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A PHILOSOPHICAL PERSPECTIVE ON HOW OUR HUMAN CIVILIZATION  
COULD SYNCHRONIZE THE MODIFICATION OF THE NATURAL GLACIAL CYCLE,  
WITH CONVERSION TO A PARTNERSHIP SOCIAL ORDER TO COEVOLVE WITH  
THE BIOSPHERE AND REACH A NEW LEVEL OF PEACE AND JUSTICE.

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In this paper I draw heavily on experiences of the earlier part of my 71 years on Earth, such as my UC Berkeley studies in electrical engineering (1936-1941), and the University YM-YWCA & Unitarian Church Seminars (1936-1941), MIT Radiation Laboratory RADAR development (1941-1945), auditing sociology courses at Harvard University (1945), UC Berkeley graduate studies in electrical engineering, physics, mathematics and economics (1946-1952), and Computer-Communications work at IBM (1952-1980). I have been active in the Society for Social Responsibility in Science (1949-1967) and the International Society for General Systems Research (1954-- ), now ISSS.

I propose a philosophical perspective for examining how human civilization might successfully survive the nutrition crisis, the natural geophysical-glacial cycle, the energy crisis, and the man-made environmental pollution crises including CO<sub>2</sub>, CFC's, sulfur dioxides, nitrous oxides, methane, etc. I feel that it is possible to recover the lost "zeitgeist" of the MIT Radiation Laboratory, to help establish a spirit of coevolution with the biosphere. We can rejoice that at the same time that our ecological problems have escalated in severity, that we have additional sources of scientific data and scientific hypotheses to help solve the problems. This perspective is not solely a scientific project, it encompasses material from philosophy, science, decision theory, systems engineering, engineering production, and practical emergency action as needed to steer a safe course for our human civilization.

(1) I would start with a top-down analysis as is used in structured programming practices in developing computer software. The bottom-up detailed research in each fragment of science is still needed to fill in the pieces of the basic scientific research.

(1a) Develop a Soil Nutrition/Human Nutrition Consciousness; Include a hypothesis on the connection between the clay theory of the origin of life, the montmorillonite clay patterns that preceeded the development of DNA, and how the soil microorganisms process the trace minerals in montmorillonite clay for utilization by plant roots.

(1b) Develop a Geophysical Consciousness; The Earth has been predominately warmer during the 4.6 billion years of existence. We are in the seventh Ice Era of approx. 65 million years length. This Ice Era includes 5 or 6 Ice Epochs of 2.4 million years. The current Ice Epoch has had 23 Ice-Age Cycles of 70,000 to 125,000 years duration, with interglacial warm periods in between of 10,000 to 12,000 years length. Our human civilization has developed during the current interglacial warm period which has now run for 10,800 years.

(1c) Develop an Archaeological-Anthropological-Social-Economic Consciousness;

(1c1)) An understanding of how Patriarchial War-Like tribes (Kurgans) overthrew the matriarchal/equalitarian societies of Old Europe 5,000 years ago, and how two developments gave the Kurgans the edge over the matrifocal societies:

(a) a NUTRITIONAL edge from the mineral content of the soil in their regions from GEOPHYSICAL process, and

(b) and ECONOMIC advantage from a quantum jump in energy available through the breeding and training of horses.

The controlling of horses by the men may have PSYCHOLOGICALLY helped develop a viewpoint that the women should be controlled like the horses.

The WOMEN and MEN working in PARTNERSHIP worshipping the GODDESSES with PEACE & JUSTICE 5000 years ago apparently failed to perceive the evolving changes in the available modes of production and geophysical processes until the barbarian groups had established firm control of the new technologies.

(1c2) An understanding of the GEOPHYSICAL principles underlying the Earth's glacial cycles that restore the nutritional minerals of the Earth's topsoil every 100,000 years, that gave the Kurgan tribes living closer to the edges of the melting glaciers the overpowering advantage of super nutrition, enabling the barbarians through better nutrition get the edge on organized society.

(1c3) An understanding of how the depletion of soil nutrition triggers a deterioration of trees and plant life, leading to a rising level of carbon dioxide in the atmosphere that causes severe changes in the weather pattern that shortens the crop growing season leading to massive crop failures during the next few years. The food shortages will lead to massive worldwide starvation. The starvation and migration will cause the collapse of most governments, leaving a vacuum politically so that "Kurgan" elements of society will take over and run things in a patriarchial and war-like way, putting women back into a subservient role.

(1c4) WOMEN and MEN together in PARTNERSHIP in a shared program of coevolution with the biosphere can prevent the above by first studying the geophysical process, and then promoting a program to reduce the carbon dioxide in the atmosphere through planting of trees, remineralizing the soil, stopping the burning of fossil fuels, and developing alternative energy sources.

(1c5) There is a controversy over the time to go critical of the impending glaciation. There are scientists who predict 10 years, 50 years, 150 years, 300 years, and 1200 years for the coming of the glaciation. If we base our actions on 150 years for glaciation to go critical, and it turns out to be 10 years the resulting climate change, loss of the food supply, and starvation to death of half the world's people could open the situation for the new Kurgans to DOMINATE Civilization for 2500 years, if it is a little ice age, or for 90,000 years, if it is a full glacial cycle that is coming.

(1c6) In 1981 at a scientific society meeting in Washington, DC, the principle was expressed that four computer software managers controlling the use of the fastest computers could with adequate staff support could control the direction the remaining 4,000,000,000 people on Earth go.

(1d) Develop an Individual-Psychological Consciousness. To carry out the above plans efficiently, each cooperating individual needs to develop an understanding of his own psychology, so that his or her work is not sabotaged by his/her own subconscious script.

(2) Then I would look at the system from the viewpoint of general systems theory and use a quasi-completeness theorem to check for inclusion of the major components. Preliminary examination indicates that information from about 25 specialized fields of science is needed.

(3) Next I would use John Platt's method of plotting problems on a chart of intensity of the problem versus the time to go critical, to estimate the priorities of different problems.

(4) Then I would sketch out a program of steps based on operations research principles derived from procedures used in the MIT Radiation Laboratory in the development of RADAR in World War II to indicate the following major parts of the problem. Perhaps I am trying to rekindle the "zeitgeist" of the MIT Radiation Laboratory.

(4a) Philosophical Oversight;

(4b) Scientific Research;

(4c) Strategy and Decision Processes;

(4d) Engineering Synthesis;

(4e) Production of Materials, Tools, and Systems;

(4f) Emergency Action.

(5) Then I would organize a bibliography specially suited for interdisciplinary use with classes of references as follows:

#### REFERENCES

Class A: Refereed Science Articles in Archival Science Journals and Refereed Conference Proceedings:

- A1. Phillip Frank, The Validation of Scientific Theories. Boston: Beacon Press (1954), Chapter on "Zeitgeist."
- A2. John Platt, "What We Must Do," Science, Vol. 166, pp. 1115-1121, 28 Nov. 1969.
- A2. John Hamaker and Don Weaver, "THE CLIMATE CYCLE, AN EXTRACT FROM THE HAMAKER THESIS ON SURVIVAL," Philadelphia, SGSR Proceedings May 26-30, 1986, pp. L-31--L-44.
- A3. F. E. Wood, Jr. "The need for systems research on global climate change," Systems Research, 5:3, 1988, pp. 225-240.
- A4. E. Roeckner, U. Schlese, Meteorological Institute, University of Hamburg; J. Biercamp, P. Loewe, Max Planck Meteorological Institute; "Cloud optical depth feedbacks and climate modelling," Nature 9/10/87

Class B: Science Reference Books and Textbooks:

- B1. A.G. Cairns-Smith & H. Hartman, Editors, Clay Minerals and the Origin of Life Cambridge: Cambridge University Press, 1986, 193 pages.
- B2. David G. Smith, Editor-in-Chief, The Cambridge Encyclopedia of Earth Sciences Cambridge: Cambridge University Press, 1981, 496 pages.
- B3. A. Henderson-Sellers & K. McGuffie, A Climate Modelling Primer Chichester (1987): John Wiley & Sons. 217 pages. 17.
- B4. The End Larry Ephron, Celestial Arts Press (1988).

Class C: Government Contract Reports:

- C1. Everard M. Lofting and H. Craig Davis, "An Interindustry Analysis of Industrial Air Pollutants for the State and Substate Regions of California," Final Report to the State of California Air Resources Board, Research Division, Sacramento, California 95812 by Engineering-Economics Associates, 1350 Euclid Ave., Berkeley, CA 94708, September 1979.

Class D: Encyclopaedias and Handbooks:

- D1. William R. Corliss, Unknown Earth: A Handbook of Geological Enigmas Glen Arm, MD 21057: The Sourcebook Project, 1980, 833 pages.

Class E: Philosophy and Social Science Books:

- E1. RIANE EISLER, THE CHALICE & THE BLADE, HARPER, 1988
- E2. WILLIS HARMAN, GLOBAL MIND CHANGE, KNOWLEDGE SYSTEMS, AND INSTITUTE OF NOETIC SCIENCES, 1988
- E3. Marcus G. Raskin and Herbert J. Bernstein, New Ways of Knowing ToTowa, NJ: Rowman & Littlefield Publishers (1987) 293 pages.

Class F:

Non-Refereed Conference Proceedings, Manuscripts, and Other  
Non-refereed Articles and Books:

- F1. FB WOOD, ..QUASI-COMPLETENESS...SGSR CONF., LONDON, 1979, p.164
- F2. John Hamaker and Don Weaver, The Survival of Civilization, P.O. Box 1961, Burlingame, Calif. 94010 (1982): Hamaker-Weaver Publications.
- F3. N.N. Moiseev, V.V. Alexandrov, V.F. Krapivin, A.V. Lotov, Yu.M.Svirezhev, and A.M. Tarko, "Global Models, The Biospheric Approach (Theory of the Noosphere)" , Report CP-83-33, 50 pp., IIASA, A-2631 Laxenburg, Austria.
- F4. FRED BERNARD WOOD, HANDBOOK FOR A SHAREABLE STRATEGY OF COEVOLUTION WITH THE BIOSPHERE, CSIRI, 1988
- F5. Fred Bernard Wood (F.B. Wood, Sr.) "Philosophy of testing hypotheses and matrix of climate theories vs evidence," 31st Annual Meeting of the International Society for General Systems Research, Budapest, Hungary, June 1-5, 1987, pp. 1240-1247.
- F6. Larry Ephron, The End The imminent ICE AGE & how we can stop it!, Berkeley, Calif: Celestial Arts, 1988, 233 pages.
- F7. "Fundamentals of Cybernetics - Detailed Seminar Outline," distributed at American Society for Cybernetics Conference, October 1981, Washington, DC, 5 pages.

Class G: Popular Articles and Books such as Science Digest, Omni, National Geographic:

- G1. JOHN G. KAPPAS, SUCCESS IS NOT AN ACCIDENT, PANORAMA, 1985
- G2 Soil Remineralization A Network Newsletter published approximately quarterly, \$12.00 per year, 152 South Street, Northampton, MA 01060.
- G3. BERTRAM COHEN, THE CLIMATE CRISIS AND HUMAN SURVIVAL, SOCIETY FOR EXTENDED ETHIC, INC., 1139 WOODSIDE TRAIL, TROY, MI 48098
- G4. EARTH QUEST (newsletter), OIES, UNIV. CORP. FOR ATMOSPHERIC RESEARCH, P.O. BOX 3000, BOULDER, CO 80307

G5. Magazine articles, such as in New Age Journal , World (Unitarian)

Class H: Art/Mysticism/Religion:

H1. "Who Murdered Peace and Prosperity " - (the greatest murder mystery and cover-up of all time) by David Loye, New Age Journal "Why Men Dominate Women," by Riane Eisler, New Age Journal August 1987, pp. 34-39, 55-57.

Class I: Newspaper Reports, Popular Magazines, Summaries of News Reports, Letters, etc.:

I1. Solar Age? or Ice Age? Bulletin P.O. Box 1961, Burlingame, CA 94010

Class J: Video Tapes:

J1. Video Tape: Moyers' World of Ideas: "The Greenhouse Effect."  
J2. PEOPLE FOR A FUTURE, Video: STOPPING THE COMING ICE AGE, by Larry Ephron, 1988 2000 Center Street, Berkeley, CA 94704

Class K: Organizations:

K1. EARTH REGENERATION SOCIETY, 1442A WALNUT ST., #57, BERKELEY, CA 94709  
K2. CENTER FOR PARTNERSHIP STUDIES, PO BOX 51936, PACIFIC GROVE, CA 93950

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A-1067-F 11/12/89