# ART AND SCIENCE CAN DEVELOP THE NOTION OF SYMMETRY IN TIME AN INTERDISCIPLINARY PROCESS

## CLAUDIA H.STERN AND ATHOS STERN

Name: Claudia H. Stern, teacher, sculptor (b.Porto Alegre, Rio Grande do Sul, Brazil). Address: Avenida Carlos Gomes 1302, # 03, Porto Alegre, Rio Grande do Sul, CEP 90480-001, Brazil E-mail: claudiastern @ terra.com.br Fields of interest: Sculpture (also Education, Sociology, Philosophy).

*Awards:* International Honor Brazilian Art, (MASP) 2002; Academic of Number, Ibero-American Academy of Culture, USA, 2002; Volunteer of the Year of the Southern Hemisphere, Partners of the Americas, USA 1987.

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Name: Athos Stern, enginner, teacher, (b. Santa Rosa, Rio Grande do Sul, Brazil). Address: Avenida Carlos Gomes 1302, # 03, Porto Alegre, Rio Grande do Sul, 90480-001, Brasil E-mail: athosstern @ terra.com.br Fields of interest: teacher, Engineering (also Computer)

Abstract: In this lecture, I try to uncover the relationships between Art, Science and Tradition, by proposing new models of thought that can recover for the culture and the society a more complete human being, capable of facing the challenges of the complexity – the issue of relationships between knowledge, disciplines, and systems (natural, cultural and economical), which characterizes the contemporary world. Art can teach us how to see and how to look. To illustrate that, I will present some examples of experiences in different communities, not only in the process of building public work, but also an experience with the Fellows III Leadership International Developing Program, Kelloggs Foundation.

#### **1 WHEN A LOOK CAN SEE**

I feel an enormous pleasure in thinking. It is in the process of generating thoughts that I look for ideas that can translate myself or any other subjects presented to me through a sculpture.

The difference between 'look', in the biological sense, and gaze, in the anthropologic sense, is the difference between our gestures and acts. Our visual culture is by degrees becoming richer and richer; however, we are constrained by a world of images which we don't understand.

We look and it seems as if we can't see; or better, we don't gaze at almost anything— we merely take glances. Art can teach us how to gaze!

Looking is fast and immediate, and it doesn't give us the measure of any time -- it is just that instant. The act of looking doesn't send us automatically to the act of thinking.

After looking (in the biological sense), it is necessary to look intently at something, to gaze (in the anthropologic sense)

To look, to see, and to gaze can be complementary. They are movements of the same gesture involving sensibility and attention.

Why do we need to reconstruct an object with the eyes? To really see it!

At this point enters the symmetry or the lack of symmetry with the same force. The glance is linked to the contemplation. To see is to pay attention to the things until you can get a view of the whole. A work of art may teach us about what we haven't noticed yet and about what we haven't yet realized. (When creating, I need to hear the silence). A work of art doesn't only let us see it, but it also makes us think about it.

We look and we see it in total symmetry!

## **2 THE SYMMETRY OF ART**

The current technology shows us that the forms of Nature, the geometry of the world (plants, stones, animals) are always designed in squares and triangles, and if we unite the points with straight lines, we will have the illusion of curves.

Plato, in Old Greece, studied regular solids: the icosahedron, a solid with an infinite number of sides that result in the sphere form.



Figure 1: Zumbi Monument sundial. Porto Alegre, Brazil, 1997

In the Middle Ages: works with two dimensions.

In the Renaissance: there was a concern with the third dimension.

In the Modernism: the geometry of space. It doesn't have a point of escape as there was in the Renaissance; now it has several ones. Cubism comes into the scenery.

A complete vision is formed by a relationship between the sciences throughout time.

How can we represent the Chaos of the world? Mondrian divides space in horizontal and vertical.

Later, Krajberg complements it with his burned trees: - "It is necessary to rethink the square in order to find the tree", an alert against the destruction of the Nature.

The true content is there in one right angle or in one spiral of the life.

The Internet is nothing more than a pre-vision of the collective unconscious or as Einstein put it, "the world of the ideas"

After the invention of TV, nothing else is hidden; we are very close to reaching the unity of our mind.

New models of thinking can recover for our Culture and Society a more complete human being, capable of facing new and complex challenges.

The issue of relationships between knowledge, disciplines and systems (natural, cultural and economical) characterizes this contemporary world.

An individual lives alone -- we are alone. The search for reason gave room to the lack of sensibility.For the highly creative process and reflexiveness of Art, we should establish parallel with other fields of the knowledge.



Figure 2: Prophecy sundial. Puerto Rico, USA, 1996.

# **3 THE SUBTLE PROCESS OF THE SYMMETRY**

Creativity lives as a germ under the visible surface of the work.

We have to establish parallels with other fields of the knowledge to enrich this highly creative process

My works interact with Engineering, Philosophy, Astronomy, and Physics as we will see in the DVD/CD of my public works (15 examples out of the 43 works in public spaces).

The symmetry of Art is a subtle process; a process out of time. Creativity is used to question everyday life.

The fruition of Art is something special and individual in our internal system, capable of generating personal ideas. As well as the rebelliousness, the process of symmetry and lack of symmetry has two aspects; a destructive potential and a creative one capable of questioning and provoking changes in behavior.

Life is Art, Art is life!

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