

## W Hilbertz Manifesto 1991

Global environmental change results from complex interactions of a set of natural, scientific, engineering, political, economic and social implications. Growing and decomposing, maintenance, repair, and reclamation of the physical environment are part of this. Understanding and enhancing life processes and tenderly working and marshalling natural cycles (i.e. carbon, oxygen, nitrogen) is the strategy, keeping our largest life-support system as original and sound as possible.

To achieve this, the following categorical imperatives are stated:

- 1 Only renewable or alternative energy should be used to provide building materials, construct, maintain, and recycle structures.
- 2 Building materials should have thermodynamically low or low-to-moderate states of energy.
- 3 Building materials should store the maximum amount of carbon and possibly other greenhouse gases for prolonged periods.
- 4 Structures building materials should increasingly be grown by artificial/natural or natural means only, supporting biodiversity during the growth phase, during their life cycles, and during and after recycling.
- 5 Aside from the processes used for building material production, processes that generate building materials and H<sub>2</sub> are preferable to those that do not.
- 6 Cybernetics and artificial intelligence has to be integral part of the above to ensure ecological contextual system efficiency and evolution
- 7 Sustainable evolution in nature, environmental development, and architecture is the goal.

From

Hilbertz, W.H., 'Solar-generated Artificial and Natural Construction Materials and World Climate, Natural Structures: Principles, Strategies, and Models' in *Architecture and Nature*, SFB 230, University Stuttgart and University Tuebingen, 2, 119-127 (1992).