

Valie Export/Peter Weibel: The Duality of nature

Nature and Nature's laws lay hid in night
God said, let Newton be, and all was light.
Alexander Pope

These famous verses refer to a fundamental duality that has become known as the weak or the strong anthropic principle. This principle, using various formulations from Pythagoras to Goethe and Robert Dieke, tries to describe the relations of man as a product of nature to nature itself. Why is an eye what it is, being able to see with the help of light? Why is the world as it is, consisting of carbon, hydrogen, oxygen and nitrogen, of the very four essential elements that we need for living? Is it because the eye is sun-like, as Goethe suggested? We are able to see the sun because the formation of the eye has taken place according to the laws of light. Or is it that the laws of nature had to be of a quality that permits our existence as it is because we exist? To put it in Pythagoras' words: "Man is the measure of all things." Are we here because the fundamental constants of the cosmos, such as gravity and velocity of light are what they are, e.g. constant, that is without dimension and independent of any measuring system, or are the constants what they are because man exists in a certain way.

But today, in a world of quantum mechanics and an expanding universe, where interaction plays an important role, where every elementary phenomenon is nothing but a phenomenon once it has been registered, and where the observer participates in the definition of reality (John Archibald Wheeler's participatory universe) it is no longer possible to draw a distinct line between man establishing theories, explanations and models and nature observed: the line between observing apparatus and observed system is a labyrinth. In a world like this, Spinoza's determinism is no longer valid: "Nothing in the universe is random, everything is determined by the necessity of divine nature in its special mode of being" (Ethics, XXIX). In a world like this the above questions can no longer be formulated in this way, because nature is no longer a question of mastery or control; a description and explanation of the world by man is at the same time the participation in the evolutionary process of this world.

From Carnot to Boltzmann, first gestures have been made to eliminate the classical division between the universality of the law and the "being of man as he is", on which the anthropic principle is based.

Today, we discover the limits of the laws and the limits of reality within which nature can be controlled. "Nature does not code the universe" (Michel Serres, *La Traduction*, page 62).

Staring out from this labyrinthic linkage of the representation of the world in knowledge and the world in the process of evolution, further uneasiness is introduced into those categories of separation and opposition that are caused by the binary ambivalence of the term "nature". As one makes a distinction between the nature of man and the things of nature, the term "nature", too, having a dual meaning, this binary semantic is also the source of a continuous chain of binary oppositions. One speaks of nature's power over man and at the same time of the impotence of nature versus human technology. One divides the world into male and female. One talks of female nature, of nature as an organism and of "the nature of woman" of the woman as sorceress. One divides the world into production and reproduction, order and chaos. Reproduction being the task of the female, female nature is presented as chaos. Man is the productive element of a mechanical order controlling nature. The management of nature as a mechanism of power. The natural gifts are turned into goods and commodities.

In physical as well as in social systems we thus recognize a chain of binary oppositions, combined in a rather makeshift way into a standardizing theory entitled "the unity of nature" instead of breaking them up into small fragments of a labyrinth. That is why this video has,

according to the fluxes of theory and practice (because of their duplicitive nature) a male and a female producer.

The tape is dedicated to the aesthetic of gravity and light. According to the effect of gravitation lenses, however, its universe is populated by dual images being equivalent to a single celestial object. Following Einstein, the gravity of a massive celestial object is able to diffract a star's light on its way from earth to this star, thus producing several images in other locations than the real position of the star. The description of reality becomes incomplete, the universe open. The causal structure of the world appears as a variable fugue, played on cosmic strings. This video resembles a guest performance of Crazy Cosmic Strings in the Club Reality. Explosions of the gravity guitar leave black holes. Beams of light search for the needles in the consciousness of the galactic heap. Thousands of voices sing in thousands of languages in universal code. Demons of dynamic write the theory and practice of the clouds. Winds in their canonic form destroy deterministic dreams. The passage from local to global blows over. The statesman and the stateswoman become the mimesis of contradiction.

As the end of the testimony, nature changes the premises so that man becomes the name of the undecidable, he who is to throw the stone and hears the harmony of the new style in this scenario of nature's duality.