A CONVERGENCE OF INDIVIDUAL CONSCIOUSNESS, SOCIAL CONSCIOUSNESS AND GEOPHYSICAL CONSCIOUSNESS WITH THE SCATTERED FRAGMENTS OF MODERN SCIENCE, TO SOLVE OUR ECOLOGICAL PROBLEMS.

The growing awareness of the rising level of carbon dioxide in the atmosphere and its potential for "greenhouse warming" plus the higher temperature evaporating more water that eventually leads to more polar ice and the next ice age can act as a focal point for developing a creative philosophical synthesis. People are trying two approaches to developing action plans for the growing ecological crises on our planet.

The first and more visible approach is to deal now with the things that we can easily scientifically measure, such as the temperatures at major cities all over the world. The second is to use a quasicompleteness test to make sure that all relevant fields of science are examined for material relating to the current ecological problems, and then to try to develop a "thematic hypothesis" that explains the functioning of the climate change process in terms of a general systems approach.

Dr. Jessica Matthews (a) exemplifies the first approach of working with the parameters that can be easily measured. Mr. John Hamaker and Dr. Larry Ephron (b) exemplify the second approach, where Hamaker developed the "thematic hypothesis" of the SOIL NUTRITION/GLACIATION CLIMATE CHANGE THESIS, and Larry Ephron translated the Hamaker Thesis into video tape for public use.

Both Matthews and Hamaker recommend the same first steps to reduce the carbon dioxide in the atmosphere, i.e., reforest the earth, stop the deforestation, reduce the burning of fossil fuels, use alternative energy sources, and extend conservation measures. The second method adds an important additional element, namely remineralization of the soil. This is in recognition that the fundamental problem is the nutrition needed to support 5,000,000,000 people on our planet.

Through the Gaia Hypothesis developed by James Lovelock and Lynn Magulis, we can see that the natural course of the Biosphere would be for the glaciation cycle to cause partial extinction of the species of animals overloading the environment, namely the humans. Thanks to W. I. Vernadsky who defined the science of biogeochemistry, we developed a geophysical consciousness about how mankind is now a geological force on our planet and can change the path of geological evolution on our planet.

Thanks to Cesare Emiliani and George Kukla for discovering the nature of the earth's glacial cycles. Thanks to Peter Raven and Paul Ehrlich for defining the concept of "Coevolution" and the editors of the <u>Coevolution Quarterly</u> for maintaining a dialogue on

the Gaia Hypothesis and Coevolution for ten years. Thanks to Nikita N. Moiseev for developing propositions on coevolution with the biosphere. Thanks to Marcus G. Raskin and Herbet J. Bernstein for bringing the social and ethical issues involved in the knowledge process into better focus in their book, New Ways of Knowing - The Sciences, Society, and Reconstructive Knowledge Totowa, NJ: Rowman & Littlefield (1987). Thanks also to Alden Bryant of the Earth Regeneration Society for developing the concept of a CO/2 Budget to assist cities, counties, states, and nations to organize their work on reducing the CO/2 in the atmosphere.

We can rejoice that at the same time that our ecological problems have escalated in severity, we have additional resources available to solve the ecological problems as follows:

- (1) Through the human potential movement, we have many individuals who have expanded their consciousnes so that they are no longer inhibited from tackling the most urgent problems on our planet and are ready to work on coevolution with the biosphere when the directions are given to them.
- (2) We have millions of people around the world who have developed a social consciousness about the millions of people suffering from hunger, who can take action when someone presents them a coherent program.
- (3) Since 1956 our scientists have known about the glacial cycles, so that we have the basis for developing a geophysical consciousness.
- (4) Much of the scientific information needed to support coevolution with the biosphere through a soil remineralization/reforestation based program is available in many fragmented pieces in many fields of science waiting for some philosopher to put the pieces together in a general systems framework.
- (5) We have developed theories of decision making under uncertainty in our colleges of business administration that can help us make reasonable decisions even though some segments of scientific knowledge are missing.

Even though there are a number of gaps in our scientific knowledge of glaciation cycles and climate change, there are decision processes available, people with the scientific knowledge, people with the social concerns of world problems, scientists with different parts of knowledge needed, and potential leaders who can help us get into action with a coevolution with the biosphere program.

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- a. Video Tape: Moyers' World of Ideas: "The Greenhouse Effect."
- b. Video Tape: Larry Ephron: "Stopping the Coming Ice Age."