Spring 5-14-2013

Polykleitos: A Canon of Beauty and Perfection

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RESEARCH METHODS

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5-14-3013

Polykleitos: A *Canon* of Beauty and Perfection

When one uses the term ‘antiquity’ they usually think of ancient Rome and ancient Greece. This usually comes to mind since they are the most referenced ancient cultures from history. The ancient Greeks are thought of as great innovators in all academic fields, making advances far beyond their own time. Ancient Romans, although, were a great influence but they borrowed from the Greeks. The surviving knowledge of the ancient Greeks is attributed to the Romans, for without their faithful copying and studies of prized Grecian sculpture most would have been lost to time. Most Greek ‘originals’ were lost but Roman accurate copying allows us to gain entrance into Greek culture, life, and art.

The ancient Greeks were innovators in the academic fields of geometry, mathematics, and literature, and were proficient in the arts, as well. They believed that all aspects were significant in the overall knowledge of an individual. They educated their people in all of the fields. Mathematicians knew artistic theory and artist knew science and math. The Greeks believed that art could not exist without the use of math and science. Artists incorporated math and science into their artistic theories; the best of which can be seen in the sculptural works in the Greek mature style.

Ancient Greek art is referred to as the classical period in antiquity. Just, as every other style although Greek art followed the evolution of a beginning, middle, and a death. The middle is usually the mature period of a style. For, the ancient Greeks their mature style, called the High Classical, was during fifth century BCE. This period specifically becomes the most referenced and copied in later movements. The artworks that are produced during the high classical can be

seen as the perfection in Greek art and too many in art in general. Since it has gained the name, 'Golden Age.'

The Golden Age refers to the innovations and advanced ideas of ancient Greek artists. They effectively combined math, science, and art and were able to produce incredibly accurate works; the liveliness and sensuous aspects seen in works are remarkable in this period. One of the foremost contributors was a sculptor named Polykleitos. He developed a theory that used math and science to create art. His body of ideas is called the *Canon* of Polykleitos and is manifested in his sculptures. Greek sculpture is one of the most important aspects in later artistic theory and specifically, Polykleitos. His *Canon* becomes a sort of law to follow to produce life-like figures and remains the ideal for rendering figures for centuries to follow. Polykleitos developed a scientific system and approach to render a human figure. Polykleitos' *Canon* becomes the most important component in proportion, balance, order, and beauty in artistic theory and is referenced several times throughout the evolution of art theory.

Golden Age

The Golden Age occurred during the fifth century from about 450-400bce, commonly accepted as the mature state of Greek art. Most innovation in techniques and theories occurs during this short time. Artists began experimenting with science and mathematics as tools to enhance the realism in their works. As, compared to the works of the sixth century that were very stiff and rigid, the works of the fifth century become more loose and realistic in a certain manner. They developed certain systems in order to render an ideal of nature that was held as believable as possible within a work. They idealized their works and they became to a point so abstracted that they could not be found in reality.

They created systems of proportion using mathematics. This system was used in particular when creating a human figure, but it extended to all areas of art. Artist believed this system allowed for the closest representation of perfection and used these techniques as the fundamental principles in the creative process and the execution of a work. Their art was not divinely inspired, although it depicted images of gods, it was defined logically. Yet, the figures of this era tend to have a divine quality about them and the idealized forms cause the viewer to question their morality. They developed symmetry to allow for the perfect balance in a figure. Symmetry and balance also allowed for a structured order to their works. They developed various techniques to convey a more believable motion. The artist attributed with the innovation of most of these techniques is Polykleitos who created a canon that became an artist law in Greek society.

Polykleitos was from Argos in the Peloponnesus. The exact years of his life remain unknown but his sculptures date him to the fifth century before Common Era. He is considered one of the most influential characters of Greek sculpture and theory, and is now considered one of the greatest sculptures in all of art history. His ideas and theories are called the *Canon*. The original text is lost but between his surviving works, the works of his followers and writers from the fifth century, enough information can be collected to give a general idea of what the body consisted of. The canon is believed to have been a scientific system of proportion, *symmetria*, and idealization to create works that he believed to be the manifestation of beauty and perfection. It has been long debated by many scholars as to exactly what were Polykleitos' intentions, but it is quite obvious if one carefully observes his statues and the works of artist who followed the *Canon*.

The *Canon*

The *Canon* by Polykleitos is believed to have been a system in which he used science and mathematics in executing works. The *Canon* was an innovative method that he believed allowed for the rendition of beauty and perfection. He believed that by using this system that the ideal representations of nature would be possible. Ideally, this system applies to the human body. There are two key aspects to his *Canon, symmetria* and proportion. These two are viewed as the most radical but most effective of his techniques and these two become the most important aspects to later art theory. Beginning, with *symmetria,* or symmetry, is the technique Polykleitos created to harmonize and balance his figures. Pollitt states, "The *symmetria* concept is an aspect of one of the most deeply rooted and abiding feature of ancient Greek thought, both artistic and philosophical."[1] This idea of perfection and harmony was a strong aspect of Greek culture; Polykleitos explored these ideas further than any other artist. He was the first to write them all out in a treatise on sculpture for other artists to be able to follow. Lapatin states that, "Attached to *symmetria,* the commensurability of one part to another and of all parts to a whole, in an artistic design might have impressed Polykleitos and perhaps served as a stimulus for the creation of his *Canon*."[2] Polykleitos' concept of *symmetria* was that all parts needed to be equal and the measurements should be in unity, so in essence one part had to be harmonized with the other. This can be seen in the *Doryphoros, or* "Spear Bearer," by Polykleitos (fig.1), which is known among scholars as being the actual manifestation of his *canon*. Pollitt states, "*Doryphoros*

[1] Pollitt, *The Ancient View of Greek Art: Cristicism, History, and Terminology*. New Haven: Yale University Pres, 1974, 15.

[2]Lapatin, Kenneth D. S. "Polykletios, the Doryphoros, and Tradition ." *The Art Bulletin* 79 (1997): 148-156.

is recorded to have been a kind of display piece made as an illustration of Polykleitos' *Canon*."[3] The *Doryphoros* was created around 450bce and illustrates Polykleitos' concept of *symmetria* perfectly. Vermeule states, "This statue survives to give a new breadth and meaning to the career of a sculptor who must be ranked among the ten greatest artist of history."[4] The work is a sculpture of a youthful male in a standing posture with the weight of the figure shifting to one leg. He originally held a spear, but the spear no longer survives today. Polykleitos balanced each part of the body to give it a naturalist feel when viewing it in the round. Lapatin states how, "Polykleitos has broken down the motor capabilities of the body into a series of opposites for the purpose of schematic and clear exposition. The natural bilateral symmetry of the body allows him to compare and contrast left/right, bent/straight, and so on…"[5] By doing this Polykleitos was able to express the dexterity of the human body and allowed for a more believable effect of movement. The technique of a figure balancing its weight on one leg is called *contrapposto,* or "counterbalance." Vermeule states, "The relaxation and the tension of the standing walking pose, the sound construction of the frame, and the proportions of five parts for body to one part for the heard were all taken by the ancients as an indication the sculptors had brought a new level of science into his art."[6] This is a technique created by Polykleitos to show the bilateral symmetry already present in the body. These two aspects combined together allowed for sculpture to become more lifelike and believable not rigid and stiff like works of the sixth and seventh centuries with the *Kouros* (fig. 2). Polykleitos also created as system of proportions of

[3] Pollitt, J.J. *Art and Experience in Classical Greece* . New York : Cambridge University Press , 1972, 108.

[4] Vermeule, Cornelius C. *The Art of the Greek World: Prehistoric Though Perikles.* Boston : Department of Classical Art Museum of Fine Arts, 1982, 176.

[5] Lapatin, "Polykleitos," 2.

[6] Vermeule, *Art of the Greek World,* 175

measurements for the human body. He combines his theories of harmony and symmetry with proportions at an attempt to come closer to this concept of perfection that he strove for.

Polykleitos developed a system of proportions which was firmly founded in science and mathematics. It was another technique Polykleitos' used to produce 'perfect' figures, building on his concept of *symmetria* and the commemeasurablity of parts as a whole. In order to arrive at commensurability the proportions had to be equivalent and coincide with one another. As Pedley explains, "These proportions were thought to depend on the *symmetria* (commensurability) of the various body parts."[7] Once again, the *Doryphoros* illustrates this concept of symmetry, harmony and proportions as being vital to each other. Pollitt states, "Its arithmetical or geometrical proportions may have been measured; there is a visible harmony of counterbalancing forces achieved by arranging the parts of the body in a chiastic scheme according to *symmetria*."[8] He accomplished this through mathematics and precise measurement so that the body was in relation to the head, using a ratio of 1:1. Lapatin states that, "the proportional system was modular or fractional, based on an arithmetic or geometric mean, or on the golden section."[9] This ensured that all parts were equivalent and that the leg was correct in relation to the arms, torso, and so on. Pollitt states, "He created a form where commensurability of proportions existed."[10] He studied the body and mathematics to be able to render these figures. He used a more empirical approach to his process of depiction a human form. Lapatin states, "Polykleitos was equally interested in a carefully observed, empirical dimension to the rendering of the body."[11] He did not impose superficially the proportions or symmetry on the body instead he enhanced

[7] Pedley, John Griffiths. *Greek Art and Archaeology* . Upper Saddle River : Prentice Hall , 2012, 276.

[8] Pollitt, *Art and Experience*, 108.
[9] Lapatin, "Polykleitos", 3.
[10] Pollitt, *Art and Experience*, 108.
[11] Lapatin, "Polykleitos", 3.

the natural symmetry and proportion. He took figures and idealized their mass and proportions to represent his ideal of beauty and perfection. The system of symmetry and proportion was a technique developed to mathematically create perfection. Pollitt states, "when the sum total of all the measurements and shapes of a work are arranged with mathematical precision so as to form the equivalents of 'perfect numbers', the work as a whole becomes an expression of truth."[12] Polykleitos harmonized the various parts techniques to conceptualize these ideas of symmetry, proportion, and ultimately perfection. This for Polykleitos and the ancient Greeks alike was the manifestation of true beauty. Beauty could be represented by illustrating these techniques; for the Greeks there were two other aspects that constituted this perfect beauty.

Beauty for the ancient Greeks came in the form of an idealized male figure. Beauty is the final aspect of Polykleitos' *Canon*. Pollitt states, "The aim of the canon was not simply to explain a statue but also to achieve the beautiful in it."[13] Polykleitos believed that using *symmetria* along with the system of proportions an artist would be able to represent the beautiful nature within the sculpture. This concept of beauty to Greek artist was embodied in the idealized male nude. Pedley states, "Nudity is the key element in sculptures' attempt at the representation of perfection."[14] Polykleitos also held thus to be true, as which, is evident in his *Doryphoros* who is nude but also in a later work titled the *Diadoumenos* dated around 440bce (fig.3). Polykleitos thus continued Greeks sculptors' quest for idealized male beauty."[15] The *Diadoumenos,* a later work, is another that is said to conceptualize his *Canon,* but that the later work conceptualized the aspects of beauty long with symmetry and proportion allowing for a more emotional and

[12] Pollitt, *Ancient Veiw*, 23.
[13] Pollitt, *Art and Experience,* 122.
[14] Pedley, *Greek Art*, 277.
[15] Pedley, *Greek Art*, 277.

sensuous aesthetic feel. Vermeule states, "The *Diadoumenos* or fillet binder was the measure of Polykleitos as his concept of the athletic male figure led to something no less in its solidity but more graceful and attenuated in its detail; it conceptualities the very idea of beauty."[16] Both, the *Doryphoros* and the *Diadoumenos* are young idealized male nudes portraying athletic types. This type of figure becomes central to Greek theoretical approaches to beauty and perfection. Since the works of Polykleitos have been viewed as the embodiment of beauty for artists some aspects changed such as male nudity to female nudes but the fundamental principles of precise symmetry, measurement, and proportions remained a strong and influential theory for all artistic theory. That Greek sculpture of the Golden Age is the embodiment of perfection is an argument that scholars have long been debating. Is Greek sculpture the embodiment of beauty and perfection? These questions answers lay in the two works already discussed by Polykleitos' and the works of his successors and followers.

Perfection

In the minds of artists and scholars for many years held a view of the works and theories by Polykleitos as the manifestation of perfection. Lapatin states, "Perfection arises little by little from many numbers, it is widely considered that the canon to be the *Doryphoros* or spear-bearer, a tatued of a manly youth."[17] This is evident for the *Doryphoros* is an idealized, yet naturalistic male. Freeman states, "Polykleitos allied aesthetics with mathematics when he suggested that the perfect human body was precisely because it reflected ideal mathematical proportions which were capable of being discovered."[18] The *Doryphoros* is of perfect proportions where his body to

[16] Vermeule, *Art of Greek World*, 177.
[17] Lapatin, "Polykleitos", 1.
[18] Freeman, Charles. *Egypt, Greece and Rome*. New York: Oxford University Press, 1999, 244.

head ratio is one to five equal lengths. This gives the figure a believable realistic quality but it is much idealized when it comes to features and physique. Pedely states, "Polykleitos is known to have tried to combine ideal and real in a single image."[19] He accomplished this goal seemingly in works such as the *Doryphoros* and *Diadmenous.* These two figures portray perfect male physiques with beautiful features. The proportions are correct in relation to each other in a suitable manner. The posture and movement are fluid and anyone viewing would not question the bodies of these males. Freeman states, "The *Doryphoro*s was supposed to represent this ideal. If this approach was followed to its extreme, however, all statues would have had the same perfect, proportions but the Greek could not close their eyes to the variety of human experience."[20] The realness of the work allows for a deeper aesthetic response since we are not stopped at the surface focusing on the imperfections. The perfection allows the viewer to see beauty and it allows the viewer to see the artist original intent; it was meant to cause a view to think about it as a real human not as a sculpture. These works became guidelines or rules for artists to follow when creating a work of art.

Many artists referenced the *Canon* of Polykleitos when it came to rendering a figure; it became some kind of theoretical law for artists to follow. Pliny writes, "Sculptors call to the *Canon*; for it they see the basic principles of their art as if it was some master plan."[21] Later, it reached painting and architecture, as well. It was Polykleitos intentions to combine the scientific and artistic qualities together, seeking to combine the theoretical and practical side of proportional *symmetria* but it was not until the works of Praxiteles that this happened.

[19] Pedly, *Greek Art*, 249.
[20] Freeman, *Egypt, Greece, and Rome*, 244.
[21] Elder, Pliny The. *Natural History: A Selection* . London : Penguin Books , 1991.

Praxiteles was a famous sculptor from the Late Classical period of Greek culture. His exact years are unknown but his supposed period is dated off of his surviving works just as Polykleitos. Praxiteles was heavily influenced by Polykleitos but never blindly copied him, borrowing techniques to take Polykleitos' theories to a new level of realness. In his time art had evolved into more of an emotional aesthetic that intellectual. Pliny states, "Many artists used the *Canon* but not until Praxiteles does an artist use philosophy along with proportions to represent the human form intended by Polykleitos."[22] Artists, such as, Praxiteles still pulled from artists like Polykleitos but added an emotional, sensual aspect to the intellectual qualities. This can be seen in the works of Praxiteles. Vermeule writes, "The Praxitelean vision of the softened human form is in a greater arc of, its surroundings developed out of the *Diadoumenous* and other mature experiments of Polykleitos."[23] This can be seen in his work, *Hermes with the Infant Dionysus*, created around 300-320bce (fig. 4). It too, only survives as a Roman copy. Here, we can see the strong influence of Polykleitos' idealization with perfect proportions. The figure of *Hermes* is in *contrapposto*, just as the *Doryphoro*s, shifting his weight to one side, holding something in the adjacent arm, in this case a child and not a spear. The figure by Praxiteles, although, is even more realistic and lively than that of Polykleitos. He gives *Hermes* a very sensuous flesh, a breathable imitation of flesh, muscle, and the overall structure of the male. Pedley writes, "Realism of bone and muscle, hair and flesh, of this athletic figure is integrated into a concept of the ideal which is dependent somehow on a system of mathematical proportions."[24] The flesh of *Hermes* is sensuous and pliable it looks to be soft to the touch as where the *Doryphoros*, yes it is

[22] Ibid.
[23] Vermeule, *Art of Greek World*, 175 .
[24] Pedly, Greek Art, 277.

realistic, but it still has a static and rigid aesthetic feel when it comes to the flesh of the spear-bearer. It has more of a hard, marble quality than the *Hermes*.

Another work of Praxiteles that illustrates the influence of Polykleitos is the *Aphrodite of Arles* created around 375-340bce (fig. 5). The Aphrodite also is of perfect proportions and is in a *contrapposto* pose. Vermeule states, "The same contrast of motion, delicacy, and solids occurs as the eye passes down the torso to the thighs and calves."[25] In this work Praxiteles introduces the use of drapery to demonstrate his mastery. The figure is more sensuous than any of Polykleitos' works. The female form represented by Praxiteles looks to be of a true woman, though she is too idealized. The artists of later centuries combined the theoretical side of giving sculpture a 'real' aesthetic quality with the practical flesh and realism of the body. The ideals of Polykleitos were transformed to address the emotional aspects of humans that artists realized needed to be present within a work. The ancients were not the only followers of Polykleitos; the artists of the Renaissance revived works such as these and applied them to their 'contemporary' motifs.

The Renaissance was the revival of ancient Greek texts and works. The *Canon* of Polykleitos was one of the many works that were, so called "revived." During, the Renaissance the intellectual component of the fine arts became very important to artists such as Michelangelo Buonarroti. He believed in the use of science and mathematics in the creative process of art. The *Canon* by Polykleitos intrigued them because it was an ancient text that had already clearly laid out the foundation of the idea that they were attempting to achieve. They held the theories of perfection and beauty created by Polykleitos as 'perfection' itself. Renaissance artists though added their own techniques and identities when creating works. For, the most part, artists were

[25] Vermeule, *Art of Greek World*, 176.

able to render works entirely by using the canon from antiquity. Michelangelo's *David* from 1504 (fig.6) is a great example of the revival of ancient theology. His David is a youthful nude male. The figure is idealized and Michelangelo used correct proportions in the various body parts. Michelangelo, however, would have used *giudizio dell' occho,* which translates as, "judgment of the eye," as the final word in a project; he would not rely solely on mathematics, as Polykleitos would have. Both ancient artists and Renaissance artists were attempting to imitate beauty and nature; they wanted to represent the perfection that can be found in nature. Was this the case? Were the works of the ancients the embodiment of perfection? Were there systems of proportion and symmetry accurate? Are the theories of Polykleitos still valid and plausible theories? The combination of the various aspects does allow an artist to reproduce realistic renditions of nature and their surroundings, but they are not perfect.

Is it perfect?

There are several aspects that need to be analyzed and taken into account before we can give a definite answer to whether or not Greek art is the embodiment of perfection and is still a valid theory in the production of art. The Greeks were some of the greatest contributors to artistic theory. As I have already discussed Greek sculpture has been viewed as perfection by later artists, especially in the Renaissance. Their ideas of symmetry and proportion did allow for artists to be able to render believable forms. They believed this allowed for perfection and beauty to manifest within a work and become visible to the viewer. The sculptures of antiquity did possess both qualities of beauty and greatness, but not quite perfection. The techniques of *contrapposto* and symmetry do not allow for a complete range of motion; the motion created by these techniques is very limited. The proportions also limited the range of motion in a figure because proportions change according to the position of a body. A leg slightly bent in

contrapposto cannot give the effect of a figure running but one merely stuck between a walking and stationary pose. Taking, Polykleitos' *Doryphoros* as an example one can clearly see this friction in the movement of the figure. He clearly is in some type of activity but is seemingly froze in that moment unable to move in reality. The proportions do appear accurate and very believable, but to render it completely 'true' the proportion of that leg would not be equivalent to the other parts; it would need to be foreshortened. The idealization of the figures was thought to bring them closer to this idea of 'perfection' which it does in a Photoshop sense, it is not an accurate representation of reality. There is no real body in an existence that consists of perfect proportions. The muscular structure of the *Doryphoros* and the *Diamendous* is so overtly idealized that it would impossible for a real man to build such a physique. The system of *symmetria* and proportion allowed for realistic representation not a naturalistic representation.

The works by Praxiteles and Michelangelo are more sensuous than those of Polykleitos, which brings them closer to a perfect and naturalistic representation but they still fail to fully realize a truly perfect figure. Beginning with the *Hermes* and *Aphrodite* by Praxiteles, both follow the *Canon* but the way in which he executes the flesh allows them to come alive in a way that the *Doryphoros* is lacking. The flesh looks pliable and if you were to touch it would be soft; the *Doryphoros* appears ridged and hard. The poses of the Hermes and Aphrodite are in the same *contrapposto* pose with the weight shifting in one leg counterbalancing the figure. It gives them a feeling of movement but once again it is a movement that seems to be frozen. The proportions cause it to have a rigid appears and limits the range of movement since the perfect ratios would only work on a figure that is in a fixed position. The works of Praxiteles also have an emotional aesthetic; his works possessed both, intelligence and human emotion. The works are not only mathematical correct or in this so called 'perfect' form but they also are accurate in the emotions

and thoughts portrayed by the two statues. The work of *Doryphoros* purely portrays the intellect of the figure. Praxiteles, also idealized the Hermes and the Aphrodite such as Polykleitos's *Doryphoros*. The idealization though keeps them from being perfect in a real sense. They were trying to represent their idea of beauty which they thought was only successful through mathematical proportions and the idealization of the figure's features. Renaissance artists, however, believed that these two components alone were not enough to achieve this concept of 'perfection'.

Michelangelo attempted to achieve perfection through the use of proportions, *symmetria*, harmony, and idealization, but he combined it with his technique of *guidizio dell'occho*. Using, his 'judgment of the eye' he was able to optically correct the figures proportions and position to give it a more believable sense of motion. He began the figure with the fundamental principles of proportion and symmetry, but he never fully relied of them. Taking, his *David*, as already stated is a direct reference to the *Doryphoros* in their pose. *David* is in a *contropastto* pose as all the other figures. He is a youthful male with an idealized physique. The technique of *guidizo dell' occho* allowed Michelangelo to more fully realize the motion of the figure than that of Polykleitos, and of Praxiteles. He realized that to portray the motion some parts would not be equivalent to the whole; but in doing this it made it appear more correct. Polykleitos would have strongly disagreed with this notion as explained by Pollitt, "Perfection arises through numbers, they make a slight deviation in each part and in the end these add up to a large error."[26] Michelangelo knew that these slight deviations were of necessity. The emotion is more visible and he interacts with the spectator unlike the distant mind of the *Doryphoros*. The *David*, however, fails to break from the un- naturalistic quality that it possesses because of the extreme

[26] Pollitt, *The Art of Ancient Greece: Sources and Documents* . New York : Cambridge University Press , 1990

idealization. The viewer can in no way relate to the physical forms of these figures causing them to be thought of as a being higher than human. The body portrayed is not believable of possessing life. There is now way of achieving these ideas of 'perfection' or 'beauty'. This is not to say, however, that some aspects are not correct in the ability to truly represent a figure that is naturalistic and in turn perfect. The ideas of beauty and perfection can only manifest in nature not in some ideal that is held of nature.

Conclusion

Although the Greeks and the artists of the Renaissance ultimately failed at achieving a true form of perfection and beauty, they are still viewed as the biggest contributors to art and art theory. Ancient Greek sculpture for many centuries was viewed as the perfection in sculpture and in many ways all art. They used proportions and *symmetria* at an attempt to create the perfect human form. The *Canon* of Polykleitos was an ancient treatise that clearly laid out the fundamental principles of proportion and *symmetria*. In the *Canon* is the first time that art is directly related and incorporated into mathematics and science. He used a very rigid system of ratios and measurements to create what he believed the ideal human form. The actual text of Polykleitos is lost but it can be seen in his sculptures and works of those he influenced. These artists believed also that the true form of 'beauty' could be manifested in a work through the idealization of the figure. Polykleitos also introduced a pose, *contrapposto*, where the artist was able to shift the weight of the figure giving it a sense of motion. Ultimately, they failed to achieve a representation of perfect and therefore naturalistic. Each work appears to be of a somewhat human form but one that is above us in spectrum.

Renaissance artists came closer to achieving this ideal of the human form but still too they ultimately failed to realize this. They used the ideas derived from the texts and statues of

antiquity, such as the *Canon*, but they used judgment to allow for a more believable range of motion, but still the idealized figures of the renaissance still had an unrealistic quality because of the idealization.

Michelangelo's *David,* does possess many qualities that are lacking in the ancient statues. Such, as the realization of movement and the optical correction of proportions. The judgment used in the renaissance by such artists made the figure appear more optical correct when being viewed from all angles. The *David* thus broke free of this frozen in time aspect that keeps the statues of antiquity further from a naturalistic work. The theories of both the ancients and of the renaissance are arguably the most influential aspects to art theory. They become the most referenced periods not only for art but for their advancements in mathematics and science. They are mainly praised for their ability to affectively combine the two and create works that seemingly pass all generation before and in-between the two. But the ideas of being able to achieve some type of ultimate beauty and perfection in nature is impossible through the use of mathematics. It is seemingly impossible altogether to represent these ideas simply because they do not exist; especially in nature since nature is constructed randomly and not mathematically. It is only realized in each individuals perception there is no one true form of perfection and beauty that can be found in nature.

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Illustrations

Figure 1: Polykleitos, *Doryphoros*, 450bce. (Accessed from Artstor.com, 4-28-2013).

Figure 2: *Kurros*, 600bce. (Accessed from Artstor.com, 4-28-2013).

Figure 3: Polykleitos, *Diadoumenos*, 440bce. (Accesed from Artstor.com, 4-28-2013).

Figure 4: Praxiteles, *Hermes and Baby Dionysous*, 320bce. (Accessed from Artstor.com, 4-28-2013).

Figure 5: Praxiteles, *Aphrodite of Arles*, 375-340. (Accessed from Artstor.com, 4-28-2013).

Figure 6: Michelangelo, *David*, 1504. (Accessed from Artstor.com, 4-28-2013).