

The GAIA Hypothesis and Nine Threats to the Survival of Civilization.

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The GAIA Hypothesis leads to a perspective on nine threats to human civilization. (TCS2.FLYER.87D; A-899)

- (1) Acceleration of the Earth's Natural Glacial Cycle by Man-Made Disturbances such as Deforestation & Burning of Fossil Fuels that raise the Carbon Dioxide Level in the Atmosphere.
- (2) Danger of Nuclear War or Nuclear Winter from limited explosion of nuclear weapons.
- (3) Increased Tectonic Plate Displacements with more Earthquakes and Volcanic Activity.
- (4) Agricultural Soil Depletion through loss of Nutrient Minerals and Soil Erosion. Forest Deterioration through depleted mineral nutrients, logging, slash & burn agriculture, destruction of tropical rain forests. Also Acid Rain from coal burning is an important factor.
- (5) World wide climatic changes, shifting of monsoon rains, shortening of crop growing seasons, and desertification. Also depletion of the ozone layer by CFC's is an important factor.
- (6) Impaired human nutrition from the chain of demineralized soil, industrial processing of foods, etc., leading to more unstable behavior of people with poor nutrition.
- (7) Accelerated human aging processes leading to more disabilities like arthritis, cancer, etc., stemming from poorer nutrition.
- (8) AIDS epidemic spreading to populations with poor nutrition.
- (9) Many people who perceive the problems of our civilization and want to take action are inhibited by their subconscious scripts.

Searching for a thematic hypotheses that would encompass all of the nine threats to civilization leads to:

(1) A main operating principle of "SHARED COEVOLUTION WITH THE BIOSPHERE" and

(2) Two entropy related properties of the earth system:

(2a) The role of the glacial system in insuring that life continues on earth by grinding gravel so that after each glaciation melts away deposits of fine rock dust containing most of the trace minerals are made available to form new topsoil such that the entropy of trace mineral distribution is decreased with each cycle of glaciation and entropy increases during each interglacial warm period.

(2b) The role of "INFORMATION ENTROPY" for allocating communication space to competing scientific hypotheses to increase speed of communication of ideas in the testing of hypotheses. A general systems approach leads to a

qualitative method of starting approximate communication space allocation by separation of the project tasks into six categories:

PHILOSOPHICAL APPROACH	EDUCATION APPROACH
ENGINEERING APPROACH	DECISION THEORY APPROACH
SCIENCE APPROACH	EMERGENCY ACTION APPROACH

(3) A pattern of essential trace minerals for life that started with the clay crystal patterns in montmorillonite clay before DNA codes developed; and is still present in the DNA specifications for building living cells.

(3a) Many of the threats to the survival of civilization are due to the loss of some of the trace minerals in the soil.

(3b) In particular, the AIDS epidemic can be viewed as a consequence of a breakdown in the food chain in which some of the essential trace minerals are deficient.

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