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## Chapter 5: A detailed study of the emergence and significance of contrapposto

J.L. Benson

*University of Massachusetts Amherst*

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## V.

# A DETAILED STUDY OF THE EMERGENCE AND SIGNIFICANCE OF CONTRAPPOSTO

## INTRODUCTION

My views on the origin, emergence and meaning of contrapposto have been presented in a general way and in discursive fashion in Chapter IV. In Chapter V my intention is first to concentrate more narrowly on the “motor” aspects of the development of contrapposto statues and the reflection of this in relief, on the one hand, and, on the other, to widen and broaden the concept of the interlocking of contrapposto and Four Elements philosophy.

The first of these aims is addressed by presenting in chart form a characterization of each of the major steps involved in the development of dynamic ponderation in the Classical period. This is achieved by analyzing in a brief technical fashion, with frequent summaries, the selection of free-standing and relief sculpture presented in figures 40–58. Some of these have already been discussed in a somewhat different way in Chapter IV. In addition to the charts, I have prepared schematic colored sketches of the same sculptures, as presented in Illustrations 2 and 3. This condensation allows one to see on one page the entire series of metamorphoses of the free-standing figure (Ill. 2) and again on one page the corresponding metamorphoses in relief sculpture (Ill. 3). As to the use of these materials, my suggestion is that the reader work through the charts first before turning to Illustrations 2–3. However, even prior to studying the charts, the reader is requested to read the following discussion of the Canon, to which all else is “keyed”.

## THE CANON<sup>1</sup> AS EVOLVED PROTOTYPE

In order to give the middle reference point on which my analysis of Early to Late Classical statues hinges, I proceed here to a description and interpretation of the Doryphoros (Figure 38 and Figure 47):

- The energetic leg: R and forward, crossed by the energetic L arm with shoulder up and back.
- The relaxed leg: L and back, crossed by relaxed R arm with shoulder down and forward.

This arrangement produces perfect cross-balance, but obviously not in the static sense of the Archaic kouros, whose head as fifth unit is placed absolutely frontally between L and R. In contrapposto, by contrast, all the parts to be unified must imply movement, including the head. In the Doryphoros, the upper torso bends slightly to the R and forward in sympathy with the exhalation of the breath and consequent settling of the members. This might pull the head to the right but that is not the only factor. While the general effect of the pose is to emphasize R and forward, implying consistently a harmony of activity, the turn of the head in that direction denotes its *own* special kind of activity, which may here be described as alertness.

From the earliest evidence to Aristotle (at least) the Greeks valued R and forward as noble and positive, auspicious—and L and back as inferior and negative, unlucky.<sup>2</sup> Thus in the most concrete, physical way imaginable the *Canon* embodies not only artistic harmony on the dynamic level but also, on the active level, the exemplary moral/social qualities as these were understood by the culture that generated them.

## THE DEVELOPMENT OF DYNAMIC PONDERATION

### Early Classical

<i>Statue</i>	<i>Description</i>
Kritios Boy (Athens NM 698) (Figure 39)	Energetic L leg back; head R Relaxed R leg forward

*Comment*  
No crossing. Carried over from kouros scheme: shoulders level and frontal, arms at side, one leg forward. The head R with energetic L leg emphasizes the weaker side discordantly but detachment is the viewer's primary impression of the figure's mood.

<i>Statue</i>	<i>Description</i>
Charioteer (Delphi Museum) (Figure 40)	Pelvis apparently horizontal but torso twisted R, head R following energetic arms R.

*Comment*

The artist broke with Archaic tradition only by twisting the torso, implied under the garment. Orientation to R suits the pose by emphasizing alertness and strength.

*Statue*

Oinomaus (Zeus temple E.) (Figure 41)

*Description*

Energetic R leg back, crossing energetic L arm. Relaxed L leg forward; somewhat relaxed R arm. Head slightly L(?).

*Comment*

Crossing is attempted but not carried through systematically. It is not clear how much the head turns L. Shoulders still level and frontal. Most important innovation is making R leg energetic but it is still back.

*Statue*

Apollo (Zeus temple W.) (Figure 42)

*Description*

Energetic R leg back, head R. Relaxed L leg forward.

*Comment*

Shoulders are still level and frontal and both arms are to some extent energetic, so no clear-cut crossing results. But a strong emphasis on R leg, arm and head to R gives the pose an extraordinarily dynamic directionality.

*Summary:* the Archaic-Protoclassical convention of setting one leg forward is continued and applied to the relaxed leg. In earlier times the forward leg was consistently the L, suggesting a tension between the two sides, even though not a difference in weight. The designation of the L leg as relaxed and forward is the most usual Early Classical practice and shows a grasp of the fact that there is more force to the R side (which may therefore already be implied in the pre-Classical scheme). The positioning of the limbs in this period is nevertheless quite experimental, particularly if one takes into account the god of Artemision (Figure 61), who parallels Apollo's imperious stance, although reversing it to the L (presumably because the god is R-handed) and achieving to some extent a cross, so that the figure itself is neither standing in the conventional sense nor striding, as sometimes averred, but balancing for the pitch.

*Relief*

Herakles & Athena in Augean stables (Zeus temple) (Figure 43)

*Description*

Herakles, frontal L, wields the shovel. Athena, frontal, head L. With her R arm she forms a harmonious axis with Herakles' movement.

*Comment*

There is a dynamically ponderated tension between the two sides of the picture plane—Herakles very energetic but Athena more relaxed (in contrast to Herakles and the bull with two crossing energized figures).

<i>Relief</i>	<i>Description</i>
Apples of the Hesperides (Zeus temple) (Figure 44)	Athena, frontal, head R; Herakles lateral R, head down. Atlas lateral L, extends arms L with apples.

*Comment*  
Athena and Herakles form one immobile unit absorbed in supporting the burden. A greater space separates them from Atlas, who advances to place the apples under Herakles' gaze, providing thus a dramatic focus.

*Summary:* these two metopes reflect the compositional principles of the East and West pediments of their temple: the Apples metope is almost completely paratactic, while the Augean metope enlivens this arrangement with a diagonal element.

## High Classical

<i>Statue</i>	<i>Description</i>
Omphalos Apollo (Athens NM 45) (Figure 45)	Energetic R leg back, crossing energetic L arm back (?); head R. Relaxed L leg forward, crossing relaxed (?) R arm.

*Comment*  
Although retaining the leg positions of the Oinomaus, the artist has achieved a provisional contrapposto: there is apparently a very slight upper body twist R; yet aesthetically the pose is awkward because of the thrust forward left leg which interferes with the obvious intention to energize the figure's R side. The original of this is now illuminated by the almost identical pose of the Riace bronze warriors (whose twisting is more palpable). All must belong to an early stage of High Classical (460–450): cf. J. Boardman 1985(1), 53 (here Figure 46).

<i>Statue</i>	<i>Description</i>
Doryphoros (Roman Copy Naples NM) (Figure 47)	See Chapter V, <i>The Canon as Evolved Prototype</i> , paragraph 1

*Comment*  
The forward shift of the energetic leg and backward thrust of the relaxed leg corrects the imbalance of the Omphalos Apollo (and of the contemporary Riace figures). Since this implicates also a slight turn of the upper body, it achieves total contrapposto. Technically the Canon has *nothing to do* with a walking position. The L raised heel is simply a reflex caused by decisively sinking the body's weight on the opposite leg. From such a position one would not be walking but rather lurching comically. Other figures in this pose demonstrate the emphasis on static positioning (Mattei-type Amazon: Figure 60). This is not to deny that from the front view the Canon vaguely suggests walking; in relief, figures in contrapposto position (side or three-quarter view) sometimes seem to be moving but movement is not absolutely required by the

sense. It seems that the double potentiality of the original kouros motif was not consciously resolved until later (p. 113).

*Relief*

Parthenon metope  
no.30 (Figure 48)

*Description*

Centaur rearing on hind feet L, grasping Lapith R by throat and locking in his forelegs the Lapith's R leg, leaving him to balance precariously on L leg. Lapith strikes a probably ineffectual blow on Centaur's face.

*Comment*

The centaur occupies at least 2/3 of the space and drives steadily from L to R (the favorable direction for him) against his hapless opponent. A tremendous concentration of limbs of both opponents creates tension to R of center.

*Relief*

Eleusis relief (NM at  
Athens) (Figure 49)

*Description*

Two facing stately goddesses in profile frame the rectangle. Between them, closer to the R goddess, a short boy in profile looking L receives an object from the L goddess.

*Comment*

There is a sense of very quiet movement to the L; a space separates the boy and R goddess from the L goddess; yet the tension of the action culminates in the area of the hands of the L goddess and the boy.

*Summary:* in the High Classical period the range from nearly static figures in parataxis to violent confrontations is possible; in all cases the dynamic balance of the composition is highly dependent on carefully calculated spatial separations (proportionalities) of the various figures.

## High Classical Reaction

*Statue*

Diadoumenos  
(Figure 50)

*Description*

Athletic victor in position of Doryphoros tying the fillet. The L hand is well above the shoulder and pulled back, the R hand well below the shoulder and forward, the head distinctly down.

*Comment*

In exaggerating every feature of the Doryphoros the sculptor swings the statue into a self-absorbed consciousness typified by the head turned down to concentrate on the fillet. The effect is of an inner, not an outer alertness which closes the work off from the observer, as if the figure were talking (or dreaming?) to himself. Finally, making both arms energetic technically destroys pure contrapposto.

*Statue*

Karyatids: from porch of Erechtheion (Figure 51)

*Description*

These are arranged in two groups: those on R have R leg advanced and relaxed, while those on L have L leg advanced and relaxed. Given their task, these ladies must have level shoulders, so the implication of bodily swing is achieved by a heavy curve of the overfold. On their attributes, see J. Boardman, 1985(1), 161 (fig. 125).

*Comment*

By their function these figures must be, or seem to be, conservative in their stance, with all of them harking back to the Early Classical trait of advanced relaxed leg. Yet the conjunction of two relaxed legs at the *center of the composition* is structurally discordant. The support they must give to the roof justifies level shoulders and frontal torso but at the same time gives the opportunity to compensate for this by creating stout figures with heavy garments, the three-dimensional overfolds of which arc around their torsos suggesting torsion and fall away on the side of the relaxed leg. Especially this feature agrees with other works of the period, like the Nike of Paionios, that cut the vertical flow of garments by various stylistic devices.

*Relief*

Amazonomachy frieze (temple at Bassai) (Figure 52)

*Description*

Herakles and Amazon cross legs frontally—his R over her L. A fallen horse with dead rider on R is balanced by a rearing horse on L whose rider attacks a fallen Greek at Herakles' foot. This figure is balanced by an active Greek on R dealing with corpse above the dead horse.

*Comment*

This seems to be an extraordinary case of sustained true contrapposto in composition. Since it is based on the west pediment of the Parthenon in principle but shows the victor on the observer's R, it suggests that Pheidias may have been composing his composition from the inside out (as he would individual figures), so that, in effect, the victorious side (Athena) is reversed from that seen by the spectator. The anti-classical note at Bassai may be the adaptation of a peaceable scene to one of deadly battle.

*Relief*

Hegeso stele (Athens NM) (Figure 53)

*Description*

Maid L hands jewel box to seated matron R who occupies 3/4 of the relief space.

*Comment*

The composition retains but reverses the proportionality of the Parthenon metope no.30. Despite the apparent movement from L to R, compositional focality is concentrated on the L, thus recalling the Eleusis motif. But the great relaxation of the figures and sinking of heads, recalling the Diadoumenos, contribute to a general

softening and swinging of the composition that goes beyond the High Classical to reach a somewhat dreamy modification of alertness appropriate to the mortuary theme.

*Summary:* the examples chosen illustrate the tight continuity of the High Classical Reaction with the preceding periods while at the same time every feature is subtly re-interpreted to produce a delayed reaction, as it were. This direction leads also to more extreme flaunting of High Classical standards, as in the ornate female figure (Aphrodite?) from the Agora as an akroterion on the Stoa of Zeus in Athens (Figure 63).

## Late Classical

### *Statue*

Hermes of Praxiteles (Olympia Museum) (Figure 55)

### *Description*

Energetic R leg forward crossing energetic L arm; head L toward baby. Relaxed L leg; energetic R arm. Unfortunately the more complicated poses of freestanding sculpture in this era are preserved only in copies (see Chapter IV, *Setting the Classical Period*, Picturing the cyclical stages in broadest terms, paragraph 12) whether as cult or even votive statues, these are likely to be reasonably faithful to the original motif. To supplement these, nevertheless I offer here simultaneously the boy from Marathon (cs. G. Richter, 1969, fig. 196), an original bronze statue with strong Praxitelean overtones which may be considerably earlier in the fourth century and not so fully worked out in regard to torsion.

### *Comment*

From the diagram this figure is seen to be a further modification of the Diadoumenos, actually a quite harmonious one in that it brings the head tilt into conformity with the extreme relaxation (S curve) for which Praxiteles is noted. The head on the relaxed side doubles the effect of self-absorption, but here (as in the Eirene) this has a new object which also has consciousness and strives upward. This converts the independent figure into a composition which has a dynamic focus, as in relief. This composition is more logically, or at least compactly, structured in the Eirene of Kephisodotos (Figure 54), since the baby is carried on the energetic L leg. By putting the baby's weight on the relaxed leg Praxiteles was virtually forced on the basis of visual and probably even real statics to provide a pillar of support. The fact that he was willing to accept this surely not altogether desirable complication shows his determination to confront the mythic theme with human (earthly, mineral) reality.

### *Statue*

Bronze Athena (Piraeus: in Athens NM)

### *Description*

R leg and arm energetic; head R. L leg relaxed and back; L arm relaxed. The figure is thus cleanly split into an active side and a relaxed side and has the head in alert position. The figure



(Figure 56) seems thereby to be striding toward us.

*Comment*

The fact that the goddess slightly turns but does not sink her head, and keeps her shoulders approximately level lends her an old-fashioned dignity appropriate to deity. At the same time her mild expression and outstretched hand seem to suggest that she is not only not unapproachable, as the Athena Parthenos might have been, because so far above mortals, but that she actually is undertaking to invite human contact.

*Summary:* Figures of this period are much indebted to the Diadoumenos model in which Polykleitos himself modified true contrapposto to what may be called perhaps mixed contrapposto: one cross of similars, one cross of opposites. This is then extended to what may be called anti-contrapposto in which two sets of opposites are crossed, thereby effectively splitting the body into two equal sides like the kouros but now dynamic. All of this implies increasing torsion and further modifies the exquisite balance of the canon, while at the same time facilitating psychic modifications of same. The ultimate exploitation of these possibilities may have occurred in the work of Skopas, but in the absence of originals it is not possible to be sure of this through analysis (cf. e.g., Pothos and Raving Bacchante: Figure 62).

*Relief*

Mausoleum frieze  
slab 1022  
Halikarnassos.  
(Figure 57)

*Description*

Two facing Greek warriors lean forward in a triangular composition to rain their deadly blows on an Amazon fallen between them.

*Comment*

This is an exact inversion of the central group of the Bassai scene examined above (see diagram), except that the passive element has now been placed midway below the executioners, lowering with it the focus of activity. The application of active force from both L and R, compressing or destroying the passive element, also destroys the contrapposto of the original source; it becomes a dynamic, but collapsing equilibrium. As a formula for mindless violence this recurs in the Stag Hunt from Pella in the Hellenistic period.

*Relief*

Ilissos Relief  
(Athens NM) (fig  
58)

*Description*

At L side youth looking directly forward, his body nearly frontal but slightly turning to his L, half sitting on a plinth, with small child sleeping (weeping?) at his feet on steps of plinth, along with a dog. After a distinct cleavage an old man on R side of composition seen laterally supporting self on staff stares L at youth.

*Comment*

The artist has explicitly created an active versus a passive structure in the placement and positions of the figures (sitting, standing). The beginning of cleft composition may perhaps be seen in the Dexilios relief (Figure 64), where the cleavage is diagonal, at the start of the Late Classical period.

*Summary:* the examples chosen display, in the one case, continuity with the formal compositional unity based on Pheidias frieze contrapposto and, in the other, the experimentation with variants of single figure contrapposto as applied to stele composition: in the Ilissos relief an exact correspondence with the anti-contrapposto of the Piraeus Athena splitting the scene into two separate parts plus an outgoing gesture (here indicated purely on the psychic level by the youth's stare). Although the scene has subtle complications, we may feel that active and relaxed halves are reversed here (from the statue mentioned): the deceased on the spectator's L passive, the standing old man on the spectator's R active.

## **ABSTRACTING THE ESSENTIALS OF DYNAMIC PONDERATION: ILLS. 2–3.**

This presentation in the form of colored, abstract sketches of the sculpture analyzed in the foregoing chart proved to be more than a mechanical task. In fact, the inclusion of colors forced me to make choices based on what seem to be legitimate, if complex, factors in the relationship between work of art and viewer. The technical factors discussed below in an elucidation of the method employed render more specific and conscious certain concepts (wording) in the chart which the reader may not have noticed as being unusual or requiring comment. An interfacing of the figures in Illustrations 2–3 and comments in the charts may be helpful in penetrating deeper into the “secrets”, as it were, of contrapposto which in effect are the secrets of our own bodies and consciousness. It was, in the end, these sketches which enabled me to find what I hope is an enlightening reduction of the five stages of dynamic ponderation to two-word descriptions (experimental ponderation, provisional contrapposto, pure contrapposto, mixed contrapposto and anti-contrapposto).

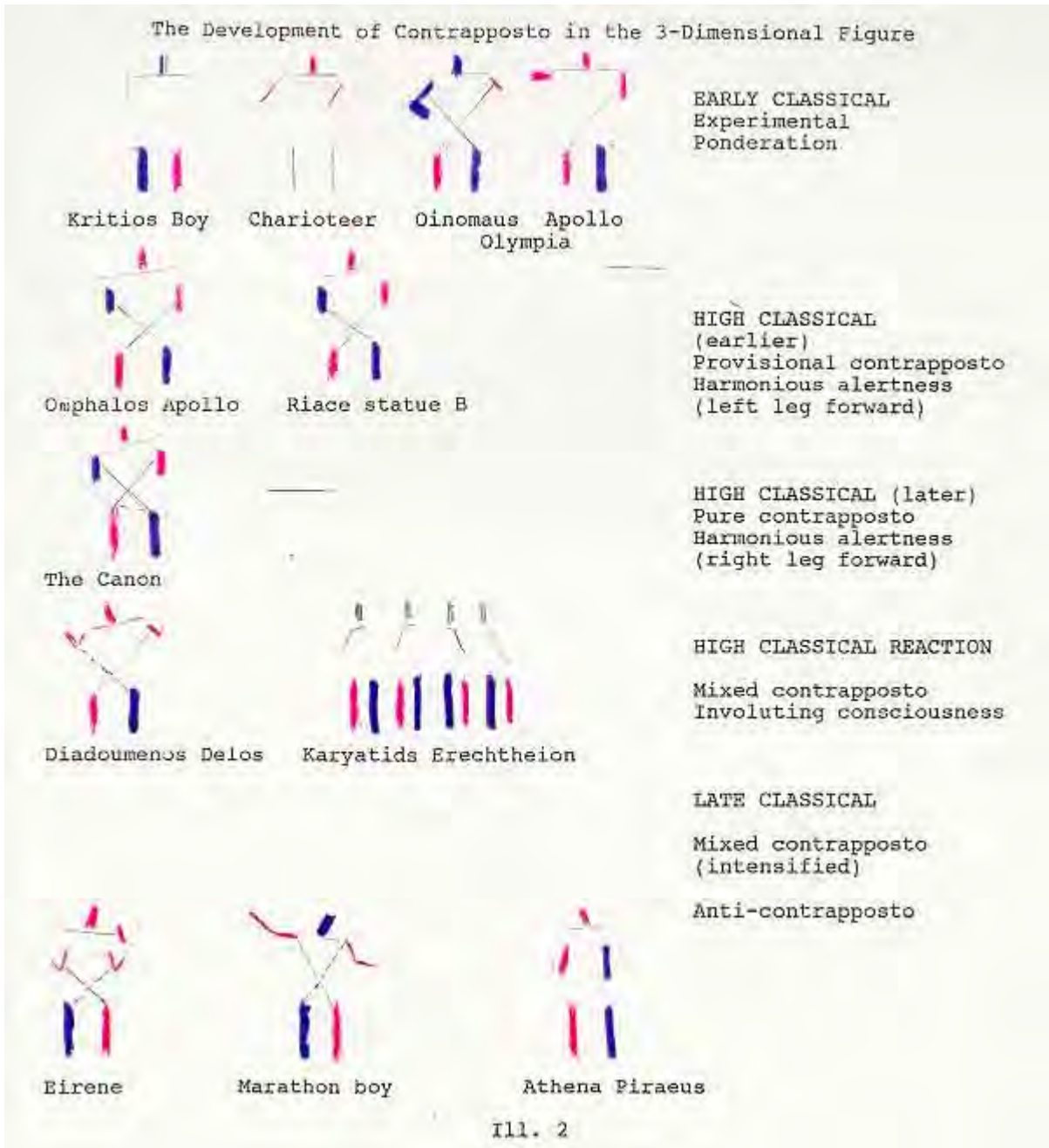
### **Elucidation of the Method**

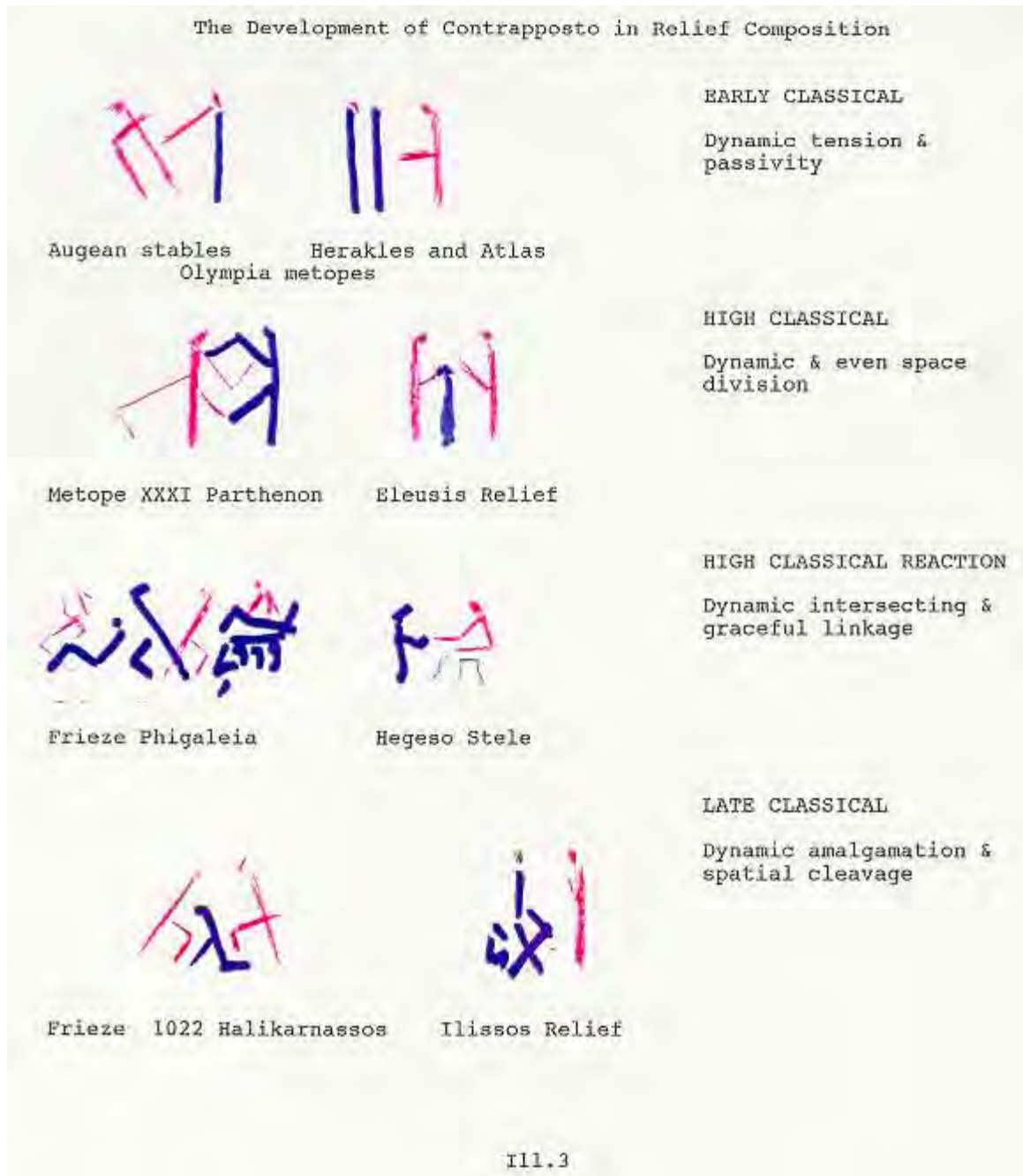
To some extent the overview of Classical figure development presented in Chapter IV (see *Setting the Classical Period*) can be clarified in a schematic way (Ill. 2) using red to indicate what I shall refer to as the energetic member: principal supporting leg (*Standbein*) and arm holding something or making a gesture; and blue to indicate relaxed members: (*Spielbein*), unengaged arm. The individual sketches can emphasize only the structural problem as adjunct to the actual illustrations and verbal descriptions, since we are dealing with three-dimensional factors.

It is necessary to be more explicit than usual about left-right relationships. In the case of freestanding figures logic obliges me to adopt the figure's standpoint, not the observer's, since the statue does not simply mirror a three-dimensional human being, it reproduces one, and the sensitive artist could only be inside it, as it were, in creating its implied functionality. Even if statues are grouped together in a composition, this point of view is a prior necessity in order to grasp the *contrapposto* experience of the figure represented.

In regard to group compositions and reliefs (Ill. 3) the situation is somewhat more complex. I believe that the spiritual impulses out of which the four elements/*contrapposto* approach emerged would have penetrated everything. But not every medium can show this so straightforwardly as the just mentioned macrocosmic/microcosmic prototypes—philosophy and statues (see below: Art as Science). Just as Archaic composition stayed with the principle of static balance, Classical composition left that behind and became increasingly adept at maintaining balance without sacrificing movement of dynamically motivated bodies. Yet in reliefs we *are* dealing with pictures and picture planes and, as moderns, we tend to take the observer's standpoint as normative.

It is difficult enough to grasp that the sculptor subjectified himself in the statue; can he not have at least objectified his view of the world in two-dimensional composition, since the picture-plane has an independent life, as Kandinsky pointed out (see *Greek Color Theory and the Four Elements* Chapter II)? I fear that this is moot; I have already had occasion elsewhere to point out that we should not apply our strict standards of subject-object to the Greeks. However there is evidence (*ad* Figure 52) that they did at least sometimes subjectify composition. My decision has been to compromise by adjusting the terms and methods of analysis towards objectivity, while leaving the question of appropriateness quite open (I think there is less probability of confusion this way): in the case of reliefs, red will simply indicate the dominant motive force and blue the recipient of this, even though this recipient may also show a certain activity. Just as in *contrapposto*, the proportions of space occupied by the two factors just mentioned are vital to the dynamic (visual) balance.





## ART AS SCIENCE AND SCIENCE AS ART

The holistic quality of Empedokles' theory has not, I feel, been sufficiently appreciated either by classicists or by historians of science. This may be owing to the fact that no properly rationalized "picture" of it has previously been worked out. Not only is it artistic

as well as dynamically scientific simply because it can be “seen” as a perfectly balanced interacting “picture” (diagram), but also because that picture is concealed, as it were, in a poem, of which unfortunately only fragments remain. This latter fact cannot be dismissed as merely a convention of the age, because that convention itself characterized the age as artistic.

The word “balance” in reference to the Four Elements theory suggests polarity but not in the lateral sense of Aristotle’s virtues and their opposites.<sup>3</sup> Rather what is involved here are sensory polarities (hot-cold, etc.) related *chiastically* to the four elements, themselves perhaps best described as psycho-physical forces<sup>4</sup> of a living being (see also *Greek Color Theory and the Four Elements* Introduction). What is behind this becomes ever more specific as we approach the similar dynamism in the Canon of Polykleitos, which again has not been sufficiently appreciated for its holistic quality: its physical polarities are firmly equatable with moral/social values, *cross-balanced* in a functioning organism, the inner motive force of which is, to be sure, operative throughout its members. Yet this force has a concentrated effect in the action and expression of the head as a kind of culmination of the scheme. If a correspondence with the head were to be sought in the Empedoklean system, it might be the fifth element, Heaven, where the gods, particularly Aphrodite, expressively participate in the affairs of the world.

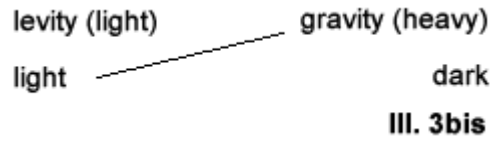
Even if this suggestion of macrocosmic/microcosmic functionality has merit, one might ask whether it has any connection with our 20th century selves. Within the last generation—even more recently than that—psychological research has brought forth a very similar picture of the human being, if not of the cosmos. I refer to the concept of the R and L brains as directing forces, a functionally unified duality, as it were, though each has its separate value to the individual’s consciousness, *with cross-sensory control of the opposite half of the body*. Furthermore, unless the more logical functioning of the L brain is balanced by the more intuitive functioning of the R brain, there is little probability that the behavior of the individual will constitute a benign influence on society and much probability that it will generate various kinds of socially useless, if not destructive, influences. Indeed, at least one explicator<sup>5</sup> of the complex research on this subject has pleaded for a radical reconstitution of the goals of education, which previously have been to develop at any price and at the earliest possible moment the L. brain’s verbalizing faculties to the neglect of the R brain’s artistic and intuitive faculties. This has only to be compared with the Greek system of *paideia* to clarify what is meant in this study as the holistic human being; the ironic result of the modern obsession with the L brain is to have produced computers which exceed in various ways the capacities of that brain but are essentially helpless in regard to R brain functions. By cloning itself the L brain makes itself superfluous and the R brain has been allowed to atrophy—one result of this being perhaps the plethora of senseless violence among youths. The concept of balance between the two halves of the brain is further clouded by the increasing dependency on computers without simultaneous attention to compensatory artistic activities on the part of their users. That dependency has already brought about severe economic and social dislocation, felt not least among scholars and teachers and their aspiring successors. Thus, modern man can no longer afford to miss the chance of learning from the past; it offers inspiration for correcting a dubious orientation.

## THE LONGER PERSPECTIVE

The theoretical achievement of the High Classical period has been described as the understanding of dynamic balance in nature (four elements) and in human consciousness (contrapposto). The question of proportions has been broached, but not sufficiently aired as an important link between these two realms. The old-fashioned scales with sliding iron weights may be a helpful picture for this purpose. The weights are moved along a measured arm until they come into equilibrium; the weight can then be read but it could also be interpreted as a ratio relationship of the two weighted pieces. In terms of the Four Elements theory the whole question of ratio in Greek art—which as I have elsewhere<sup>6</sup> shown was raised pragmatically and artistically, not as a matter of mathematics, as early as the Late Geometric period—has to do simply with the problem of light and heavy (levity and gravity). The first tender dawning that gravity exists produced the first interest in ratios which then continued and deepened through the phases of static balance to dynamic balance: this concern with weight has to have been the first purpose of Polykleitan proportions, even though rarefied aesthetic and mathematical aspects need not be excluded from them (see further discussion of this in Appendix D). Thus, both the elements theory and contrapposto mark the exact moment in world history when the awareness of both light—the time-honored frame of reference—and heavy—the new concept of mineral weight—came into exact balance. Thereafter the latter factor gained ground at the expense of the former, as an analysis of later sculpture shows and also the increasing concern of Aristotle to explain more in earthly (rational) than in spiritual (divine) terms how things work. But the *radical* elimination of levity as a concept had to await the powerful mechanical world picture of Isaac Newton. In this world picture gravity is thought out as a *mathematical formula*, not experienced as a bodily phenomenon.

If there is a master plan to world destiny, it must surely accord a key position to Newton, for he exercised equal power also on the development of color theory. To understand this we must recall that most natural philosophers in the fifth century B.C. considered the origin of colors to lie in the mixture of black and white (that is, dark and light), in terms of proportionality, although the first extensive evidence of that occurs in Plato, followed by Aristotle. Thereafter, however, the role of dark in color began to be called into question, even its existence doubted (*Greek Color Theory and the Four Elements*). This may foreshadow in some way Augustine's conclusion that evil was merely the absence of good. At least, that is in the same mold. Again, however, it was the questionable merit of Newton to have concentrated all color reality in light at the expense of dark, which was relegated to the status of a non-entity in intellectual terms. Few have dared to question his authority.

Thus, in the formation of the intellectual convictions of the Western world a powerful, but one-sided and inconsistent, element of cross-balance can be detected, starting already in the fourth century, B.C. In terms of levity-gravity only the heavy has survived as real; in terms of light and dark, only the light has prevailed as real:



Yet dark (black) in the Four Color theory (see Ill. 1) embodies the heavy (matter) and its subnatural forces, whereas light (white) embodies all that can be connected with levity (upward pulling, warmth). Thus, Newtonian materialism must be described as a dynamic contradiction: to be consistent it should have embraced the dark along with the heavy, or else the light along with levity. But in either case it would exclude half of fifth century holism. We can call this tendency to exclude whatever is inconvenient to simple explanations reductionism and then see this as the lineal ancestor of the most radical (and yet highly influential) offspring of modern psychology, behaviorism, which *solved* “the problem of consciousness and its place in nature” by simply denying “that consciousness exists at all.”<sup>7</sup>