# ELEMENTE DER NATURWISSENSCHAFT KOLLOQUIUM

# Environment as Data versus «Being»

Is a Western Goetheanistic View Possible?

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#### Summary

The complex, sociological context of scientific innovation in the western world demands that we attempt to understand science in a more comprehensive manner, turning back to the socially embedded, cognizing human as the start point. Reductionistic theories emerged in the world along with industrial developments. Darwinism is an excellent case for sociological-scientific study, for it appeared on its own merits within science, while at the same time corresponding closely to social upheavals and the rise of egalitarian industrialism and democratic secularism. Today, the context that once supported Darwinism is no longer present. Questions are arising about modern science's relentless acquisition of data about nature, and how it is to be applied. Present social factors have lead many to ask whether competitive, data-orienting sciences are not increasingly anti-social and antinature. Continued in their own right, they may preclude the development of a holistic or comprehensive science. Finally, alternatives that ignore the cognitive aspect of seeing may not themselves be adequate.

## Introduction

For many scientists who work in the environmental field, it is increasingly problematic to imagine a way of knowing nature that is different from modern science's mode of data capture and «factual» interpretation. Environmental engineers say that «... if you can't measure it, you can't manage it». Knowing nature's parts and successfully managing nature are seen as inseparable necessities of modern living.

Modern science grows out of the conceptual modus operandi to investigate each part of nature singly until we achieve a complete understanding of all the underlying mechanisms. In a sense, we have not changed the original formulation of *Rene Descartes* (1596-1650) who elaborated the view that the universe is a «gigantic clockmechanism». This has led logically to the surprising conclusion by some thinkers that essentially we know the world and universe nearly completely, and any new additions to knowledge will be diminishingly small (*Horgan*, 1996).

This author's view is that a new orientation to nature, consisting of a comprehensively holistic in contrast to a reductionistic approach, may provide not only interesting, but also very necessary new dimensions in the modern understanding of the world. A holistic approach could become an important tool for seeing and acquiring a deeper grasp of natural processes where other approaches are showing signs of failure. Thus, a new approach may also be very useful. In a contextual sense, a holistic approach corresponds to new social trends making their appearance now and which reflect a desire for nurturing and healing the world, in contrast to the out-dated motifs of control and competition implicit in modern society's forms.

# Post Western Science: A Crack in the Wall or a Flaw in the Crack?

Countless western ecologists and environmental scientists today are truly concerned about the role and influence of technology – and business – on their fields. A postgreen-revolution view has emerged and holds that there are significant sociological dimensions to modern environmental problems that cannot be ignored (*Brown*, 1998; *Lovins & Lovins*, 2000). Many scientists place western «self-oriented» epistemology on a collision course with nature, and argue for a non-anthropocentric nature view – a transpersonal view – in order to achieve survivable harmony (*Fox*, 1995).

A dilemma arises when examining closely the precepts of any one of many alternative approaches to science and nature. Most do not appear to contain a view of nature that is essentially different from scientific reductionism. From this, it may be questioned whether these alternatives will be able to cause an appreciable shift in the current direction. Even more difficult, ecological perspectives within the sciences often only strengthen reductionistic directions, since they provide important details about relationships, which in turn help «fine tune» the existing mechanical models.

Sachs has provided an example of the dilemma by characterizing the mixing of alternative approaches with existing reductionistic modalities to form the abstract concept «environment». Arising out of this abstraction of nature is an emerging ecological bureaucracy, called by Sachs «eco-cracy», which is obviously needed in order to maintain the complex new view of the environment (*Sachs*, 1992). It is a question whether or not this form of intensification of our understanding of nature can be sustained. Goetheanistic science of nature if it does anything represents a path that is distinctly different than just taking details of the world and arranging them «holistically».

The crux of developing a Goetheanistic approach (and the author finds the expression «Goetheanistic» to be potentially misleading as well) lies in recognizing that a dimension of mind is involved in constructing any view of the universe. To a large extent, alternative movements from ecology to biological farming do not deal with the mind and cognitive component of their approach. Indeed, many do not know there is a choice at all. The focus of many modern western alternatives particularly within medicine and agriculture is on re-arranging the parts already explained reduc-