PERMANENCE AND CHANGE

A PHILOSOPHICAL INQUIRY INTO THE PROBLEM OF
RELATING NEW ARCHITECTURE TO EXISTING SETTINGS

Volume II
Illustrations and Appendices

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APPENDIX I
THE DIALECTIC OF THE OPPOSITES AS A METHOD OF INQUIRY

1. THE NOTION OF OPPOSITES IN PRESOCRATIC PHILOSOPHY

In order to understand and conceptualize the potential of dialectics to support a theory, we will attempt to trace back the notion of the opposites, in relation to their complementarity and their interdependence. Dialectic conceptualization leads to no absolute level in the Hegelian sense, or any kind of extensive continuum, as Whitehead has argued [1]. It enlightens human understanding without considering the opposites as fighting each other aiming to overcome their counterparts, or finally reconciliating in a synthesis, at whatever level or absolute principle. Dialectics of the opposites as a method of inquiry can best be described as play, since it seeks no definite, ultimate goal; or rather, it finds its ultimate goal in sustaining a ludic process towards truth [2].

The mythological medium of sexual generation, was firstly thought responsible for the generation of opposite, counterpart, antithetical, antagonistic or antistrophic forces, beings, or entities. In Hesiod’s Theogony for instance, the opposites are connected through sexual generation, i.e. Aither and Day generated from Erebos and Night [3].

Greek pre-Socratic philosophers conceptualized the world, in their cosmogonic models, in terms of opposite entities and their dialectical interaction. In the philosophies of Anaximander, Anaximenes, Heracleitus, Parmenides and Zeno, dialectic of the opposites constitutes the reasoning tool in their inquiry [4].

For Anaximander, apeiron, ( meaning boundless, endless, the indefinite or the infinite ) is source of all things, eternal and unaging. Time springs from apeiron and gives birth and death to all things.

And the source of coming to be for existing things is that into which destruction, too, happens "according to necessity; for they pay penalty and retribution to each other for their injustice according to the assessment of Time". [5]
Apeiron for Anaximander generates the opposites, which interact dialectically ad infinitum and constitute the ever changing world. Apeiron also generates time to ordain the interaction of things according to justice. Earlier philosophers, like Thales for instance, considered apeiron to be a quality of the primordial element which was water. Anaximander instead defines apeiron, the quality itself of whatever primordial matter, as the first principle. Material manifestations of this quality can only follow to create the material world. So, the opposites spring out from a single arche, an originative substance, a beginning, a source, although the coexistence of time and apeiron is implied for the creation of things. But even time can be considered as generated from apeiron as its dialectic counterpart [6]. What is of major importance here, except the substitution of primordial elements by an abstract principle, is the dialectical process of the opposites towards constructing or destructing, as regulated and ordained by time. Time ordains justice and regulates the succession of the opposites in an inevitable way by an ever remaining surfeit of injustice. We quote:

...the prevalence of one substance at the expense of its contrary is "injustice", and a reaction takes place through the infliction of punishment by the restoration of equality - of more than equality, since the wrong-doer is deprived of part of his original substance, too. This is given to the victim in addition to what was his own, and in turn leads to (it might be inferred) to kpos, surfeit, on the part of the former victim, who now commits injustice on the former aggressor. Thus both the continuity and the stability of natural change were motivated, for Anaximander, by means of this anthropomorphic metaphor.[7]

And in fact it is this indefinite or infinite process, the never ending, which keeps continuity and balance. Coexistense of the opposites is kept through their temporal succession. In this way the opposites are not mutually destructive in a synchronic basis, but coexisting, complementary and alternatively in time prevailing.

Time mediates between the opposites and regulates their interplay in the process of change, life and creation. Starting from the empirical observation and assessment of opposites such as heat-cold or draught-rain, Anaximander's theory encompasses all the process of creation by adopting apeiron as "the whole cause of the coming to be and destruction of the world" [8]. Apeiron is the potential field for all processes, the a priori. He describes this potential as aidion gonimon, ever generating, which either as sexual generation or as eternal process, is the way of coming to be for everything. In Anaximander we find the earliest form of organicity, a process orientated cosmogonic theory [9].
According to Anaximenes' cosmogonic theory, all changes empirically observed in nature, are due to the dialectical relationship of rarity and density. Postulation of \textit{anp} as an \textit{a priori}, and the rare/dense as the fundamental pair of the opposites, generated all the other dialectic entities constituting the world. Anaximenes argued that matter is alive and through the movement of that matter, the \textit{aer} everything was created through condensation and rarefaction. All changes were, but disposition of \textit{aer} that matter [10].

Pythagoras and his disciples studied the harmony of the opposites limit/unlimited and odd/even. Harmony in music and geometry is considered as the balance of these opposites. Time is a by-product of musical harmony, but, nevertheless constituted the soul of everything [11]. \textit{kosmos}, the ordered world, is due to the balance of the opposites and beauty was the quality of this balance of the opposites. Alkmeon, one of the Pythagoreans, extended the notion of the harmony of the opposites to discuss the health of the human body. The later Pythagorean table of the opposites was intended to limit the quality of 'oppositeness' to certain ten principal pairs, because it was believed that evil belongs to the unlimited, while good to the limited [12]. "From the unlimited they are drawn into it the realm of time, breath and void, which constantly distinguishes the places of the various classes of thing" [13].

Proportionate admixture of the opposites characterized all pre-Parmenidean philosophy, which holds in general that all things come in pairs, all possible but certain pairs only are able to produce harmony. With Parmenides a rift is inaugurated in philosophy. The realm of empirical reality is separated from the realm of highly abstracted logic.

Parmenides' philosophy was formulated into a poem that comes in two parts. Part one is called 'the way of truth' and starts from the axiom \textit{esti}, it is. Subsequently, with the use of formal logic, according to which either a thing is attributed a predicate or not, he establishes a theory concerning how things really are. Part two is called 'the way of seeming' and deals with all knowledge derived from the senses, according to which all intermediate states between is and is not that can occur are considered as illusions and fallacies. Any combination of the opposites is false and constitutes the varying opinions of the mortals. So, reality is a compromise between the 'is' of a thing and the 'is not' of the same thing. The realm of truth is immovable, continuous, without end and \textit{en tauta menon}, resting at the same place, unaffected by time. What has been true in the past, it is still true and it will be true for ever. On the other hand, the realm of senses is the world of continuous change, movement and subjective knowledge [14].

Zeno and Melissos elaborated further the continuum postulation of the realm of truth. Zeno postulated continuity to the extent of rejecting motion \textit{in toto}. Zeno's paradoxes have
been solved and posed anew over and over again throughout the history of philosophy [15], proving the inevitability of the existense of the paradoxes for any logical theory, in the form of axioms or a priori concepts.

2. A QUESTION OF DIALECTICS

Dialogue and dialectics in the Greek language have a common root; logos. We quote Diogenes Laertius:

A dialogue is a discourse (logos), consisting of questioning and answering on some philosophical or political question. With due regard to the characters introduced and to the style (lexis) employed. Dialectics is the art of discourse (logoi) by which we either refute or establish some propositions by means of question and answer. [16]

Throughout all philosophical schools in ancient Greece dialectics was considered as the opposite of rhetoric and as such it encompassed all methods of inquiring after truth and refuting postulated truths. Practical, idealistic, antilogistic, sceptical and dogmatic, as well as the dialectic of the one, were but forms of dialectic used during the Greek, Hellenistic and Roman eras. As far as the dialectic of the opposites is concerned, there is an implication of an irreversible process of change through the interaction of the two opposites. This interplay causes change as movement, transformation, interplay between quantity-quality values or even as process in a general sense. Change in that sense implies also that each stage is negating the previous one, although it contains it. It is an irreversible process ever producing new values. So, dialectical interplay of the opposites implies the existence of a process which goes on through time and follows an irreversible process ever absorbing old values and ever producing and generating new ones [17].

It is in the philosophy of Heracleitus, as manifested through his fragments, where we find dialectics in their most comprehensive sense. Although Heracleitus has been considered as aphoristic, cryptic, obscure and ambiguous dialectician, it is the interpretation of his ambiguous fragments that reveal the potential and the value of his philosophical work [18].

His dialectics, rather than being expressed in the form of a discourse treatise, has been condensed in a series of aphorisms, anticipating a dialectic discourse in our interpretation of them. In the Heracleitean fragments we find a most comprehensive theory concerning the universatility of change, and metron, the inherent stability. Metron persists through
change and it is important, since it provides the measure of change while remaining with it and characterizing it. Although Heracleitus, as a natural observer, did not imply any kind of change beyond the senses, he managed to establish a theory of dialectics that offers an adequate conceptualization of change in a comprehensive sense.

The key concept in Heracleitean philosophy is the notion of *logos*, which has been attributed to mean discourse, reason, speech, language, concept, relationship, thought and essence. Syllogism and analogy are notions etymologically derived from the same root, and imply relationship, relativism and interdependence [19]. *Logos* is true, according to Heracleitus, but it is not easy to be understood by people. It implies participation and dialectic discourse and reasoning in order to be revealed and, perhaps, this is one reason for Heracleitus’ use of riddles, puns and ambiguous aphorisms throughout his life. The Greek philosopher Kostas Axelos in his excellent study of Heracleitus remarks:

*Logos* in Heracleitus is the essence of things and his speculative inquiry is an ontological approach to knowledge. Heracleitus is not a philosopher in the metaphysical sense. He is open, multi-dimensional, inquiring, ambiguous and poetic.

According to Heracleitus, the complementary opposites are in continuous interplay, and this interplay, the notion of play itself for Heracleitus, is what distinguishes his dialectic from any other form of dialectics. The notion of play in dialectics renders relative and undefined the goal of the whole process, continuing the relativistic tradition of the earlier pre-Socratics.

In Neo Confucianism the Yin-Yang dialectics takes the form of a philosophical system. In its earlier versions it constituted the hypostasis for all ancient Chinese divination systems, such as geomancy, the feng-sui and mainly the book of changes, the I-Ching. The dialectics of Yin-Yang, conveying all the sexual generation connotations of male-female forces that we traced before in early Greek cosmology deals with dialectics close to the Heracleitean sense. Yet it emphasizes more the determinism of change as aspect and dimension of the one absolute, instead of Heracleitus’ emphasis on the process of the dialectical interplay per se [21].

In Medieval times we find again the use of dialectics as ‘coincidentia oppositorum’ in Nicolas De Cusa’s philosophy, where the dialectical opposites coincide in God. Dialectics in De Cusa’s philosophy were used in search for the absolute of God.

Hegelian idealistic dialectics, similarly enough to Mediaeval idealistic dialectics, aims
at an absolute, which gives birth, regulation and orientation to the opposites. Dialectics as a method of knowing, became a positive tool and goal together, since Hegel uses dialectics to create false syntheses. It became a goal in itself in an attempt to achieve a unified, all encompassing transcendental logic. As Hans Georg Gadamer points out:

Dialectic becomes the advocate of the ‘concrete’ or mediated truth over against the one sided abstractions of the understanding. [22]

Hegelian dialectics, although it rehabilitates the ancient Greek concept, nevertheless lacks potential because it presupposes the absolute. Having attained the final absolute point from the beginning, Hegelian dialectics rationalizes the process to that point. It is more or less a self supported system, a tautology. By sticking to the absolute in order to support it, it loses its potential as a mode of inquiry, it losts its openness to the world. Hegel’s dialectic is to be considered together with the absolute and not independently as a method per se, rendering impossible to understand it unless we stand at its final point [23].

Hegel deals and presupposes an abstract theoretical human being who knows, and negation in Hegel’s sense never negates the alienated man, since it presupposes a pseudo-man. Hegel’s dialectic is a dialectic of pure thought and can not be criticized from anything that does not presupposes his absolute standpoint [24].

Nietzsche overcomes the paradox of the Hegelian criticism by acknowledging the act of human will, while dialectics separated from its absolute ideal, becomes the focal point in Marxian dialectics. Karl Marx, in dealing with human ‘reality’, realized a contradiction in Hegelian dialectics:

Hegel’s chief mistake consists in the fact that he conceives of the contradiction in appearance as being a unity in essence, i.e. in the idea; whereas it certainly has something more profound in its essence, namely, an essential contradiction. [25]

Marx tries to apply his materialistic dialectics to ‘real’ man, the alienated worker, because:

Hegel’s dialectic continues alienation, because it posits man as self consciousness; man is thus abstract, entirely theoretical being, and the whole phenomenology does nothing but study the spiritual appearances of the alienation, of the real, action performing human being. [26]
Although Marx criticized Hegel for his assumption on the reconciliatory dimension of his dialectic, he could not avoid a vision of synthesis himself. For Marxian theory synthesis is a "harmonious totality, of integral unity - which though never having existed empirically, is to be regained on a higher level in a reconciliatory future, after the abolition of alienation" [27].

Marxian dialectics, derived from the Hegelian, can be considered as equally goal orientated [28], and will not be of great importance to our present inquiry. Instead this study is rather process orientated and recognizes an open started and open ended dialectics, as ever generating new values and ever changing its ultimate goal, which we do not have necessarily to presuppose.

For the purposes of our study we will rather focus on pre-Socratic dialectics. The creativity of the dialogue is the creativity of play; and it is in that sense that dialectics had been employed in pre-Socratic philosophers and the Socratic dialogues in the Athenian agora [29].

3. DIALECTICS OF THE OPPOSITES AS A REASONING TOOL

Aristotle’s theory of syllogism was the first attempt to construct a logical system able to establish truth in human life. It dealt with attributive predicates relating to the qualities of entities, i.e. what something is and what it is not. The formal premises for such inferences illustrate this point.

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<th>Premise 1</th>
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<td>Some P are Q</td>
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<tr>
<td>Some P are Q</td>
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This logic was considered as the only valid form of logic for two thousand years, until De Morgan and Boole introduced mathematical logic. This new logic was based on axioms and dealt with relational predicates, that is, not what something is or is not, but how it relates to other things. If Aristotle’s logic dealt with qualities of entities, now logic described in quantitative terms the relation of things to each other, without dealing with what these things are in themselves as entities.

Logic ever since tried to establish its authority in mathematical terms and universal basis. Hilbert’s theory, Gottlob Frege’sBesgriffen and Russel and Whitehead’s Principia Mathematica were some attempts towards the construction of such a unitary system. Goedel though in his famous "incompleteness theorem" proved the falsity of any such
attempt and furthermore discouraged any theory of inference based on the human mind as a mechanical deterministic system.

Dialectics is equally with an other form of logic systematic and employs an equally valid abstract pattern of reasoning, in which particular inferences are instances. It is a kind of logic as far as it aims to be systematic, i.e. an abstract pattern of reasoning in which particular inferences are instances.

Dialectic logic acknowledges the qualitative aspects of things and as such it has been adopted in this study to show the reality of antithetical values and qualities. It has been the logic of the pre-Socratics, what Raymond Prier coined "Archaic Logic" [30]. It is the logic of the dialectical interaction of opposing entities at the same level and on an equal basis. Of course, dialectics is valid as a kind of logic insofar as both dialectical entities are equally real and equally important. For instance, dialectical interaction between stone and non-stone has no meaning whatsoever, since the non-stone entity has only a borrowed existence from the entity of stone. Non-stone is always defined as not something and not as something. On the other hand, open and closed, ordered and free, public and private, in characterizing parts of the built environment, are inevitably qualities in themselves, of equal importance for human life despite the opposition between them.

Equally important for the dialectical interaction of opposite entities is the common basis upon which they interact, because it is on this basis and due to that basis that their meaning is revealed. The "third term of dialectics" is the decisive factor to enable a dialectical process and its subsequent interpretation and evaluation. In Aristotle's logic this "third term" of ancient logic survived as the middle term in syllogism. Again, although the middle term of syllogism does not appear in the conclusion, it nevertheless is always there defining the importance of the syllogism in an argument, its implications and its meaning. It is mainly due to this characteristic that Aristotelian logic retained its qualitative character in contrast to truth derived from abstract axiomatics of other logical systems.

4. FORMAL VERSUS DIALECTIC LOGIC

Dialectic logic is often rejected on the ground that not every object or property has necessarily an opposite. M. Bunge postulates the limits and narrowness of dialectics compared to the formal logic which, he argues, is the only way for the articulation of a theory [31].

Indeed, there is no ground upon which a postulation that everything has its opposite can stand. So, any form of pure dialectic logic, if it is ever possible, is rather inadequate.
But in fact the formal vs dialectic logic duality is a pseudo-dilemma. The problem here is, neither if dialectic logic of the opposites encompasses formal logic, or the other way round, nor if one them suffices to offer solutions to epistemological problems.

Formal logic presupposes dialectic logic, since it arrives at its conclusions through a continuous process of "is" or "is not". Furthermore formal logic alone seems incapable of dealing with problems of time and change, involved in our inquiry. Formal logic operates in a rather synchronic basis and cannot cope with temporal dynamics [32].

Formal logic presupposes dialectic understanding and dialectic understanding is built according to the laws of formal logic. In this sense they establish a dialectical relationship, in a formal logic sense [33].

5. DIALOGUE AS A CREATIVE PROCESS

Dialogue involves dialectic of the opposites, otherwise it constitutes a mere accumulation of rhetorical arguments. Dialogue is the only way to build up values through mutual interaction and interplay of the opposites, because it acknowledges the value of the opposites at every stage of the reasoning process. There is a dialogue between human beings and their built environment, as there is between parts of the built environment conducted through the participation of human beings. Buildings do not speak or their voice is rather hidden and enigmatic, but nevertheless the characteristics they convey and imply, have meanings and make sense to the people. The built environment acquires meaning by engaging in a dialogue with people, which is generated and throughout supported by a dialectical understanding process.

This kind of animation of buildings illustrates metaphorically the dialogue between people and their built environment in their interpretation and evaluation of it. Dialogue seems the only way to get surfeit of value, to keep on creating and acquiring values. This mutually beneficial dialectic process bestows the built environment with additional meanings and values rendering it significant, familiar and enjoyable.

The hypostasis of the interpretation process is that, from the dialectics of x and -x, what something is and what it is not, a new dialectic schema emerges of -(x) and -[-(-x)], which both encompasses and extends the previous dialectic relationship in another level of interpretation. The potential of dialectics, if this is the case, propel the interpretation process at several levels of significance. Time is a fundamental feature of any dialectic process. As Jean Wahl poses the question: "Is time deriving from dialectics or dialectics from time?" And he answers: "In fact dialectics presupposes time and time becomes sensible
through a dialectic schema" [34]. We could add that through time is the only way to go beyond it.

Thus, interpretation encompassing the qualities of the built environment in a dialectic discourse, interrelates new and old in a comprehensive sense, in our attempt to understand and render it meaningful a particular context.

6. DIALECTICS AS A METHOD OF INQUIRY - A DISCUSSION

The debate between dialectics and formal logic, or else, between theories of complementarity and analytic ones, has always been an important issue in the pursuit of human knowledge [35].

Analytical methods of inquiry, always acknowledge a prevailing canon and opposing exceptions. It is only when the exceptions overwhelm the canon that the canon changes. These changes are described as paradigmatic shifts and constitute the core of the current epistemological debate [36].

Dialectics and analytics oppose each other in a dialectic sense, yet they can only be described in an analytic way. There is a common basis for their dialectical interaction to operate, i.e. their complementarity. They both need each other in order to advance and be more capable of describing phenomena they both want to understand. Analytics needs dialectics for creative intuition, for the acknowledgement of what has been discarded [37] and dialectics needs analytics in order to proceed from one level of dialectical enquiry to another.

It is possible though to choose one of them as more adequate form of inquiry, according to certain qualitative differences between them, for describing best phenomena related to this study i.e. aesthetic understanding and evaluation.

Analytical inquiry is always partial understanding, always in search for a whole. It strives to understand even its exceptions by creating an always more comprehensive unified theory towards completing the image of the universe, which is supposed to be analytically intelligible. It advocates gradual accumulation of knowledge and provides a standard basis for scientific research, facilitating experimentation, measurement and classification.

Aesthetic phenomena are by definition always experienced in a wholistic way, which cannot be analytically understood. Dialectics can incorporate analytical inquiry, but only in order to advance in an even higher one. It can even oppose its dialectical status, but
only in order to triumph in a level beyond. Canon (paradigm) and exceptions acquire in dialectics equal importance and in this sense their incompatibility leads to their more comprehensive consideration. Dialectic opposition at every level, i.e. interaction of the opposites on equal terms, always manifests a greater opposition, an opposition on a higher (comprehensive of them) level, of which they are but an instance, an aspect, a dimension or a manifestation.

Dialectic inquiry thus proceeds as a series of wholistic attitudes, although always open to change. Dialectic opposition implies the preexistence of a whole, the aesthetic experience in our case, where a wholistic opposition is in operation and which renders the dialectic process possible. Dialectics can then reveal in an intelligible way what has been experienced as a whole. A whole is taken for granted, whatever this whole is - even a fictional entity, and independently of its being reshaped by interpretation. Dialectics starts from its partial instances and partial aspects towards addressing the fact of it [38].

Aesthetic experience as the intuitive grasp of an aesthetic phenomenon or the emotional response to it, is a direct revelation of the whole (a work of art) which the dialectic process follows in order to understand it. Dialectic hermeneutics thus attempts the intelligible understanding of wholistic aesthetic experiences. A work of art IS something, it has a particular identity all the time we attempt to understand it, however partial our interpretation is at any particular time.

7. THE THIRD TERM IN DIALECTICAL OPPOSITION

Every thing has a non-thing, but here it is not a matter of rhetoric opposition; instead, it is an opposition between equally real and equally important entities. Antithetical, yet complementary qualities interact creatively when and if they operate at a particular level with something in common to interrelate them, something to provide the necessary basis upon which to interact. In this sense a non-thing is not a thing and the thing/non-thing interaction becomes meaningless if not a tautology. In other words, not only they do not share a thingness but they do not share anything upon which to interact dialectically. We understand the opposition male-female taking for granted their sharing status as beings, while the opposition between male/non-being is nonsensical.

There always arises the problem of what is the common ground for dialectics of the opposites to operate. Opposites must be considered as such according to something. On what level is dialectics possible and important? Or, in other words, what is the common property between the opposites so that their dialectic interaction to become first possible
The notion of a common basis underlying dialectical opposition, finds its best conceptualization in Raymond Prier’s research. Prier argues that dialectic conceptualization characterizes mainly Presocratic Philosophy and especially the work of Heracleitus, Parmenides and Empedocles, although he traces it back to the function of eros in Hesiod’s Theogony [39]. *Dialectic of the opposites*, Prier argues, *is generated, combined and united by a third term*. This generator and common denominator of dialectics coined by Prier as "the third term", or the "geometrical mean" in dialectical opposition, gives the power to the opposites to conceptualize the universe as *kosmos* in pre-Socratic philosophy. In Prier’s words:

it possesses the characteristics of the positive term of the initial opposition. It also underlines and unites the initial opposition itself. [40]

This "third term", at each level, endows an entity with the quality of *oneness* beyond the dialectical interaction between its opposing facets and provides the power for its existence and the subsequent interaction of the opposites. For Heracleitus the third term behind every opposition is *logos*. *Logos* is the boundless, all embracing law of laws [41]. It correlates the opposites while being endowed with the qualities of both. It constitutes the common denominator and the source power for dialectics to advance. *Logos* itself is without a counterpart. It is an ultimate with no opposite, or rather itself generates its cosmic manifestation according to which it is revealed. Should there be an opposite to Logos it would be so according to Logos again. Logos maintains its symbolic supremacy by following a circular movement. Dialectics springs from it and ends up in it. Dialectics of the opposites at every level of interaction always represents Logos. Logos is manifested only in dialectics, while dialectics is possible only due to it. Particular instances of Logos appear as *logoi*, reasons, law of proportion, a specific correspondence. *Logos* in turn can be conceived as a *continuous proportion*, able to generate all particular instances of correspondence. *Polemos*, strife, war and *pyr*, fire, are for Heracleitus two instances (the most important?) of Logos.

Ananda Coomaraswamy makes some similar remarks in considering the "supreme identity" as the source of all dialectics. In discussing the dialectical relation between utterance and silence, he refers to the Vedic tradition and describes the supreme identity as follows:

It must be premised that the Supreme Identity (*tad ekam*) is not merely in itself
"without duality" (*advaita*), but when considered from another and external
point of view is an identity of many different things. By this we do not mean only that a first unitary principle transcends the reciprocally related pairs of opposites (dvandvau) that can be distinguished on any level of reference as contraries or known as contradictories; but rather that the Supreme Identity, undetermined even by a first assumption of unity, subsumes in its infinity the whole of what can be implied or represented by the notions of the infinite and the finite, of which the former includes the latter, without reciprocity. On the other hand, the finite cannot be excluded or isolated from or denied to the infinite, since an independent finite would be in itself a limitation of the infinite by hypothesis. The Supreme Identity is, therefore, inevitably represented in our thought under two aspects, both of which are essential to the formation of any concept of totality "secundum rem" [42].

For Anaximander apeiron, is the primordial entity, where time springs from and ordains through justice the interaction of opposites and infers change. Apeiron cannot but be represented in our thought under its inner dialectics, apeiron and time [43].

In any case, the distinct quality of the third term, what Fraenkel called "the geometrical mean", is its being a structuring principle and source power [44]. It unites the opposites as their common denominator and their common source; being part of their opposition in one sense, but transcending the opposition in another.

8. HIERARCHY IN DIALECTICS

Having discussed the role of the third term, it is also important to ascribe to it some characteristics according to which dialectics of the opposites becomes meaningful. Logos for Heracleitus has the ability to measure opposition and be a measure itself of it. This property of logos implies that it is able of judgement values [45]. Similarly, for Anaximander, apeiron ordains the opposites in time according to justice. Fraenkel has shown that the structure of the Heracleitian fragments is hierarchical. The sequence of correspondences endows logos with moral values and judgement criteria [46]. Prier acknowledges Fraenkel’s argument when he writes about the structure of Parmenidean thought:

Light is a positive phenomenon - one beyond a mere light/dark opposition - and that Light is involved in the knowledge of true Being. This double position of Light - part of an opposition in one sense, transcending the opposition in another - might very well rest upon the ideal of progressing
from dark to light in connection with Hesiod, or it may involve a dialectical movement behind opposition. [47]
NOTES AND REFERENCES


6) Vlastos argues that Anaximander's *apeiron* is a compound of opposites, yet in eternal motion. So time and *apeiron* appear to be the primary opposites. G. Vlastos, "Equality and Justice in early Greek Cosmologies", Classical Philology, 1947, vol. 42, p. 171, and p. 172, n. 149.


8) Ibid., p. 105.


10) Ibid, pp. 143-162.


12) For the notion of dualism in Pythagorean philosophy, see: Kirk and Raven, op. cit., p. 238.


17) In Anecdota Arithmologica we find the kernel concepts of the Pythagoreans about the properties of numbers. According to these the *monas*, the one is the soul of everything, the essense, and it was one because it was permanent and always like the primordial. On the other hand *daas*, the principle of two, was the beginning of the many, the first female and the relative, because by being based on two it is capable of
change; and infers *kinesin*, motion and movement and imposition on things, (cf. the formal vs dialectic logic debate in the present essay), cited in: A. Delatte, op. cit., p. 167.


19) If *logos* is a suprahuman entity (inaccessible to human beings), then dialectics could be considered as its human aspect (instance). Democritus had argued that *logos* is the shadow of a work. For the notion of -*logos-*., see:


21) For the Yin-Yang dialectics and bibliography, see:
For the *propaideutic* purpose of dialectics, as opposed to positivistic and deterministic ones, see: Gadamer (1976), op. cit., p. 105, and Axelos (1974), op. cit., pp. 53-56.


26) Ibid, p. 204.


29) In the Greek language the notions of education (*paideia*), child (*paidi*) and play (*paideia*), come from the same root (*paid-*), and their meanings, still in modern Greek, are interconnected.


32) For formal logic a double negation of a thing is the thing, i.e. -(-x)= x, while for dialectic logic, a double negation is the negation of the negation and hence -(-x) is at another level from x, since -(-x) presupposes the existence of -x as well as the existence of x. What x and -(-x) have in common, is that they are opposites of -x, but, while this is sufficient to formal logic, it is not for dialectic logic, according to which x and -(-x) are not on the same level. So dialectic logic involves an irreversible process, which differentiates x and -(-x). In an analogical sense a helix, although always projecting to a circle, is more than the circle. Formal logic distinguishes temporal frames of a synchronically spread temporal field, while dialectic logic distinguishes temporal levels, acknowledging the diachronic process of change. Formal logic acknowledges (-x) only in reference to x, while dialectic logic acknowledges it as equally real to x. It is in this way that their interaction becomes intelligible. Otherwise dialectics can only serve as a tool for Sophistic speculation, as Kant condemned it.


38) Kandinsky wrote to Schönberg:
"...at the end I wanted to say ‘or the opposite’. When one departs from the root every possibility of combination becomes an ‘or the opposite’. Cited in: Jelena Hahl-Koch (ed.), Arnold Schönberg/Wassily Kandinsky, London: Faber & Faber,


44) Fraenkel, op. cit.


46) Ibid., p. 31.

In the field of literary criticism we can trace some approaches which deal with the issue of openness in the interpretation of literary works. William Empson in his seminal work "Seven Types of Ambiguity" examines in an analytical mode the potentiality of ambiguity in literature (1). Multiple meaning for Empson is a measure of aesthetic appreciation, although he sees literary art stripped out from the context of its creation (2).

Empson analyzes the pattern of meaning in a work without even regarding the historic shifts of the meanings of language. Besides, analytic criticism, of which Empson is a main exponent, has been charged with over-ingenuity and of being remote from everyday experience. Nevertheless, it is mentioned here because it shifted literary criticism towards the identity of a particular literary work, deriving from it the criteria for its evaluation rather than applying some general criteria for its interpretation and evaluation. This shift to the ontology of the literary work is close to the contextual interpretation of new architecture proposed in this study. Moreover, Empson shifted literary criticism from historical explanation to interpretation ontologically relevant to the contemporary interpreter. For Empson, multiplicity of meanings alone, i.e. if a literary work was capable of being meaningful in ever different yet significant ways, could legitimize a literary work as a real work of art.

Paul Valery has also referred to the interpretative openness in literary works as a measure for their evaluation. Valery, in contrast to most literary critics focussing on openness and ambiguity, emphasized on the identity of a work of art amid the diverse interpretations it can attain. As he expressed it:

The richness of a work of art consists in the number of meanings and values it can assume, while still remaining itself. (3)

In the Fifties, a group of philosophers, writers and critics, influenced by the theory of information, was formed to investigate the potentiality of literary works. The French writer and poet Raymond Queneau, the mathematician Francois Le Lionnais and the Italian
novelist and critic Italo Calvino were some of the best known members of the group called OuLiPo. The potentiality of life for meaning was the main objective of this group and multiple interpretation in a mathematical sense was considered the primary value of literature. A typical literary work embodying the main objective of the group was Queneau’s collection of slips containing phrases which could be interpreted in 10 to the 14th power different ways (4).

In the same vein with OuLiPo and stimulated by Italo Calvino, Umberto Eco has also dealt with the issue of multiple significance and value in literary criticism. Eco in his study "Opera Aperta", the open work, examines in a semiological mode the relation between form and indeterminacy in poetical works (5). He considers openness in a literary work to be of primary importance for the appreciation of its aesthetic merits and finally its evaluation. He applies information theory to examine multiple significance in a work of art as a result of its formal indeterminacy. Eco distinguishes between two kinds of openness; openness as a result of an intention towards univocality and openness as an end in itself.

Eco draws on the Divine Comedy by Dante to exemplify openness to interpretations as a result of an intention towards one interpretation. In parallel he draws on Joyce’s "Finnegan’s Wake" to exemplify indeterminacy in form and structure as an intention.

Dante, for Eco, fits comfortably into the Classical line of aesthetics, where works of art require their interpreter to appreciate what the artist has definitely achieved. Works in this category are complete in themselves and the interpreter can only reveal what is there in them already. In contrast, modern works of art like Joyce’s "Finnegan’s Wake" and Stockhausen’s Klavierconcert require the interpreter to participate in their conception or realization by playing a constructive role.

Eco does not provide any evaluation between these two kinds of openness. He only exposes and discusses their characteristics in the light of the theory of information. Whatever characteristics are assessed in both kinds of openness for a literary work, are described as information carriers and in respect to their ability to signify. Eco’s discussion of this subject provides a lot of insights useful to our consideration of openness. Yet, he fails to provide criteria for validity among the various meanings that a literary work can attain. Eco values multisemy and increased quantity of information, no matter if this information converges somewhere or not.

Roland Barthes discusses the same problem of the two kinds of openness, by distinguishing between readerly texts and writerly texts, i.e. prefabricated texts vs new novelists.
Readerly texts guide their reading, while writerly texts can only be realized by the reader's free choice of their interpretation (6).

In this thesis, a dialogue between these opposite views is attempted. Not all values rest with the work of art, of which interpreters are passive recipients of its meanings, or the works of art would be unintelligible and useless; and not all values rest with the interpreter, or there would be no need for a work of art. Moreover, in Barthes' argument there can never be pure writerly text, because the writer himself is also a reader of his work. As Sparshott argues, a writerly text would be a novelist without a novel. Indeterminacy or ambiguity, what we have already discussed in terms of the Platonic aporia, is the result of the dialogue between the work of art and its interpreter. Ambiguity is not the result of limitations on the part of the work of art or the interpreter, but the result of a never ending dialogue, which evolves without any ultimate goal yet it is ontologically positive at every stage of its manifestation. If such a dialogue is not achieved then the work of art achieves nothing more than incomprehensibility and failure to communicate. In such a case:

-...the limits of indeterminacy is not so much plurality as blankness. (7)
NOTES AND REFERENCES


4) Raymond Queneau and Francois Le Lionnais, OuLiPo: Literature Potentielle, Paris: Gallimard, 1965 (c/1950) Also: Forma e Indeterminazione, XII Congresso Internazionale di Filosofia, 1958, "Il Problema dell' Opera Aperta".


6) Francis Sparshott, op. cit., p. 511.

7) Ibid.