

From the desk of Pierre Beaudry



**THE CURVATURE OF THE PARTHENON OF ATHENS AND
THE PHEIDIAS CELEBRATION OF THE SIMULTANEITY OF ETERNITY**
(An ancient pedagogical experiment.)



by Pierre Beaudry 11/20/2008

“{In a very early period of the arts in Greece, we meet with a circumstance which shows the advantages derived from consulting with philosophy, if it does not also show the origin and outset of those advantages. The circumstance to which I allude is, that in the period when the sculptors contented themselves with the stationary forms and appearance of figures, in imitation of their predecessors, the Egyptians; at that time they began to submit their works to the judgment of philosophers, one of whom, being called in to survey a statue, which a sculptor, then eminent, was going to expose to public view, remarked that the human figure before him wanted motion, or that expression of intellect and will, from which motion and character must arise; for man had a soul and mind, which put him at the head of the animal creation, and, therefore, without that soul and mind, the form of man was degraded.” (Benjamin West, *On the Philosophy of Character*, John Galt, *Life, Studies, and Works of Benjamin West*. Part II, p. 124.)

INTRODUCTION: THE PARADOX OF THE PARTHENON OF ATHENS

At first glance, the Parthenon of Athens appears to be the greatest monument ever built to celebrate the everlasting tradition of a perennial state of perfection known to mankind. Its construction seems to reflect the perfect state of human government on earth. Indeed, the Parthenon appears to have had every single one of its stones carved in perfect straightness and at perfect right angle and where not a single line seems to be offsetting its perfect symmetry. It was as if a perfect people had carved its principle on a perfect form of Euclidean geometry, using perfect rules, under a perfect democratic legislator, guided by perfect Olympian gods, and expressing perfect equality for every human beings.

In all appearances, the outside features of its Doric construction emphasized such perfect society by including sculptural decorations, high up on the pediment and on the external metopes of the architrave, showing the superiority of the Greek culture by describing war scenes that the Athenians had won against all of its main enemies during its entire history.

Thus, if such a beautiful monument to reason (Athena being the goddess of reason and war) was erected to celebrate such human perfection, why is it that during the very period that it was being built, the entire Greek society was going through the worst crisis of its entire history and its glorious civilization collapsed into the complete tragedy of the Peloponnesian Wars, never to recover? How could such perfect human beings end up in such a tragedy? What went wrong? The answer to these questions lays in the paradox of the Parthenon itself.

When a closer attention is brought to the construction of the Parthenon, leaving aside the illusions of sense certainty, one discovers that not a single block of stone in the entire building can be interchanged with another, no two blocks are alike in the entire building, which means that each block has only a single place where it can be fitted in the entire design. The truth of the matter is that, ontologically speaking, there does not exist a single straight line or a single right angle in the Parthenon, because every one of today's remaining 5,000 white marble stones pieces reflects curvature.



Figure 1a. Nautilus shell

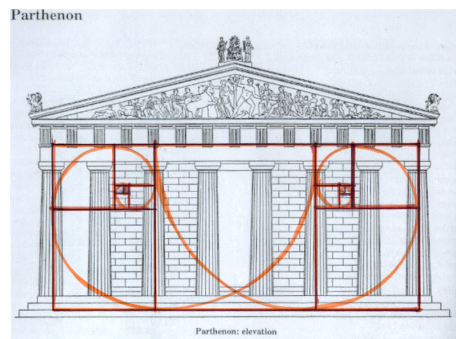


Figure 1b. Spiraling Golden Sections

Paradoxically, the underlying curvature of the Nautilus spiral action is the cement that holds together all of the marble blocks of the Parthenon. The simple reason why no two blocks of the Parthenon are interchangeable is because the great architect Iktinos and his genial sculptor associate, Pheidias (c. 490-430), treated the Parthenon like a living being. (1) One aspect of this was that the entire building was given a playful *in-betweenness balance* expressed by right sidedness and left sidedness, a chirality characteristic that belongs universally to living processes. And thus, Iktinos and Pheidias designed the Parthenon, accordingly, with a series on non-linear features that made this work of artistic composition one of the greatest hylozoic puzzles of all times.

For example, note how right and left spirals (Figure 1.b) rotate in opposite directions to determine the intercolumniation of the front elevation. This is the same design that formed each triglyphs and each triglyph-metope-triglyph triplet on the external Doric frieze of the entablature. For the same reason that you cannot put a right hand glove on a left hand, the right golden rectangle cannot be mapped on the left one.

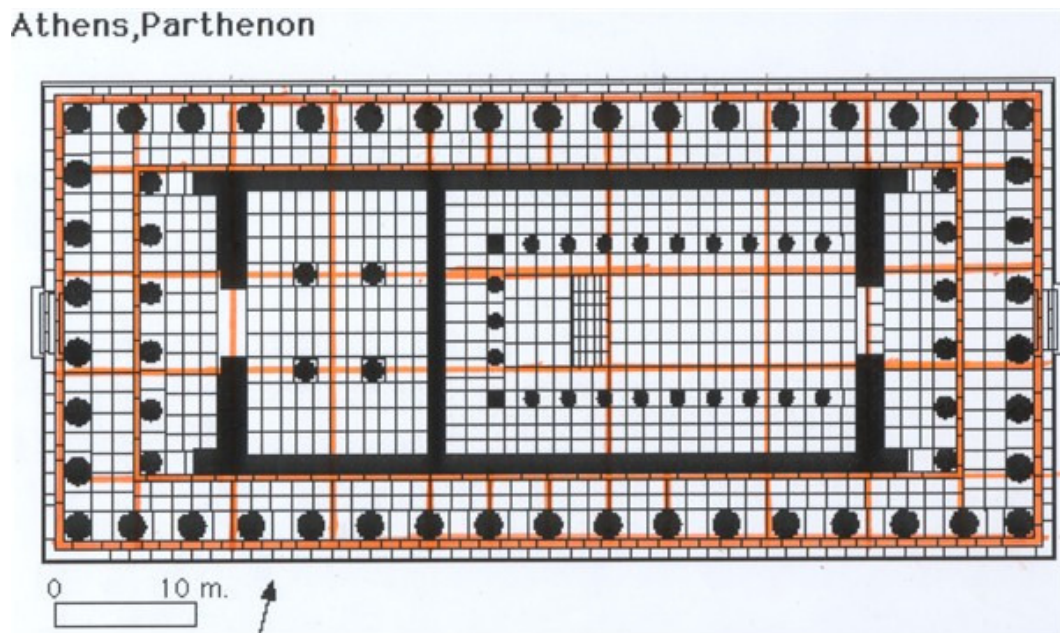


Figure 2. The orange lines show how the harmonic divisions of the Parthenon floor plan was designed with a mixed of squares and golden rectangles of different sizes.

The harmonic ordering of the stylobate floorplan of the Parthenon is designed like a Fibonacci series jigsaw puzzle in which one has to find the appropriate number and size of squares and golden rectangles to fit into close packing such that each part reflected in the small the process of creating the building in the whole. It must have been quite a pleasant pedagogical exercise to have a few hundred workers figure out the least action manner in which such close packing of 870 scrambled pieces would have to fit together, each in its proper place, and at the same time reflecting the process of elevating the entire

temple. The challenging idea was to have the front elevation, as shown in Figure 1.b reflect the same curvature ordering of golden rectangle/square/golden rectangle composition as the floorplan shows in Figure 2.

1- THE PHEIDIAS AXIOM BUSTING CURVATURE OF THE PARTHENON.

About two hundred years before he was born, the architect Iktinos and the sculptor Pheidias put their heads together and demonstrated the fallacy of Euclid's *parallel axiom* by constructing the Parthenon (449-431 BC) based on spherical curvature. Indeed, the Parthenon is one of the greatest Sphaerics buildings of all times. And, one of the most fascinating aspects of it is the fact that the whole construction was based on a floor plan that has a spherical curvature that distributed non-linearity everywhere throughout the building. *The paradox is that everywhere and in every part, the Parthenon is actually curved while it appears to be perfectly straight.*

The actual construction might have appeared to be the greatest nightmare for a few setsquare masons who had to grind all of the joints of every block of white marble to fit the curvature, but it must have been the greatest joy for the few hundred workers who understood the principle of artistically grinding such a grandiose composition. The point of the entire experiment is to discover that the principle of artistic composition is the same as the universal principle of physical science. Think of the construction of the Parthenon as an actual experiment in constructing a temple based on the idea of building the walls of Plato's Cave. In point of fact, if the Parthenon were to be understood properly, like it should, as a pedagogical experiment, reflecting in all of its components of construction the power of creative reason, as personified by Athena, then, all of the so-called "refinements" of curvature that have been built into it would have been understood as very exciting heuristic infinitesimal devices demonstrating the fallacies of sense certainty in a Euclidean and Aristotelian universe.

In point of fact, as the Platonic Cave experiment shows, reason in opposition to mere opinion and sense certainty, must make the correction of our naturally lying sense perception. Here, in the Parthenon, disproportion has been deliberately created in order to reconstitute proportionality of what our eyes would otherwise perceive as distorted and untrue. The amount that has been corrected actually corresponds to the degree to which our sensory instrument has failed in reading the characters of Sphaerics. A close study of the treatment of how the golden section was applied, for example, is a case in point. The architectural golden section was accounted for like a living nautilus accounts for the development of its golden section shell in which the smallest part is a replica of the whole curvature. Similarly, think of the rectangular triglyphs on each side of a square metope as the smallest part reflecting the front elevation and the entire floorplan of the Parthenon. This demonstrates that the universe of Euclid, based on straight-line measurements, is a complete fraud. And, this is the reason why the series of disproportions that Iktinos and Pheidias have incorporated into their great work must be looked at as the best scientific

argument against Euclid's fraudulent "*parallel axiom*." Let us look at this more closely and note some of the most devastating implications.



Figure 3. The Parthenon curvature of the northern steps.

There are three types of anomalistic curvatures built-into the Parthenon, and all three represent different degrees of epistemological difficulty. Today, I will discuss the third such difficulty. The first and most easily recognizable is the bellowing curved floor plan on all four sides of the Parthenon's stylobate platform which is not perceptible when viewed frontally; the second is the conical entasis curvature and inward inclination of all of the columns; the third, and most fascinating, is the Pheidias stereographic adjustment of certain scenes of the eastern frieze of the Parthenon's cella. These singularities have been noticed and commented upon for centuries and have been examined ever since their original construction from 447- 432 B.C. However, the point that is rarely, if ever, made about these curvatures is that they were not constructed for empirical or esthetical reasons, as most commentators suggest. They were built for the specific epistemological purpose of developing the power of reason.

For example, take the case of the Greek commentator, Heliodoros of Larisa, who wrote, during the first century A.D., a complete fallacy of composition which consisted in considering such curvatures as introduced merely for the purpose of making empirical visual adjustments: "The aim of the architect is to give his work a semblance of being well-proportioned and to devise means of protection against optical illusions so far as possible, with the objective, not of factual, but of apparent equality of measurements and proportion." (2) This is a complete fallacy. Why would any one need to be "protected

against optical illusions?” Are they dangerous? Do they bite? Is there a danger of tripping over them and breaking a leg? Lens makers may have the purpose of helping people correcting visual defects, but Greek architects were not in the business of adjusting their building to practical necessities. Their concerns were atoned to beauty, proportion, and truthfulness. The artists of the Parthenon were more interested in mental processes than defects attributed to the illusions of sense certainty. And to prove the matter, it is useful to point out the specific mental defect of the subject matter with the example of Lawrence Alma Tameda’s *Pheidias Showing the Frieze of the Parthenon to his Friends*.



Figure 4. Lawrence Alma Tameda, *Pheidias Showing the Frieze of the Parthenon to his Friends*, 1868.

What is the fallacy of composition of this painting? Tameda has obfuscated completely the pedagogical purpose of the frieze and ignored entirely the creative intention of Pheidias. In doing that, the author has left out the real subject matter of the painting and has replaced it by pure lying sophistry. Tameda’s intention was to show that it was so difficult to see the frieze of the Parthenon from below, that he concocted the fallacy according to which Pheidias needed to bring his friends up on a scaffold in order to show them the frieze up close. However, the ridicule of his painting is that the scenes of the west façade are so flat that, even when standing on his makeshift scaffolding, you cannot recognize any of the subjects of the western frieze from the vantage point of the observer, only about ten feet away. Note that people in the background are in the dark and cannot see a thing. This was meant to express British humor in the wake of Lord

Elgin's stealing the Parthenon marbles from Athens, in the name of British fair play, in 1816. In other words, this was not the way that Pheidias accounted for the presence of the viewer who was physically and mentally a crucial component of the procession below. The viewer is a participant, not an outside commentator. Tameda obviously missed the whole irony of the subject matter.

2. CELEBRATING THE GREAT PANATHENAIA

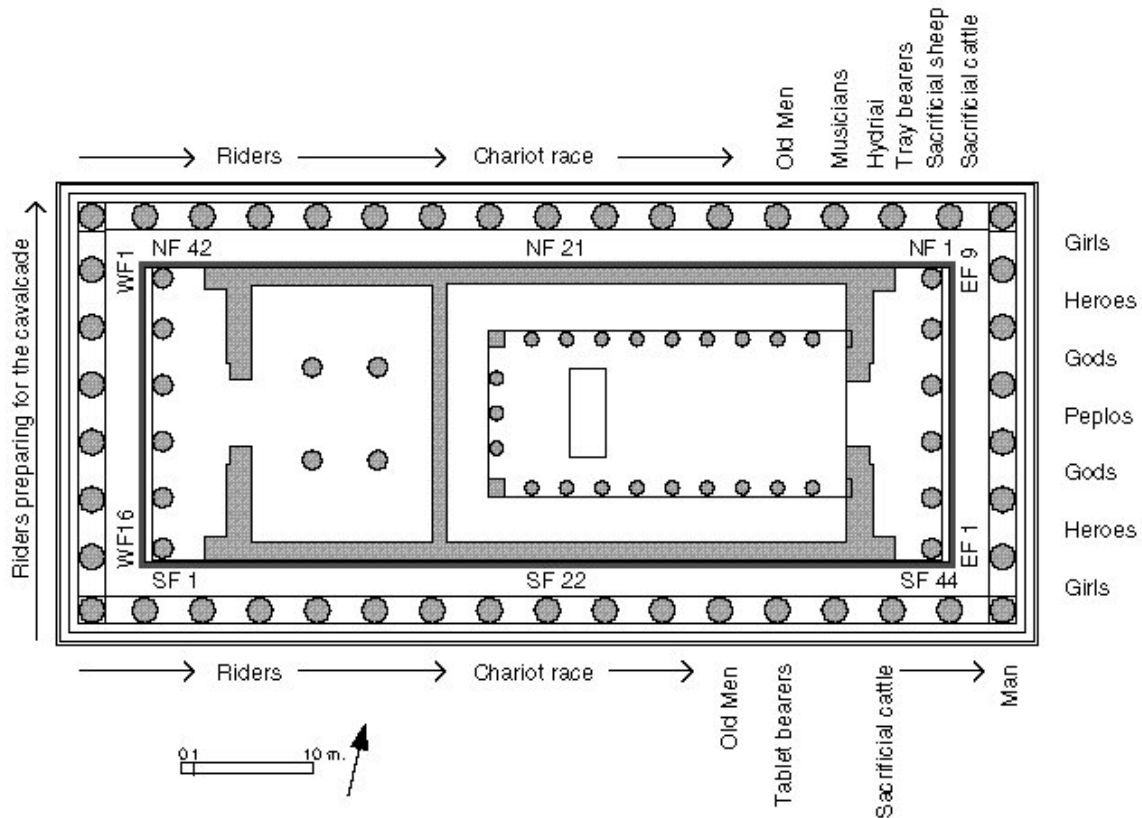


Figure 5. Floorplan of the Parthenon and the identification of the internal frieze of the Great Panathenaia. The procession starts on the South West corner of the Parthenon at WF16 and ends at the *Peplos* ceremony.

What did Pheidias represent on the two Parthenon friezes? What is most striking about the outside and the inside friezes of Athen's Parthenon is that they reflect the two paradoxical sides of Greek history, the two completely different and contradictory ideas of war and creativity. Thus, the Parthenon is an architectural drama, a pedagogical memorial to Greek culture. The intention Pheidias had in designing the Parthenon was to characterize the process of tragedy on the outside frieze and the process of how to solve that tragedy on the inside frieze: the problem with Greek culture and its solution.

On the outside frieze of the Parthenon, Pheidias depicted a series of war scenes as a way of demonstrating that, throughout its history, Greek society had been constantly manipulated by the gods of Olympus into going to war. The two great pediments and the 92 metopes of the four sides of the outer frieze of the building showed 1) the west face as the Amazonomachy, the battle of the Greeks and the Amazons; 2) the east side showing the Gigantomachy battle between the Gods and the Giants; 3) the south side depicting the mythical Centauromachy warfare between the Greeks and Centaurs; and 4) the north side showing the battle between the Greeks and the Trojans. All four wars led to the victory of Greece but also to its tragic downfall. It would be impossible to show these illustrations in this report.

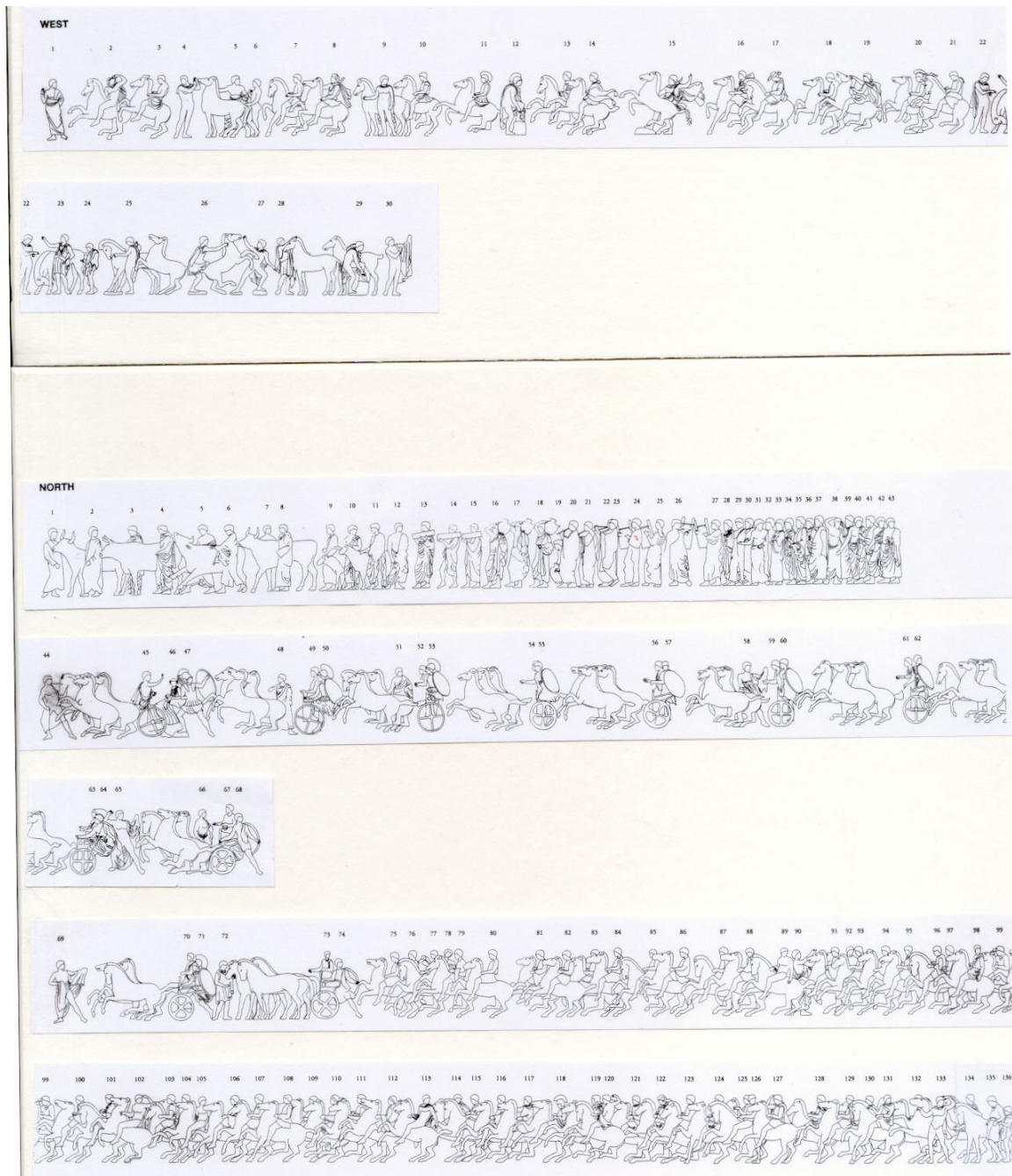
On the inside of the Parthenon, however, Pheidias displayed the frieze of the Cella as the pedagogical solution to the Greek tragedy of senseless wars, in the form of a celebration of creativity known as the Great Panathenaia. His great contribution to mankind was to reveal the importance for a nation's citizens to regularly return to the principles that founded it and to keep alive the wisdom of its elders and founding fathers. This is what Pheidias was celebrating in the most creative fashion with the Great Panathenaia. His objective was to restore to all of the Greek people, not just the Athenians, the principle of wisdom that Athena represented as the solution to the tragedy of Greek culture as a whole. This was manifested by the fact that Athena was the only one of the Olympian gods who loved human beings, while the other Olympian gods hated mankind. For example, Zeus and Apollo thrived systematically on the capriciousness of broken oaths and ceaseless punishments. On the other hand, Athena was the only goddess helping man, as Pheidias represented her helping Hercules in his Labors on the earlier frieze of the Temple of Zeus in Olympia (450 BC).

However, as Lyn has many times demonstrated, the point to be stressed is that tragedy is not the result of personal failure of some individual leader, but the outcome of a whole culture's refusal to change its axioms. The tragedy invariably comes from listening to the voices of the gods, or of the priests of Apollo at the Oracle of Delphi in your own head: "Do this! Don't do that." This is what Socrates had warned the people of Athens about the evil tradition of the gods of Olympus, but the result was that the population of the city preferred to kill him rather than go against public opinion in fear of their gods. America faces a very similar dilemma today. American Presidents prefers to plunge the United States, and the rest of the world with it, into a tragic dark age by following the consensus of public opinion with respect to the failed monetary system rather than to adopt the creative credit policy solution that LaRouche had proposed for solving the current monetary crisis.

Thus, the tragedy of the Greek social failure is the same as that which LaRouche referenced with the closing sentence of Riemann's 1854 Habilitation Dissertation. By referencing the necessity of going outside of mathematics to address the reality of physics, LaRouche is also referencing the fact that you must always refer to the failure of mathematics or of geometry, as the case may be, in order to truthfully elaborate physical science. Similarly, it is necessary to introduce in artistic composition, the discovery of such failures of sense certainty as if through the projection of Plato's cave, the projection

of a truthful principle of uncertainty as if seeing through a glass darkly, to use the word of St Paul. This is where we are at with Pheidias' internal frieze of the Parthenon. Note the chirality of the double motion of the procession of the frieze as a whole.

As viewed from below, the direction from west to north reflects a counterclockwise motion in which the procession is moving from right to left.



The direction from south to east reflects a clockwise motion in which the procession is moving from left to right.

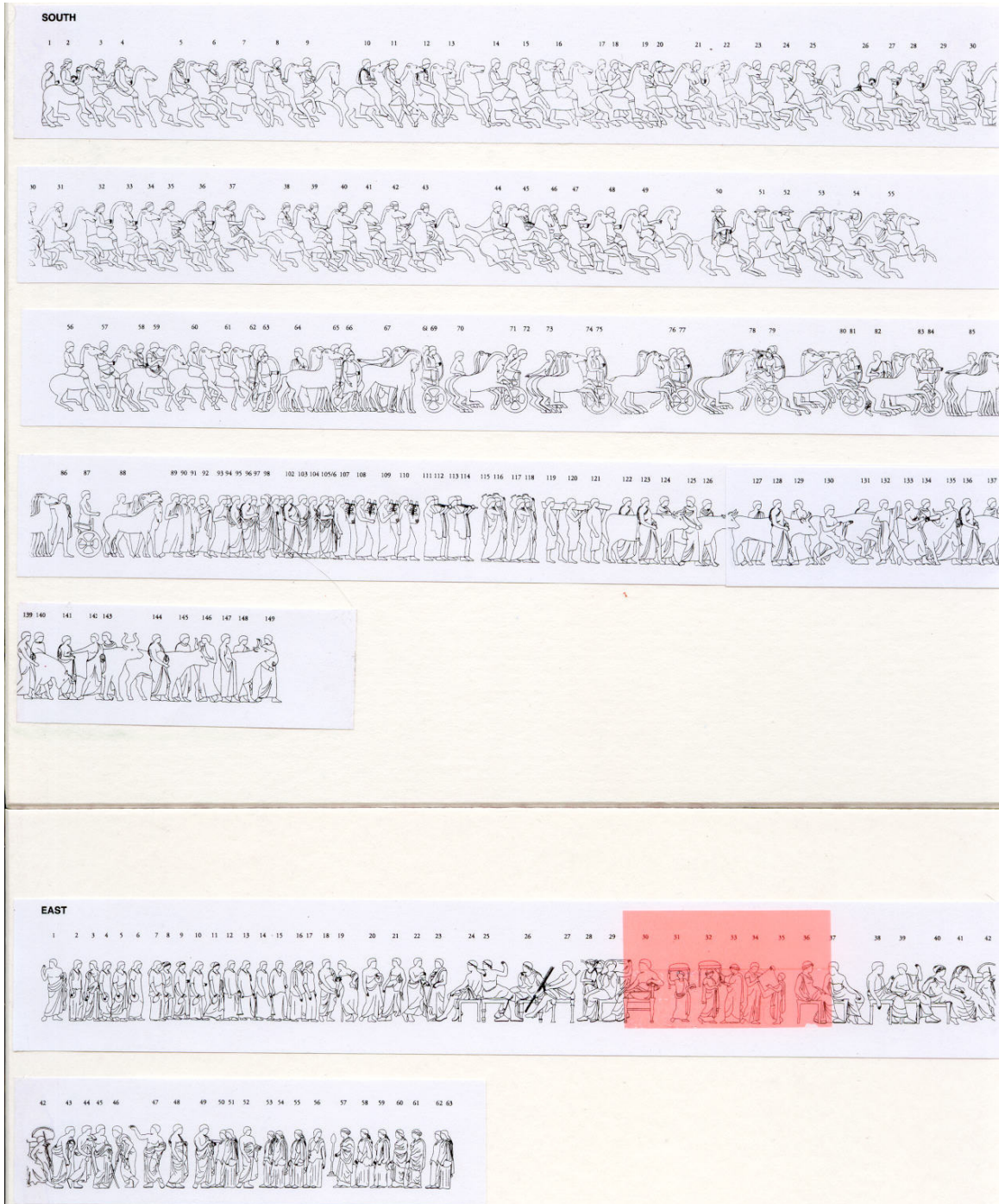


Figure 6. Chirality of the internal Frieze of the Parthenon. The two procession flows meet at the scene of the *peplos* (highlighted). Drawings from Jenifer Neils, *The Parthenon Frieze*, Cambridge University Press, 2001.

Pheidias was Pericles' chief architect, master sculptor, and overseer of public works for the entire project of the Acropolis. He became famous for the creation of the giant ivory and gold sculptures of Zeus and Athena, but his greatest work of artistic composition was the internal frieze of the Parthenon, which represented a single subject adorning all four faces of the Cella and Adytum rooms of the temple, a great space-time continuum of Greek society. This great Ionic frieze depicted the opposite of what was displayed on the outside frieze, in fact, its actual alternative solution. The subject was that of a procession of the whole citizenry of the city of Athens celebrating the principle of creativity and the power of artistic composition in honor of the birthday of Athena.

According to the official historical claim of the Greek Ministry of Culture, the celebration, called the Great Panathenaia, was the most important celebration, held every four years, in Athens during three centuries, from the 6th to the 4th century. The Greek Ministry further states that the founder of Athens, Erichthonios, was the initiator of that ceremonial tradition that he called Athenaia, and which Theseus also continued to celebrate at the end of the Mycenaean period. Established during prehistoric times, therefore, the celebration reflected the whole development of Athenian history and was later expanded to encompass the whole of Greek history: thus, the name of Great Panathenaia. The official Greek Ministry of Culture explained it like this:

“The Great Panathenaia included numerous ceremonies and sacrifices, of which the most striking was the Hekatomb (sacrifice of 100 bulls). Of great importance too were the riding, athletic and music contests. The ceremonies and games, which lasted from 4 to 12 days, reached their peak on the 28th of Hekatombaion, the day held to be Athena's birthday. On this day the people of Athens gave their goddess a **peplos** woven with thread-of-gold by the Arrephoroi and the **Ergastinai**, maidens from prominent families in the service of the goddess.” (3)

Was this all true or were all of these scenes of the Great Panathenaia also representing something else through the dimly lit shadows on the wall of Plato's Cave? Were the bulls and sheep meant for a sacrifice or were they representing the agricultural industry, just as the musicians represented the artists and hydria-bearers represented the wine industry, and so forth? The Greek Ministry further stated that by the time of the fifth century B.C., the celebration had become the most brilliant ceremonies involving the whole of Greece. What the official Greek Ministry did not say, however, was that the reproduction of the event had encapsulated different times in a single event, and that the simultaneity of those different times represented together on the frieze of the Parthenon had the purpose of provoking the procession actors, that is all of the citizens of Athens who moved with the procession, into replicating, every four years, the same scenes by walking around the Parthenon and discovering the reflections of themselves represented on the frieze. In other words, Pheidias was holding a mirror for all of the Athenians to reflect themselves into. Why?

In reality, Pheidias was conducting an axiom busting pedagogical experiment in classical artistic composition, and the Great Panathenaia procession was merely casting

shadows of something else that was occurring during the procession, which could not be made explicitly visible on the frieze, but that had to be discovered in the viewer-participant's mind. So, what were these scenes the shadows of? The hint to discovering the significance of the whole process, here, lied in the fact that the entire procession culminated in the giving of a gift, the so-called *peplos* that official Greek historians and archeologists have identified as a ceremonial dress to Athena. But, was that really the case?

3- THE PHEIDIAS EXPERIMENT OF THREE DIFFERENT TEMPORALITIES IN THE SIMULTANEITY OF ETERNITY

What Pheidias was projecting onto the frieze of the Parthenon were merely shadows, but such shadows were both a lesson in history and a pedagogical experiment in what is required in the process of exercising the power of reason for solving the tragic crisis of Greek society. From that standpoint, *the true subject of the Great Panathenaia frieze is an epistemological experiment in the discovery of the universal physical principle of creativity.*

This pedagogical experiment, therefore, requires several steps of a process that is now necessary to reconstruct for the reader. The first step of this process is the state of *perplexity* in which the spectator has to eliminate the fallacy of sense certainty as an expression of truthfulness. The second step is the state of *awfulness* in which the spectator discovers that his sense certainty was based on wrong assumptions and fallacies of composition. And the third step is the state of *rejoicing*, in the celebration of Athena, after discovering the *principle of composition based on the irony of the simultaneity of eternity*. This experiment, however, can only be completed by reliving the exquisite irony of the ceremony of the *peplos*, that is to say, by reconstructing in its entirety the process of what was woven in the minds of the participants during the procession of the Great Panathenaia and, especially at the culminating point of the event of the *peplos* on the east façade of the Parthenon.

The discovery requires the traveling around the outside of the Parthenon where the participants have to study the frieze starting from the south-west corner of the Parthenon and moving toward the south side and the north side of the temple, and discover that the entire frieze reflects the procession of the participants below. The first discovery, therefore, is the discovery that the frieze is about you, the viewer-participant! The frieze, then, acts as a mirror to the participants whose purpose is to discover the meaning of the process of the two processional streams leading to their destination of joining them together, again, at the solemn scene of the folding/unfolding of the *peplos*.

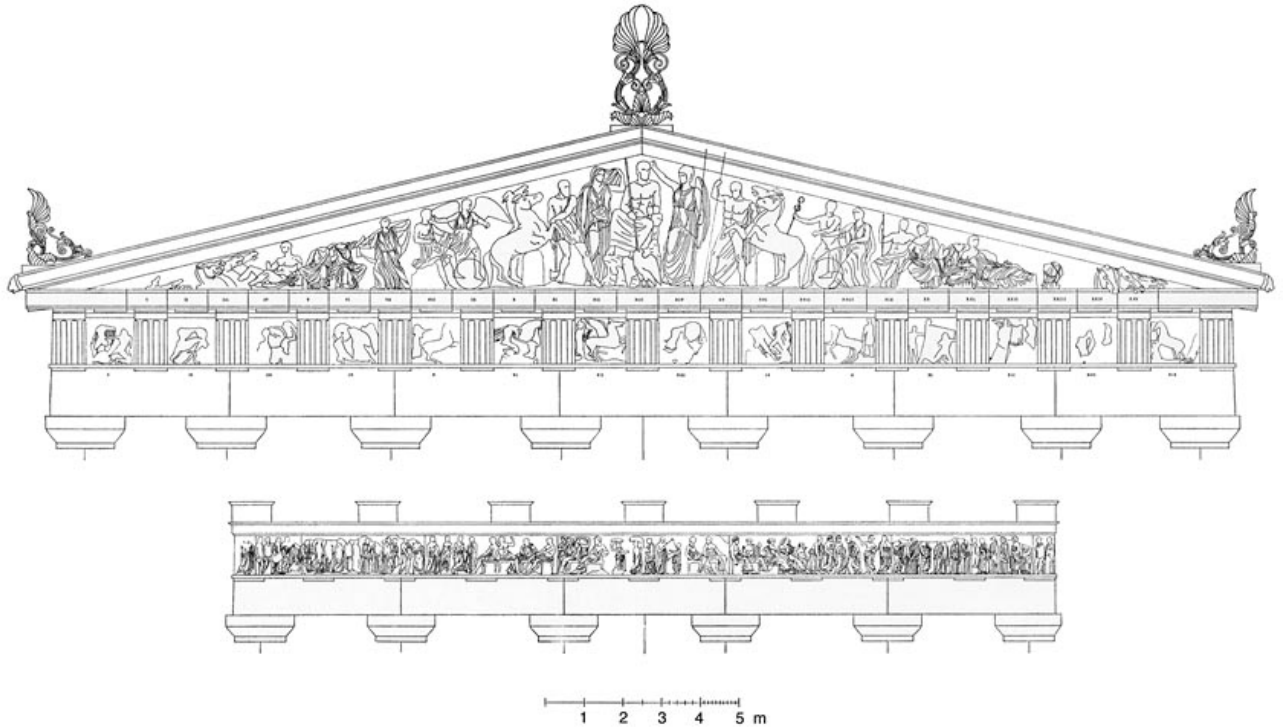


Figure 6. Eastern Frieze of the Parthenon. The ceremony of the *peplos*.

Needless to say that what has to be emphasized, here, is the idea of the process itself. However, the observation of the frieze was deliberately made from a very awkward position, since all of the scenes of the frieze were in the shadows of the columns and of the entablature of the temple. Thus, the process was constantly interrupted by the visual impairment of the columns and the architrave above them. This is how Yale University Professor, A. W. Lawrence, described his own state of perplexity on the subject:

“The frieze of the Parthenon however ran also along the sides of the cella, completely surrounding it, and for that there was no precedent. The Frieze, nearly 524 feet long, and carved in greater elaboration than any previous relief, was, however, so placed that it could scarcely be seen. [...] In the comparatively small temple of Hephaistos, the frieze was not uncomfortably above eye level; in the Parthenon even the base stands nearly 40 feet above the pteron floor, which is only 15 feet wide and no human eyes can be turned up at such an angle longer than a few seconds. A slightly more distant view from still lower could be obtained from the ground outside, which, in antiquity reached up to the bottom step of the temple – it has now been cleared away, so that the rock is exposed all round the foot of the tall platform beneath the steps. If one walked along outside, however, the columns interrupted the continuity of the sculpture, and at a little distance the architrave of the pteron masked the frieze altogether.

“From any standpoint, the angle of vision must therefore have been awkward, and if the frieze had been carved in the normal way, to uniform depth, the legs of the figures would have masked their heads.” (5)

It is unfortunate that professor Lawrence did not go beyond his academic discomfort on the matter of his perplexity. He did not even ask the question: why was that frieze not built inside of the temple, at a more comfortable angle of vision, and lit with appropriate lamps? That could have been easily arranged. However, this was obviously not what Pheidias had in mind. The idea is that the process had to be a living procession of the entire citizenry. The entire frieze includes 378 *dramatis personae*, and 245 animals, meticulously sculpted into 114 rectangular and square blocks whose design is represented as a seamless living flow oriented toward the east end of the Parthenon.

Aside from a wall painting of the Battle of Marathon, executed earlier by Pausanias, there never was such a great artistic composition that would have the action of an entire society move continuously across such a complex space-time progression that included four different times in the same progression and which all culminated in the paradoxical climax of a gift in honor of the goddess at the end. This is totally unique in Greek art.

The reader must consider the difficulty here, simply by imagining that you were standing approximately as in the position of this fellow, Stillwell, who made the following drawing of the eastern frieze. (See Figure 7.) Note the awkward position of the angle, and the size of the frieze that is not taller than about 3 feet high and 524 feet long, running continuously around the entire temple, and being interrupted by a total of 46 columns! That is, indeed, quite a challenge that required more than a usual amount of attention and patience on the part of the viewer-participant. However, if what Pheidias wanted us to discover was so important, why did he create such difficulties for the observer?

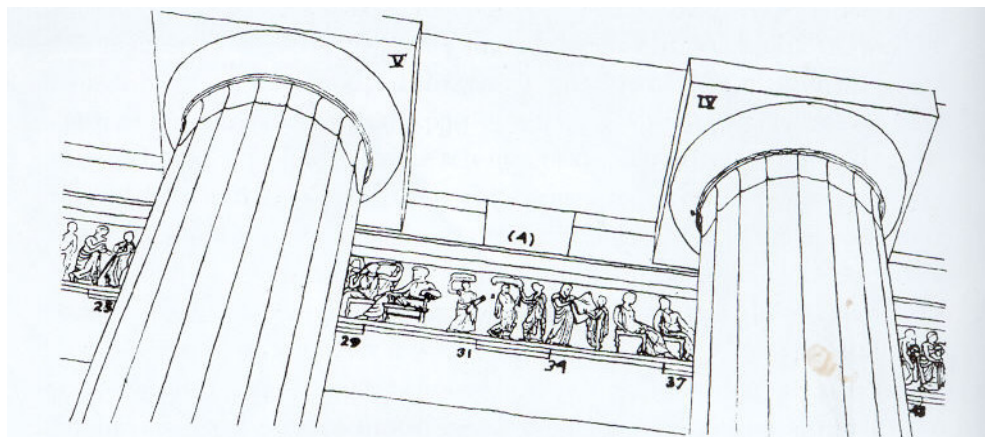


Figure 7. View of the central portion between the columns of the perystyle of the east frieze according to Stillwell, 1969. (From Jenifer Neils, *The Parthenon Frieze*,

Cambridge University Press, after Stilwell.) No.34 depicts the folding/unfolding of the *peplos*.

What is the difficulty, here? The two Lawrences that I have just quoted seem to imply that Pheidias made a mistake. As if to confirm the apparent necessity of excusing Pheidias for his blundering, the Pre-Raphaelite British artist, Lawrence Alma Tamedá, painted his portrait on a scaffolding to show his friends the frieze up close. Similarly, American Professor, A. W. Lawrence, described the physical difficulties of the anomaly that the frieze represented, as if it were necessary to climb up there in order to see the relief of the frieze “properly.” In other words, according to both of them, what needed to be done was to go to the very bottom of Plato’s Cave, in order to get a closer view of the shadows. Is that going to make the shadows more truthful? The following reconstruction is the scene that Lawrence just described, but as seen frontally from the eye of a camera at no more than a few feet from the subject.



Figure 8. Reconstruction of the right half of the East Frieze of the Parthenon (From www.mlahanas.de/.../Parthenon/ReconFrieze.jpg)

The left segment represents the culminating point of the entire procession, showing the presentation of the *peplos* to be offered to the patron goddess Athena, sitting with her back turned to it, with her spear in her hand. Next, from left to right, are sitting five other gods, namely Hephaistos, Poseidon, Apollo, Artemis, Aphrodite and her son, Eros. Further to the right are four eponymous heroes of Attica, the mythical ancestors of the Athenians, who are greeting the parade participants that are coming from the north side of the Parthenon, including women with sacrificial vessels in their hands. [For a viewing of the entire original frieze, see: [The Parthenon Frieze](#) : See the [South Frieze](#) , [East Frieze](#) , [North Frieze](#) , [West Frieze](#)]

Since the ceremonial procession occurs every four years, around the Parthenon, the most fascinating aspect of this Great Panathenaia is reflected in the power of reliving the discovery of the principle of simultaneity of the past, present, and future which is especially reflected all around the Parthenon, but most strikingly in the eastern frieze.

This is manifest, most emphatically in the coming together of precisely identified four different times reflecting a number of discontinuous singularities that require some attention.

Firstly, there is the time when the *peplos* presented to the goddess by the high priest or the King-Archon and a little boy. This is the high point of the whole procession to which the entire city bares witness, every four years. This ceremony is both repetitive and new. However, this can only be seen in your mind's eye, because every four years a new golden woven *peplos* is created with a new design for Athena, and the change in the design represents the necessary changes that must occur in society, otherwise, tradition will inevitably lead society to tragedy.

Secondly, this requirement of progress is counterposed, at the same time, by the presence of the rigid tradition of the 12 gods of Olympus, all sitting on the east frieze and turning their backs to the *peplos* scene. It is as if the gods had no interest in the event. At the very least, they could have had the decency of turning their chairs around and watch the glorious culmination of the whole event. But no! Not a single god is turned to pay homage to one of their own, Athena, who is also turning her back. The time of the gods seems to be entirely out of sync with the celebration itself.

Thirdly, to the left and to the right of the gods, there are numerous eponymous heroes of Attica who act as hosts to the two files of participants coming from the south and the north sides of the Parthenon. These heroes are the founding fathers of Athens and their mythical time is included within the celebration as a lively component of the ceremony. Their role is to welcome the new generations, and from that vantage point, they represent the mythological elders who are always turned toward the future.

Fourthly, each side of the Parthenon represents a different time frame: "The American archaeologist E. Harrison, for example, suggests that on three of the sides the frieze represents the Panathenaic procession at different chronological periods. Thus the west frieze shows the procession in mythical times, the north in the archaic period, the south in the classical period." (6)

<http://www.ekt.gr/parthenonfrieze/introduction/history.jsp?lang=en>)

Thus, the synchronization of these four different times of the frieze represents the simultaneity of eternity that must be discovered and internalized by the participants of the procession below. This complex historical anachronism is especially delicious because it brings together, in the same place, the mythical ancestors of the Athenians, the contemporary citizens of Athens, and the future generations who care to take the pain of looking up into the hidden recesses of Pheidias's mind and discover his thinking process. Thus, the procession of the Great Panathenaia culminates paradoxically in the simultaneity of eternity, reflecting both the contradiction of times in the same place, as well as the contradiction of change and tradition, in the same place.

I find this to be a strikingly accurate artistic depiction of Lyn's idea of the simultaneity of eternity, in which the characters and the events of the different times

come alive as united together in the same place, in your mind, as a universal moment of reliving the immortality of the human species through Greek Civilization. It is as if the whole history of Greece became, in one eternal moment, a monade reflecting the totality of humanity. Such is the principle that lights-up the hidden recesses of Pheidias creative mind, and which has the power to keep his frieze of the Parthenon alive for all time.

However, it is important to note that the simultaneity of this historical mental process is only successful through a rejection of sense certainty, and functions as if you were seeing through a glass darkly. This is the reason for elevating the difficulty of the experiment to the level of the frieze, as opposed to a comfortable eye-level presentation as those marbles are presented to the spectator in museums, today. The point is that breaking with the supremacy of sense certainty puts you in the right frame of mind to make the required discovery of principle.

4. THE PHEIDIAS REVOLUTION IN CASTING LOW RELIEF.

A good example of the revolutionary method of Pheidias is the change he made in the projection of the shadows on the east frieze, as if they had been cast on the dimly lit wall of Plato's cave. Here, Pheidias broke with the tradition of archaic low-relief sculptures and introduced a more refined and animated conception that completely revolutionized the art of Greek sculpture.

A keen observer will not fail to discover that some of the scenes of the Parthenon frieze are not cast in such a traditional flat relief; otherwise, because of their awkward location, the feet and legs of the figures would prevent him from seeing their heads from below. In the case of the eastern frieze, for example, Pheidias has had the genial idea of carving the feet of certain figures in very shallow relief, while the upper part of the bodies are projected inward by a few inches, so as to stand out more. This was not simply a trick. This was an experimental proof that human beings are different from animals and that their power of reason is capable of judging and evaluating what their visual apparatus cannot perceive about the real world. Think of the idea of Pheidias as being in the process of creating and facilitating the resolution of the anomaly of observation of the frieze as seen from below in such a manner that the correction of the visual impairment is substituted by a non-visible change in the art form. The correction becomes visible only in your mind, or else, when the observation is carried up to the level of the frieze.

Here, Pheidias is really forcing the spectator into participating actively in the creative process of the frieze. There are several points to be noticed in this regard.

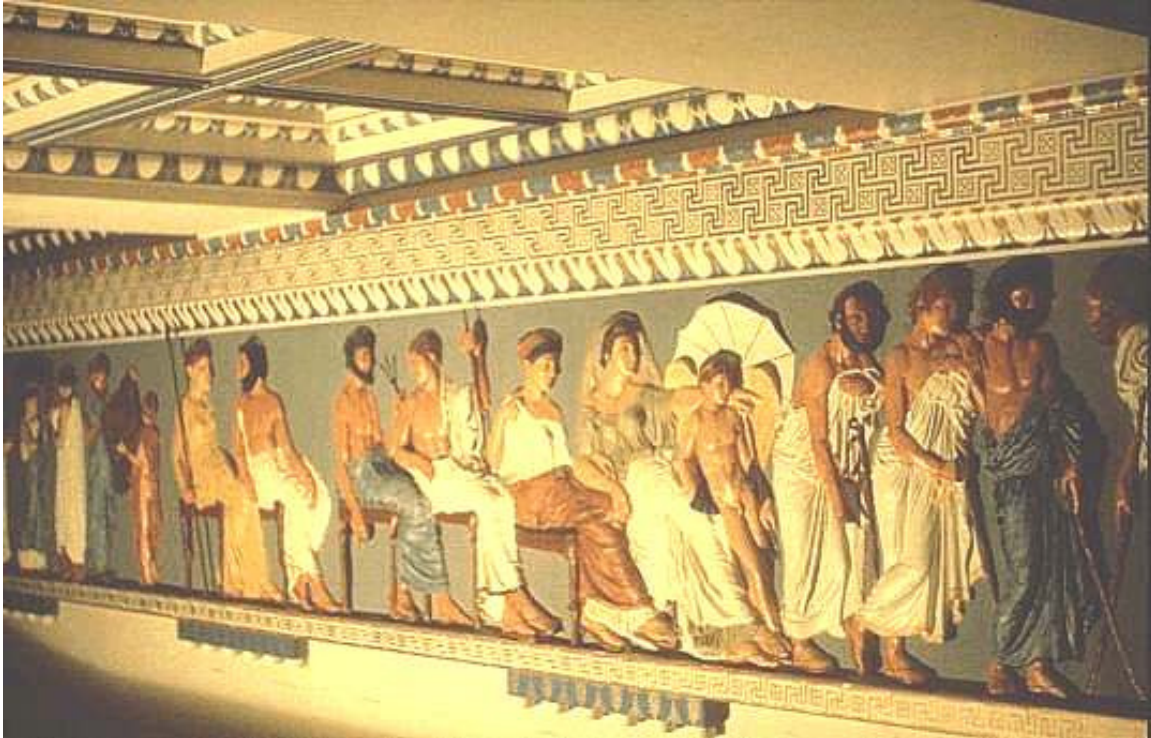


Figure 9. Reproduction of the eastern frieze showing the *peplos*, 6 gods of Olympus, and four eponymous Heroes of Attica. (Ontario, Canada)

Note how, at the upper level of the frieze, the camera light projection created the effect of maximizing shadows in the upper parts of the figures. This means that, if you were to observe the frieze from scaffolding, directly above the architrave, you could see, as the above scene shows that the spear of Athena and the pointing hand of Apollo are both projected outward at least 4 to 6 inches.

From below, however, the same scene would not appear to be protruding at the top, but would simply appear as normal! This anomaly was resolved at length by the use of colour, in particular the blue background, and especially with the deeper cutting of the upper part in comparison with the lower part of the frieze, so that the sculptured surface appeared to incline slightly toward the viewer, but in reality did not. Here, you are in a better position to understand the fallacy of Lawrence Alma Tamedas's Pheidias *Showing the Frieze of the Parthenon to his Friends*, as in a state of pure flatness.

From this vantage point, Pheidias's choice of a procession clearly indicates that his purpose was to express motion and change, nothing static. As Heraclites put it, "{you can never swim twice in the same river where everything flows.}" In fact, the only static place on the frieze is the location of the marshals at the four corners of the temple and the sitting of the gods of Olympus on the eastern façade. The rest of the frieze is in a constant flowing motion in the direction of the culminating point of the ceremony of the *peplos*. In fact, with the flowing motion of the procession alone, the observer is able to tell where any of the blocks of the frieze are necessarily located. If the motion is toward the right,

then you are standing on the south side. If the motion is to the left, then you are standing on the west side or moving on the north side. Like a living being, the frieze has chirality!

5. THE EXQUISITE IRONY OF THE *PEPLOS* AND ITS CEREMONY.

Picture yourself standing by the sea in the port of Athens at the beginning of the celebration of the Great Panathenaia and imagine the entire population of Athens gathered, there with you, waiting in anticipation for the Panathenaia Ship to appear on the horizon. The procession cannot begin until the *peplos* is brought on Athena's ship to the Dipylon Gate of Athens. What a joyful event it must have been when, suddenly, that ship would suddenly appear on the horizon and would gradually make its way to the port of Athens. The excitement would increase proportionately to its revealing the full display of its square *peplos* sail floating in the wind. Then, it could be further imagined that everybody would begin singing a hymn to Athena, the song of the *peplos*.

Moreover, imagine that during the singing, you hear the very same words, but with two clearly distinct meanings, at the same time. You would be experiencing something similar to the "all is clear" statement at the opening quartet of Beethoven's *Fidelio*. Then, and only in that double meaning, would you be able to understand the meaning and the significance of Pheidias' great composition of the frieze of the Parthenon! And, the reason would be that only then, would the irony of the *peplos* make sense.

Indeed, since the word "*peplos*" has two very different meanings, there must have been quite an exquisite cross-voicing irony during the procession. In fact, the word "*peplos*" signifies "mantle" or "dress;" but it also means "veil," "drapery," or "tapestry." But, since the Greek radical for woven cloth is $\pi\acute{\epsilon}\pi\lambda$, then, it is understandable that it represented the underlying root of those two meanings, and this is where the difference between the two voices became united and the tragic division of Greek society became resolved.

For example, for the oligarchy serving the tradition of the Olympian gods, the ceremony was a show, a fashion show. This is what the gods and their oligarchies love to do best: show and tell. They are always dressing up for some occasion to show off their ranks and their power. In this case, the *peplos* was a new fashion dress. This display of power was made in the name of Athena Pallas, goddess of War. On the other hand, for the artists, the farmers, the philosophers, the whole procession was a pedagogical process of artistic composition, a display of the creative process in the name of Athena, goddess of Wisdom and cunning. For the latter, the *peplos* was a great tapestry reflecting the creative process, in the image of God. (6)

So, when that display of beauty slowly became more and more visible, as the ship came nearer to the port, the artistic-economic-philosophical part of the population must have been increasingly enthusiastic, as the design of the new artistic composition would

become visible to all for the first time. Any artist, who had worked for four years on such a *peplos* project and had won the honor of having been chosen for the opportunity to display the power of universal reason in such an artistic composition, must have been received by the population as a hero just like a champion at the Olympics.

Moreover, the closer to the shore the ship would get, the more the oligarchical faction of the population would clamor in honor of Athena and all of the gods. The honor was also bestowed upon the greatest Greek dressmaker of the year displaying the latest Athena Dior! I am sure that the wealthy women would already have gotten their husband to get some copies made for them. Why not? Would that have been the greatest honor for Athena to become the model for the new fashion and that her wisdom be presented before the whole world as the greatest display of creativity in dress making.

Whatever misunderstanding those two segments of the population may have had in their public lives, during the previous four years, their understanding was perfect now and they sang in perfect unison the creative principle of the *peplos*. Their mutual purposes, though completely opposed and contrary, in normal time, would then be united during the progress of that Great Panathenaia, and no misunderstanding could ever come to disturb the peace between them on that day. So, that is what that Great Panathenaia was all about: a display in honor of peace, creativity, and wisdom. However, one last observation is required with respect to the dynamics of space and time in this classical setting of depicting a historical event in the simultaneity of eternity.

It is clear that the location of the ceremony of the *peplos*, in the center of the eastern frieze, represents the high point of the entire procession that is made to end there. However, the moment of the ceremony of the *peplos* represents another exquisite ambiguity. It is the focal point of the semicircle of the gods who are turned the other way as if they were absent and separated from its folding/unfolding ceremony. That is odd.

What is happening with this enigmatic scene that is the only scene which is outside of the procession itself? It is clear that the event of that scene is the key to the interpretation of the entire narrative of the frieze, but it lacks in the quality of visual attractiveness and clarity that such an important ceremony would normally require if its intention were to capture the visual attention of the spectator. It is as if Pheidias was saying: "O.K. folks, the show is over! You can fold everything and go home now!" The scene seems to be entirely anti-climactic, almost like a joke that Greek historians ignore because they don't understand it. Indeed, what is this curious idea of the *peplos* all about?

According to American archeologist, John Magruder Mansfield, the *peplos* of Athena was a tapestry woven every four years and was decorated with a representation of the deeds and prowess of Athena commemorating her wisdom and cunning. Those victories over her enemies became the metaphors for the victories of the Greeks over the Babylonian Empire, the victories of culture over barbarism. Thus, the *peplos* was a great tapestry brought to Athens as the sail of a ship that was pulled on land and, then, paraded through the city to the foot of the Acropolis. From there, the *peplos* was to be taken from the ship and taken up in a procession around the Parthenon, much like what is done with

the standard of Mary Queen of Heavens raised over the crowd during Catholic processions in Spain, today.

Mansfield, however, brilliantly clarified some of the crucial points, the main one being that according to the neo-Platonist Eusebios of Myndos, the idea of *peplos of Athena* was a beautiful metaphor for the creative process in the universe. Mansfield noted:

“7. Describing the creation in his oration in praise of Constantine (Eis Konstantinou Triakontaeterikos, 6.6, p. 207. Stahlin July 336 A.D.) Eusebios describes how God ‘Set shining the bright rays of the morning star, the variegated light of the moon, and the twinkling assembly of stars, thereby crowning all of heaven, like a great *peplos* with every beautiful effect of a painting.’”

Then, Mansfield goes to the heart of the matter, so to speak, and recognized that *peplos* was nothing but the artistic expression of the creative principle that Plato had developed in the *Timaeus* around the notion of the “soul of the universe.” Mansfield first noted that during his *Panathenaic Oration* of 154 A.D. Aristeides said: “Our speech has also been fashioned, just like the *peplos*, as an adornment (*kosmos*) for the spectacle of the Panathenaia.” Then Mansfield found this extraordinary reference from another neo-Platonist, Damaskios:

“9. Damaskios, *Aporiai*, 339, II, p. 200.20 Ruelle, refers to the “hypercosmic *πεπλοποια*” of Kore, the life-giving principle, the “tapestry” (?) being the transcendent second order, in which are “woven” imitations of the intelligible forms. Ultimately, this metaphor probably derives from the passage in Plato, *Timaios*, 36 d-e, where the world-soul is said to be “interwoven” with the corporeal universe and also to “envelop it externally” or to cover it *as with a veil* (*εζωθεν περικαλύψασα*).” (7)

Thus, the *peplos* was not a dress at all, but a great work of artistic composition, a “heroic painting,” woven as a large square tapestry of up to 64 square meters in surface reflecting in its weaving composition the principle of the “soul of the universe” as the Pythagoreans were teaching and as Plato described it as the self-bounding principle of a changing universe. The choice of figures to be woven in the *peplos* would change and would have to be innovations every four years. It was not meant to dress the goddess, but to be presented as a work of art chosen to hang in front of her huge statue inside of the Parthenon, as the *veil enveloping the universe*, and representing on it the great deeds that the Greeks perpetrated in the name of Athena’s wisdom.



Figure 10- Are the Archon and the boy folding or unfolding the *peplos*? [British Museum.]

The ceremony of the *peplos* represented the exact moment just before or just after the climax of the ceremony, but it is not the climax itself. Therefore, on the one hand, if it is before the climax, then, the priest and the little boy are folding the old *peplos* that was hanging inside of the temple for the last four years, and they are waiting for the new *peplos* to arrive with the oncoming procession. On the other hand, if it is after the climax, then, the Archon and the small boy are unfolding the new *peplos* that has just arrived with the first participants of the procession and they are preparing to enter the temple and replace the old *peplos* by the new for the next four years. Which one is it? Is it the one going out or the one going in? Does it have to be one or the other? Can it not be both or neither? Here, it is as if the observer were without a leg to stand on!

The point is that the question must be left undecided! And this ceremonial must be repeated, again and again, in this ambiguous form, every four years and in the same undecided manner. Why? Because the paradox is that the ceremony of the *peplos* reflects the moment of change in the creative process, and, yet, this is done in one of the most static figures on the entire frieze. The beauty of Greek sculptures of that classic period is that they never represent the climax of an action, but always the mid-motion of a process

of change. The same thing is happening here. The *peplos* is neither this one nor that one, but, in reality, this one becoming changed into that one.

Like the Chora of Plato in the *Timaeus* (52, b and c.), “the nurse of becoming,” the *phase space of change* is neither this of that, but the becoming of *this* in the process of changing into *that*. Since this is the case, then, Pheidias has rendered in stone the most beautiful ambiguity of the process of creativity, the ontological infinitesimal reflecting the passing from the before into the after, of the old into the new, of the past into the future, as if it were a musical interval of transformation that lies in between the notes. No wonder the gods are sitting down on this one and are looking the other way. They are all baffled by such an exquisite ambiguous moment!

6- THE FAMOUS STORY OF HOW ARCHYTAS STUNNED THE HIGH PRIEST OF THE ORACLE OF DELPHI.

One day, the priests of Apollo found a way to triumph against their political enemies and invented a way to manipulate Greek city leaders by creating what can be called the first form of “Politics for Dummies.” This was the International Institute for Strategic Studies (I. I. S. S.) of ancient Greece and the mother of all Venetian type of think thank institution that has been manipulating nations of the world into wars since immemorial times.

As the legend goes, the Olympian god Apollo was given the task to destroy Python, the Serpent-son of Gaya, the great mother earth, who was guarding a rock chasm on the Island of Delphi, and whose so-called “natural vapors” had the property of inebriating man with the gift of prophecy; that is, something similar to the hot air coming out of the U.S. Congress nowadays, except with more gusto. This act of violence by Apollo symbolized the superiority of cleverness over dumbness and was used to emphasize the superiority of Greek civilization over the barbarities of the Persians. This is how sophistry was created as a way of replacing reason, creativity, and the pursuit of universal principles.

So, to make a long story short, Apollo was appointed by the Olympian gods to protect this mysterious, but “natural” source of secret knowledge at the Oracle of Delphi, and he was endowed with its awesome powers. The task of voicing these oracular prophecies was given to a Pythian priestess whose cryptic utterances were then interpreted by the priests of Apollo for the dummies. From that standpoint, the reasons for the destruction of Greek civilization are therefore not difficult to understand. As historian Furio Durando stated in his book with a straight face: “The Reasons for Delphi’s prominent role in religious and political matters, especially in the 7th and 6th centuries BC, are thus not hard to imagine: here, at the navel of the world, all initiatives of the Greeks – from founding colonies to waging wars – were condoned or vetoed by the deity, through the prophecies and replies of the oracle.” (8)

Now, the question is: what was the real truth about the Oracle of Delphi? What I have just summarized, here, is the version for dummies. However, for those who wish to think things through for themselves, the real secret to this oracle lays in understanding the difference between knowledge and belief? And, that difference is best exemplified by the following story about how Archytas stunned the high priest of the Oracle of Delphi. (9)

One day, in ancient Greece, around 360 BC, the great Pythagorean genius, Archytas, made famous for having discovered the solution for the doubling of the cube, was invited by the high priest of Apollo to come to the Oracle at Delphi in order to explain to him how he had been able to make his discovery.

Legend has it that before the turn of the fourth century, the priesthood of the Island of Delos was seeking relief from a terrible plague by asking help from the Oracle of Apollo at Delphi. The high priest of Delphi told the Ionians that they could only stop the plague by doubling the volume of the cubic altar of Apollo in their city. It was Archytas who discovered the solution of that problem by means of intersecting three solids of revolution, a Cone, a Torus, and a Cylinder. On that day, Archytas truly became the greatest Delian Hero of all times.

Although the high priest of Delphi had diligently investigated the matter for several years, he was not, himself, successful in discovering a solution to this, yet, physically constructible problem. He was at his wits end when he finally requested the presence of the only authority that could give him the answer he was seeking. He had asked the Pithy many times, and no matter how much he would drug her with his secret vapors, she remained completely baffled and silent.

When Archytas arrived at Delphi, the high priest immediately brought him to the Oracle and asked him: "What is the secret of this doubling of the cube?" Archytas did not give him the clear answer that he wanted. He merely gave him a hint, a sort of riddle that the high priest had to resolve.

The reply was a sort of jumble of words and letters that appeared to make no sense at all: "YOU SEE H D SNAF DINK LLA."

The high priest was stunned and looked insulted. "How can you give me such mumbo jumbo? I use this method myself all of the time with people who come here to ask for answers."

"That is precisely what the problem is," retorted Archytas, "you give riddled answers and not a method to acquire knowledge. What I am giving you is different. I am not giving you an answer; I am giving you the principle of my method!"

"What method?" asked the high priest, in an attempt to calm his anger.

“The following,” said Archytas. “Write all of the 19 letters separately on pieces of paper and reconstruct the sentence in such a manner that it makes sense.

“I see,” said the high priest, “the ordering of the letters when joined together differently will make a phrase easy to read and to comprehend.”

The Oracle high priest, being a well-trained Satanist, used his old inversion trick and started to look at the language in reverse. After a few minutes, the high priest was all smiles and came up with the following answer: “SEE YOU ALL KIND FANS, DH. There you have it, Delian Hero, I now know that you have been using the same method that I use to trick people into doing what I want. So, now that you have had your laugh, I know by your answer that there is no real solution to the doubling of the cube, as I always suspected, but that you have concocted a very subtle and crafty way to give people an *intuitive sense* that it is doable simply by rotating a Cone, a Torus, and a Cylinder. And, thus, you have generated the idea of a complex domain. That is very good!”

“No,” said Archytas. “You are wrong! That does not make sense and what you say is pure sophistry. There is an inversion, all right, but it is not that one. And that inversion can only be discovered if you do the construction yourself and if it is not based on what someone else tells you is the answer. As I told you before, my answer is not an answer, but a principle of method. And that principle is: SEEK AND YOU SHALL FIND!”

CONCLUSION: THE SOUL “HERSELF REVOLVING WITHIN HERSELF.”

Since this method is the same for Pheidias as for Archytas, then it becomes evident that the celebrating procession of the *peplos* was the celebration of a “*heroic painting*” in the sense of Alexander von Humboldt and of Frederic Church. It was the celebration of the creative solution to the tragedy of Greek civilization; that is, an actual break with the tradition of the Olympian gods and their capricious Delphic prophecies.

Thus, the method was displayed in the best “tapestry” that Greek artist weavers could produce every four years to celebrate the creative process of the power of reason. Unfortunately, not a single trace of such a *peplos* has survived to this day. There exist records, however, of different workshops of Greece where artists such as Akesas and his son Helikon from Salamis had worked and had won one of the earlier Panathenaia. The artists would submit their specimens (*paradeigmata*) to a jury-panel that would decide on the winner. Thus the celebration was also a national consecration of the best artist-weaver of ancient Greece at that time.

Finally, Pheidias left us with a very difficult question to answer: How can an artistic composition replicate the inner soul of universal motion as the expression of the boundary condition of the universe? That was the Platonic question that Pheidias raised in all of his sculptures. And this is how the greatest American artist, Benjamin West,

answered the question by showing how Pheidias “drew an inward mind on the outward contenance of the universe:”

“The Greeks were in architecture what they were in sculpture; and it is to them that you must look for the original purity of both. [...] It is the mental power displayed in the Elgin marbles [i.e. the Parthenon frieze] that I wish the juvenile artist to notice. Look at the equestrian groups of the young Athenians in this collection, and you will find in them that momentary motion which life gives on the occasion to the riders and their horses. The horse we perceive feels that power which the impulse of life has given to his rider; we see in him the animation of his whole frame; in the fire of his eyes, the distention of his nostrils, and the rapid motion of his feet, yielding to the guidance of his rider, or in the speeding of his course: they are, therefore, in perfect unison with the life in each. At this moment of the animation they appear to have been turned into stone by some majestic power, and not created by the human hand. The single head of the horse, in the same collection, seems as if it had, by the same influence, been struck into marble, when he was exerting all the energy of his motion. These admirable sculptures, which now adorn our city, are the union of Athenian genius and philosophy, and illustrate my meaning respecting the mental impression which is so essentially to be given to works of refined art.” (10)



Figure 11. Pheidias, *Theseus Attempting to Calm His Runaway Horse*. West façade of the Parthenon frieze. (Photo: Alison Frantz, in *The Parthenon Frieze*, Oxford University Press, New York, 1975.)

This horse calming scene is attributed to Pheidias, personally, because of the extraordinary quality of the sculpture. The state of balancing in mid-motion between the spookiness of the horse and the control of Theseus attempting to calm him is expressed in every fiber and muscle of the horse's body, including the exerting veins of its excited face and stomach and the frightened look in its eye. However, it is the passion and the creative mind of man that are celebrated through the movements of such a figure, not the features of a horse. It is the soul and mind of man mastering the laws of the universe that is exhibited here as being different from the animal. The horse is merely the physical envelope of a state of mind that is being exhaled and is percing through the dense matter of the marble. Such was the whole purpose of representing the Great Panathenaia procession and the function of its *peplos* ceremony, its ontologically efficient reality.

Thus, it was the principle of creativity that Pheidias had in mind to celebrate in his Parthenon frieze, as a means of efficiently getting out of the box of the tragedy of Greek society, that is, creativity as the only solution to escape the tragic. And the simultaneity of eternity was the dynamic principle of reliving and rejuvenating the ceremonial procession of change all around the Parthenon with new artists and new participants every four years! This is why all of the friezes are so lively; even the bolting and head twisting of animals imitate each other in the process of the reconstitution of the historical event in the simultaneity of the reflection of celebrating the power of reason in the past, present, and future.

This frieze is, therefore, about you the participant of such a celebration and about your power of being a self-reflexive creative human being capable resolving the paradox of expressing the workings of the mind upon the external form of the universe; that is, of making discoveries that enrich mankind as a whole within the noosphere. Thus, the identification by Plato of creativity as the soul of the boundary condition of a finite universe: "And the Soul, being woven throughout the Heaven every way from the center to the extremity, and enveloping it in a circle from without, and herself revolving within herself, began a divine beginning of unceasing and intelligent life lasting throughout all time." (11)

NOTES:

(1) For further discussion on conical spiral action and the golden section, see Pierre Beaudry, *The Acropolis of Athens, The Classical Idea of Beauty*, American Almanac, The New Federalist, June 24, 1988.

(2) Quoted by A. W. Lawrence, *Greek Architecture*, Yale University Press, New Haven, 1996, p. 126.

(3) The poetical use of double meaning is always present in Greek poetry, philosophy, and artistic composition. American archeologist, John Magruder Mansfield made that point quite explicit by recovering the “second” meaning of the term *peplos* in his doctoral thesis on the subject:

“By a special usage among the Athenians, *peplos* means the sail of the Panathenaic Ship, which the Athenians fit out for the Goddess, every four years, and which they also escort in the procession from the *kerameikos* as far as the *Eleusinion*. They call the sail a *peplos* because it is made of wool.”

“The scholiast implies the opposite of what this note is cited by modern scholars to prove: the author does not say that the robe (*peplos*) of the statue of Athena was displayed in the procession of the Great Panathenaia as the sail of the Panathenaic Ship, but that in Attic, the term *peplos*, generally “woolen cloth”, refers to specifically to the (designated) sail of the Panathenaic Ship – not that the *peplos* (“robe”) was displayed as a sail, but that *peplos* (“tapestry”) was the proper term for the “sail” of the ship.” (John Magruder Mansfield, *The Robe of Athena and the Panathenaic “Peplos”*, University of California, Berkeley, PHD Thesis, 1985. p. 16.)

Anyone who has investigated the intricate growing pattern of the self-developing spiral action of a nautilus will understand what I am talking about, here, when I say that the builders of the Acropolis were the best intelligence officers of Greek Civilization and the construction of the Parthenon was an architectural paradigm, a pedagogical experiment reflecting the nature of creative axiomatic changes. The function of that power was, in political terms, the strategic means of undermining the Babylonian fallacies behind the imperialist priesthood of Delphi representing the eastern imperialist oligarchical tradition that ultimately destroyed classical Greece by leading it into the Peloponnesian Wars. Thus, the knowledge embodied in the construction of the Parthenon represents, historically, one of the best means of discovering the existence of universal physical principles, solving the tragic dilemma of Greek society, and applying the same solution in today’s strategic situation.

(4) According to the Greek Ministry of Culture: “The frieze of the Parthenon forms a continuous band with scenes in relief that encircles the upper part of the **cella**, the main part of the temple, within the outer colonnade. The theme represented was the procession toward the Acropolis that took place during the Great Panathenaia, the festival in honor of the goddess Athena. The frieze had a total length of 160 m. and was 1.02 m. high. Shown in the procession are some 360 human figures and deities and at least 250 animals, chiefly horses. Groups of horses and chariots occupy most of the space on the frieze. The sacrificial procession is next, with animals and groups of men and women bringing ceremonial vessels and offerings. In the middle of the east end, above the entrance to the temple, is depicted the high point of the Panathenaia, this festival of many

days duration. The procession ends with the giving of the **peplos**, the gift of the Athenian people to the cult statue of the goddess, a xoanon (ancient wooden statue) called "**diipetes**" because it was thought to have been sent down from heaven. Left and right of the peplos scene sit the twelve gods of Olympus.}"

<http://www.ekt.gr/parthenonfrieze/introduction/history.jsp?lang=en>)

(5) Lawrence, Op. Cit., p. 114.

(6) Athena was the goddess of Wisdom and Cunning, goddess of War, and goddess of arts and crafts. The most revealing aspects of the personality of Athena is described by Plato in his Cratylus. On the etymology of the name of "Athena" by Plato, see: *Plato, Cratylus 406d*.

" Hermogenes : Still there remains Athena, whom you, Socrates, as an Athenian, will surely not forget; there are also Hephaistus and Ares.

Socrates : I am not likely to forget them.

Hermogenes: No, indeed.

Socrates: There is no difficulty in explaining the other appellation of Athena.

Hermogenes: What other appellation?

Socrates: We calle her Pallas.

Hermogenes: To be sure.

Socrates: And we cannot be wrong in supposing that this is derived from armed dances. For the elevation of oneself or anything else above the earth, or by the use of the hands, we call shaking (*pallein*), or dancing.

Hermogenes: That is quite true.

Socrates: Then that is the explanation of the name Pallas.

Hermogenes: Yes, but what do you say of the other name?

Socrates: Athena?

Hermogenes: Yes.

Socrates: That is a graver matter, and there, my friend the modern interpreters of Homer may, I think, assist in explaining the view of the ancients. For most of these, in their explanation of the poet, assert that he meant by Athena *mind (nous)* and *intelligence (dianoia)*. And the maker of names appears to have had a singular notion about her, and indeed caller her by a still higher title, divine intelligence (*theou noêsis*), as though he would say, this is she who has the Mind of God (*ha theonoa*) – using alpha as a dialectic variety of eta, and taking a way iota and sigma. Perhaps, however, the name *theonon* may means *she who knows divine things (theia noousa) better than others*. Nor shall we be far wrong in supposing that the author of it wished to identify this goddess with moral intelligence (*en êthei noêsis*), and therefore gave her the name *Etheonoe*;, which, however, either he or his successors have altered into what they thought a nicer form, and called her Athena." (Plato, Cratylus 406d – 407c. Translation by Benjamin Jowett.)

(7) National Documentation Centre - Ministry of Culture.

(8) *Ancient Greece, the Dawn of the Western Civilization*, VMB publishers, Italy, 2008, p.207.

(9) This segment of the report was written on Memorial Day, 5/28/07, in commemoration of the great fighter, Yudel Rosenberg, who wrote {*The Astonishing Story of the Torah That Fell to the Floor on Yom Kipper*}, in {*The Golem*}, Yale University Press, 2007.

(10) Benjamin West, *On the Philosophy of Character*, John Galt, *Life, Studies, and Works of Benjamin West*. Part II, p. 150.

(11) Plato, *Timaeus*, 36.e.

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