

never going to go unchallenged,” he has in mind the long-standing British intelligence capability for manipulating Japan. Similarly, Kyngge’s formulation at the end of the article, “China’s rise seems inevitable unless the country dissolves into internal strife,” signifies that covert operations and economic warfare will be stepped up against China itself, to destabilize the country with the help of “human rights” campaigns, “environmentalism,” a manipulated “democracy

movement,” the unemployment problem, and other means.

Kyngge becomes relatively truthful only in one brief section of the article, which gives away a central reason for the City of London’s rage and apprehension:

“China’s profile [in the world] has been raised by its response to Asia’s economic crisis. Sheltered from speculative attacks by the limited convertibility of its currency, China has been able to launch initiatives — such as a significant stimulus

## The frontier science of Akademgorodok

“The difficulties now encountered by the Russian scientific and technological community are temporary ones, which could very well be overcome by the Russian people with endeavor,” said the President of China in his landmark speech of Nov. 24, which *EIR* carried last week (Dec. 4, 1998, p. 55). There could not have been a better venue for Jiang Zemin’s presentation than Akademgorodok, the “science town” within the city of Novosibirsk.

There were other science cities, developed during the Soviet period. Arzamas-16 (Sarov) and Chelyabinsk-70 (Snezhinsk) were the most famous of the closed laboratory-cities, where scientists engaged in nuclear weapons research for the military industry. All of them suffered the privations of the post-Soviet takedown of industry in Russia. “How do we live here? What’s going on with science? . . . We are digging graves,” an Arzamas-16 scientist said in Stanislav Govorukhin’s 1994 film, “The Great Criminal Revolution.” On Oct. 30, 1996, Academician Vladimir Nechay, director of the Chelyabinsk facility, went to his grave, a suicide after not having the funding to pay wages to the scientists of the Federal Nuclear Center for five months, and having received an order to cut the staff by one-half. “We can’t live like this any longer,” wrote Nechay in the note he left.

The surviving Russian scientific capabilities are an asset, not only for Russia, but for Eurasia and for mankind, as Lyndon LaRouche has insisted in a series of articles throughout the 1990s. In “Russia’s Science: A Strategic Assessment” (*EIR*, Aug. 8, 1997), LaRouche wrote, “Consider the potentials for an economic renaissance of Russia. Consider the strategic importance of such a renaissance in Russia for the development of Eurasia and of contiguous regions of the planet.

“From this vantage-point, the world’s economy has three interests at stake in the prospect for reactivating the scientific potentials which Russia (like Ukraine) has inher-

ited from the Soviet Union: 1) One of the largest, and best developed scientific cadres of the planet; 2) The specific orientation of that cadre to the frontiers of experimental science in general, as the Soviet space program typifies this frontier capability; 3) The grievous shortage, globally, of that quality of science cadres associated with the former Soviet Union, as this acute shortage should be measured, per-capita of labor-force, throughout most of the world, notably Eurasia and Africa. In summary, without a virtually full-scale reactivation of the scientific cadre associated with Russia, the world at large lacks the quantity and quality of total scientific cadre-force required to reverse the recent thirty years’ contraction of means to satisfy the urgent requirements of mankind as a whole.”

In “Science vs. Ideology,” in the Aug. 21, 1998 *EIR*, LaRouche updated the case: “The only possibility for the economic revival of Russia lies in the role to be played by the most advanced ration of Russia’s combined present and former labor-force, notably the scientific-military-industrial complex developed within the former Soviet Union. For Russia’s economy itself, the problem is, that without reactivating that complex as the basis for an export-oriented, vast machine-tool-design complex, there is no possibility of halting the presently accelerating plunge of Russia and adjoining former members of the Soviet Union into a strategically world-perilous form of disintegration. The potential markets represented by the indicated prospects for economic reconstruction of Asia represent the margin of opportunity without which Russia could not be brought to economic and financial stability.”

The interface of advanced science with economic development frontiers was most developed at Akademgorodok.

### ‘New Siberia’

The city of Novosibirsk was a child of the first Eurasian Land-Bridge, the Trans-Siberian Railroad. It was built beginning in 1893 at the site where the TSR would bridge the Ob, the westernmost of Siberia’s three great river systems. Incorporated as the town of Novonikolayevsk in 1903, it was renamed “Novosibirsk” in 1926, eight years after the execution of Tsar Nicholas. Today, it is a city of more than one and a half million people.

package [the reference is to Prime Minister Zhu Rongji's infrastructure investment program]—that, *in more open economies would probably have been thwarted by the turmoil in financial markets*. Its decision not to devalue the renminbi [China's currency] . . . drew much appreciation, not least from Robert Rubin, the U.S. Treasury Secretary, who called China an 'island of stability' ” (emphasis added).

Thus the *Financial Times* admits openly, in effect, what

London's International Monetary Fund (IMF) puppets are not permitted to say: Namely, that the liberalization and globalization policies of the IMF and World Bank, etc., were *never intended* to be successful economic policies, but only instruments for weakening and destroying nations! China is strong, and therefore a “threat,” because it pursues a dirigistic policy for development of the national economy—a policy increasingly oriented toward what Friedrich List called the “Ameri-

In the mid-1950s, a group of scientists led by Academician Mikhail Lavrentyev (1900-80) drafted a proposal for the establishment of a branch of the Academy of Sciences at Novosibirsk. The resolution, passed by the government in May, and adopted by the Presidium of the Soviet Academy of Sciences on June 7, 1957, emphasized the importance of scientific research for the economic development of Siberia and the Far East. In addition to the existing Institutes of Chemicals and Metallurgy, Transport and Power, and subdivisions of the Academy in East Siberia, Yakutsk, and the Far East, the new proposal established Institutes of Mathematics, Mechanics, Physics, Hydrodynamics, Automation, Geology, Genetics, Economics and Statistics, and a computer center.

Lavrentyev, the founder, first settler, and permanent president of the Siberian Branch of the Academy of Sciences, headed the Institute of Hydrodynamics. He had worked on the theory and practice of directed explosions since the 1940s, contributing to Soviet weapons development during World War II. At Novosibirsk, where he moved as a pioneer to establish the new center, people called him “*ded*,” or “grandfather.” In 1982, the main street in Akademgorodok, *Prospekt Nauki* (Science Avenue), was renamed in his honor, *Prospekt Lavrentyeva*.

Lavrentyev, who argued that “modern science cannot develop without a large industrial base,” drew up a program of experimental pilot plants to test the latest technologies, and industrial research centers to design and produce them. Basic research, according to the initial design of the Novosibirsk science center, was to be the foundation for the region's economic development.

Within two decades of the founding of Akademgorodok, Novosibirsk had 550 libraries, four museums, an opera house, a concert hall, a university, and several technical high schools. Within the Siberian Branch of the Academy of Sciences were 18 institutes, employing 50,000 people in 1977. Every third person in Novosibirsk was a student, as the community became a national science training center.

Many scientific fields were pursued at Akademgorodok, including in the advanced areas of particle physics, radiation, plasma physics, and controlled thermonuclear fusion. Among its specialized tasks, the Siberian Branch

had programs to conceptualize economic development of the Siberian frontier. Temperatures in Siberia can range from 80°F in the summer, to -60°F in the winter. Under such conditions, conventional construction materials, exploration instruments, and transportation equipment were useless. Railroads experienced signal failures, while track reinforcements were insufficiently durable. From the work of Lavrentyev and others at the Institute of Hydrodynamics, came a process of explosion welding, which produces metal joints that can withstand extreme temperatures and greater weights than conventional welds. The explosive welding technique was then used to weld sheets and huge structures with complicated configurations, coat equipment with anti-corrosive agents, connect the poles of high-voltage electric transmission lines, weld pipes of different diameters, compress powdered metals, and obtain multi-layered combinations of different metals.

The Russian scientists at Akademgorodok set out to work for breakthroughs, in the setting of what LaRouche recently called, once again, one of Earth's last frontiers. In “Food, Not Money, Is the Crisis” (*EIR*, Nov 13, 1998), he writes about “a revolutionary added option”: “What appears to be the least habitable, very large region of Russia's territory, the frozen north, is one of the most important markets in the world. With vast natural resources, which could not be tapped efficiently without systematic and extensive development, it represents the natural economic frontier of Russia's future, and, by its impact, one of the greatest boons to all of Asia. This area's development, together with the prospective future development of the Sahara, the Gobi Desert, and so on, must be conceived as the other side of the space-program. Like the space-program, the benefits of such an Arctic development effort, will contribute far more to the world's economies in the increase of the productive powers of labor through science and technology, than in the immediate effects of the development itself. This project, combined with the space-program, should be viewed as opening the windows to a revolutionary way of thinking, and acting, about the entirety of the Solar System in which we live.”

—Rachel Douglas and Marsha Freeman

*Portions of this article first appeared in New Solidarity, Feb. 1, 1977.*