

THE LOS ANGELES CENTER for SCIENCE and LEARNING

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MAY 1984

THESIS STATEMENT

The Natural Sciences and the Social Sciences are both producing tangible evidence indicating that humanity is at a turning point in history. Every day there is more and more evidence produced showing how changes in our computer technology, communication patterns and social values profoundly changing the way we work, live and think.

- How are we, as individuals and societies, transforming to meet the new order of the ages?
- Is it possible to view change positively and creatively?
- Does what we do, as individuals, groups or nations, make a difference?

It is the intension of my 5th year thesis to perform the following objectives:

1. *Explore the process of personal and social transformation. Explore the new images of reality emerging from science. Explore our future as a species, as well as the concept of conscious evolution.*
2. *Test systematically, during the design process, personal transformation techniques used to expand awareness and to tap submerged creative and intuitive powers. Examine my own personal response-ability.*
3. *Integrate the above experiences into a design project. The project will focus on the issue of personal and social change and how best to facilitate transformation. The project will also address the potential for new forms of human activity and communication offered to us by advancing computer technology.*

THESIS OUTLINE

I. HUMANITY IS AT A TURNING POINT IN HISTORY

A. World crisis are challenging the way we think.

1. Problems are accelerating exponentially.
 - Pollution
 - Population growth
 - Nuclear arms escalation
2. Our potentials are also accelerating exponentially.
 - Greater longevity
 - Intelligence increase
 - Development of outer space
3. Either we take creative initiative and change or we will become extinct.
 - Ours is the critical generation in the life of humanity.

B. The crises we face are natural events.

1. Nature develops through an evolutionary spiral to ever more complex whole systems.
 - Molecules
 - Cells
 - Multi-cellular organisms
 - Early humans
 - Now us
2. Synergy is the way nature forms whole systems in which the behavior of the whole system is different and greater than the sum of the individual parts.
 - Synergy is at work again.
 - Nature is forming a whole system out of humanity.
3. We are evolving from the phase of separated individuals and nations to an organically interrelated planetary whole system.

C. Quantum transformations are traditional.

1. Nature proceeds by long periods of incremental change punctuated by sudden jumps.
2. Crises precede transformation.
3. Problems are evolutionary drivers.
 - Before each quantum change there is a systems crises that stimulated massive innovation which led not to reform, but new forms through the synthesis of disparate parts.
4. Natural design innovations with a technological substrate are at the basis of every quantum change.
 - Synthesis of elements
 - Genetic code
 - Photosynthesis
 - Language

II. A MASSIVE SHIFT IN THE PERCEPTION OF REALITY IS UNDERWAY

A. Thinkers in many scientific disciplines are beginning to move away from the traditional reductionist, mechanical world view to an ecological, holistic systems paradigm.

B. The mechanistic world view of Cartesian / Newtonian science is outdated.

1. The mechanistic view of the world was developed in the seventeenth century.
 - Descartes
 - Galileo
 - Bacon
 - Newton
2. The material universe was viewed as a machine.
3. Nature worked according to mechanical laws.
4. Everything in the material world could be explained in terms of the arrangements and movement of its parts.
5. The approach to knowledge was an analytic method of reasoning.
 - Breaking up thoughts and problems into pieces and arranging them in logical order.
6. Overemphasis on the Cartesian method has led to the fragmentation characteristic of both our general thinking and our academic disciplines, and to the widespread attitude of reductionism in science.
 - This is the belief that all aspects of complex phenomena can be understood by reducing them to their constituent parts.

C. Our culture has developed an imbalanced value system.

1. The Chinese terminology of Yin and Yang is useful for describing the cultural imbalance.
2. Our culture has consistently favored Yang values and attitudes and has neglected their complementary Yin counterparts.
 - Self-assertion over integration
 - Analysis over synthesis
 - Rational knowledge over intuitive wisdom
 - Science over religion
 - Competition over cooperation
 - Expansion over conversion
3. Today the most severe consequence of this imbalance is the growing threat of nuclear war.

D. The new vision of reality emerged in physics at the beginning of this century.

1. The new paradigm parallels the view of matter in modern physics.
 - It's aA view that can be extended to living organisms, the mind, consciousness and social phenomena.
2. The material world is no longer viewed as a mechanical system composed of separate objects, but instead it appears as a complex web of relationships.
 - Subatomic particles are not made of any material substance.
 - Subatomic particles have a certain mass, but this mass is a form of energy.
3. All objects are patterns in an inseparable cosmic process, and these patterns are intrinsically dynamic.
4. The world view of modern physics is holistic and ecological.

E. The framework of modern physics is known as General Systems Theory.

1. The Systems view looks at the world in terms of relationships and integrations.
2. Systems are integrated wholes with unique properties of their own.
 - They can not be understood by simply combining the properties of smaller units.
3. Every organism, from the smallest bacterium through the wide range of plants and animals, is an integrated whole living system.

F. The phenomenon of mind can be applied to the Systems view of life.

1. Mind is a systems phenomenon characteristic of living organisms, societies and ecosystems.
2. The human mind, or psyche, is an integrated whole of mental activity.
 - Self-awareness
 - Conscious experience
 - Conceptual thought
 - Symbolic language
3. Human minds are embedded in the larger minds of social and ecological systems, and these minds are integrated into the planetary mental system, which in turn must participate in some kind of universal, or cosmic, mind.

III. METABILOGICAL EVOLUTION

A. Meta-biological evolution is the evolution of consciousness, and the consciousness of consciousness, as well as the consciousness / evolution.

1. Meta-biological evolution takes place in the human mind.
2. Meta-biological evolution is anything that results in an increase in consciousness.

B. The meta-biological equivalent to the biological gene is an idea generated in the human mind.

1. Ideas are as important as genes.
 - In biological evolution genes determine the nature, the characteristics and the behavior of a cell, and the organism composed of cells.
 - In meta-biological evolution ideas determine the nature, the characteristics and the behavior of a meta-biological cell, an individual, and also the meta-biological organism, the society.
2. Cultural diversity, meta-biological diversity, is as important to continued evolution as genetic diversity.

C. The key element to meta-biological evolution is creativity.

1. Creativity can be recognized and encouraged.
 - Our future depends on it.
 - It is not a luxury.
2. We should trust our own intuition.
 - The principles of universal evolution are revealed to us through our intuition.

IV. HIGH TECHNOLOGY BECOMES THE NATURAL EXTENSION OF HIGHER CONSCIOUSNESS

A. New communication technologies offer us the opportunity to create solutions to many of the global problems we face.

1. Communication makes civilization possible.
 - When people communicate with people, ideas are formulated, transmitted and recorded.
 - Without communication, the past would be unknowable, the present unintelligible and the future unimaginable.
2. Whatever their field, people need and generate information.
3. Communication enables us to convey not only information, but feelings, emotions and perceptions.
4. With communication the brain of mankind evolves, expands and develops.
5. With advances in telecommunications the system can be decentralized by establishing home communication centers.

B. The computer is a too for the realization of ideas.

1. The computer offers exciting possibilities for handling and processing data.
 - Agent of communication
 - Processor of information
 - Powerful calculating machine
2. Individuals can develop and use their talents whenever and wherever they wish.
3. Computer networking can provide rapid and inexpensive communication.
 - Computer networking is the electronic linking of computer systems to users at locations that may be widely separated geographically.
4. Using video for presentation and the computer for editing, shifting and saving information, the viewer can make their own way through knowledge.

C. Communications technologies and data processing technologies are the primary catalysis of transformation.

1. We must create world future networks.
 - Systems that link people and institutions all over the world so they can communicate effectively with each other.
2. At some point the networks will network and the linkage will lead to a "sudden shift", a rapid appearance of a new order.
3. Once we become integrated, our system, planet Earth, like all other whole systems, will behave different than and greater than the sum of the individual parts.

V. CALIFORNIA IS A PREVIEW OF OUR NATIONAL PARADIGM SHIFT

A. Los Angeles is the first post-industrial society.

1. In the industrial society the forces of technology moved people towards centralization and mass production.
 - It was necessary for people to gather together in one place at the same time in order to maximize production.
 - Because of transportation costs and the amount of time wasted commuting; the system of centralization is not as cost effective as it once was.
2. New technological developments in transportation and communications, frees people to use their productive energies in a more decentralized fashion.
 - The attraction of a decentralized system is due to the general disenchantment with big government, its inefficiencies and the rise of importance in regional and local issues.
3. A decentralized urban system provides the life style everyone has been encouraged to pursue and to attain.
 - It offers an increased degree of personal freedom and the notion of self-sufficiency.
 - It offers hope in finding a viable balance between the collective benefits of a classical urban order and the freedom of the individual in control of their own future.

B. Los Angeles is the built prototype of a new social order.

1. Los Angeles is a mosaic society with rapidly changing proximities and a pluralistic value system.
2. It is a city without cathedrals and palaces, without formal gardens or physical fortification; it is a city with conviction and determination resulting from the strength which is an aggregate of its parts.

C. Los Angeles is a synthesis of art and science....

To Be Continued....