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DATABASE STRUCTURE, PART II, FOR TESTING BLOCK SIMULATION OF GLACIATION CYCLE AND CLIMATE CHANGE PROBLEM

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Abstract. Use of the database structure described in Paper I, broadened the range of search for new data on the climate change problem, and picked up references outside the normal scientific publications. The evidence indicating more than a 50% probability that there was a hominid civilization on planet Mars about 500 million years ago building pyramids and monuments makes it more important that we don't make the same mistakes the Martians made in dealing with their environment. (Randolfo Rafael Pozos, Chicago Review Press, 1986 and R. C. Hoagland, United Nations Seminar, Video Tape, 1992) The discovery by scientists at MIT* of rivers of water as large as the Amazon flowing from equator to both poles makes it important that we re-examine the Hamaker Thesis on how the glacial cycles work. (* Reginald Newell, et al, Geophys. Res. Ltrs. 12:24, pp. 2401-4, 1992)

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Proposed Block Simulation of Soil Nutrition Impact on Glacial Cycles

It is proposed that we in ISSS develop a block simulation of the Earth's glacial cycle and climate cycle using the database described in Paper I. It is proposed that we share the results with the climate simulation experts at NCAR, Boulder, Colorado, to initiate an exchange of ideas between ISSS Systems Climate Change SIG and NCAR to alternately see, if they can give us better constants to improve our block simulation, and if we can suggest to NCAR which additional factors can be added to their computer simulation programs to make their simulation programs more complete.

Understanding of Glacial Sub-Sub Cycles

Are we at the end of an interglacial warm period shown in the right hand end of line "D" in Fig. 1? We have gone through 10,800 years into the range of 10,000 to 12,000 years. We need data on the distribution of

trace minerals in the soil, the concentration of CO/2 in the atmosphere (ppm), and data on the surface temperature variation of planet Earth. There is no simple measure of where we are in the cycle. There are many things we must piece together to estimate where we are in the cycles of warmth and cold.

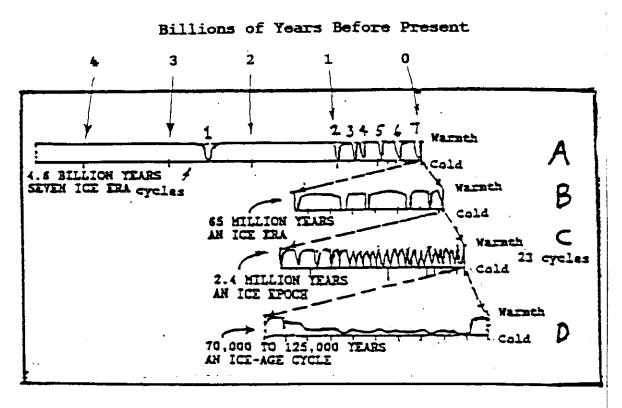


Fig. 1. Chart of Warm and Cold Cycles, Sub-Cycles and Sub-Sub-Cycles of Planet Earth.

(Ice Eras, Ice Epochs, & Ice-Age Cycles)

Fig. 1 shows the cycling of warmth and cold for our planet Earth. Line "A" shows the seven ICE ERA cycles that have occured to date in the history of our planet. A sample cold section of an ICE ERA is shown on line "B". Note that there are sub-cycles of warmth and cold called ICE EPOCHS within the cold section of an ICE ERA. A sample ICE EPOCH is shown on line "C". Note that there are 23 sub-sub cycles in this ICE EPOCH. A sample sub-sub cycle is shown on line "D" as an ICE AGE CYCLE.

The diagram in Fig. 1 indicates four more likely possibilities of what may happen next. These alternatives are:

(1) We will stay in the present ICE EPOCH and go into glaciation of the 24-th sub-sub-cycle, which would in approx. 100,000 years repeat line "D".

- (2) If we replace the natural driving force of glaciers grinding up rocks for remineralization of the soil, with machine grinders we can probably extend the present interglacial warm period, so that the warmth line on the right hand end of line "D" is extended.
- (3) If the ozone hole lets ulta-violet rays destroy the tree seedlings which are a part of alternative (2) above, our planet may leave the present ICE EPOCH and go into the next inter-cold warm period of the present ICE ERA, creating another cycle on line "B". We have little information on how this part of the glacial cycle system works.
- (4) If particulates from burning fossil fuels continue to destroy the normal cloud structure, our planet may go into a deeper drought situation corresponding to breaking out of the present ICE ERA and going into a 250 million year warm period on line "A", before the cycle gets back to normal. It appears that the Martians didn't figure out how to get out of this branch, and planet Mars no longer survived as a living planet.

In Part I of this paper, I had to visit metaphysical book stores to search for clues on other climate phenomena such as the use of etheric waves in climate modification. In the indices of physics books on weather and climate, I couldn't find information on "etheric waves." I found two major uses of "etheric waves", namely (1) energy carrying etheric waves, and (2) information carrying etheric waves. Therefor in Part I, I added an additional level to the "phenomena" coordinate, "etheric waves." I found two people using "etheric waves" for weather modification, principally "cloudbusting", namely techniques originally developed by Willhelm Reich, and further developed by James DeMeo [1] and Trevor James Constable [2].

The cloudbusting work of James DeMeo has included experiments in removing smog particles from the sky over Los Angeles. This offers a possibility of correcting for the fossil fuel burning particulates that Tim Thompson [3] finds are disturbing the cloud patterns. This suggestion is not made to justify the possible continuance of fossil fuel burning, but as a possible way to return our planetary warm-cold complex cycling system closer to its natural state.

I am asking the Spirituality SIG of ISSS to check on the use of information-carrying etheric waves by two groups of people, namely, meditation groups who are trying to save the essence of the highest principles of our civilization so that when planet Earth comes out of the glaciation cycle, 90,000 years from now, these highest philosophical principles will not have been lost, and a second category of meditators who call themselves "evolutionaries" who are trying to figure out how to plan and carry out humankind's evolving to the next step in human civilization.

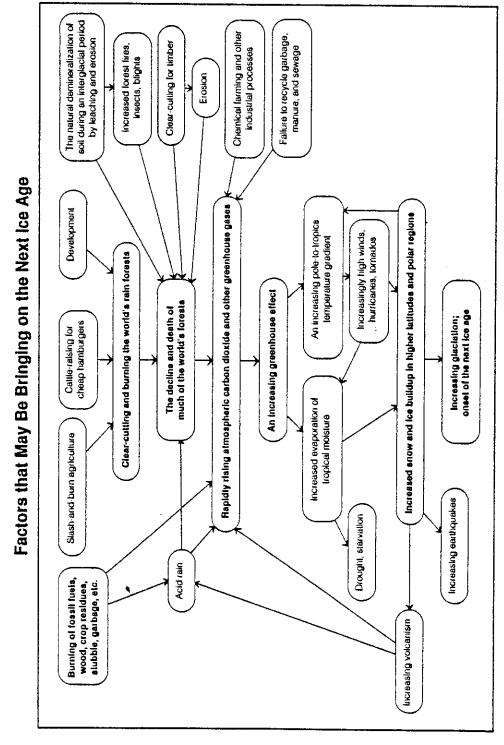
We have a potential conflict between the information—carrying and the energy—carrying applications of "etheric waves" that needs to be resolved by careful research. We need to determine whether the etheric weather modification activities can destroy the information storage and retrieval work of the spirituality oriented people.

Understanding the Transition between Interglacial Warm Periods and Glacial Periods

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Fig.

Fig. 2 show the major processes involved in the transition from an interglacial warm period to a glacial period within one ICE-AGE CYCLE of an ICE EPOCH.



The details of the Hamaker Thesis on the glacial cycle are given in the 1982 book by Hamaker and Weaver [4]. A layman's guide to the glaciation cycle problem is given in Larry Ephron's 1988 book [5]. Jesse Reklaw's 1993 32-page booklet provides a simple introduction to the topic [6].

Recent history of attempts by retired engineers to silmulate the climate cycle.

Each attempt since 1983 to develop a simulation on a personal computer ended with a hardware limitation or software limitation that prevented the simulation from becoming significant. Attempts were made using Basic, Apple version of Dynamo, XT version of Dynamo, Macintosh version of Stella on a Macintosh, Extend on a macintosh, etc.

Some trial runs were made of skeleton programs with the full DYNAMO system and a developmental system at two university computing center 30 miles away in different directions, but our volunteer engineers in their seventies didn't have enough energy to both drive the sixty miles round trip and work at a computer terminal at the university centers for several hours a day.

We experimented with transmitting programs by modem over the telephone line to a university computing center from a home personal computer, but found that this still generated too much stress for the retired engineers in their seventies.

We found that we needed more powerful personal computers that we could run at home. At one stage I had an appropriate computer and software avaiable at home to make some progress, but the Dept. of Motor Vehicles held up my application for renewal of my drivers license, on the basis that their tests showed my eyesight had deteriorated.

I had been going to an ophthalmologist every four months to try to catch any deterioration promptly, but found that the ophthalmologist had been observing cataracts develop for a year without letting me know. The ophthalmologist claimed it didn't make any difference, because the only proven treatment for cataracts is surgery, usually with an artificial lens being installed. I checked the international medical literature and found that in many countries 60% to 70% of cataracts can be stopped by nutritional methods. I needed to know what kind of cataracts I had to determine whether it was worthwhile to look into nutritional methods for treatment. I asked another eye specialist in the San Jose area to examine my eyes and tell me what kind of cataracts I had. He refused and said "It won't do you any good to know." In due time I found an eye specialist at some distance away who would make a diagnosis. I then got advice from two Mexican doctors on what nutritional treatment to try. After a few months with the nutritional treatment and some eye excercises, my eyesight improved so I got my drivers license renewed again.

I am concerned that the failure of U.S. ophthalmologists to pay attention to the nutritional problems related to cataracts may contribute to an increase in the incidence of Alzheimer's disease due to possible overlap of the nutritional deficiencies of cataracts and Alzheimer's. The concentration on my eyesight problems diverted my attention from the climate simulation work or a while.

A New Start for the Simulation of the Glacial Cycle.

In September 1993, I decided that with the increase in speed, RAM

size available, and Hard Disk size availability for personal computers, I should be able to make another attempt at simulation on a home computer. I developed some new criterion for simulating the climate change problem.

- (1) This should be a pilot study to develop a control system that approximates the functioning of the earth's soil nutrition cycles as the main drivers of the glaciation cycles and the climate cycles.
- (2) This study is conceived as a pilot system to facilitate discussions with NCAR, NASA, NOAA, etc. to needle the official agencies to try more vigorously to make their simulation studies more complete.
- (3) I further decided that this program should operate as a step by step move from engineering to geophysics to biology to to psychology to sociology** in order to fully utilize my engineering experience in simulating computer integrated logic chips and computer algorithms. This philosophy points to useage of TUTSIM and TUTCAD to provide the closest link to my engineering background.

 **Note: I use the three-dimensional database structure of Part I to implement a quasi-completeness theorem to insure that I am covering the necessary fields involved in the climate change problem.
- (4) To carry out this computer simulation work, I must maintain my health on a satisfactory level. American doctors are increasingly scared to help me maintain my health due to Food and Drug Administration initiated attacks on some of the few doctors who have helped me understand my health problems in the past. The FDA is acting as if they want us 70-year olds to get Alzheimer's Disease, so we can be put away in institutions, while our civilization collapses.
- (5) I tried to start my new simulation project in December 1993 and January 1994. I had consulted IBM, MICROSOFT, and COMPUTERLAND about upgrading a 286 computer so I could run TUTCAD on it. The hardware upgrade of adding more RAM didn't work, so I had to try another method of adding RAM, which did work all right. Next the upgrade to DOS 6.0 to gain more effective Hard Disk memory was not fully compatible with the 286. It took a few more weeks to work out a plan to use the main part of DOS 6.0 without the backup and restore commands.

Proposed Simulation Program.

A preliminary block diagram for the proposed simulation of the glacial cycle is shown in Figs. 3A and 3B. I expect that many changes will will be required as the work progresses. When I do get some results, my plan is to share the results with scientists who are simulating the from a different approach. My system will not have the precision that the climate scientists are using, but it may account

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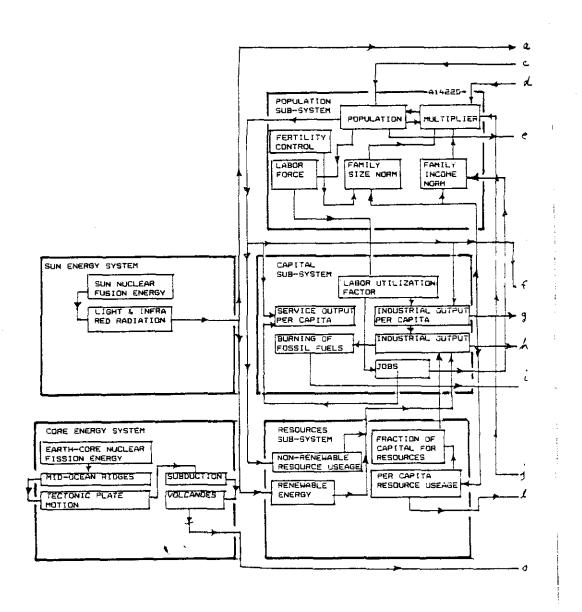


Fig. 3A. Block Simulation of Climate System, Part One

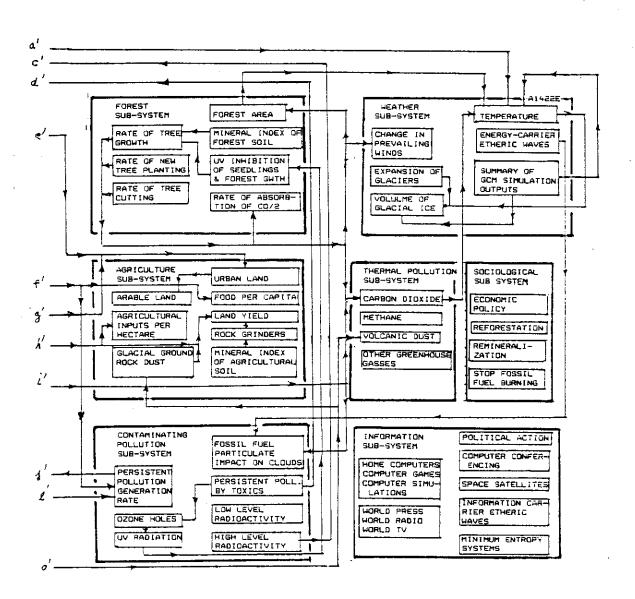


Fig. 3B. Block Simulation of Climate System, Part Two

for a more complete set of relavent variables.

Incomplete Sections of Simulation Diagram

In Fig. 3B the Information Sub-System page has no connections at present. Also the Political Action Sub-Section has no connections. These connections will be added later.

Even if running the physical sub-sections results in a computer simulation run that indicates a logical path of action, I don't think our present political and business institutions can respond creatively. It will probably take pioneering of action of some religious group to rescue our human civilization from self-destruction.

For example, some religious group with 80,000,000 members nationally in the USA might decide to show our country what can be done to move toward using renewable energy. If they asked each member to invest an average of \$3 for the church to build a solar-thermal electric generating plant in Central California, they could raise \$240,000,000. With this capital they could bring a solar electric plant on line and still make a reasonable profit.

- [1] James DeMeo, "Cloudbusting, A New Approach to Drought", <u>Pulse of the Planet</u>, No. 1, Spring 1989
- [2] Trevor James Constable, The Cosmic Pulse of Life. 1990, Garberville, California: Borderland Sciences Research Foundation, 488 pages, revised and enlarged edition.
- [3] Tim Thompson, "Global Climate Destabilization Out of Hand," scheduled for ISSS 1994 CONFERENCE PROCEEDINGS.
- [4] John Hamaker and Don Weaver, <u>The Survival of Civilization</u>. 1982, Burlingame, California: Hamaker-Weaver Publications.
- [5] Larry Ephron. The END The imminent ICE AGE & how we can stop it! 1988, Berkeley, California: Celestial Arts
- [6] Jesse Reklaw, World Health, Carbon Dioxide & The Weather. 1993, Santa Cruz, California: Robin Rose Publishing, distributed by C. Olson & Co., P.O. Box 5100—CDl, Santa Cruz, CA 95063—5100.

Climate Change