

ISIS FOURTH INTERNATIONAL CONFERENCE
TECHNION I.I.T, HAIFA, ISRAEL, SEPTEMBER 1998.

Artonomy: Systemic Art

Four artists applying the same paradigm.

A Structural Paradigm for Art Applied to:
Painting by T. Avital,
Sculpture by I. Hadany,
Music by A. Ehrlich,
Graphic Art Composed in EW Movement Notation by J. G.
Harries. (The score is in principle applicable to dance.)

Introduction, by Tsion Avital

Unlike any exhibition of works of art in which the main aspect is the **exhibits** that it puts on view to the observer, the unique feature of the exhibition proposed here is not so much in the works themselves as in the **conception** in the light of which they were constructed. The uniqueness of this conception lies in the fact that it attempts to present the outline of a new paradigm of a structuralist-systemic character. This paradigm is proposed as a solution to the dead end in which art finds itself today, and as a possible path for the continuing development of art in the future. Because of its structuralist nature, this paradigm is applicable not only to the plastic arts but to all of the nonverbal arts, and combinations of them. In the present case, we wish to display primary, even primitive, applications of this paradigm to painting, sculpture, music, movement and graphic art derived from Eshkol-Wachman Movement Notation, so that the proposed exhibition includes in fact **four sub-exhibitions** applying the same paradigm. In three out of the four sub-exhibitions included under the title "artonomy", we can not show the works themselves, because of their size

and number would require quite complicated preparation and a vast amount of exhibition space - but only reproductions in the case of painting and sculpture, and the scores of the music and not their performance. The special character of this exhibition requires a minimal theoretical explanation which will make up for the absence of the works themselves, and provide the scientists taking part in the "ORDER/DISORDER" conference with a point of reference for an understanding of the exhibition. A more wide-ranging explanation of the exhibition than the present is provided in a separate booklet distributed to all of the delegates.

Like organisms that age and die when they are no longer productive, so do paradigms in all fields wither and die when their potential of generalization and metaphorization becomes exhausted. It appears that the dead end at which art is found today, clearly indicates such a paradigmatic crisis. Unlike science, which has already passed through a number of paradigmatic revolutions and is avid for more, in art there has never been a paradigmatic revolution, but only changes of style within the framework of the same paradigm. This paradigm existed for 40,000 years, up to the beginning of the 20th century, and was then dismantled completely by the fathers of nonrepresentational art; however, they did not construct a different paradigm in its place, but carried out a reduction of the paradigm to its perceptual components - colors and shapes - with a complete destruction of its systemic syntax or ordering principle: **hierarchical structure**. For this reason the hundreds of styles created in this century do not constitute a new paradigm for art, but are only the debris of the previous paradigm. For, with the loss of the hierarchical structure art lost all cognitive and cultural value as a means of **symbolization**, connectivity, grouping and

classification. Furthermore, in every physical, biological, social, or noetic system - of which art is only one aspect - randomness or arbitrariness is the implicit facet of the hierarchy. For this reason, Being at all of these levels depends upon a subtle and dynamic dialectic between order and disorder. With the loss of hierarchical patterning, art also lost control of the complexity of the works, and lost too the dialectic of order-disorder which is a decisive factor in establishing levels of connectivity, abstraction, generalization and creativity in this field. For this reason most of the works of painting and sculpture created in our century tend to belong to one of these two poles: a surplus or a lack of order, too poor or too rich a complexity, minimalism of all kinds or abstract expressionism in its different versions.

The limit of abstraction of a symbol system is also its limit of generalization. Because of this, a field that has exhausted the potential of abstraction of its paradigm without succeeding in constructing a more general paradigm, has necessarily ceased to develop, and sooner or later withers and ceases to exist as a productive cultural field, and this seems to be the situation of art today. It appears that the art of the twentieth century is only a **necessary intermediate stage** in which indeed the old paradigm has been successfully destroyed, but another and more adequate one has not yet been constructed in its place. On the other hand it must not be forgotten that without the destruction of the old structures new ones cannot be built in place of them, and indeed that is the chief accomplishment of the art of the twentieth century. The next stage in the evolution of art must be the institution of a new paradigm more general than the old. What will or can happen in art may perhaps be learned from a similar situation that has already occurred in the history of science. The

chief characteristic of the scientific revolutions since Galileo, is the transition from the interpretation of the world in rationalistic, value-dependent, anthropomorphic and contentual terms, without regard to the dynamic dimension of reality, to a world view in which the world is interpreted in theoretical, **relational-structuralist**, empirical, quantitative and process oriented terms. In many respects, figurative art, which is the only paradigm there has been so far in art, is like Aristotelian science inasmuch as both are content oriented. It can be shown that the reasons that led to the fall of Aristotelian science and the rise of modern science are very like those which led to the fall of the figurative paradigm in art and to the need that has arisen today for a new paradigm of a **structural** character in this field. In the two fields a need has arisen to move from a level of connectivity that has been exhausted, to a higher level of connectivity. This was made possible for science by the passage from a world view that is content or semantically oriented to one which is more relational and structure oriented. The new paradigm, which I have called **Artonomy**, proposes a similar solution for art: that is, instead of art being concerned with the presentation of objects and contents of consciousness, it would now be concerned with **structures** of mind. It is suggested that all branches of culture, including art, are specific embodiments or actualizations of certain basic properties of mind, but at different levels of abstraction and generalization. It can be shown that all branches of culture share certain basic properties, but the difference between them is mostly due to the level of abstraction at which those properties have been actualized in each domain. These basic properties of mind or "mindprints" have a very unique structure:

They are all epistemological and ontological oxymorons such as one can see in the following tentative table (Avital, 1996, 1997).

A Tentative Mindprints Table:

1. Connectivity - Disconnectivity
2. Open endedness - Closed endedness
3. Recursiveness (Recurrence) - Singularity ("One-off")
4. Transformation - Invariance
5. Hierarchy - Randomness (Anti-hierarchy, Disorder)
6. Symmetry - Asymmetry
7. Negation -Affirmation (Double Negation)
8. Complementarity - Mutual Exclusiveness
9. Comparison - (No Comparison ?, Incommensurability?)
10. Determinism - Indeterminism (Deterministic Chaos, Probability, Selection, Choice).

By means of the transition to a structuralist world view the way is opened for a new renaissance in art and furthermore, many problems in art are solved at a single stroke which today have no solution at all; a universal basis is again created for all concerned both with the making and also the contemplation of art, since mindprints are common to all human beings and are necessarily innate because they seem to be the meta-structures of the complementarity of mind-reality. Thus hierarchical structure is restored to art, and art can thereby move to a much higher level of abstraction than it had in the past. Art once again represents by means of symmetry-asymmetry, except that this time it will not display a figurative symmetry of concrete or imaginary objects but much more abstract symmetries. Art will again be concerned with a dialectic of order/disorder; a common structural basis is created for art and science, so that a meta-culture is possible in the future of which science and art

are only aspects. In figurative art the hierarchical order is defined by means of inclusion relationships among the symbols comprising the picture. Inclusion relationships are ordering relations, and this fact is what makes these pictures intelligible visual messages. In artonomy there are no longer figurative symbols but fields or holons comprised of aesthetic elements between which there are inclusion relationships and transformation. Another difference is that in figurative painting the whole system is present in one picture, which is static. By contrast, the aim in artonomy is towards a process of transformations of groups of aesthetic elements and forms in a dynamic state, together with the constant increase of their complexity insofar as the system develops. At this primitive stage of artonomy, the systems have still been executed on paper, canvas or materials such as those used in painting and sculpture of the old paradigm, but in the future it is clear that the right way of executing these systems must necessarily be on computer screens and multimedia, so that the systems can be seen dynamically, coming into being before the observer's eyes. Furthermore, the systems constructed in the future will have to integrate all aesthetic elements: color, two- and three-dimensional shape, sound and movement. Almost certainly,⁴

such systems will be constructed not by a single artist but by a creative team from different fields.

In a figurative painting the order is in some way isomorphic to the order we perceive in the world, and these paintings are therefore still understood tens of thousands of years after they were created. The source of the order in artonomic systems is in the organizing patterns innate to human beings, and they coincide with the organizational patterns that we apply or identify (depending

upon the reader's preferred epistemology) in the world; and the observer therefore identifies the structures even without being aware of it. In a series of experiments carried out with students it was proved that they identified hierarchical structures of artonomic systems even when their holons or components were displayed in a random order! That is to say, if there is hierarchical order in the phenomenon, our brain identifies it even without our consciously looking for it! (Avital, 1998).

In 1970 I formulated the outline of artonomous theory in a Master's thesis at the Hebrew University, and four years later expanded it into a Doctoral thesis after rigorous empirical testing of the basic assumptions of the theory at the Laboratory of Experimental Aesthetics at Toronto University under the tutorship of D. E. Berlyne and Anatol Rapoport (Avital 1974). In July-August 1974 the first artonomic exhibition was shown at the Galleries of the National Library at the Hebrew University under the title "Artonomy - Systemic Art". In this exhibition systems were displayed for the first time, from four different arts but by means of the same syntax or systemic theory of composition. The participants in this exhibition were the same as those participating today, with the exception of the sculptural systems which are now by Israel Hadany whereas in the 1974 exhibition they were constructed by Ayana Wirtheim.

In the present exhibition color reproductions are displayed, of the following systems:

Tsion Avital - Three systems in painting, about 26 panels including graphs.

Israel Hadany - One system in sculpture, about 34 panels including graphs.

(This system, known as "The Black System", was exhibited at the Aika Brown Gallery, Jerusalem, in August 1985.)

Abel Ehrlich - Three systems in music, 35 pages of the scores including graphs.

John G. Harries - A system based on Eshkol-Wachman notation. This system is both for painting and movement. About 18 panels including pictures, score in EW notation, and graphs. **Total:** about 125 panels.

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