Philosophy of Architecture and Architecture as Philosophy: The Potentialities in Accordance to Critical Sermon

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Abstract: The consequential philosophical yearning and classical architecture had acquired an exceptional significance during the culmination of ancient Greek world despite all the conflicts and crisis; which are still contextual. In this interdisciplinary study, an estimated “theory” and “hypothesizing” took the major motivating tributary to descend a relation between the modalities of classical philosophy and theory of aesthetics associated with ancient Greek architecture. Thus discourses from philosophy, humanities and artistic theories regarding Greek architectural features are brought within reach. For that, visual, material, construction and stylistic analysis of Greek architecture have constructed the “What and How” while the iconographic discussions will lead us to the answers of “Why”. Some supportive analyses of socio-political history, text and biographies are also deliberated to correlate and prove the evidences. Who knows, architecture might be the memento of Greek metaphysical manifestation; where the then Greek religion, power and patronization, economy, cultural exchange, humane thought and overall, their philosophy translated into hoary stones- something which is still a mystery. Such hypotheses will distillate that how influential were these deep-sighted thoughts and made them able to constituent all these white carving-stone poetry. The philosophical responsiveness might have sprouted from the immanent interrogations in architecture through form function and space, as a speculation of external and transcendental questions to search the “Ideal”. The possible coherence of architecture with philosophy without any distinct horizon in-between, which is less focused earlier, designates the originality of this discourse.

Keywords: Greek philosophy, greek architecture, geometry and mathematics, classical orders and techniques, scale and proportion and universal appeal

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1 INTRODUCTION

Origins of Greek philosophy have two conventional tiers: The first tier includes pre-Socratic rationalized explanation which often depicted in prose instead of mythopoeic discourse of the epics. The second tier contains epistemological and ontological issues discussed by Plato, Aristotle and selected previous scholars whose work relates with them (Halim 2010). This second phrase is important for this study’s literature review. For the overall view, philosophers; who ignited the love for knowledge; starting from Thales and followed by Socrates, Plato and Aristotle, turned ethical matters away from physical reality. To formulate the discussion of this study we stay upon the philosophy developed by philosophers like Anaximander, Pythagoras, Plato and Aristotle. Influenced by Pythagorean thought, Plato believed the truths of poetry and all sciences were derived from “One” as he believed “all form of art, and soul speaks to soul” (Nabi and Alam 2009). Implicitly, Plato has given a model of a new art form to next posterity that meticulously observed by Nietzsche at the “Birth of Tragedy” published in 1885 (Lacoue-Labarthe 1993). In fact, Plato’s idea was the translation of what Pythagoras meant by the “number” and his taste, preferences and devotion to geometry have influenced many generations of philosophers by his Dialog (36 are known yet). For example, in Aristotle’s theory of abstraction or in more latter period when Spinoza (1632-77AD) proclaims “God and the universal laws of structure and operation all are one and the same reality” to introduce the Platonic thought in a new dimension, “God always geometrizes” (Bari 1995).

The zenith of the Athenian art and architecture takes place between 400 and 300 BC; meanwhile, their philosophy was well established. During the 8th and the beginning of the 7th century BC, archaic art started to change into classical objects to overcome the Egyptian influence. Simultaneously, prominent Greek architects were also not an aloof group of their triumph of philosophy. Architecture was thoroughly grounded in culture and philosophy of their creators, representing their regions and time (Miller 1997). As architecture was always guided by religion and without philosophy, religion cannot exist (Rahman 2011); and

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without architecture, religion cannot flourish. Thus rational discourse was introduced and promoted to take architectural decisions in these Monumental temples, as architecture is not only the technology but also attendant to sociopolitical questions and the source of their excellence. This study suggests, such rational; aesthetic and moral interests can hardly be separated in Greek architectural thought. What was the uniqueness in the Greek architectural creation? Did the philosophical advent worked as touchstone behind Greek architecture? Was it the philosophy to form a stylistic distinction in their architecture?

2 OBJECTIVES OF THE STUDY

Ancient Greek architecture focuses on some specific design aspects from Greek philosophy. Depending on objectives, the result of philosophical studies can include some suggestions that how such sort of design sense was possible to evolve from stone which is still contextual and perfect. The main objective of the paper is to highlight the contribution of great thinkers of that era and its reflection over architecture:

1. To explore the pattern of the architectural practice in ancient Greece according to enlightens of knowledge;
2. To find the possible effect over spatial configuration especially on religious and cultural functions according to their thoughts;
3. To discuss how difficult it is to establish a link between philosophy and architecture in these case studies;
4. To explore a hypothetical concept in a diversified morality:

3 SCOPE AND LIMITATIONS OF THE STUDY

3.1 Scope of the Study

The study would present the hypothetical scenario of architectural practice and perseverance in Greek islands. The effect of spatial configuration according to philosophical thinking has also been imagined. Extensive study can be done based on this study which can eventually guide to generate some thesis of interdisciplinary exchange and to indicate the prerequisite of universal knowledge which is really possible. For my research, Ground level study was only window to peep through.

3.2 Limitations of the Study

Although field methods can be extremely useful and thus archaeology always provides epoch making decisions as they are conducted in the specific environment, was the major limitation to consider regarding this study. Other limitations include: Lack of reliable resources, Much longer study periods and therefore requires much goodwill and finally, studies are longitudinal in nature; therefore, grinding down became a problem.

The only one option for this study was the literature review, which one was not blinded, and there was no comparison made between the data collected from different sources. However, these limitations might not prevent me from drawing any definite conclusion regarding this study. It can speculate that the history left a little window from where I have to assume my desired derivations with meticulous observation.

4 METHODOLOGY

This study is emphasized on the synthesis of philosophical texts and architectural languages within the arena of Common issues of ancient Greek practice, social and cultural aspects which shaped the Greek identity. Besides, as the study is history based, literature review was thus used as the prior tool. The research is based on two broad approaches:

1. To establish a Theoretical framework for analysis (based on literature review);
2. Deriving hypothetical results from Empirical basis (based on analysis and critics).

The investigation of the particular research consist the following steps outlined in Figure 1:

5 LITERATURE REVIEW

5.1 Sociopolitical Impacts for Architecture

Nowadays, a new third tier is developing, which investigates what exactly in Greek culture caused their thinkers to begin rationalized thoughts in prose, along with complex sociopolitical context by questioning why such temples were built and who paid for the architects? It has not been acknowledged and studied as an important factor to trace the origin of ancient Greek philosophy and also their art. Evidence from the works of Herodotus showed that the wealthy and powerful patrons like both Polyaino and Plutarch, financed the building and designing of the temples in an effort to solidify their eroding prestige. Again, according to Plato, philosophy predominantly means two possessions: To rule wisely (politics) and to think clearly, (metaphysics) which shaped the Greek artistic worth also and our concern for this discourse. From the political and socio-cultural point of view, we can say; Athens was proud of its cultural identity and believed them only civilized among
barbarians. Thus political achievements were bound to be the best, which the world had never seen: Democracy. Unlike Egyptians, slave labor or any religious dogma was not foremost drive for Greeks. From history, we know that Failure of maintaining this virtue brought the failure of Greece.

In a period of mere 100 years, the progress of Athens was absolutely astonishing, especially taking into consideration that the time and pains to hinder the Persian invasion and civil struggles amongst the Greek city states (Graves 1960). In history books, we know how the Roman Empire captured Greece but it was truly the Greek culture, which conquered their conquerors. Roman art and their independent creative genius have never reached the highs of the classic Greek art. In fact, the decline of the Roman Empire is reflected in the decline of its art (Hoff 2005). Greek democracy proved to be more efficient sociopolitical base for art practice than imperialist Rome. Greek achievement was never repeated in human history, might be equivalent in some extend with the cultural flight of Florentine renaissance, 1700 years later.

5.2 Iconographic Aspects

During the transformation from Archaic to Classical, new artifacts of Greek architecture reflected both the intellectual knowledge and their passion for modest geometry. They explained the vitality of nature by their own formulas (Read 1968). The Greek artisans had perfect knowledge of human anatomy and viewed themselves as vital link between heaven and art (Faulkner et al. 1986). This interplay of ideology and art on the development of the Greek thought made their art as greatest of all products, from painting, sculpture, and architecture to the elaborately planned cities like Miletus; all were the reason made manifest; geometry over marble to stimulate all successors of the western architectural history as a common Phenomenon (Durant 1939). The clear, transparent and simple structure of Euclidian geometry is often described as being closed or finite which shows the same love for designing the plain, simple and ordered forms of Greek temples and dominant in their facade as lucidity was the constituent for its beauty. Human mind and eyes soon grasp and encompass its proportions and grandeur: they are best by every means. In fact, his golden rectangle concept (known as Phi) served as a canon for architectural facade designs (Kline 1964). If the Roman “bricks” are more like fast production, the Greek “stones” are slow art of devotion. And Renaissance was nothing but the revival of Greek thoughts by every means of the western society. It could be their mythical believes and humane intellectuality which resulted in a distinct icon for architecture. The Greeks appear to be excellent scholars of visual illusion, an attribute undoubtedly sharpened by the years of refinement and observation of the natural world to mold their architecture. Here the artistic aptness is augmented by the surrounding area (hills) and dominates the terrain. Greek temple is visible from all views which demonstrate the main difference from any Roman temple, which always emphasized front elevation.

5.3 Stylistic Features in the Textual Scrutiny

Greek architecture reaches to highest aesthetic perfection at the temple complex of Acropolis where finest architecture like Parthenon, Propylaea, Erechtheum and the Theseum were reserved. As most astonishing style, Greek architectural features remained practiced all over Europe. The basic idea later emphasized on Euclidian concept of theoretical geometry and applied successfully by Roman architect like Vitruvius in his book “De Architectura Libri Decem” (1st century AD) and also by Dutch architect Villard de Honnecourt at his book “Livre de Portraiture” (between 1220 to 1230 AD), both considered as influential sequence of the classical tradition (Williams and Duvernoy 2014). However, Honnecourt was more implemented in medieval architecture. But For classical temple architecture, Vitruvius is one and only reference that we could get. In his Book number 3, shortly before 27 BC; he discussed temple designing which begun with an essay on “symmetry” and described the proportioning systems. He adopted the Protagoras’s statement, proportions of human body are fundamental to achieve the architectural satisfaction which had some religious significance also. Human body is ought to be perfect as it is made in God’s image, thus temples should follow human dimensions (Wittkower 1971). He suggests how the circle and the square are perfect shapes to generate architectural designs because they approximate the geometry of the spread-eagled human body (Ostwald 2000). Besides, the comfort of scale originates from this “spherical bubble” which is roughly related to the human axis. That’s why the one directional ceiling height of Greek temple reflects an established character of rigidly simple and symmetric spaces inside it (Alexander et al. 1977).

There was a little progress in mathematics of architecture during the dark ages until the next person; Brunelleschi comes in the scenario, during the 14th and 15th centuries. Visiting Rome, he made extraordinary drawings from the ruins of many great ancient buildings, baths, basilicas, amphitheaters and temples. By studying the rules of proportion and symmetry; also the construction methods of architectural elements such as vaults and cupolas, he revealed a truth - the linear perspective: a critical method applicable for special data of architecture by reasoning. Here the Platonic influence predominates over Aristotelianism as it leads theoretically to a single point (Argan and Robb 1946). His discovery was to explain the visual effect which is likely to ensure visibility from all positions of any observer (Shuttleworth 2015). Features of Greek architecture and use of geometry and proportion was the cherished goal for the masons of medieval era against religious dogma.
5.4 Construction Techniques and Material Selection

The raw materials and the technologies available to develop and utilize them had largely determined the nature of their architecture amidst all adversity and limitation. For example, Columns were constructed by the carved drums of local stone, usually limestone or tufa. Marble from the Cycladic land of Paros was used predominantly, which is decorated with Pentelic marble. But two techniques were found in the philosophical proses of Anaximander, discussed below.

![Figure 2. Anathyrosis is the joining element on a stone from its below and above](image)

The technique of Anathyrosis (Figure 2) was invented by the first builders of monumental stone masonry in Greece in the 7th century B.C in Temple of Poseidon by Isthmians (680-650 BC). It is the technical term to indicate that “how to dress the joints of stone blocks”. The word describes itself the visual appearance of any joint which resembles the trim of a door. Thyra is a Greek word for “door” thus Anathyrosis refers to “door framing”. Usually found only on vertical joint surfaces, Anathyrosis was also used on the horizontal joints of column drums (O’Connor and Robertson 2002). The joint had to be exact since stone blocks were set directly against each other without the use of mortar (invented later by Romans). In order to reduce the amount of construction time, the joining face of the stone was finished and smoothed only in a narrow contact band on the sides and top, while the interior of the face was recessed. The contact band looks somewhat like a doorframe and the term is allusive also. This technique was frequently employed in ashlar (basic module) construction (Ching et al. 2007) and might be used between the drums of columns as well. Today, we can reveal its place within a structure in two ways: where this technique was applied to a stone or whether other stones were joined to it or not.

On the other hand, Empolion (Figure 3) is a technique where wooden block placed at the center of a column drum joint, into which the round wooden centering pin or peg was used in order to align the drums. To construct the column-drum to form a single column; sometimes it was also made in bronze. As the column shafts were comprise of a series of cylindrical drums while square hole appears at the center of the top and bottom of each drum. The matching holes on adjoining drums were to fix with it. These techniques were mainly to tight fit the stones to hold in the place without mortar; a reinforcement treatment against earthquake (Camp and Dinsmoor 1984).

![Figure 3. An Empolion to ensure the correct centering of column drum](image)

5.5 Biographic and Textual Analysis of Relevant Greek Philosophers

Greeks believed in three worlds: external, internal and sole. Philosophers searched for the third, sole. Five things are important to ask all their philosophical questions: creation of universe, creation of world, creation of human, creation of civilization and creation of culture. They tried to give a fundamental meaning of all creations. Continuous question and prediction with prudence lead them to direct the ultimate goal to solve the problems of creation. Their cosmic idea helped architects to erect their temples indeed. Let’s start the biography discussion chronologically:

**Anaximander**, (610 - 546 BC) (to a lesser extent, Thales) the author of the first philosophical text in prose, believed that Earth’s shape is like a cylinder with a one-third height to its diameter. In astronomy, he tried to describe the mechanics of celestial bodies relating to the Earth that is lying in the center of the universe and floats on unsupported mechanical model of the sky. His cosmic order is not monarchic rather geometric which reflects the equilibrium of the earth (Mosse 1984). However, to visualize his dormant model, he depended on the architectural treatises of unique fixing practices like Anathyrosis and Empolion to imagine the position
of the Earth like a column-drum, so that it would not drift laterally or vertically, later discussed briefly in this study. In his Syngraphe, (a prose description in words and numbers written at the outset of a project) he used aerial views (i.e., plan view or horizontal cross section) to manifest a logical analogy of Cosmos (Hahn 2001). To construct its map; he adapted the distances and diameters of the stars, moon, and sun form our earth at a ratio of 1: 2: 3. The same ratios characterize the overall structure of any archaic temple from 8th to 6th century BC in Greek islands. In fact, both Anaximander and architects imagined the cosmos as a temple, the cosmic house (Hemingway 2003). He said this world is not a single one; there are also other worlds which co-exist (Burnet 1892). Who knows, Anaximander must have also established other models of the cosmos regarding these two topics.

Pythagoras (580 - 520 BC) is best known in history as the devotion of the ancient Greeks for mathematics starts from him, towards numerical reality. It is said that visiting the pyramids of Egypt, he wanted to discover the basic conception behind such gigantic form. However, He and his ancestors imagined that “all things are numbers” to govern the development of the world. Pythagoras also found essences in numbers. Infinite numbers are female, finite numbers are male; the first kind is of negative quality while second type represents virtues. Combination of this indicates the Dualism (Islam 2000). Here intellectualism was prior, experience was neglected. Likewise, a dot represents number 1, another dot beside it means notion of line; thus number 2 is for line. Number 3 represents the area and number 4 represents any volume. Again, number 1 is for God, 2 for female, 3 for male, 4 for justice, 5 (2+3) for marriage or offspring, etc. are examples of numeric mysticism (Heart 1998). Before Pythagoras, it is estimated that musical harmony and cosmic harmony are the same things. But he discovered, “harmonic mean is harmonic progression”. The first definite mathematical influence over architecture was indebted to this discovery; harmonious sounds depended on the ratios of small integers. This led the Greek architects to design according to a module, a basic unit of length; where the dimensions are small integer that multiples the basic length (Bowra 1958). Pythagorean numbers had Geometrical properties also, as geometry is a study of shapes and patterns; it could easily be determined by numbers and they also developed a notion of aesthetics based on proportion. Pythagorean Theorem in geometry \((a^2+b^2=c^2)\) as well as in architecture is the best example of this. According to Plato, Number 3, 4 and 5 were used to better explain Pythagorean Theorem of right angle triangle. In addition, to express harmonious beauty in geometrical regularity Symmetry (word comes from Greek architectural term Symmetria) was applied in Greek architecture which suggests an underlying action of any grouped elements by an equal basic configuration. In fact, for many centuries in Europe; architects were required to be mathematicians first for such reason (Salingaros 1999).

Parmenides (515 BC - 460 BC) observed the cosmos as a perpetual structure as everything that exists now has always been existed. He mentioned that “Existence” is timeless, uniform and unchanging. Parmenides also believed that “all is one” and four basic elements (fire, water, earth and air) to construct this “one being” which is beyond any dependency or “Otherness”. This otherness includes “Not being” (change, motion) and “Becoming” (the process) (Nabi 2011). Parmenides tried to discover this unique constant in his cosmogony. During 405-454 AD, it was recollected by a Roman general named Aetius, “There are circular bands wound round one upon the other, one made of the rare, the other of the dense; and others between these mixed of light and darkness. What surrounds them all is solid like a wall. Beneath this, a fiery band covers a solid at middle, around which again is a fiery band. The center is for all the origin and cause of motion and becoming.” (Guthrie 1962).

Zeno of Elea (490 - 430 BC) developed an argument against Pythagorean thought in two ways: against speed and against pluralism, the second one is contextual for this study. Plurality is comprised of uncountable small units. If these units lose their magnitude, it should not...
have a magnitude as a whole. For attestable accounts of mathematical infinity, this plurality is indefinite to the whole also. Because we can divide any material by the smallest parts but it may take infinite time. Thus he believes that those who treats “being” as absolute and undividable are logical enough (Halim 2010). architecture may accept his plurality against infinite mathematics.

Empedocles (490 - 430 BC) provided his cosmogonist theory from the influence of Heraclitus, basically a denial of Parmenides’s permanence. Empedocles said that all the “Becoming” are results of composition and/or decomposition of these four Classical elements (Halim 2010). He also identified these elements with the mythical characters: Zeus as fire, Hera as air, Nestis as water, and Aidoneus is earth. Again, he believed that two opposite divine powers, Love and Strife, co-exists in the inert form of sphere. They indicate attractive and repulsive forces, respectively. Strife works on the surface of sphere and love works on the core. Thus sphere is the embodiment of the pure existence (God). The rest of the forms we see as phenomena are result of imbalance of love over strife or vice versa and thus these are considered as perverted forms of sphere (Rahman 2011).

Anaxagoras (510 - 428 BC) was the first Ionian philosopher in Athens during the reign of Pericles. He described the world is a result of a series of initial vortex. There should be a reason for ordering all the things, which he identified as a cosmic mind; “Nous”; the absolute being. It is a homogeneous substance and teleological principal to create only the best possible thing. The rests (fire, air, water, earth) are basic elements or seeds to compose the world (Nabi 2011). Another notable idea he provided that Milky Way (Via Lactea) is concentration of distant stars. He attempted to give a scientific explanation of the heavenly bodies: eclipses, meteors, and the sun; all these were masses of fiery stones departed from the earth (Burnet 1892).

Protagoras, (490 - 420 BC) a friend of Pericles; proclaims “Man is the measure of all things”. This is most powerful statement of Greek philosophy regarding architecture in accordance to its mathematical analogy, ergonomics and relative perception of the scale. It seems that he was well ahead of his era (Nabi 2011).

Socrates (470 - 399 BC) was pioneer for the denial of sophist school (literally means “the teachers”). His conception of moral virtue is most famously captured in the picturesque narration at “Allegory of the Cave”. “Shadowism” was more explicitly depicted at the picturesque narration at “Allegory of the Cave”. There are lots of temples but ideal temple is one, which of homogeneous things can represent a particular ideal. All the triangles of the world are imitation of this ideal. Correspondingly, unity of homogeneous things can represent a particular ideal. There are lots of temples but ideal temple is one, which will represent the Cosmos.

Plato (427 - 327 BC) is contextual to this study for his Doctrine of idealism which states existing world and all the objects of it are just imperfect copies of an ideal or real world. Ideal is free from any change or mutation and cannot be destroyed. Thus our world could be divided into two realms- world of opinion (earthly) & world of idea (heavenly). Ideal is created as an efficient cause by its creator, “Demiurge” (Alam and Nabi 2009). Now, what was the “idea” of ideal? Idea is not real beings; but has motionless and independent existence. It is beyond time and space; thus universal. Ideas/Archetypes are not knowable through sensation; rather by reason and some preset instincts. Without idea the world would be a mass of unclassified and unmeaning particularities of sensation. On the other hand, Idea brings fulfillment to any object; otherwise, every object becomes non-perceptual when they are not associated with idea. Hierarchy in Platonic idea (Figure 5) constructs a pyramid of Socrates’s moral good where God is the highest idea (Rahman 2011).

Plato believed, Ideas are logical essences as well as Devine by their thoughts. However, let us go for some examples of ideals: In geometry, triangle has some common criterion to be called as “triangle” which is ideal. A figure with perfectly drawn three intersecting lines whose angles are in a sum of 180 degrees called to be the ideal triangle. Any form of triangle that we experience will be an imperfect representation of this ideal triangle regardless of how precise the measuring and drawing tools we used, even drawn to the point where our senses cannot perceive a defect, we will never be able to recreate this perfect shape by its essence. All the triangles of the world are imitation of this ideal. Correspondingly, unity of homogeneous things can represent a particular ideal. There are lots of temples but ideal temple is one, which will represent the Cosmos.

![Figure 5. Pyramid of Plato’s moral Idealism](image)

For cosmological quest, Plato believed earth, moon, sun, stars all are rigidly attached to a sphere which rotates in its own circular axis. Circle shares the same aesthetics of sphere. This circle is a perfect path, presents
changeless and eternal order of heaven. Thus sphere is the most beautiful among the solids thus divine and good. Likewise, the drawn circle could be imperfect but the conception of circle goes on forever.

**Aristotle** (384 - 322 BC) was the last frontier of Greece and the pioneer of “formal logic” who gave the concept of “abstraction” instead of Plato’s Idealism (Alam and Nabi 2009). His metaphysics of abstraction includes four categories: universal, form, idea & substance. Again, all the materials need eight subcategories also: quantity, posture, texture, space, time etc. He believed experience is the source of knowledge while information and reasons construct the base of this knowledge. He criticizes Plato by two main criticisms: based on the relation with inherence regarding Realism and difficulty of creating concepts without sense-perception by questioning its source (Rahman 2011).

Aristotle derived causality theory which involves both cause and reason and he believed that relationship between idea and created thing is brought by a third particle. For example, a temple is to be made, there we need four causes: where stone is Material cause, conception of column drums of it is Formal cause. Tools (nails, hammers etc.) those are available to build it and the construction techniques like Anathyrasis and Empolion and also the architect’s active motion (involvement with his brain and muscles) - all are under Efficient cause, and a built temple is the Final cause. Later, he developed a two staged concept regarding this: if all the elements are the Materials in a broad sense, [constructive cause] then the built temple, including formal, efficient and final causes in it is the Concept or Form [root cause].

6 THE SYNTHESIS OF PHILOSOPHICAL TERMS WITH ARCHITECTURAL VOCABULARY

6.1 Form

Socrates believed that form formulate a solution to the problem which is universal. Form is “thought body” and Thought is synonymous to the Being. This Form is somewhat decided ideal by Plato (Nabi 2011). According to Plato, forms are mind independent paradigms and inherent in the particulars. Particulars are said to participate in the form. For example, a particular stone is said to be a copy of the form of “stonehood” and the stone’s whiteness is an instance for the form of whiteness. Particulars are not formless and the Forms cannot be comprised without inert particulars. Forms are capable of being instantiated by many different particulars and to inherent many particulars means having multiple copies. These copies exist only as they instantiate the perfect versions of themselves. According to R. M. Hare, Plato inherited such abstract thinking as secure basis for his philosophical thinking from Pythagoreans and shared the same “mystical approach” which is probably seen as the birth of Orphism (Jowett 2015). Plato’s doctrine of recollection states that souls are born with the concepts of the forms, as they were in close contact with these forms in the Platonic heaven (priori knowledge) before their birth. That’s why Plato is known as one of the very first rationalists - critics rather say mystic. Shape is unnecessary part of form because form includes organization which coherent one part with another and again, all parts coherent as a whole.

Plato believed, the Objects can be considered as real and unreal at the same time. They are real because they have dominant similarities to the ideal form. They are unreal also as we know, nothing can be copied meticulously and after having such precise dissimilarities, they are only the unreal copies of ideal forms. In fact, the objects are sustaining in a stage amidst being and non-being. In order to conceive the eminence of ideal and universal, one must be able to conceive abstract form in known material. Again, Plato thinks that Material or Object and Form are relative like fluid. A Material could be Form or Form could be Material, if we change our perspective. Wood is Material as a column but it is also a form as a growing tree. Changing Material or change in Material; both are responsible for “Being”.

Now, Aristotle asked, what makes change in any Object? Answer is the “drive or motion” that creates any final Form by transformations. When Form includes functions, it becomes final. Now, Forms and Idea both are universal but Materials are of specific characteristics. Forms are transient and do not exist outside the Objects. Form and Material co-exist and cannot be separated. That’s why, Material tries to connect with Forms and Form always tries to connect with Material; thus changes occur continuously. Truth to be said: Idea, Form and Material are the same things. The desired goal of any Idea is Form. This Form is accumulation of internal and external relationship and an ideal framework to construct object. And finally, Materials are containers for Forms and they are possibility for all things. For example, if we consider the relationship of a stone with a column drum of a Greek temple, where stone is the Material which transformed into a desired Form (column). But again, stone could be measured as a Form in relation with its natural settings, the hill; from where it is collected. So, Material is something which goes through a chain of changes or on which change do occurs.

Aristotle again investigates, how does this change occur? If any Material acquires some “Quality”, then it turns into a Form. When Object swayed by Quality is considered as Material and formless material is the possibility only. Thus formless object don’t exist as “being” and it is beyond our perception. On the other hand, Quality does not exist without Material. Material is substratum for an Object and it is characterless and indefinite. It seems generally that Material comes first, not the Form. In fact, Forms come first, and then we need Materials to construct it. So, the Final is established at the onset, subconsciously. If the stone is potentiality, then to achieve a desired Form (temple or column) by this material is Actuality. For information, Aristotle found two types of quality: primary & secondary. For instance, primary quality of any object is its length, as well as
the substance that remains unchanged. But Secondary quality is color, which fades with time as well as it is variable (Islam 2000). In “Metaphysics” Aristotle writes that material principle is of two kinds - Great and Small (Dyad) to make the ideal world intelligible by a principle of order. Since the numbers are derived from duality and the essence (its participation) is the One, thus Forms are the cause of this essence (Copleston 1947). During the glorious revolution in 1688, John Lock was influenced by Aristotle’s theory of abstraction. However, forms are associated with beauty which is discussed next.

6.2 Aesthetics

Socrates says that he who sees with his eyes is blind. He believed, Beauty of thought is more mysterious and its impact is more magical than physical beauty. In his Symposium, (Many critics believe that an influence of Pythagoras, Heraclitus and Parmenides on Plato) Plato insists that training to perceive beauty is indispensable to perfect human life since it leads the self to a proper orientation within the universe. Those who possessed the keenest ability to perceive beauty had come closest to immortality. The discernment of beauty in thoughts, emotions, actions and society is to draw out the true virtue (Nabi 2011). Similarly, in Islamic aesthetics the perception of beauty is synonymous to moral implications. The central ethic of Islamic arts is to live as if “Whatsoever way you turn is the face of God” inscribed at quaranic verses of 2nd Segment, 115th sentence (Kazzam 2011).

Plato distinguishes characteristics between relative and absolute form in accordance to aesthetics. Relative forms are those which have beauty as well as ratio inherent in the nature of living things or in the imitations of these natural things. On the other hand, absolute forms are the abstractions: the shapes created by different tools. Shapes are immutable like the single, pure and smooth tone of music (Alam and Nabi 2009). Plato writes in Philebus that representation of living thing’s beauty, by circle, rectilinear form, solid surfaces created with tools like compass, cord or Set Square are always beautiful in themselves. Forms are of two kinds: architectonic and symbolic. If Architectonic form is apart from content, it tends to become symbolic (Read 1968). As this World is shadow of ideal world where only beauty is real, we are searching that beauty which is either absent or in a form of imitation. If not, why do all the earthly things do decay or destroy? In addition, Aristotle was also passionate to tie Beauty and Goodness in human and at the same time he tries to distinguish the “Beautiful” from the Good. Thus he proclaimed, conception of “absolute Beauty” like Plato’s ideal is impossible and we should ignore its search (Nabi 2011). For a well-lived life, virtues should be placed at the center of our mind and it should be relative to its context. Paraphrases of Aristotle remind us the deep-seated laws of nature tend in the multitudinous transformation to one form to another to acquire beauty in different stages and then decease (Kline 1964).

6.3 Space

Against the philosophy of Thales, (water is the ultimate reality) Anaximander derives a theory of Apeiron (boundless) from where the Universe had originated by the separation of opposites in the primordial matter. These opposite bodies always deviate to create new things but they are not exhausted. Anaximander’s such idea was influenced by the original thought of Chaos (gaping void or formless state) after mythical Greek cosmogony from which everything else appeared. Plato developed some defined notions of Chora and Topos to explain the origin of Existence and the process of Becoming. Chora refers a place where extension in space and any object both are in the process of Becoming at that particular space; while Topos refers to an achieved place. “Becoming” involves three elements - that which becomes (object), that which is the ideal for becoming (subject), and the place or natural setting for becoming (space and time) (Guthrie 1962). Aristotle further refined the idea of how things exist. Place comes first because everything that exists has to have a place. It is a necessary starting point for understanding not any space, (both the infinite and void) but also movement and change. The most general and basic kind of change is the change in respect of place, which is locomotion (Casey 1997). Aristotle refers Chora to a country and Topos to a region or a place in it; while both are finite and can contain objects. Again, his concept of Kenon refers to void, limitless finite space and is different from the place notions of Chora and Topos (Nabi 2011). According to Plato, geometry is the knowledge of eternally existent and Space is perceptual in geometry. Space was subjective to atomic philosophers like Democritus (Rahman 2011).

Figure 6. Plan of Parthenon, Acropolis in Athens

7 CASE STUDIES FOR PHILOSOPHICAL SEARCH OVER GREEK ARCHITECTURE

Two examples are considered here for the convenience of better perception of the above discussion and for establishing certain relation between architecture and philosophy, first one is of architectural plan and another is for the design details.
7.1 Parthenon

Already in about 2500 years we are encountered with magnificently symmetric and aesthetically pure; the perfect classic temple of Parthenon (completed between 447-432 BCE). The architects like Ictinus and Callicrates (Vitruvius also names Karpion as another architect) were employed, while chief sculptor was Phidias. It is a Doric temple with 8 columns at the façade and 17 columns at the flanks (Fletcher 1987). Parthenon shows a rare practice as introduction of the Ionic order in a predominately Doric temple.

Berger’s well established theory for the ratio of 9:4 initiates the vertical and horizontal proportions of the temple. The temple’s spacing between the columns and column height is the best example of this. It shows how Pythagorean ratios of small numbers; the ratio 2: 3 and its square 4: 9 were fundamental for its design. A basic rectangle with sides 4 and 9 was constructed by three rectangular modules of (3 × 4) dimension, each having a diagonal of 5. Pythagorean triangle used to ensure the right angles accurately. Thus the form of construction ultimately acquires the ratio of 3: 4: 5. The length of the Temple is 69.5 m, its width is 30.88 m and the height at the cornice is 13.72 m. To a fairly high degree of accuracy, this means that the ratio of width: length and the ratio of height: width, both are 4: 9.

Again, Berger considered the greatest common denominator of these measurements and found the ratios of height: width: length is 16: 36: 81. It gives a basic module of 0.858 m. Accordingly, the length of the Temple is 92 modules, its width is 62 modules and its height is 42 modules. The module length was used throughout, for example; the overall height of the columns are 12 modules high. The Naos (interior space of temple containing the statue) is 21.44 m wide and 48.3 m long which again resembles the ratio of 4: 9. Berger notes the amazing fact that the columns are 1.905 m in diameter and the distance between their axes is 4.293 m, again in a ratio of 4: 9. Approximately 13400 stones of such modules were used to build the temple (Robertson and O’Connor 2002).

Figure 7. Basic rectangle module of Parthenon, with ratio of 4:9

For Conventional thinking, F Röber and also Jay Hambidge argued in 1855, that golden section was used by Attic Greek architects for designing Parthenon and other ancient Greek buildings. Röber was optimist enough to probe that it was an imitation of Egyptian pyramids. It is still a dubious proposition as there appears a little hard evidence to support those views. Golden section is still contextual in debate but analysis varies as there are numerous approaches to prove the existence of it on design and its effect on dimensions to fit the golden rectangle on the façade of Parthenon (Ching 1943).

7.2 The Three Distinct Column Orders

From 6th century BC, Classical Column orders influenced the world of architecture for last two millennia. It is a language of architectural form which has also some connotative meanings. It conveys the notion of democracy in Europe. In the new world like America, it indicates presence of civilization (Ching 1943). The three orders are discussed below:

In Doric order, columns are fluted and baseless, capital consisting of abacus (flat slab) and echinus (cushion-like slab). Temple of Hera at Olympia dated 580 BC, known as the earliest example of Doric order and peripheral temple, was the predominant style among all the Greek temples of mainland. The Greek temples had peristyle colonade trend before than 800 BC and Doric order was responsible to create this formation (Pevsner et al. 1998).

Figure 8. Corinthian capital, Odeion of Agrippa, in the late first century BC

Ionic order developed just later than Doric; here bases support the columns, have more vertical flutes, capitals have two volutes; on that rests a band of palm-leaf ornaments atop. The Abacus is narrow and the entablature (The feature rests over the columns) usually consists of three simple horizontal bands. The most important feature of the Ionic order is its frieze, which is usually carved with relief sculpture arranged in a continuous pattern around the building (Hemingway 2003). Ionic order was more popular in Asia Minor (Ionia) and peripheral Greek islands. Ancient Architects used Ionic order not only for small and delicate buildings such as the Treasury of Delphi, but also for monumental structures like Temple of Artemis at Ephesus (6th century BC) which was considered as one of the seven wonders of ancient era.

Over all, Ionic order is a more ornamental and graceful style, but it lacks the clarity and power of the Doric style. As a result, ancient critics regarded Doric order as masculine and Ionic as feminine. For example, Ionic columns shaped a taller central passageway in the Propylaea, reflecting the importance of motherhood.

A third order named Corinthian, first developed in the
late Classical period (last decades of 5th century BC) and was more common in the Hellenistic, Roman and subsequent civilizations. The Corinthian order represents Ionic in most aspects, but has tall capitals called Echinus, which is shaped as upside-down bell and decorated with rows of acanthus leaves, vine like spirals named helixes and palmettes (Fletcher 1987). There is also a pair of small volutes at each corner to provide the same view from all sides. The first known Corinthian column stood alone inside the Cell at the Temple of Apollo in Epicurus at Bassae, where sanctuary and altar was allocated against the oblique wall’s flank built during the years of 420-410 BC in the heights of the Arcadian mountains, a well-chosen place for oracle. The west-east orientation of Doric facades was to heal the chariot of sun God Apollo, as a mere reflection of their cosmic thoughts (Nilsson 1967). For information, inside the Adyton (center of oracle and seat of goddess Pythia) of Apollo’s Delphi temple, the statement “Know thyself” was carved (Ring et al. 1994).

8 FINDINGS AND ANALYSIS

8.1 Democracy: Offering Nobility in Greek Architecture

For radical culture of ancient Greece, democracy allowed them to meet forty times per year where voice of each citizen got values at the center stage of Acropolis. Anaximander’s projection on cosmology “Earth is at the center of universe”, invented such a new political order which eventually led a new space organized around a center, the Senate: the static point of the democratic system in Greek socio-political context. It is decent now; Literature’s impact on architecture could be seen as its correlation with Anaximander’s “constructive” prose, appropriating the idea of architects. Question is why common people were depicted as individuals at the Parthenon frieze and Pediment? Every citizen of the city was recognized as a significant entity (a considerable moving force) in the Acropolis, their observable universe. In fact, parts of the whole or the whole as a part; architecture reflected their constitution from very grass root level: the sense of integration as an allotment of Greek anthropomorphic metaphors or notions. Here, a fragment of such moldings, as constant modules are still contextual to remodel the archaeological sites of Greece. Do these modules were invented from a democratic thought? This is really possible as democracy indicates the unity. Now, why this philosophy of integration was important? Zeno’s argument of plurality may compare the stone modules discovered by Berger as finite and conclusive for the rationalization of his absolute.

8.2 Modules: Human at the Center

How they become to derive these pieces like modern brick? For a quantitative approach, we can say that Human scale and proportion could be relative but the only one parameter that we have, to justify any space and built form by scaling material dimension. Agonistic Protagoras has been misjudged from this point of view as difference between sense and thought, reason and perception was beyond the intelligibility of that era. We have to bear in mind, sense and perception are particular (individual) but thought and reason are universal. We cannot make a color blind convinced with his optical sense, but only with reason. Again, Euclidian geometry can also be probe by reasons, not sense or perception. Protagoras is fundamental for their architecture by ergonomics and Anaxagoras’s cosmic model is an interesting clue for temple orientation. Both Anaxagoras and Protagoras was close friend and contemporary to Pericles, the builder of acropolis after the battle of salamis, did the philosophers inspired architects like Ictinus and Callicrates to take any decision urged by Pericles regarding their capital’s planning and the Parthenon architecture? It is very possible.

8.3 Scale and Proportion: Affection to Mathematics and Geometry

We also know that Mathematics behind architecture reflects the consequence of Pythagorean philosophy and a consequence of Platonic mysticism, these Great Greek philosophers derived the fundamental basis along with aesthetics & virtues for all important architectural decisions: Balance and Perfection. The ratio of 9:4 seems the Mathematical quest between austere and delicate visual characteristics; that exactly Parthenon followed. Sometimes confusion arises in the geometrical base of Greek architecture. We have to bear in our mind that to design an architectural plan especially the temples and to fix proportionate façade is not the same thing. While Pythagoreans were well established
by cult, Euclid and Plato were only contemporary to Parthenon. Euclidian geometry and golden proportion concept both are latter additions or incidental, but Pythagorean numeric philosophy and geometry was the basis for temple architecture, indeed.

8.4 Pythagorean Numeric Characters: Meaning of Architecture

Another significant point is noticeable, no matter what classical order and which deity any temple belongs to, the facade consists of three main parts: steps, columns and entablature. Each of these parts also had three of their own. For example, Columns have three sections: a base, shaft, and capital. Again, the Entablature has three deviations: an architrave (plain horizontal beam resting on column), a frieze (corresponded to the beams support ceiling) and a triangular cornice (a set of decorative moldings that overhung with its part below). We are fortunate enough that Vitruvius’s theory on classical architecture in his Book 1 Chapter 3, that a building must exhibit three important qualities, a Triad: Firmitas, Utilitas, Venustas (often translated as firmness, commodity, and delight). That is, a building must be strong, useful and beautiful. Vitruvius does not describe the need to create balance between these qualities. However, why number three was implemented for all these cases? Three means the first true male number and number of harmony to Pythagoras. Again, the number two is the first even or female number and number of opinion. The number five is for marriage $(2 + 3)$. Thus squares of 2 and 3 were adopted to construct their temples in such ratio 4:9. Male and female as well as harmony and opinion to erect the premise of worship: quite relevant to the Greek Pagan thoughts.

8.5 Ideal is Idea or, Idea is Ideal

From qualitative approach of this study Plato is more circumstantial with his “ideal” thoughts. As we all are the parts of haven (priori) or cosmos and we have to return there. Thus the Abide of Gods (temples) should be integrating as architecture was the spiritual legacy of their glory. The module of foundation stone, a rudimentary idea for all kind of construction throughout western architectural history; from a single building to cityscape could be seen as the brainchild of this mystic idealism.

Along with well-established theories for Greek architecture, have we thought that Plato’s Theory of Forms may cope with the Functional point of view? Plato established Academy in 387 AD where he wrote in the entrance that those who don’t have any knowledge about mathematics (and geometry) shouldn’t enter here. Apart from mathematics, his education system also stresses on two subjects, music and athletics, thus facilities like Amphitheatre and Gymnasium ought to be contextual to his philosophy. Various Greek architectural types emerged at different times, might have enriched and refined over time but rarely abandoned or replaced. Once established, remained fundamental for forever. For exemplification, Temple’s Cella, the Stoa, the Senate, the Agora, Theater, Gymnasiums, the Stadium and Baths - all are still contextual to us. Greek architects used limited source of materials to develop a distinct range of building types while each served some fixed purposes-religious, civic, domestic, funerary, or recreational. Does not this practice indicate the “idealism” which is immortal but can be copied in various ways where the core thought is constant? How many architects have been able to or will be able to change the basic configuration of a stadium, for instance; till to date? Did the ancient master masons echo the Platonic thoughts from very beginning of their work? Over time their idea to erect a stadium remained unchanged or universal, although stadiums have been ruined and is still building in every corners of the world with the same concept.

8.6 Allegory of Blendscape

What about their theatres? Does “Allegory of cave” share the same origin with puppet show, mask tradition or Athenian tragedy? It is known, Greek tragedy which had long tradition since around 532 BC to dramatize heartbreaking and educative events from Greek mythology; but a notable exception was brought after Battle of Salamis in 480 BC, which stages the Persian response to the news of their military defeat at the Persepolis. Estimated time period of Socrates (470 - 399 BC) indicates when he was born, the Greek parodies are already well established for ten years and he might also have enjoyed these in his childhood. Again, when Most famous dramatist of ancient Greece; Aeschylus won the first prize at the city of Dionysus in 472 BC, he had been writing tragedies for more than 25 years, thus both Socrates and Plato (428 - 348 BC) are within the range of this timeline where parodies along with tragedies are well recognized all over the Greek islands. Later Aristotle classified these tragedies as crux. Theatre of Delphi was built in the 4th century BC and theatre of Epidaurus was established in 350 BC by Polycleitus the Younger. Moreover, theatre of Dionysus in Athens, the earliest stone Skene, Bieber (1961) undergone through massive refurbishment during the fourth century BC and had a permanent stage extending in front of the orchestra and a three-tiered seating area (theatron) that stretched up the slope. It is the building which was allocated directly in back to stage and usually decked as a palace, temple, or other building, depending on their needs. It had at least one set of doors as actors could make entrances and exits. There was also access to the roof from behind for the actors only who were playing any God/Goddess characters. The building also had projecting Paraskenia (wings at both ends) to accommodate movable scenery (Dinsmoor 1950). Again, a passageway for entry and exit for chorus team and actors on two sides of orchestra was known as Parodos. The Audience can use this way only before and after any performance. Doesn’t it remind us the dividing line of the “Allegory of cave”? Did Socrates or Plato bring the idea of their philosophical statement of such cave for the architects to erect “built settings”
of a drama stage by make an imaginary environment? On the other hand, did puppet shows of their childhood have created some impact over these philosophers' mind? As we know that Plato wrote his "allegory of cave" at "Phaedo" which is no more earlier than 385 BC; while some scholars refer it was a work around 416 BC, this might be true for the planning of Epidaurus Theater built by Polycleitus who started his theater before two years of Plato’s death. In fact, this study suggests such proposition because from 410 BC to 340 BC, the time ranges of the changed Greek zest of drama and its architectural settings. In fact, as we know that gentlemen do think alike; probably their theater architecture was an endeavor to reach the metaphysical ideal by the dint of real materials or to take that challenge of bringing the “divine shadow” in reality, vice versa. Plato explains the world of appearances, where one’s sensory faculty led to false and deceitful conceptions. Sun and fire at the “Allegory of cave” could be narrated as real and unreal at the same time. “Allegory of cave” visually is nothing but a “Blendscape” of architecture and landscape by the dint of “Shadowism”.

Here, Landscape architecture comes to an account, that why Greece and India were only able to chase own philosophy? A Greek mentor sitting on a high stone in front of his pupils to describe any saga and a Guru sitting under the banyan tree surrounded by followers in Indian subcontinent - both might be the same schooling of thought regardless of their culture but definitely responsive to their topography. Relation between Architecture and landscape can be comparable to Aristotle’s duality of small and great. Three characteristics of architectural decision come from the ambience of surroundings: topography, climate and tectonic gravity. Ground work as well as to nurture landscape like a farmer, his affection to the crops is an ontological exertion for architects. For example, amid arable soil was selected as temple site for Dionysus, a god related to harvest while rocky site was for Apollo and Artemis, the deities related to hunting (Retallack 2008).

8.7 White Poetry of Purity

From late 300 BC, introduction of stone as building material started from Ionia and spread all over the Greek world later. White stones, stucco and tufa; were not only the easy found materials, but also suitable concept of simplicity contrasting the blue sky; such instinct and intuitiveness reminds that architecture starts from nature. The probable character of hoary antiquity in white-blue composition reflects the transition to more civilized architecture, thus became a common concord. One may raise question that Greeks have used color in their architecture but we have to bear in mind, only details were colored with red and blue or occasionally black. The structural parts like column, Geison, Architrave was left unpainted or tiled with white stucco.

8.8 Orientation: Cosmic but Esoteric

Plato also said that proper orientation within the universe is imperative to sense of aesthetics as well as virtue. The conventional east west orientation of Greek temple was iconic. But exceptional elongation of two Apollo temples amongst his all 14 temples, at Epicurus (430 BC) and at Thermos (3rd century BC); are stretched toward the Milky Way’s northeast to south orientation which comes from mythopoeic source: in a direction to the driveway of Apollo’s chariot from the North Pole Hyperborean (Liritzis and Vassiliou 2006). There might have some
indication from the architects' part as the temple had entry approach with the same orientation to Anaxagoras's (died in 428 BC) Milky Way. And his astronomical invention was a catalyst for this new design thought within next two years after he is dead, indeed. Besides, God of light, facilitate east and west by the temple’s long length which allowed sunlight in the interior. We can say, Apollo temple was center for unconventional thinking as Corinthian order was conceived from here. Another example is of Dike; the steering goddess of Justice and key holder, was erected at the center of the temple’s Cell, protecting the treasures beneath alter. It is the darkest part and surrounded by walls. Again, the wall is enclosed by columns and again, columns are surrounded by steps- a perfect reflection of Parmenides’s seven layered bands of his cosmogony. Is it incidental for Greek temple design? Probably, these are the examples how scientific thoughts shaped the myth and how myths shaped their architecture while architects had to satisfy the both. Religious need was superficial but rational imaginations interplayed with the designing. However, although buildings are also not permanent, Plato saw that they were long lasting and therefore more beautiful to him than ephemeral flowers.

8.9 Platonic Solids: Thirst for Search

Now, Platonic solids are consequential from architectonic forms that Empedocles searched as distinct powers in the mythical characters. All around the world, we have four platonic solids: cube, sphere, pyramid (may include cone and reflects fire, the power of Zeus) and cylinder. There is nothing possible to add with these.

Like Anaximander and Empedocles, Plato had great fondling to sphere. Sphere does not represent air as octahedron does but it is Arial and reflects Hera’s ability to birth. It remains constant from every view. The shadow of sphere could be a circle and the circle can be engulfed in a square. That’s why squares derive cubic forms and Greek temples are the elongated version of cubes by the dint of golden section. Sphere, as a form was practically difficult to construct in that era, but flexible shape like square that could easily be engulfed in a circle; two dimensional representation or shadow of Sphere, was recurrently used with perverted shape of rectangle. Was this falsification deliberately done by Greek architects, just pretending to make a copy of the “ideal”? Islamic architecture depicted the next scenario of such abstraction by firm monotheist believers of nonfigurative art where believe was changed but not their quest.

Figure 13. Five platonic solids: cone, cylinder, cube, sphere and pyramid

This Cube reflects earth and it is highly recognizable among the solids. It reflects the concrete concept of underworld as god Aidoneus (or Hades, brother of Zeus) bears the characteristics in netherworld, the kingdom of dead and earthy riches. Plato’s dialogue “Cratylus” depicts Aidoneus with “his knowledge (eidenai) of all noble things” (West 2007). His theory of recollection
might have influenced temple architecture as temples are the symbols of cosmos and abode of the souls, thus Heaven and underworld captured in a single structure. Together, the cube (earth) and the sphere (air) form a dual pair.

Cylinder is the shape of earth and has axis passing through its circular faces, like two poles of earth. Bunch of cylinders can be identified as linear elements which express movement across space. Like movements of the series of earths around a cosmic core in Greek temples. Here parallel column row in front of solid walls creates an abstract sense of transparent surface plane by casting shadows on it, an attempt to create cosmic model.

8.10 Time Trapped in the Column

Finally, let us consider the evolution of cylindrical column orders. A philosophical text of Plato named the Symposium of 385-370 BC; discussing the genesis, purpose and nature of love, and the original conception of Platonic love in latter-day interpretations is source of keen ambiguity. Here Plato asked, Why had love “Eros” (earthly & Devine) been created? And answered, human was created with duality (male & female in same body), with four hands & legs. Then Zeus divided it and created the sexes, that’s why we are searching for continuous Love and Way of life (Ideal state). Corinthian order did not appear in exterior temple colonnades and used widespread until iliterate. Romans got involved. We know, Goddess of women and marriage; Hera was dedicated by the first Doric temple. While Artemis, Goddess of the hunt, wild animals, or wilderness was devoted for the first Ionic temple and her twin brother, Apollo; God of light and the sun, truth and prophecy, healing, plague, music, poetry, oracle and more, was gifted only one Corinthian column in the Cella. If Doric and Ionic columns are considered as male and female, then Corinthian column is to be result of Platonic love? Is this the reason that the column was not exposed and only erected at Cella of the temple of Apollo who is god of truth, oracle and prophecy, thus kept secret? Again, is not Parmenides is contingent in this regard who believed in existence of timeless? Greek architects built such “timeless” columns in expression, as column exists had always been existed! Today, Greek column is chosen as the emblem of modern democracy by American forefathers.

To recapitulate, Greek philosophers imagined convenient cosmic space to express their thought and borrowed architect’s techniques to construct philosophical literature. On the other hand, their architects also learned the sense of proportion and implied that as universal ideal. According to Theories of universals, modern Platonism may include a thesis that architecture is not created but it is discovered. Aristotelian dyad was reflected to construct Greek temples as great and small proportions were complimentary similarly to any biological body; to create the “principle of order”, between the dualism of material and form. Remarkably such dualism was earlier narrated in several ways: love and strife at Empedocles’s sphere, universal and ideal with realism at Platonic idealism.

Answers are not mandatory but several Questions are raised, could be imperative verdict of this study.

9 CONCLUSION

Pythagorean numbers, Platonic ideal form, Aristotelian abstraction all are the same conception to constitute the Greek realm of architecture. The aesthetics they derived from mathematics or rational and mystic thinking was great achievements that wrought in the first enlighten age of mankind. Ideal and mystic thought added some esoteric value to their architecture, executed as talisman to the magnetism of unseen powers; nevertheless geometry helped to achieve extreme elegance in simplicity. Their socio-political view realized the necessity of unity which evolved through their architecture to assemble with unique functionality. Religious Metaphors and symbols were chosen and placed carefully but not dominant and the appearance of these indicates the reasons of their religious believe. That’s why Greek architecture remained relevant, ideal and classic over times. These treatments were repeated through ages but without the source of intellectuality, which only had deep root to Greek philosophical thoughts. To recapitulate, the study wants to proclaim that ancient Greece experienced a conjugal triumph of art and science, while golden touch of benevolent philosophy need a witness and that could be Greek architecture. The study recommends further discourses to reveal the interdisciplinary researches of both two subjects to build a common platform in order to bring light from unknown newfangled point of view of known history.

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