

by a single, validated discovery of a universal principle of knowledge. Such a discovery, by changing not only the set of definitions, axioms, and postulates underlying all of scientific knowledge up to that time, but also changing the metrical relations defined by the interrelationship among those axioms, unleashes a flood of secondary discoveries. This result occurs in a fashion analogous to the way in which the set of definitions, axioms, and postulates of a schoolbook Euclidean geometry, implicitly generates each and all of the valid theorems of that geometry.

In brief, it is indispensable to make a clear distinction between fundamental discoveries of principle, and secondary discoveries derived from a discovery of principle. It is necessary to put to one side all niche-science; it is essential to see the whole sweep of existing, and possible future scientific knowledge, in all facets of knowledge, as if in a single conception.

This latter view I have represented in terms of the permutations of orderings among the cells of that nine-cell array defined by three mutually distinct types of ordering and three categories of evidence. The functional types are: 1) ostensibly non-living particular processes; 2) living, but ostensibly non-cognitive particular processes; and, 3) cognitive processes. The three categories are astrophysical, microphysical, and macrophysical, mutually distinguished by the position of the evidence of relations with respect to the human sense-percep-

tual apparatus. It is the ordering which subsumes all orderings among all permutations of orderings among the cells, in the sense of Leibniz's term "Analysis Situs," which defines the scope, and, thus, the content of both science itself, and a well-defined science policy.

The characteristic of a science-driver "crash program," is that the program as a whole addresses the relations among all nine cells, in respect to some unifying task-orientation, some unifying mission, or group of missions.

Perhaps nothing satisfies that requirement as well as a man-in-space mission. This combines astrophysics with microphysics and macrophysics. It combines ostensibly non-living, living, and cognitive processes. It takes man into the kinds of places man has never visited before, by means which had not been developed in this way earlier. It is therefore, this kind of mission-orientation, which generates the broadest range, and prolific assortment of "spill-overs," from the domain of experimental physical science, into the tool-design potential for improved products and productive processes.

The broadest (national, continental, intercontinental) scale of production of transport-spined, modern developmental corridors, using the impetus of technological progress supplied by a "crash" manned space-exploration program, is the feasible approach to an economic renaissance of planet Earth, which, by its principled nature, offers the highest rate of per-capita gain for mankind.

## Second LaRouche book published in Russia

*Fizicheskaya Ekonomika*, the second book by Lyndon H. LaRouche, Jr. to be published in Russian, came off the press in July. It is a translation of LaRouche's essay, "The Science of Physical Economy as the Platonic Epistemological Basis for All Branches of Human Knowledge," which was serialized in *EIR* in 1994 (Feb. 25, March 4, and March 11).

The first long article LaRouche wrote after he was paroled, five years into the 15-year Federal prison sentence received in his notorious frame-up case, "The Science of Physical Economy" contains a rigorous definition of LaRouche's "market-basket" parameters for measuring economic progress in real terms. In this essay, he establishes physical economy, developed by human beings, as the domain in which essential change in the universe can be precisely measured. That is why physical economy is the "epistemological basis"—epistemology being study of what may be known, and how—for other branches of knowledge.

The market baskets are presented in Chapter 1, "Rudimentary comparative studies of physical-economic time-series," and contrasted with the monetarist excesses of "asset-stripping," and "the myth of 'cheap labor.'" Chapter 2 is "Smith, Ricardo, and Marx: British imperialism's zero-growth economists." Chapter 3 is titled, "Not-entropic processes," and Chapter 4, "Economics as the only science," concludes with a section on "Economics and higher hypothesis."

In an introduction to the Russian book version, Prof. Taras Muranivsky reviews the growing attention to Lyndon LaRouche's ideas, in Russian academic and political circles, since the publication of his *So, You Wish to Learn All About Economics?* in Russian translation in 1993. He welcomes LaRouche's demolition of zero-growth notions, as well as the author's attention to "social and moral problems," as especially useful for Russia.

*Fizicheskaya Ekonomika*, published by the Schiller Institute for Science and Culture, is a 128-page paperback, with tables, graphs, and an index of names. It was printed at Nauchnaya Kniga publishing house, which assures its availability to major libraries in Russia. The text will soon be available, as well, in the Russian-language section of *EIR*'s Internet site at: <http://www.larouchepub.com>