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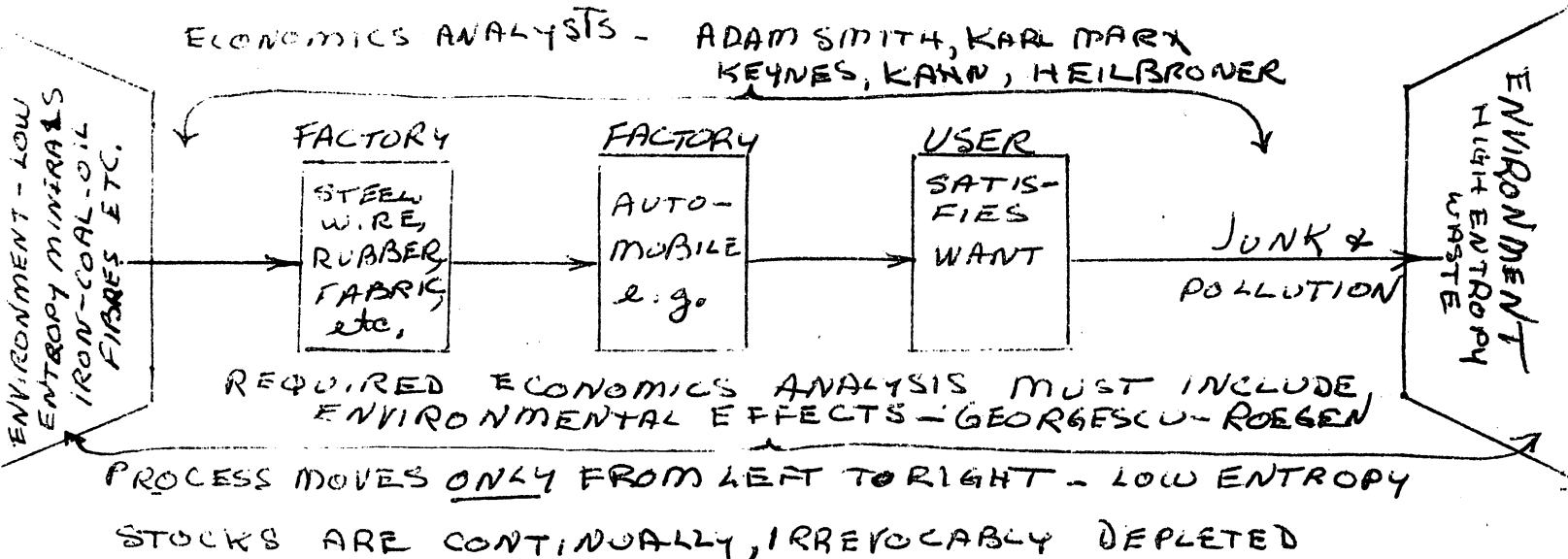
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Circular No. 8

Immediately below is a quote from an essay by Nicholas Georgescu-Roegen Mechanistic Dogma and Economics found in Volume 7, Number 3 Methodology and Science, 1974. It defends an approach to economics which appeals to ecologists and many theologians and philosophers who seek to find scientific and philosophical support for their conclusion that modern industrial economy is not achieving harmony with the earth. (Mechanistic dogma, in Georgescu-Roegen's meaning, views all processes as reversible).

The relation between the entropy law and biological phenomena, now an established fact, has been long since suspected. The relation with the economic process ought to have been even more transparent. For if we view the economic process in its entirety, the Entropy Law tells us that from the material viewpoint all this process does is to transform some free matter-energy (i.e. valuable resources) into bound matter-energy (i.e. valueless and usually harmful waste.) The most important point is that the economic scarcity has its main root in the Entropy Law. In a world in which this law would not hold, the chemical energy of a piece of coal could be used over and over again without limit. All "durable goods" would then be literally perdurable. The finiteness of the environment could only set a limit to the level of the global physical income at any instant in time, but not to its duration over time.

It is therefore highly curious that modern economists have not become aware of this intimate relation between the Entropy Law and the Economic process. The fact appears even more curious if we note that by the time (economists embraced it) the mechanistic dogma had already lost its grip on physics itself. That dogma could not resist the blow inflicted by thermodynamics, which compelled physicists to admit that actual phenomena, in contrast with the mechanical abstractions, are irreversible. When in 1865 Rudolf Clausius formulated the Entropy Law in its known trenchant form, the supremacy of the mechanistic dogma already was a thing of the past for physics. If a hundred years thereafter no economist seems to have become aware of that revolution in physics, and hence of its relevance for the orientation of standard economics, it is proof of the immense fascination the mechanistic dogma had for the Neoclassical pioneers and still has for many minds.



Whether or not harmony with the earth is the proper goal of the human is, of course, a matter of debate. Those of us who believe that harmony is paramount think we have powerful arguments. Riverdale papers The Spirituality of the Earth, The New Story, The Human Venture, speak to the subject and are available on request.

Until recently, it has not been possible to formulate many of the arguments for an earth-centered understanding of who we are, how we got here and what purpose we fulfill. But, with Teilhard de Chardin's writings and his inclusion of evolution in explaining the growth of mind and spirit, and with the growing knowledge of the "becoming" nature of the universe one may reach a new level of awareness.

From The New Story: The story of the Universe is the story of the emergence of a galactic system in which each new level of being emerges through the urgency of self-transcendence. Hydrogen in the presence of some millions of degrees of heat emerges into helium. After the stars take shape as oceans of fire in the heavens they go through a sequence of transformations. Some eventually explode into the stardust out of which the solar system and the earth take shape. Earth gives unique expression of itself in its rock and crystalline structures and in the variety and splendor of living forms until man appears as the moment in which the unfolding universe becomes conscious of itself. Man emerges not only as an earthling but also as a worldling. He bears the universe in his being as the universe bears him in its being. The two have a total presence to each other.

If this integral vision is something new both to the scientist and to the believer, both are gradually becoming aware of this view of the real and its meaning for man. It might be considered a new revelatory experience. Because we are moving into a new mythic age it is little wonder if a kind of mutation is taking place in the entire earth-human order. A new paradigm of what it is to be human emerges. This is what is so exciting yet so painful and so disrupting. One aspect of this change involves the shift in earth-man relations for man now in large measure determines the earth process that once determined him.

Within this story a structure of knowledge can be established with its human significance from the physics of the universe and chemistry through geology and biology to anthropology and so on to an understanding of the entire range of human endeavor from language, literature, art, history and religion to medicine and law, to psychology and sociology, to economics and commerce and so to all those studies whereby man fulfills his role in the earth process. In all these studies and in all these functions, the basic values depend on conformity with the Earth process. To harm the earth is to harm man, to ruin the earth is to destroy man.

October 28th - Second Law Study Group meets at 7:30 pm. Center Reading Room.

November 12th - Hazel Henderson, The Transition to Renewable Resource Societies. 3:30 pm. 2722 Gardner Hall NCSU.

November 13th - Lunch with Hazel Henderson, NCSU Faculty Club, at 11:30 am. Call James Berry if you are coming.