imported was used in Mainland Greece to develop decorations. Wood was used for roofs and ceilings, and later it was replaced by terracotta revetment. And when Greece proper is considered, Doric style is characterized by the strictness of form and dignity.[17]

One more interesting issue regarding Greek temples of the Classical period is connected with their polychromy. This feature is one of the most known and distinct, characteristic to the outside decoration of shrines of the time. Light tint was the color of lower supporting members.[18] This pattern was brought to the Classical architecture from older temples and colored the temple with golden-brown tint, while friezes and cornice were painted in a darker color (in older temples which were built with the use of wood this technique was used to preserve wooden elements). Furthermore, triglyphs with their elements such as regulae and the mutules were painted blue, and the trunnels painted red or even gilded. "The continuous members were treated with particular richness; the narrower strips were painted with the meander and other woven forms; the gutter with anthemions; while the Doric cyma was decorated with leaves of various colors, so artistically conventionalized as but little to resemble nature. The inner side of the entablature was still more richly colored".[19]

Special attention should be paid also to mouldings of Doric temples. It is also necessary to point that Doric and Ionic mouldings are very similar. These types of decoration of temples are known as the mouldings of footing, the mouldings of support, and the mouldings of crowning, all three discussed hereinafter.

The mouldings of footing, for instance, make up the architectural elements which make up the transition from recurring footing members of the building and the plinth and the wall (or the shaft which is above it). Such mouldings can be of three types – the torus, the inverted Lesbian cyma, and the inverted Ionic cyma.[20] The torus is a half-round moulding in the basis of an Ionic column. The inverted Lesbian cyma makes up a smaller than the torus section which is a double curvature. And the inverted Ionic cyma is also a section of double curvature but it is more often implemented in monuments than in buildings. Among the mouldings of support are known the echinus, the Doric cyma, and the upright Lesbian cyma. The echinus is similar to the torus, and is a single curve of constantly changing curvature. The upright Lesbian cyma is a minor element of support moulding. The Doric cyma is also a minor element which is used for support and also has a function of a drip, but is also known to be used to make horizontal emphasis. Finally, the mouldings of crowning make up the Ionic cyma, the Lesbian cyma, the Doric cyma, as well as the fillet and the echinus. The Ionic cyma is an element of the moulding of the free ending, and in means of the Doric architecture, it is used when the two styles are mixed. The Lesbian cyma and the echinus are used for cymatia. The form of the two latter is less tense than that of the supporting mouldings. The fillet is a continuous narrow molding; it is used to crown such members as the frieze or the epistyle with a projection half of its height. There also exists a group of mouldings which separate two types of mouldings from each other, and these are usually the fillet and the astragal, and at times the scotia.

Usually, in architecture of ancient Greece the mouldings are decorated somehow. The types of decorations may vary regarding from the style. For instance, the pure Doric style is characterized

only by color on the surface of the moulding. (To compare, in the Ionic style, the mouldings are previously carved in relief before the coloring.)

In general, the types of mouldings in the Doric style very well correspond to the style requirements. Since it is known that the Doric style in architecture is characterized by strict lines, minimalism and dignity, the mouldings also are created in a minimalist style. This assures the harmony between the form and the decorations which are used to enhance the form's meaning and enrich the form.[21] Everything in this type of architecture corresponds with the initial minimalist idea – the form, the decoration, the entire construction system, as well as the materials used in building process. There exists a certain complex system which assures perception of this type of Greek ancient architecture as a work of art in general. This is particularly the unity of all the meaningful elements mentioned above. This harmony is further enhanced and justified by balance, repetition and rhythm which can be traced in this Doric order of architecture.

It is known that the implementation of the Doric style is usually divided by the historians into three periods, which are the archaic Doric period (about the end of the 7th century BC-beginning of the 5th century BC), the fully developed Doric period (the 5th-4th centuries BC), and finally the decline (the Macedonian epoch).[22]

The period of interest for this research is the time of the full development of the Doric architectural style. During this period the most well-known temples have been built which are still considered the greatest examples of the epoch. This period however also consists of parts. Attic Doric style is characterized by implementation of both Doric and Ionic elements in design, building and decorating. Furthermore, this style is known for slenderness and elegance of buildings, with beautiful decorations. This is the particular sub-period during which the very famous temple was built – with which many foreigners associate Greece in general – this is the Parthenon situated in the territory of Acropolis in Athens.

The Acropolis was a very important place for all inhabitants of the territory of Athens and the surrounding territories as it was the place where all their sacred places and temples were situated.[23] This place has been valued by ancient Greek people since Mycenaean times. The rebuilding of the temples in Acropolis started before Persian wars, however Persian master having come to the city burnt down the citadel which was built around the temples, as well as the temples themselves. The damage was caused not only to the buildings, but to the statues, either. Thus, when Athenians returned to the city they were inclined to rebuild it as well as reconstruct the Acropolis. The well-known Parthenon, the architectural monument under further discussion is thus supposed to be not only the temple but also a kind of a wartime monument symbolizing the victory.

It is known that the rebuilding and restoration of Acropolis started in the era of Pericles (495-429 BC), around 450 BC. In that time in particular it was decided to build the Parthenon (built between 447-432 BC).[24] In general all the rebuilt temples in Acropolis were developed according to the same style, in their perfection. They all were built in one and the same time period of about thirty years and thus are examined and observed as a series.

The Parthenon itself was built by architects Ictinus and Callicrates to honor Athena, and the statue of this goddess was erected within the temple. However, the Parthenon itself also was considered the symbol of democracy and victory, the pride of Athenians.[25] The statue was made in chryselephantine by a famous sculptor of the time, Pheidias.

It is fair to admit that the Parthenon seems a common temple similar to other Greek temples, at first sight. And what is important, its position and location contributes to its significance and beauty a lot. Also, the materials used to build it were the best – it was the finest marble, and 22,000 tons were used. When erected, the temple was modified to assure its lightness. Among the peculiarities evident to visitors, there are the steps curved in a way so that the central part of each was higher than its corners[26], and the corner columns appear thicker than others and all of the columns lean inward to some degree. The exterior columns were completed in Doric style, and the interior colonnades were carved with the application of Ionic style, too.[27] The cella of the Parthenon was very wide – it was made intentionally in order to assure enough space for the statue of Athena. The internal colonnades within the cella were turned across behind the statue; as a result the Parthenon was made the very first perystylar temple in the entire ancient Greece.[28] The exterior columns were developed according to the Doric order, and they make up prostyle porticoes of six columns each for both pronaos as well as opisthodomos, as well as “peristyle of eight by seventeen columns”.[29]

It is interesting that the distance between the columns of the Parthenon varies mathematically from one column to the other, and this pattern has been used by the architects in order to assure the symmetry of the entire temple when it is viewed from the distance – one more example of optical elusion implemented.[30]

Also, what is noticed at a glance is the rich decoration and carvings of its friezes. All the decorations and sculptures make assure the representation and a vivid example of the culmination of the Classical Greek architecture and art. The Parthenon is entitled the example of the final form of development of the Doric style achieved through many experiments.[31]

Special attention should be paid to the decoration of the Parthenon, since it is known and has been mentioned that this famous temple is decorated in a very outstanding way. The entire architecture as well as all decorations and the sculptures of the temple mirror the maturity of the art in general and architecture in particular, reached by Greek people in the Classical period of the Greek history. Thus, the architectural and decorations style is characterized by purity, dignity and spiritual depth.[32]

The most significant decoration was outside. “[A]bove the exterior colonnade was the entablature composed of the architrave, the metopes and triglyphs, the cornice and the pediments. There were fourteen metopes at each end of the building and thirty-two on each of the long sides, some of which are still in place. They told the story of four legendary battles and were cut either in high relief or in the round. The metopes were alternated with triglyphs and the cornice bound them to the temple”.[33] The pediments were decorated with floral ornaments, and the frieze assured sculptural decoration of the building. The frieze was situated around the upper side of the cella, from the outside. However, till the present only one part of the frieze survived – that on the western side.

The order of decorations integration was as follows. First, the metopes were carved and integrated, and after the roof was put in its place, the frieze and the pediments were finished. And while the friezes put in western and eastern parts were seemingly carved on the ground and only then integrated into the building walls, the friezes for the long walls were first placed and only after that carved in a vertical position and above the ground.

The decorations – ornaments and statues – assured a kind of facilitation and relief for the Doric building developed in a very strict and laconic style. Furthermore, the temple became more beautiful

and deserving to be called the habitat for the goddess – Athena. The coloring of different decoration parts also contributed to the magnificence of the building.

A very important issue connected with the Parthenon marbles (the decorations in particular) lies in the fact that many of the marbles discovered in the process of excavations were taken to different museums in London, Paris, Copenhagen and even Vatican, with some still remaining in the Parthenon. This issue is the reason for many controversial disputes held by the representatives of archeological and historical communities of the European countries.[34]

While the outer decorations of the Parthenon can still be seen on its walls or at least in museums the inner order of statues, decorative elements and interior in general still remains a mystery. The reason for this lies not only in the time gap (centuries have passed since the Parthenon was built and stood in its glory in Acropolis). There are also historical and religious conditions and grounds for that – the fact that the Parthenon served not only as Athena’s temple during the ages, but also as Orthodox, Catholic and even Muslim temple – depending upon the time period and the country under rule of which the territory of nowadays Greece was in those days. However, it is possible to restore hypothetic picture and assure the understanding of what was held in the Parthenon. It occurs that treasures of Athena were kept within the temple. These treasures were used in the celebration of the Panathenaia – the festival of Athena, which was held with rituals, songs and dances, musical contests, athletic competitions, and other celebrative actions.[35] And since the Parthenon was supposed and built to be the house of Athena, but not the place for worshipping the goddess, her treasures and possessions were kept within it. The specially hired housekeepers were supposed to watch her possessions and keep their records.

It is believed that the Parthenon was designed as a treasury, as its design as well as planning corresponds to this goal. Among the treasures were vases, jewelry, silver and gold, and coins among many other pieces.

To conclude from the research and its presentment in this paper, it is necessary to state that the Greek architecture in general (among architectural styles of more ancient civilizations such as Egyptian one, to name an example) was the basis for development of other architectural and art styles for the following centuries. The first and foremost and the most evident proof of this statement is the embracement of the Greek architectural styles by Roman architects in the upcoming centuries of the flourishing of the Roman Empire.

Furthermore, the architectural style considered in this paper, the Classical one, and namely Doric order is considered the basic style from which other styles developed in Greece. Since the Doric style was completely developed and reached its perfection in the Classical period of the Greek history, it is important to admit that this style was the apotheosis of the architectural development in the Classical era, and it is characterized by its laconism, purity and strictness of form with minimalist however beautiful decorations which only complement the purity and beauty. Despite of being the simplest of the architectural orders in Greece, this style is known due to magnificent architectural monuments built in the Classical era, especially in the times of Pericles. The best and the most well-know example of the Doric order is the Parthenon devoted to Athena.

Notes

- [1] M. Rostovtzeff – author, J. D. Duff – transltr, Elias J. Bickerman – ed., *Greece: Uncertain Democracy* (New York: Oxford University Press, 1963), 163.
- [2] Hazel Conway and Rowan Roenisch, *Understanding Architecture: An Introduction to Architecture and Architectural History* (New York: Routledge, 1994), 162.
- [3] *Ibid*, 145.
- [4] Talbot Hamlin, *Architecture through the Ages* (New York: G.P. Putnam's Sons, 1940), 112.
- [5] Franz Von Reber – author, Joseph Thacher Clarke – transltr., *History of Ancient Art* (New York: Harper & Brothers, 1882), 175.
- [6] Fiske Kimball and George Harold Edgell, *A History of Architecture* (New York: Harper & Brothers, 1918), 51.
- [7] William Bell Dinsmoor, *The Architecture of Ancient Greece: An Account of Its Historic Development* (New York: Biblo and Tannen, 1973), 38.
- [8] *Ibid*, 39.
- [9] Herbert Langford and A. M. Warren, *The Foundations of Classic Architecture* (New York: Macmillan, 1919), 145.
- [10] Dinsmoor, 42.
- [11] Langford and Warren, 147.
- [12] Kimball and Edgell, 58.
- [13] *Ibid*, 58.
- [14] D. S. Robertson, *A Handbook of Greek & Roman Architecture* (Cambridge, England: Cambridge University Press, 1959), 106.
- [15] *Ibid*, 106.
- [16] Langford and Warren, 147.
- [17] Dinsmoor, 70-71.
- [18] Von Reber, 210.
- [19] *Ibid*, 210-211.
- [20] Langford and Warren, 150.
- [21] *Ibid*, 154.



[22] Ibid, 198.

[23] Rachel Kousser, “Destruction and Memory on the Athenian Acropolis”, *The Art Bulletin*, 91, issue 3 (2009): 263-282.

[24] Herbert Langford and A. M. Warren, 306.

[25] Charles Freeman, *Egypt, Greece, and Rome: Civilizations of the Ancient Mediterranean* (Oxford: Oxford University Press, 1999), 208.

[26] Ibid, 208.

[27] Talbot Hamlin, 126.

[28] Kimball and Edgell, 82.

[29] Ibid, 82.

[30] Karl Cole, “The Parthenon”, *School Arts*, 100, issue 8 (2001): 39.

[31] A. De Ridder and W. Deonna, *Art in Greece* (New York: Alfred A. Knopf, 1927), 54.

[32] Nicholas Yalouris, *Classical Greece: The Sculpture of the Parthenon* (The Elgin Marbles) (Greenwich, CT: New York Graphic Society, 1960), viii.

[33] Ibid, ix.

[34] Allan Evans, “The Parthenon Marbles – Past and Future”, *Contemporary Review*, 279, issue 1629 (2001): 212-218.

[35] Diane Harris, *The Treasures of the Parthenon and Erechtheion* (Oxford: Clarendon Press, 1995), 8.

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