quainted—through the network of his former Norilsk fellow inmates—with the legendary Italian-Soviet aircraft designer Roberto Oros di Bartini, who had himself worked many years as a "captive genius" under KGB security boss Lavrenti Beria. One of the fruits of their ensuing, close friendship and collaboration, was the discovery of a kind of "periodic table of physical laws," based on a study of the "dimensionality" of the physical magnitudes related by the laws.

During the same period, Bartini developed a variety of revolutionary designs for transport vehicles, including amphibious craft utilizing the "screening" or "ground-effect" for additional lift, and a long-range nuclear-powered supersonic plane. From this time dates Pobisk's strong interest in the analysis and projection of transport systems, using new parameters derived from the Kuznetsov-Bartini table.

Another important direction of Pobisk's work, during the 1960s and afterwards, was the study and applications of the role of resonant photon (light) interactions in living and non-living matter. In 1964, he published a groundbreaking paper together with Vlail Kaznacheyev and M.Ya. Subbotin, on the significance of the "biophoton" emission of living tissue, following up earlier work of the great biologist Alexander Gurwitsch. In the 1990s Kuznetsov synthesized his work on the resonant triggering of chemical reactions and biological processes, founding what he regarded as a new scientific discipline: "Fotonika."

Starting no later than 1965, Pobisk Kuznetsov was deeply involved in the development of life-support systems, both for manned space travel and in the extended sense, emphasized especially by Kuznetsov himself, of building an economictechnological basis to support an increasing population-den-

sity on the Earth. This led into his studies of economics, inspired in part by the work of Sergei Podolinsky and Vladimir Vernadsky, as well as his own work on the distinction between entropic and anti-entropic systems.

Father Of Soviet 'Physical Economy'

In the meantime, Kuznetsov, a staunch patriot of the Soviet Union, who regarded himself as a "scientific Marxist" (although completely at odds with the official Communist Party hacks!), became once again a victim of political oppression. In 1970, his LASURS unit was suddenly shut down by the KGB, under the pretext of "violation of financial discipline." He was first investigated for criminal activity, and then, after no evidence was found, placed in a mental institution for examination, where he was held for two years!

Kuznetsov was never to return to his former level of official prominence, but continued an extremely active life of research, teaching, and publishing, acting as a key figure in various "closed" projects, including the development of a kind of Soviet counterpart to LaRouche's concept of "physical economy." In this context, he elaborated a series of "laws" of physical-economic development, in some respects similar to, but also different from Lyndon LaRouche's work. These include:

- "the law of economy of time," or the tendency for reduction of the socially necessary time for production of unit quantities of any given good;
 - the law of the growth of productivity of labor;
- the law of rising demand of consumption, connected with "the creation of the comprehensively developed creative personality."

Kuznetsov On 'The LaRouche' Unit Of Measure

In the December 1994 issue of the Moscow journal *Rossiya* 2010, Pobisk Kuznetsov explained his introduction of a new unit of account, "the larouche."

"Let us introduce the physical magnitude of 'a larouche,' designated by La," he wrote, "which gives the number of persons who can be fed from 1 square kilometer, or 100 hectares, during one year."

Thinking in terms of this new unit might look like this, Kuznetsov writes: "Our base magnitude of area is 1 square kilometer or 100 hectares. This base value of area is necessary, in order to bring all existing world food statistics to a single basis. The figures cited above for Belgium . . . correspond to 'potential relative population density,' introduced by LaRouche. We have introduced the new unit of measurement, the larouche, which is the quantity of

persons able to be fed from a certain magnitude of area, taken as the unit value in this system. Our unit is equal to 100 hectares. . . . The example of Belgium gives an agricultural productivity for Belgium equal to 500 larouches, or 500 persons per 100 hectares. We share LaRouche's view that the magnitude of potential relative population density can serve as an indicator of 'intellectual culture,' but taking into account the quite diverse values for farv (photochemically active radiation per vegetative period), we shall compare not simply 100 hectares, but 100 hectares for a given local farv value. . . .

"In 1980 I was able to estimate the possibility of creating a system for feeding 300 million people, by means of hydroponics set up in the deserts of Central Asia, in the U.S.S.R. I calculated that it would be necessary to have an area of land measuring 100 by 150 kilometers, or 15,000 square kilometers. Since this anticipated a complete system for feeding 300 million people, it corresponds to 20,000 larouches, or 40 times greater than the known productivity of Belgium."

38 Feature EIR December 28, 2001