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The Decline of Natural Resources and the Decline of Reason: A Model for Thought Provocation

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ANNOUNCEMENT

COMPUTER SCIENCE FAIR FOR HIGH SCHOOL STUDENTS - to be held at the First National Computer Conference and Exposition in New York City, June 4-8, 1973

High school students - including June, 1973 graduates - principally in but not restricted to the Greater New York area, are invited to submit projects for possible exhibition at the first national conference of those American professional societies that are strongly involved with computing.

Projects may fall within any of the following categories:

1. New applications of computers
2. Programming
3. Design and construction of computers or components
4. Mathematics of computation

Both hardware and software projects are solicited, but these must be suitable for display at the conference. In the case of software projects, graphical or poster displays highlighting the key ideas should be used for this purpose. Projects may be submitted by individuals or, under exceptional circumstances, small groups. However, stricter criteria will apply to the selection of group projects. Any programming languages or computing equipment may be used.

Prizes will be given to those students whose projects are considered best in each of the above mentioned areas and one grand prize will be given. However, no subsidies for travel to or living expenses at the Conference will be available. Participants will have to make their own travel or living arrangements. Every participant will receive an exhibitor's badge and will have free access to all proceedings at the Conference.

Those interested in submitting a project should request a submission form and submit this by April 1, 1973, to the chairman of this program who is indicated below. This submission form will include details of the proposed project and must be signed by a teacher familiar with the student's work. Those invited to exhibit their projects will be notified by May 1, 1973. The completed project display must be brought to the New York Coliseum, site of the conference, by the start of the conference on June 4. Prizes

will be announced and awarded during the conference.

For a submission form and any additional information write to:

Professor F. S. Beckman
Chairman, Department of Information Science
Brooklyn College, CUNY
Brooklyn, New York 11210
(212) 780-5657

THE DECLINE OF NATURAL RESOURCES AND THE DECLINE OF REASON: A MODEL FOR THOUGHT PROVOCATION

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Contrasting two basic premises, that of natural resources and their decline and Abraham Maslow's concept of human needs, man is perhaps destined to the fate of becoming less than what might be considered a rational man. No one would doubt that man has come a long way since he first embarked into a realm of rational thinking. The advent of technology has helped to facilitate the availability of leisure time for him. In addition, such technology has indirectly catalyzed the growth of a certain amount of intellectualization in man. For example, the wheel has enabled man to conduct his chores for survival and in so doing--has also provided him adequate time to reflect upon his accomplishments. Such reflections have helped to precipitate new thoughts about his future.

Today, man is experiencing what one might consider to be a "leisure time syndrome." This syndrome has enabled him to think of things and events that have exceeded his wildest expectations. The atomic age, the walk on the moon, breakthroughs in medicine, and a better understanding of life itself have perhaps generated a mystic optimism that is almost unexplainable. However, if certain theories about the nature of man have any semblance of truth--and if certain facts about his effects on natural resources remain factual, then he may very well be on a collision course with an inevitable horror never before witnessed by any human being anywhere on this planet.

Many social observers have attempted to classify the common concerns of man. The

psychologist, McClelland (1951), summarized the schemata of Kardiner, Leighton, Kluckhohn, and others in his conclusion that man in any society must deal with broad problems of protection and support, expressions and regulation effect, mastery in the external world, and self-direction and control.

Abraham Maslow (1954), also a psychologist, has developed a similar conceptual scheme about the nature of man. He regards human beings as having intrinsic needs that must be fulfilled for full growth and development to take place. These needs are survival and safety needs, security needs, belongingness and love needs, esteem needs, and needs for self-actualization. Moreover, Maslow views these needs as arranged hierarchically, with survival needs at the bottom and self-actualization needs at the top. The lower needs are believed to take precedence over the higher needs. Thus, when a person's very survival is threatened, he becomes unconcerned with luxuries such as the feeling of belongingness or with his self-esteem and devotes all his efforts toward remaining alive. Such a person is quite literally "hung up" at the survival level. As more and more of the basic needs in the hierarchy are fulfilled, the individual is able to grow toward self-actualization and the development of his unique potentialities. The previously mentioned ideas about man's nature are theoretical. Now for the facts about man!

It is a fact that man is altering his natural environment by his mere presence in that environment. Southern (1969). The waters of the world are not pristine as they once were. The skies are not as clear as they were in the past. In addition, there are more people on this planet than at any time during human history. The importance of all these facts are monumental enough if we consider only the natural environment and its deterioration. However, if we couple these facts with the previously stated ideas about man's nature, a picture depicting an inevitable doom for him becomes too vivid a nightmare.

As Maslow has pointed out, man must acquire basic needs before he can ever reach the stage of self-actualization. This self-actualization could be construed to mean a state of reason. Fitts (1971) described self-actualization as "maximal development of human potential." However, on the factual side, man's resources are clearly becoming depleted at such a rate that he is already beginning to

feel the effects as a result. Are not these two ideas opposite? This writer believes they are.

In order to clarify this position, an attempt will be made to point out the incompatibility of the theory about man's nature and the facts of man's existence.

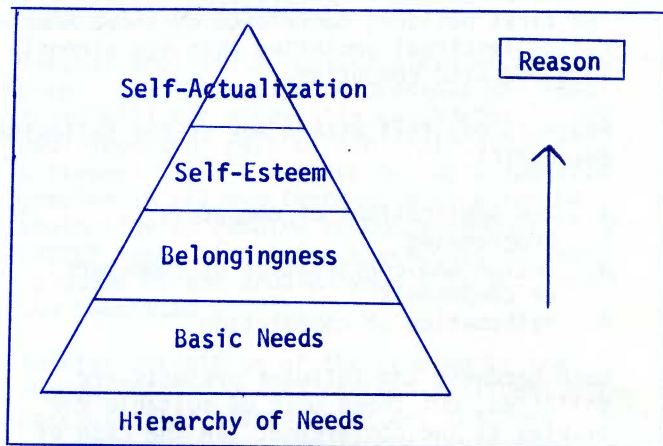


Figure 1

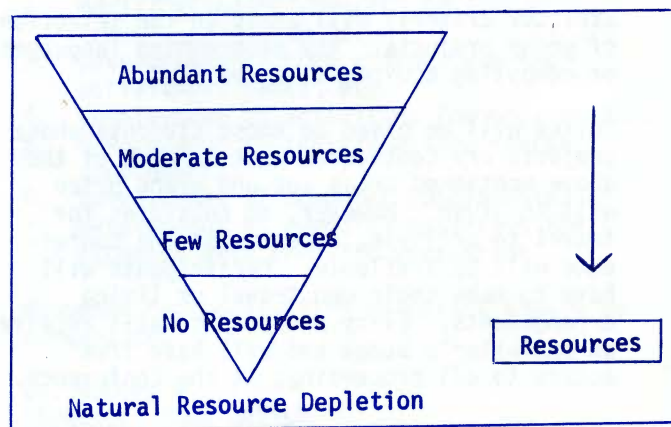


Figure 2

Man strives for self-actualization, however, basic needs must be satisfied. (Theory) (Figure 1) Man is using his natural resources at a faster rate than they can be replenished (Fact) (Figure 2). By viewing these two premises, side by side, man can perhaps predict his future on this planet if present environmental trends continue.

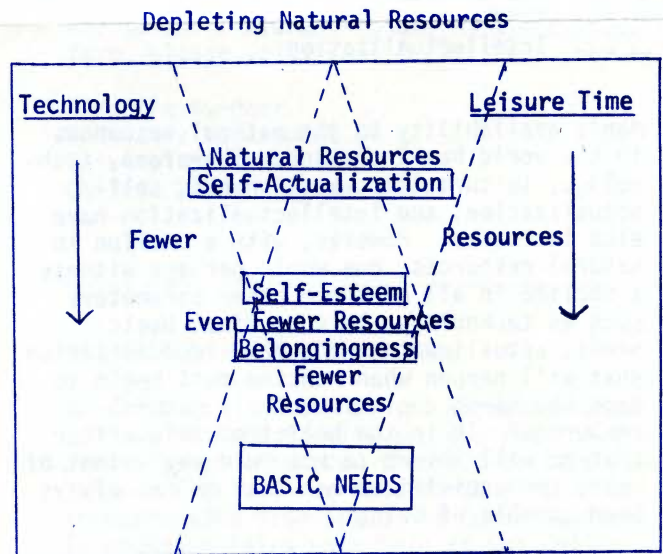
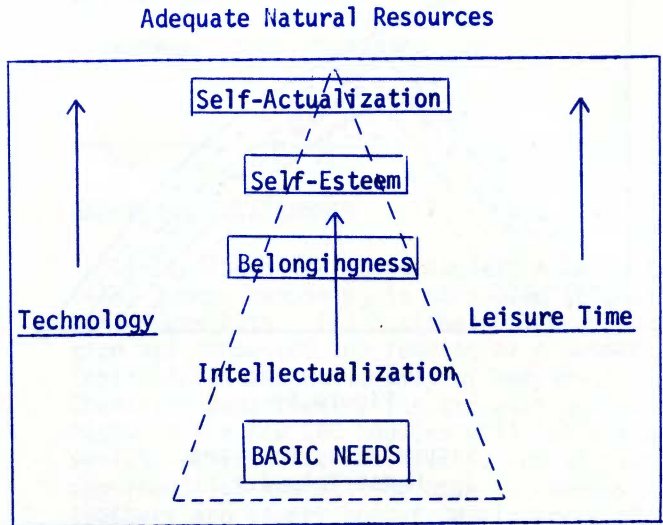
With increased population, there will be increased human needs to be met. However, continued drains on the earth's natural resources will result. As these natural resources continue to become depleted, man will, theoretically, expend more energy in attempting to satisfy his basic needs. Therefore, he will not ascend toward self-actualization. As this trend continues, man will perhaps revert to a state of being the "animal" he once was. However, the frightening part of this is that we will have more of them! With the inability of mankind to attain self-actualization will also come the conflicts that are related with the existence of irrational man. Wars, crime, and every other kind of social illness that afflicts human society will become rampant.

Is there a way for man to "eat his cake and keep it too?" More concisely, can he become an actualized man (rational) in spite of depleting natural resources which provide the basic "wares" for his existence? Can he devise ways to actualize himself without having to provide for his basic needs? Historically, the record is not very good! However, this does not mean that it is impossible.

With adequate natural resources, the basic needs of man can perhaps be met. There would be sufficient amounts of natural resources to provide food, clothing, and shelter. In addition, man's technology would tend to increase as a result of having to provide food, clothing, and shelter. Furthermore, man's technology would tend to increase and this would provide adequate time for him to reflect upon his advancement. (Figure 3).

However, if one were to visualize Figure 3 and Figure 2 combined, superimposed, and inverted, a model would be formulated which would show an altogether different set of circumstances. With adequate resources, the chances of man to become self-actualized would be greater. Conversely, as more and more natural resources become depleted, the chances for self-actualization in man would tend to decrease. Man would, of necessity, spend a greater amount of time in an attempt to meet his basic needs. Therefore, his leisure time would also decrease. Further, with a decline in natural resources, the use of technology would also tend to decrease. This in essence would influence the amount of leisure time that man has. (Figure 4).

Finally, if all of this information was portrayed in graphic form, the results would be those which are shown in Figure 5.



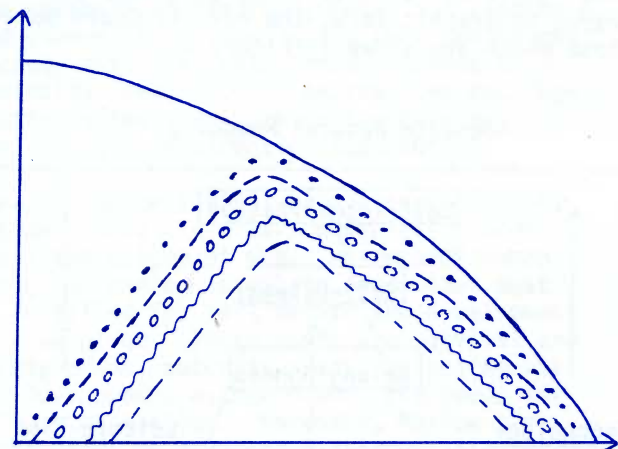


Figure 5

Natural Resources and Human Behavior

- Natural Resources
- ... Technology
- - - Leisure Time
- oooo Basic Needs
- ~ Self-Actualization
- - - Intellectualization

Man's availability to the natural resources in the world has increased. Therefore, technology, leisure time, basic needs, self-actualization, and intellectualization have also increased. However, with a decline in natural resources, one would perhaps witness a decline in all of these other parameters such as technology, leisure time, basic needs, actualization, and intellectualization. What will happen when mankind must begin to face the harsh depletion of his natural resources? It is the belief of this writer that he will revert to his "old way"--that of being the uncivilized man that he has always been capable of being.

Is there a way out of this dilemma? Perhaps there is if--

1. man can somehow replenish his natural resources that he is using or at least find new ways and/or new resources that will provide for his basic needs.
2. he can adapt his present technology to a second function i.e. becoming operant in a state of resource depletion.

3. he can continue to provide leisure time for himself which will help to continue the development of the intellect.
4. he can find new ways and materials to meet his basic needs.
5. he can continue to become actualized and continue to find new ways to actualize his fellow man.

If man cannot pursue other courses which will help to facilitate the emergence of rational thought, he might very well be helping to bring about his own destruction. However, if he chooses to find new ways for developing rational thought--even in a state of resource depletion--he might become his own savior. Are there other alternatives?

References

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- McClelland, David. Personality, Norton, 1951.
- Fitts, William H. The Self-Concept and Self-Actualization. Counselor Recordings and Tests, Nashville, Tennessee, 1971, p. 5.
- Southern, Beverly, H. Vitalizing Natural Resources Education, The Journal of Environmental Education, Vol. 1, No. 1, 1969.

NOTES FROM THE DEPARTMENT OF PUBLIC INSTRUCTION

Gary Downs, State Science Consultant, attended the annual State Science Supervisors convention at Las Vegas on January 25-30, 1973. The theme for the convention was: Data Utilization in Assessing the Needs of Science Education in the States.

The following speakers addressed the group in six of the general sessions:

- Dr. Michael M. Froydma -- NSF
- Dr. William S. Graybeal -- NEA
- Dr. J. Myron Atkin -- University of Illinois
- Dr. Herbert J. Walberg -- University of Illinois
- Dr. Edward J. Meade -- Ford Foundation
- Dr. Howard J. Hansman -- NSF