

A VISIONARY VIEW OF THE STATE OF WHOLE SYSTEMS PRACTICE BY AND FOR THE PEOPLE IN THE YEAR 2020 A.D.

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Abstract

A vision of how the creative streams from seven fields of analysis can be integrated with systems theory and a number of other processes to insure that mankind is on the way to a gentle evolution to the next stage of civilization in a period of 25 years. A time table is included indicating the major advances that might be made by pushing the application of systems theory.

Keywords: consciousness, dialog, evolution, glaciers, science, spirituality, and systems.

Introduction

These seven fields are (1) military analysis of possible catastrophes of glaciation and climate change leading to worldwide starvation illustrated by US Central Intelligence Agency Reports (1974). US National Research Council Report (1975), and the NATO book, A Start of a Glacial (1992), (2) organization of the study of worldwide economic and political problems such as the book: The Choice: Evolution or Extinction? (1994), by Dr. Ervin Laszlo, Club of Budapest, and his organization of local action coalition groups in many countries, (3) spirituality approach to organizing conscious evolution as in the book: The Revelation: A Message of Hope for the New Millennium (1995), by Barbara Marx Hubbard, San Rafael, California, (4) The book, The Partnership Way (1993) by Riane Eisler and David Loye to point the way for cooperation between men and women, (5) John Hamaker and Don Weaver 's book The Survival of Civilization (1982) on a mechanical engineer's analysis of the role of glaciation cycles on our planet to maintain soil nutrition so that life can continue on our planet with only partial extinctions of life, where the natural glacial replacement of soil minerals can be replaced by setting up grinders to grind rock into fine powder to remineralize the soil, (6) the book Thought as a System (1992) by David Bohm as an example of how the "Dialog" method of discourse may help us find appropriate solutions to world problems, and (7) cybernetic systems and general systems theory are capable of helping us define and solve many important problems on our planet. The phenomena of a decreasing standard of living, decreasing ratio of mean black family income to mean white family income in the United States coupled with increasing poverty in many parts of the world can be understood by systems analysis of economic systems such as formed the base of the article by Glenn Burress (1972) analyzed the question: "Who first proposed the habits-persistence hypothesis: Keynes or Duesenberry and Modigliani?", South African Journal of Economics. This relates to the difference between Keynes "economic theory" and Keynes "economic systems analysis."

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Fig. 2. Ice Age Cycles of Planet Earth

Fig. 3. One Cycle of Ice Epoch 150,000 ybp

Unconscious and Conscious Evolution

For 2.4 million years we humans have been evolving from a brain size of 500 cubic centimeters to 1350 cc. This is shown in Fig.1. The curve is based on William Calvin's theory of the role of the glacial cycle averaging 100,000 years (75K to 123K years). Each 100,000 years sees the glacial ice on earth advancing so that the humans and animals are pushed toward extinction. Calvin's theory is that genetic mutations occur from cosmic rays and other radiation. Only a small percent of the mutations result in a beneficial change like larger brain size. The effect is magnified by the glaciation cycle, in which the onset of glaciation leads to widespread starvation of the humans and animals. It is assumed that most of the time the humans with larger brains will have used the larger brains to develop more intelligence and tools. Therefore the larger brain people will probably have a larger survival rate going through the glaciation period. The next amplification of the percentage of people with larger brain size, is that as the glaciation melts off, they take charge of repopulating the earth, thereby making a further increase of the percentage of people with the larger brains. Thus the path of unconscious evolution is very brutal.

Roles of Spirituality and Science in Understanding Cycles

Glacial Cycles as the Driving Force of Human Evolution

The approximate amount of ice on planet Earth cycles between 32 million cubic kilometers and 70 million cubic kilometers during the main part of this Ice Epoch. Looking at Fig. 2 we can see that the amount of ice increases slowly from 32 to 48 during the transition from a Warm Epoch to an Ice Epoch in 1.25 million years. Then the amount of ice oscillates between 32 and 78 during the rest of the Ice Epoch up to the present. The oscillations are not regular, but the amount of ice exceeds 55 million cubic kilometers 23 times during the last 2.4 million years. The levels of Ice Eras, Ice Epochs, and Ice-Age Cycles are explained by Chorolton (1983) in the Time-Life Book Series on Planet Earth. The resolution of points on curves in this report is limited by the space occupied by one computer character, namely the resolution of points in Fig. 2 is 6.5 million cubic kilometers between two points horizontally, and 80,000 years between two points vertically. One can get curves of much finer resolution from the NATO Science Book, A Start of a Glacial, edited by George Kukla (1992). The current cycle is shown to expanded time scale in Fig 3, where the resolution is 5000 years between adjacent points.

The NATO generals have had conferences on the various problems that they may be encountering in the future. In 1992 the NATO Science Committee sponsored a conference on the Earth's glacial cycles, reported in the book "Start of a Glacial"(1992). If an educated layman were to extrapolate the NATO curve of glaciation they would probably arrive at approximately the year 2200 A.D. for going into glaciation, and subtracting 100 years for the effect of world-wide deforestation gives 2100 A.D., and then subtracting another 100 years for the burning of fossil fuels arrive at the year 2000 A.D. as a first approximation for the start of glaciation that would normally last 90,000 years. In the amplified section of Fig. 2 on page 211, it looks like that the glaciation has already started, close to the time predicted by John D. Hamaker. If we want to change from unconscious evolution to conscious evolution, we may have to stop or modify the glacial cycle that sets the timing of the unconscious evolution.

The Role of Spirituality in Understanding Sociological Cycles

The oral traditions of many indigenous peoples contain references to previous ice ages, but rarely contain any reliable count in years back to the glaciation. In India the history of the past was preserved in writing in the Upanishads, but contains no references to the glacial cycles. However these writings talk about sociological cycles in which historians in India observed a definite order of progression from one stage of civilization to another, called "yugas." The time intervals recorded don't make much correlation with geological records. Sri Yukteswar (1970) edited the timing numbers from the Upanishads to obtain more reasonable numerical values of the yuga cycles. These yugas are plotted in Fig. 4 as Hindu Cycles of Civilization. These yugas were plotted by Wood (1978) as an exercise in testing the "Knowledge Proximity Theorem." It is possible that the glaciers in that part of Asia were concentrated on the Plain of Tibet and that most of India was colder, but not in glaciation, so that the philosophers didn't see a connection of deteriorating conditions in India with more glacial ice on other parts of the world.

It appears that Jesus Christ, St. John, and other disciples spent many years reviewing the history of civilization from all sources. This led to the writing by John of the Book of Revelation, approximately 2000 years ago. In recent years, Barbara Marx Hubbard has spent a number of years in meditation. She has discovered that the teachings of Revelation indicate humankind has a choice to make now, near the year 2000 A.D., whether to follow the traditional violent, warlike path (W) of the past through this bifurcation point, or to choose the gentle, loving path (L) as illustrated in Fig. 5.

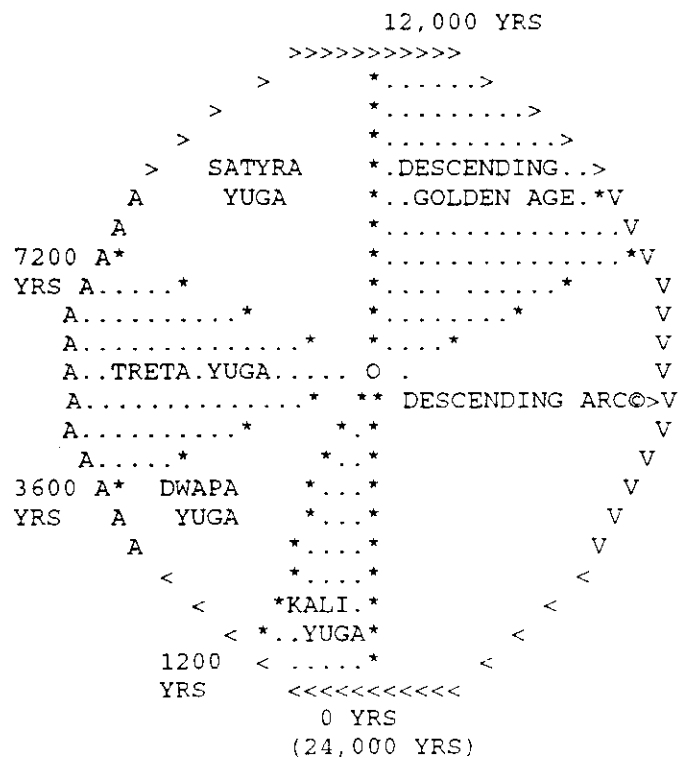


Fig. 4. Hindu Theory of Cycles of Civilization

The central core (GG) of Fig. 5 is "DESIGNING INTELLIGENCE - EVOLVING ASPECT OF GOD." This leads to "CONSCIOUS EVOLUTION." The lines formed of lower case letters represent the evolution of our Universe, Earth, Life, Multicellular Life, and Humanity. The direction of flow of past evolution is indicated by the use of letters of the alphabet "aabbccddeeff...." to indicate time going from a to b to c to d to e to f, etc. The flow of future evolution is indicated by arrows alongside of the violent path "WWWWWW...." and the gentle path "LLLLLLL....". Humanity has a choice at this bifurcation point as to whether we will let the violent path proceed by default or whether we will make use of the lessons of history and our high intelligence brains to make the shift to the "gentle path."

It may require a better understanding of how the human brain works to get enough people to support the switch to "conscious evolution." Bryan Bergson (1996) of ISSS is doing some important research on the functioning of the human brain that may help on this problem. His research deals with how it is possible to synchronize the functioning of both halves of the brain.

The method I have used to organize my source material is illustrated in Fig. 6, The Green Cube Template for Evolutionary Library. Since there is no agreement between scientists and religious leaders on how to communicate at the boundary between "science" and "spirituality," I use this type of library organization to bring the conflict in concepts into physical proximity.

My library using this Green Cube Template was shaken to pieces by the 1989 earthquake in California. The books were salvaged, but have not been restored to the intended organization on the shelves again.

The vertical slices by class of activity are from A to G: Philosophy, Spirituality, Science, Engineering, Production, Decision Theory, Production, and Emergency Action. Books are placed on shelf space in the vertical slice corresponding to its Activity Classification. If a book belongs to more than one activity class, blocks of wood with the title of the book are placed in the additional places. Alternatively this system could be used for a computer data base of an evolutionary library instead of arranging the physical books this way. Vertically the books are placed on the level corresponding to "Levels of Phenomena". In the planes from back to front the books are placed in the plane corresponding to the "Time Stages of Evolution and Cycles." This is to remind us that although we are in an interglacial period of at least 10,000 years duration, we are very close to the end of the interglacial.

A Sample Problem that Can Be Solved Quickly by Cybernetic Systems Analysis

The percentage of median black family income to median white family income is plotted for 1946 to 1993 in Fig. 7. Since 1968 this percentage has been steadily going down from 61% in 1968 to 53% in 1993. ~~For shown in the graph, the percentage has been going down also.~~ These figures are from US Department of Commerce public reports. Also the unemployment rate has been going up. Under these conditions the unemployed white males think either the blacks or women are getting the job the while male should have, thus leading to tension. The blacks are angry, because their income is decreasing.

Many families have to have both husband and wife work to make ends meet. This leads to a larger number of children who have inadequate parental guidance. The tendency is for different groups to be angry at other groups in society.

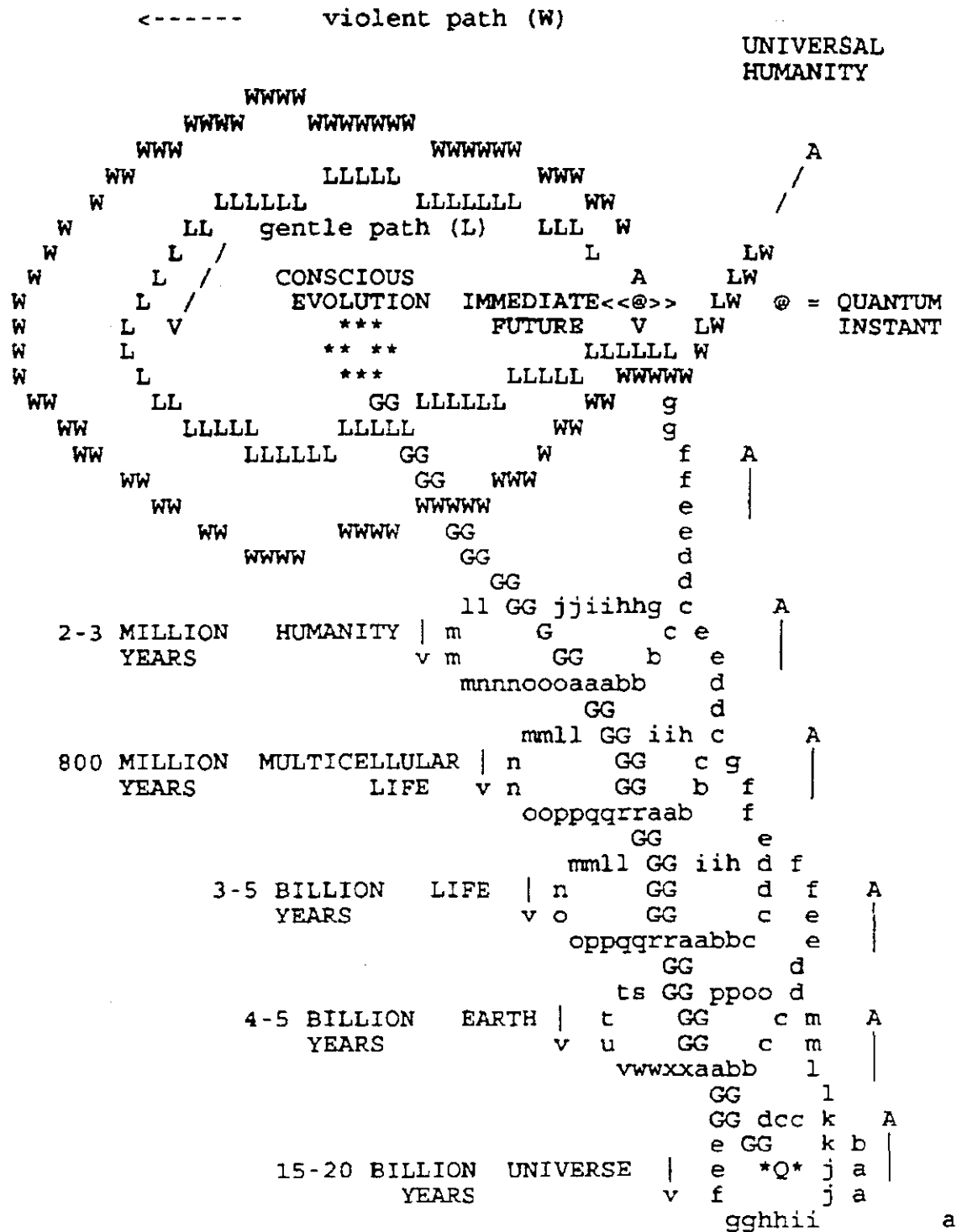
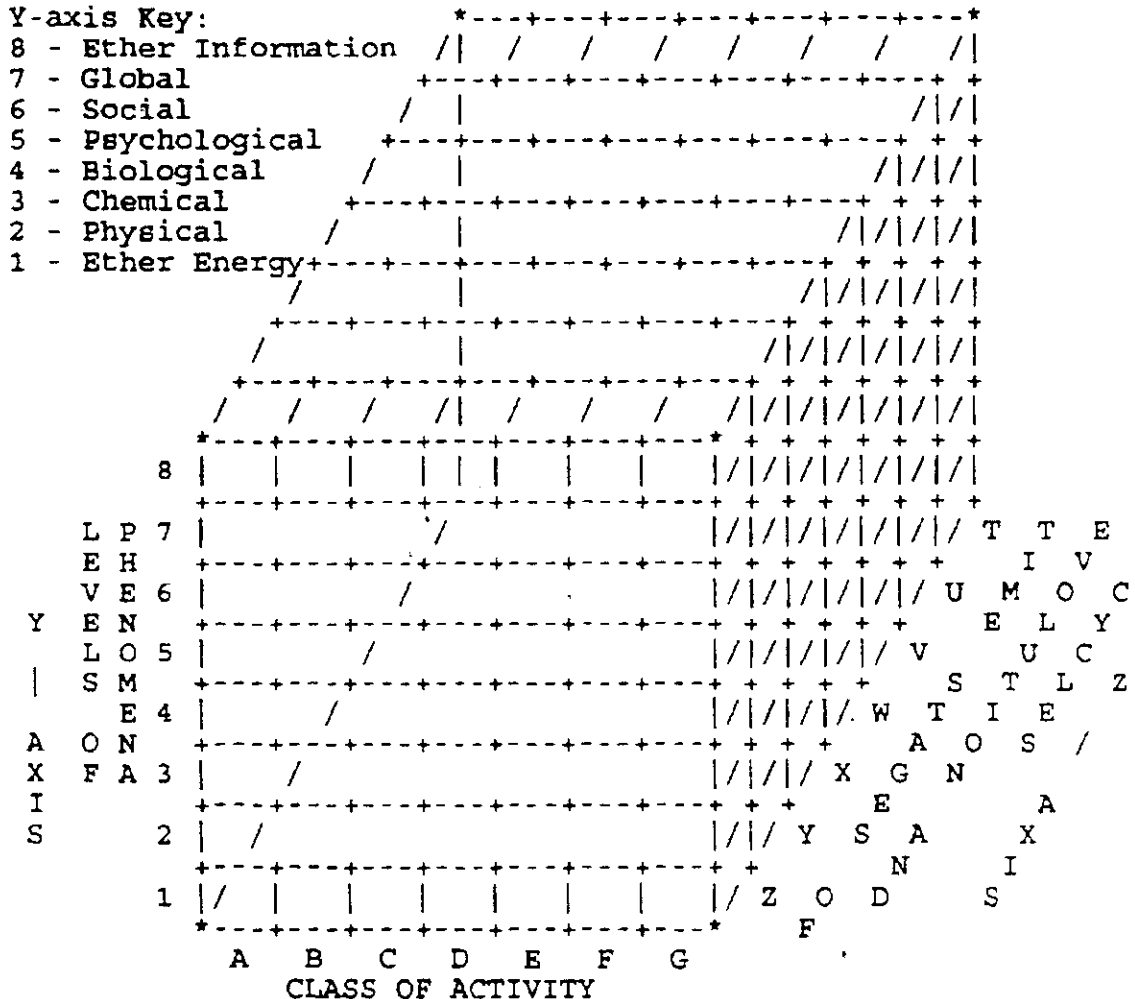


Fig. 5. The Spiral of Evolution (condensed from Barbara Marx Hubbard)

1.4R (Purpose: To Use "Knowledge Proximity Effect" to

13.2R facilitate preliminary interdisciplinary
15-17.1R cooperation.)
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X - AXIS

X-axis Key:

Z-axis Key:

- A - Philosophy
- B - Spirituality
- C - Science
- D - Engineering
- E - Decision Theory
- F - Production
- G - Emergency Action

- T - Astrophysical Evolution & Cycles
- U - Physical and Chemical Evolution
- V - Geophysical Evolution & Cycles
- W - Biological Evolution
- X - Sociological Evolution & Cycles
- Y - Technological Evolution
- Z - Conscious Coevolution w Biosphere

Fig. 6. The Green Cube Template for Evolutionary Library.

Interested citizens can ask the US government, if this reduction in ratio of black to white income is intended policy or whether it is the by-product of economic policy. If it just a by-product of economic policy the citizens should then ask what is the policy, and what cybernetic systems econometric computer simulation program is being used. Then the citizens can ask students and retired systems analysts to study the program to see what is wrong with it.

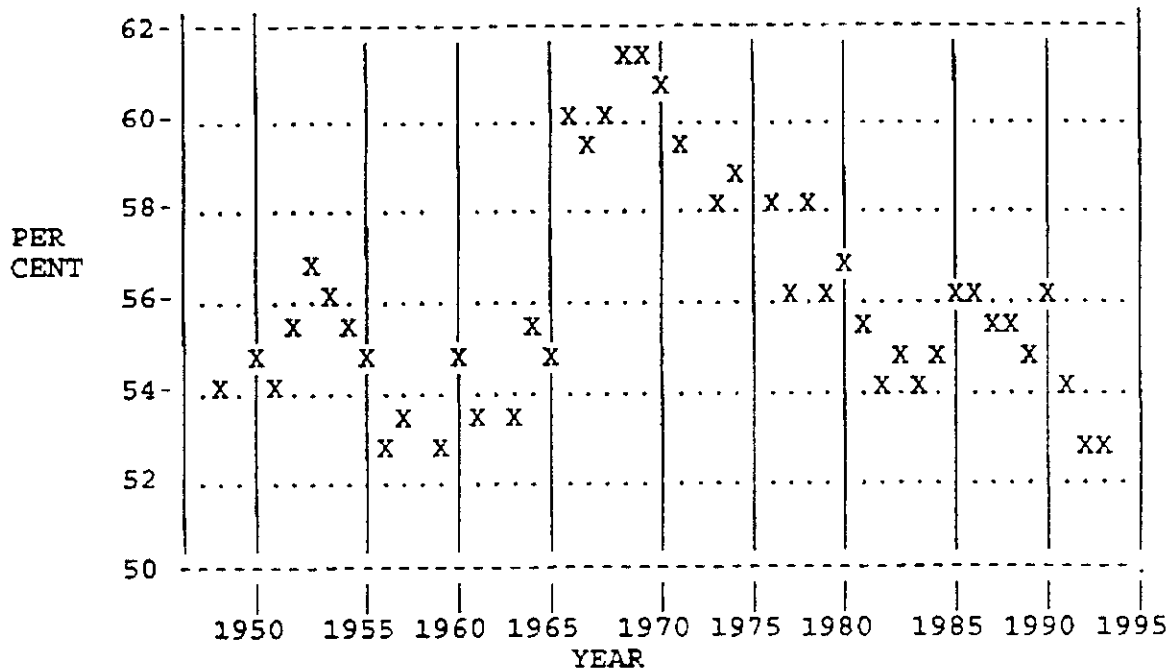


Fig. 7. The Median Income of Black Families in the USA as a Percentage of the Median Income of White families (1946-1993)

List of What Can be Accomplished Each Year
by Using Cybernetic Systems Theory for the People

The following steps can be achieved by the years indicated:

***1996: Plans like this and more detailed sub-sections will put on world wide web home pages for communication and discussion. As a starter see Alden Bryant's

"COPES -- The Measuring Stick for the Future"

Indicators: C=Climate Stabilization;
O=Ozone;
P=Cleanup and replacement of toxic products;
E=Employment;
S=Social = food, housing, health, education, social justice.

Electrical Engineers will start to perceive connections between Laszlo's theory based on QVI (quantum vacuum interaction)in "The Interconnected Universe" and electrical

communication theory, microwave transmission and Spirituality like de Chardin's radial energy equal to Love.

***1997: The People will have learned how to use a "quasi-completeness theorem" from General Systems Theory to find the major parts of the climate change problem, such as the role of the "GAIA HYPOTHESIS" in setting the main criterion of geophysical ethics, and specifically the roles of the glacial cycles in remineralization of the soil to insure that life can continue on planet Earth, and the role of the glacial cycles in driving the evolution of larger brain size in homo sapiens (unconscious evolution).

***1998: The People will have learned how to use concepts from Business Management such as the "Regret Matrix" to estimate what human suffering we will regret, if we don't do something timely to avert catastrophes. Hence the People will organize to reforest the Earth, remineralize the soil, and stop burning fossil fuels now, if they want their grandchildren to survive.

***1999: Bryan Bergson's Combination-Separation Principle demonstrated to lead to improved educational methods where right and left brain are synchronized to produce balanced thought vectors.

***2000: The People will have learned how to plan combination "Top-Down" and "Bottom-Up" Engineering approaches to the problem of climate change, so that they will have under development, both simulation programs from the "top" such as more general block diagram computer simulations, and simulations from the "bottom" of the details of elementary blocks of the system. People will have learned how to use Carlos Aliaga's system of Colhage generation to perceive the relations in complex systems.

***2001: Intra and Inter-Group Dialog Processes established between: PHILOSOPHY, SPIRITUALITY, SCIENCE, DECISIONING, ENGINEERING, PRODUCTION-TOOLING, AND EMERGENCY-ACTION;

***2002: Experimental work of Tesla, Reich, Sheldrake, Constable, and DeMeo integrated into American Handbook of Physics.

***2003: Tachyon Field integrated into knowledge of physics through varying parameters in Alven's Cosmological Magneto-Hydrodynamic Waves.

***2004: Concept of GOD developed by the Hindu religions will be found to be simulated by a convergence between Electrical Engineering Theory and individuals communication with GOD, in which communication with GOD can be simulated by an etheric wave based streaming processor wrapped around the Earth.

***2005: Goals for the Next Step in Civilization defined; and Methods of Using Cybernetics and Information Theory to Protect Human Rights Developed.

***2006: Cybernetic Models of the principal components of the economic systems developed and communicated to the Public.

***2007: Information Theory applied to our economic system with computer economic models set up in the lobbies of major post offices where people could experiment with the economic models.

***2008: Changes in definition of "ENTROPY" explained in electrical engineering journals.

***2009: Substitution of "ENTROPY holes" for "ENTROPY" in electrical engineering;

***2010: Processes for Conscious Coevolution with the Biosphere Organized and Operating, Including Renewable Energy, Reforestation, and Remineralization of Soil;

***2015: Organization of Appropriate Types of C-SITE SOCIALISM with Pockets of Free Enterprise to insure the Freedom of Entrepreneurs to Promote New Inventions is Maintained where Environmental Impact Tests are met. "C-SITE" means: Cybernetic-Systems Information Theoretical Ecological.

***2020: WHOLE SYSTEM ON PLANET EARTH OPERATING WITH CAPABILITY OF SUSTAINING TEN BILLION PEOPLE WITH FREEDOM & HIGH QUALITY OF LIFE.

***APPENDIX: List of geophysical and brain research needed to determine, if changes in above time table are needed. See research of Bryan Bergson (1996) of ISSS on brain research problems.

Conclusions

Spirituality themes such as those developed by Barbara Marx Hubbard (Foundation for Conscious Evolution, San Rafael, California and local evolutionary circles) (1995), and creative streams from Science such as developed by Erwin Laszlo (1994) (Club of Budapest, Hungary and affiliated local action coalition groups) can help our civilization move toward conscious evolution through a 25 year gentle path to the Next Step in Civilization, instead of the customary 75,000 to 120,000 year violent path. The above listed steps can be achieved by the years indicated by volunteers, principally students and senior citizens, who learn the key concepts of spirituality, science, engineering, cybernetics and systems science.

A Visionary View of the State of Whole Systems Practice

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