

# How the West helped build the Soviet war machine

by Criton Zoakos and Laurent Murawiec

Serious students of Soviet history have long recognized, though the fact has yet to register among the ignoramuses who write for the press, that the Soviet war production system that exists today was in evidence as far back as 1925-26, after the death of V. I. Lenin. Ironically, Lenin, the founder of the Soviet system, the purported father of modern communism, was fated to implement only one economic system after he ascended to power, and that was a form of "free enterprise," under the rubric of the New Economic Program (NEP). Shortly prior to, and then after his death, a massive economic crisis developed which was never resolved rationally.

In 1926 and 1927, a group of Russian policy makers resolved on a long-term plan of building a new imperial state power which would be based on modern military might. After L. D. Trotsky's expulsion from power in the early months of 1927, this group worked out a detailed plan for evolving a powerful military force. They concluded that their first prerequisite was a modern industrial base upon which such an army would be founded. These military plans were then translated into the celebrated First Five Year Plan of 1929/30-1934/35.

At the end of this Five Year Plan, Soviet manufacturing of tanks had increased 40-fold, of heavy artillery guns 100-fold, of rifles 1,000-fold, and so forth. On April 28, 1929, *Pravda* quoted the vice-president of the Revolutionary Military Soviet, Unshlikht:

We must try to ensure that industry can as quickly as possible be adapted to serving military needs . . . [therefore] it is necessary to carefully structure the Five-Year Plan for maximum cooperation and inter-relationship between the military and civilian industry. It is necessary to plan for duplication of technological processes and absorb foreign assistance. . . . Such are the fundamental objectives.

Every new plant had a department devoted to military products, and every plant produced both civilian and military goods, although the military took first priority.

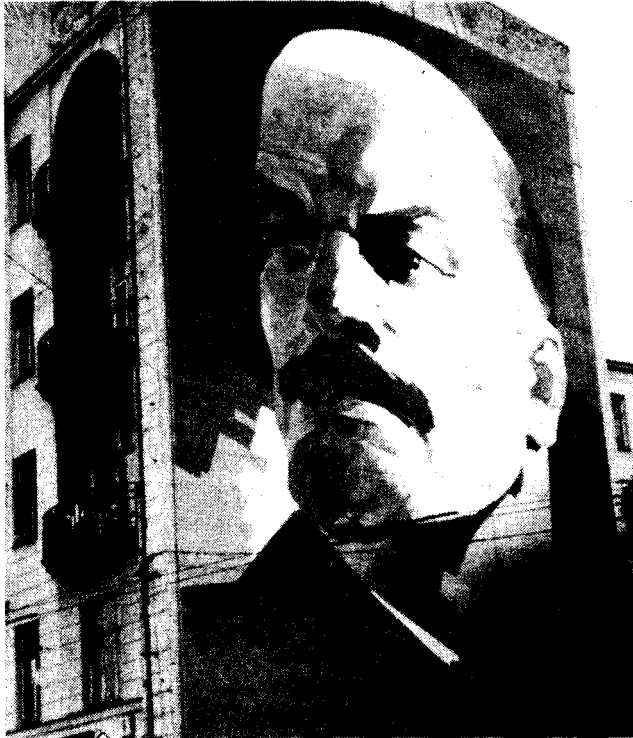
## Bolshevism and U.S. technology

The secret, of course, is that the early industrialization effort depended almost entirely on Western companies, en-

gineers, investment programs, and Western imported plant and equipment. The economic historian A. C. Sutton has written the definitive documentation of that period of history, in his authoritative *Western Technology and Soviet Economic Development* from which we quote here:

The rapid growth of the 1920s was dependent on foreign operative and technical skills. Electrical energy grew more rapidly than any other sector. Socialist electrification was achieved in good part in the 1920s. This was heralded as a triumph of Socialist construction, but unless one defines the latter as a Western enterprise operating in a Socialist economy, it should be hailed as a triumph of Western private enterprise working under enormously difficult technical and political conditions. . . . The remarkable growth of production in the 1920s is in those sectors that received the greatest Western aid: coal, oil, pig iron, and rolled steel. Those sectors without a great deal of aid barely improved their position during the course of the decade. The Western contribution to Soviet production between 1917 and 1930 was total. No important process has been isolated which was not a West-to-East transfer. . . . The penetration of Western technology was complete: at least 95% of the industrial structure received this assistance.

The period hailed as the great industrialization of the Soviet Union, the demonstration of the superiority of Socialism, was described in 1933 by the journal *Za Industrializatsiyu* as "a combination of American business and science with Bolshevik wisdom, [whose combined effect] has created these economic giants in three or four years." Given what we know of Bolshevik wisdom in industrial matters, little could be credited to socialism. Hundreds, perhaps thousands of Western companies were called to supervise construction of the first Five-Year Plan. According to Harry Schwartz (*Russia's Soviet Economy*, N.Y., 1950), "It seems correct to say that every or almost every major branch of the Soviet productive system received substantial aid from abroad and had much of its rapidly expanding corps of native engineers and technicians of all kinds trained, directly or indirectly, by foreigners." Adds Sutton:



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*The Soviet economy has been grounded in military production since the death of Lenin.*

The foreign engineers who worked for the Soviet Union between 1930 and 1945, whether under the first Five-Year Plan, during the '36-'39 period, under the Nazi-Soviet Pact or under Lend-Lease, were usually top-flight consultants without whom the projects would have remained on paper only. The Soviets were adept at selecting, in almost every field, from irrigation to metallurgy, first rank foreign construction companies and the finest industrial talent.

Even more significant, *"the Five-Year Plan as a concept is almost completely a myth of the propaganda mills. The complete design work, supervision of construction, provision of equipment and in many cases, actual factory construction were done by Western companies under contract."* We shall not repeat the detailed treatment of individual industrial branches which Sutton takes three volumes to develop, but for the purposes of this report, his study of the planning and construction projects will provide the required paradigm:

One of the truly great surprises in researching this study was the discovery that the architectural design and supervision of construction of industrial units as well as the supply of equipment and similar assistance was very much an American responsibility. In the words of Albert Kahn Co., Inc., the foremost industrial architects in the United States: "It was in 1928 . . . that the most extraordinary commission ever giv-

en an architect came in the door unannounced. In that year, a group of engineers from the U.S.S.R. came to the Kahn office with an offer for a \$40 million tractor plant and an outline of a program for an additional \$2 billion [these are 1928 dollars!—ed.] worth of buildings. About a dozen of the factories were done in Detroit; the rest was handled in a special office with 1,500 draftsmen in Moscow." The "outline of a program" presented to the Kahn organization in 1928 was nothing less than the first and second Five-Year Plans of "Socialist construction."

The contract was for plant design, the selection and ordering of machinery, the preparation of process layouts, and the ordering and shipping of the tools needed to build the plants. The chief of the Soviet State Project Construction Trust, Gosproektstroi, was G. K. Scrymgeour, a Kahn engineer who also headed the Building Commission of the Supreme Economic Council—the only American to be a member of the "National Technical Soviet"! Thus were the three shining examples of Socialist construction, the tractor plant in Stalingrad, and those in Chelyabinsk and Kharkov, built from top to bottom by American technology—the Russians providing unskilled labor and raw materials. The military industry, which includes the three above-mentioned plants, was similarly assisted.

### **Lack of innovation**

What is further striking is the fact that, no more in the 1930s than in the 1920s did any significant technological innovation spring up in Russia's civilian economy. What happened was that "the Soviets acquired 30 years of foreign technological development in three years, although it took 10 to 15 years to absorb the acquisition," Sutton reports. But the backwardness remained in terms of innovation—contrary to a country like Japan, which extensively borrowed and copied, but assimilated and further developed technology developed elsewhere.

What happened in the 1930s was really the mass import of selected technologies for selected, key branches that central planning had decided to boost—as preconditions for developing the defense economy.

This Western technological assistance, including emphatically Nazi assistance especially after the Hitler-Stalin Pact, continued until Hitler's June 1941 Operation Barbarossa. Lend-lease supplies from the United States in the capital goods sector alone represented more than one billion (1938) dollars, with the result that, in the words of Sutton, "The Soviet economy ended the war at a level of technology which in many respects was at a par with that of the United States." After sizable technological input accrued because of the 1939 Nazi-Soviet Pact, "the Soviets had, in effect, an indigenous military technology by 1941. Further, weapons were produced in large quantities over a full decade . . . this prudent, far-sighted policy accounts for the Soviet ability to turn back

the Nazi invasion before Lend-Lease goods flowed in any great quantity.”

When Lend-Lease goods, supplied under the first, December 1941 Russian-American protocol, started to flow, they represented an extraordinary technological bonanza. A June 1944 cable to the State Department by then-Ambassador to Moscow Averell Harriman makes the point clear: *“Stalin paid tribute to the assistance rendered by the United States to Soviet industrialization before and during the war. He said that about two-thirds of all the large industrial enterprises in the Soviet Union had been built with U.S. help or technical assistance.”*

Close to half a billion 1938 U.S. dollars worth of advanced machine-tools were injected into the Russian economy. Still, in spite of the high technological standard thus acquired, the principle of the war economic mobilization was the starving of the population, of the civilian sector as a whole, of anything that did not go to the front.

From the end of the war to the death of Josef Stalin, the parasitical Soviet war economy took its time to digest the looting of Eastern Europe, an issue treated elsewhere in this Special Report. After that arrived the era of détente, and with it the modern, controversial form of “technology transfers,” “industrial espionage,” and that one-way East-West trade without which the Soviet military machine of the 1970s and 1980s would not have been built.

### **Stealing, copying, and assimilating**

The process whereby Russia acquires foreign technologies exemplifies the nature of the beast: Incapable of developing at the frontiers of technology, it steals the products of external systems that are able to advance permanently. The old quip of the Russian agricultural minister opposing the takeover of the rest of the world—“Who will sell us grain then?”—has across-the-board validity. We shall once more draw on Sutton’s analysis:

The operational key to the development and utilization of technology within the U.S.S.R. is contained in the two words, “standardization” and “duplication.” [In a first stage, the targeted foreign technology is acquired.] The technological dragnet [is] unbelievably thorough and complete. It is doubtful whether any technical or economic development of consequence has escaped examination by the Soviets. When information could not be acquired overtly, it was acquired covertly, by espionage, from governments, companies, and individuals. Such information was translated, summarized and distributed to planning, design, research, engineering, and economic bodies.

Prototypes of promising processes were acquired, examined, dissected, catalogued, and analyzed in the most minute detail. The process most suitable for Soviet conditions became the standard. Foreign engineers were hired to carry out or assist the selection

process. When the standard had been identified, it was prepared for duplication and standard drawings were prepared. This process of identification of standards and subsequent duplication is found in all major Soviet industries. . . . Why were the Soviet engineers and planners so successful in choosing the best foreign technologies? In almost every case [they] made an excellent choice. They invariably chose a more successful, low-cost process. . . . One explanation might be the highly detailed comparative technical studies conducted . . . it is clear that the Soviet system has institutional procedures enabling the rapid, usually successful transfer of Western technology at low cost and in a relatively efficient manner.

A series of other advantages are listed by Sutton: the help of espionage, local communist parties and sympathizers, cooperative Western manufacturers providing data in order to gain contracts, the pinpointing of the more successful processes by market results in the West. “These constitute a formidable package of advantages. . . . In brief, the Soviets have demanded and have been supplied with the frontier work of capitalist systems often before it is utilized in the country of origin. . . . This policy requires extensive information, assimilation of foreign techniques, and a great deal of skill to avoid mistaken choices.”

The study of the “copying” methods further reveals the inner nature of the Russian system: The fundamental doctrine and policy of the regime prohibits the conditions that cause innovation to flourish. As a result, Russia is “compelled” to imitate the creative discoveries made outside it, without ever being capable of mastering the process by which such discovery is achieved. The Russian economic situation is thus rooted in the deepest of all epistemological problems, that of mastering the process of successive scientific discoveries and the method by which the process is mastered.

According to a 1982 intelligence report to the U.S. Congress, during the 1970s the Soviet theft and acquisition program made available to the Soviet economy the following otherwise unavailable technologies (among others): 1) complete industrial processes and semiconductor manufacturing equipment capable of meeting all Soviet military requirements; 2) complete computer system designs, concepts, hardware, and software plus a wide variety of general-purpose computers and minicomputers, enough to cover 50% of the U.S.S.R.’s computer needs and 100% of its military needs; 3) automated and precision manufacturing equipment for electronics, materials, and optical, and future laser weapons technologies; machine tools for cutting large gears for ship propulsion systems; 4) optical, pulsed power-source lasers and other laser-related components, including special optical mirrors and mirror technology suitable for future laser weapons.

The dollar value of the 1970s loot in this area alone is estimated in the high scores of billions.