

# The Soviet Problem with Two “Unknowns”: How an American Architect and a Soviet Negotiator Jump-Started the Industrialization of Russia, Part II: Saul Bron

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**Editor’s Note:** This is the second half of a two-part article by Sonia Melnikova-Raich on the relationship forged in the late 1920s and early 1930s between American industrialists and the Soviet government, which sought the help of Americans to move the Soviet Union from a peasant society to an industrial one. The first part, published in the previous issue of *IA* (volume 36, no. 2) described the state of the Soviet tractor and tank industries at the onset of the First Five-Year Plan in 1928 and provided a detailed account of the work in Soviet Russia of the firm of Albert Kahn, including some of the most important Soviet industrial giants, designed to manufacture domestic tractors and by the beginning of WWII converted to production of tanks. This second part is focused on the early Soviet-American commercial relationship and the role played by Saul G. Bron, who in 1927–1930 headed the American Trading Corporation (Amtorg) and, in addition to Albert Kahn, contracted with many leading American companies, including the Ford Motor Company, The Austin Company, and the General Electric Company. It also describes the Stalin purges of the Soviet industrial elite and the tragic fate of Soviet specialists engaged in Soviet-American trade and technical aid contracts.

## Abstract

Soviet industrialization was a complex economic and political undertaking about which much remains unclear. Rather than examine the process as a whole, this essay focuses on two fairly unknown players in the history of Soviet-American relations—one American firm and one Soviet negotiator—and their contribution to the amazingly rapid Soviet industrialization of the early 1930s, emphasizing some human and business factors behind Stalin’s Five-Year Plan. Saul G. Bron, during his tenure as chairman of Amtorg Trading Corporation in 1927–1930, contracted with leading American companies to help build Soviet industrial infrastructure and commissioned the firm of the foremost American industrial architect from Detroit, Albert Kahn, as consulting architects to the Soviet Government. The work of both played a major

role in laying the foundation of the Soviet automotive, tractor, and tank industry and led to the development of Soviet defense capabilities, which in turn played an important role in the Allies’ defeat of Nazi Germany in World War II. Drawing on Russian and English-language sources, this essay is based on comprehensive research including previously unknown archival documents, contemporaneous and current materials, and private archives.

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“We have before us in the Soviet Union  
an engineering problem of  
tremendous proportions.”

— Saul G. Bron<sup>1</sup>

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## “Unknown” No. Two: Saul G. Bron

While it is surprising how little is known about Albert Kahn’s role in the creation of Soviet industry, even less is known about Saul G. Bron, who was instrumental in bringing Kahn and his expertise to the U.S.S.R. On June 17, 1929, *Time* wrote: “Information on Amtorg’s

Board Chairman Bron's pre-Soviet period is extremely vague, inasmuch as very few of the individuals now prominent in Russia were famed members of tsarist society." Indeed, as a part of Lenin's war on the intelligentsia in 1922–23, hundreds of individuals prominent in pre-revolutionary Russia's arts, literature, jurisprudence, diplomacy, and industry, were either sent into exile to Siberia or were forced to emigrate, despite their value to a country still mostly rural and poorly educated. A few years later the Soviet government was scraping to find those left who possessed education and experience to lead industrialization and represent the state in its struggle for foreign trade and diplomatic recognition. It was specifically looking for those who had lived abroad and knew foreign languages. Saul Grigorievich Bron was just such a man. (figure 1)

Born on January 25, 1887, in Odessa, Bron began his higher education at the Kiev Institute of Commerce, but was expelled for involvement in the social-democratic movement, which was popular among secular Jews in the Ukraine as a reaction to tsarist anti-Semitism. He continued his education in Germany, France, and Switzerland, where he studied the grain trade and earned a doctorate in economics from the University of Zurich. In 1921–1923 Bron acted as commissioner for foreign trade for Ukraine and after formation of the U.S.S.R. in 1922, served on the Supreme Economic Council of the R.S.F.S.R. (the Russian Soviet Federa-



Figure 1. Saul G. Bron, 1930s. Photo courtesy the Bron family.

tive Socialist Republic, also called Soviet Russia or simply Russia), headed the Soviet grain exporting agency, Exportkhleb, was a director of the Russian Bank for Foreign Trade, Roskombank (later Vneshtorgbank of the U.S.S.R.), and in 1926 began his work for the People's Commissariat for Foreign Trade of the U.S.S.R. (When in the summer of that year Stalin picked a regional party leader from the North Caucasus, A.I. Mikoyan, as the next commissar for foreign trade, he assured the hesitant candidate that to help him, the leader would dispatch some experienced people, including Bron, who could "boost any commissariat.")<sup>2</sup>

In 1926 the Soviet Union was still not recognized by the United States government, and the Commissar for Foreign Affairs, G.V. Chicherin, who was closely watching the political situation in Washington, was convinced that the time was right to take advantage of the favorable views of some American officials toward the Soviet Union, especially Senator William Borah, then chairman of the Senate Foreign Relations Committee. Chicherin suggested delegating to America a person capable of conducting unofficial discussions with U.S. representatives and at the same time promoting commerce between the two countries. This role would be assigned to a new chairman of Amtorg Trading Corporation. In March 1927, following an urgent request by the Commissariat for Foreign Trade, the Central Committee appointed Bron chairman of Amtorg.<sup>3</sup>

Amtorg Trading Corporation, a quasi-private Russian-American joint-stock company, was established in 1924 by merging Armand Hammer's Allied American Corporation (Alamerico) with Products Exchange Corporation (Prodexco) and Arcos-America.<sup>4</sup> Amtorg's purpose was to seek out prospective business opportunities in the U.S. and facilitate trade between the U.S. and the U.S.S.R. (where foreign commerce was a monopoly of the state) by playing the practically exclusive role of intermediary between American companies and Soviet industrial and trading organizations.<sup>5</sup> Although Amtorg was an American corporation and hence subject to United States laws, it occupied a unique position in business as the single purchaser for a communist state. As a seller, it had to compete with other sellers of similar goods; but as a buyer, it represented an enormous single purchaser whose orders were at times and for some firms the largest they had ever been offered.<sup>6</sup> Even though Amtorg did not officially represent the Soviet government, it was controlled by the People's Commissariat for Foreign Trade and prior

to the establishment of diplomatic relations between the U.S. and the U.S.S.R. in 1933, served as a de facto trade delegation and a quasi-embassy.

Amtorg handled almost all imports from the U.S.S.R., comprising mostly lumber, furs, flax, bristles, and caviar, and all exports of raw materials and machinery for Soviet industry and agriculture. It also provided American companies with information about trade opportunities in the U.S.S.R., and supplied Soviet industries with technical news and information about American companies. The headquarters was located in Manhattan, at 165 Broadway, and after 1929, at 261 Fifth Avenue, with several branch offices, including at different times, Chicago, Detroit, Los Angeles, San Francisco, and Seattle. At the time of Bron's taking office in 1927, Amtorg had more than one hundred full-time employees, many of them Russian immigrants, supervising and assisting about the same number of non-Russian-speaking representatives. The corporation had a board of seven directors, most of whom were former Soviet officials, with at least one director at any time (in order to comply with New York law) being a citizen of the United States. The stock was issued in the names of the board members, and it was said that as an additional precaution, prior to being dispatched to America, newly-appointed directors were required to sign personal notes for double the face value of their shares.<sup>7</sup>

Bron and his family arrived in New York on June 8, 1927. Bron was the third chairman of Amtorg. He replaced A.V. Prigarin, who managed Amtorg for about a year after replacing the first chairman of Amtorg, I.Y. Khurgin, who in 1925, less than a year after his appointment, drowned in a lake in upstate New York in an odd kayaking accident.<sup>8</sup> One of Amtorg's American directors, J.M.T. Feinstein, noted that Bron was the first president of Amtorg whose command of English enabled him to negotiate without the aid of interpreters (he was also fluent in German and French).<sup>9</sup> *Time* magazine, which closely followed the arrival of the new head of Amtorg, didn't spare expressive adjectives, describing Bron as "affable," "heavy-set, but not gross," "potent," "untidy," "jovial," and "shrewd," and calling him an "able Russian financier" with "all the emphasis at his booming command."

When Bron took over as chairman of Amtorg in 1927, sales of Soviet goods to the United States amounted to a mere 0.3 percent of American imports, and total Soviet purchases in the U.S. amounted to only 1.15

percent of exports by all American companies.<sup>10</sup> This was soon to change. In a statement issued shortly after his arrival in the U.S., Bron emphasized: "Industrial leaders in the Soviet Union are fully awake to the value of utilizing American technical and industrial skill to assist in developing the rich natural resources of the country and promoting its industrialization."<sup>11</sup> As for the U.S. government, it was holding an ambiguous position. On the one hand, the Coolidge administration announced that it would not formally recognize the Soviet government and imposed various restrictions on trade with the U.S.S.R., but on the other hand, it did not prevent private entrepreneurs from entering into business relationships with the Soviets. Such was the thorny situation when Saul G. Bron entered the scene.

Bron's arrival in the U.S. nearly coincided with the British government's breaking of diplomatic and trade relations with the U.S.S.R. following Scotland Yard's raid of Arcos in London on May 12, 1927. This event profoundly affected Soviet-American trade relations, as well. Never before had the American press published so eagerly and fully any news about Soviet-American trade, with over 200 national and local newspapers quoting Bron's statement about the prospects of this trade.<sup>12</sup> "The Soviet industrial program, the increase in orders placed here, and the curtailment of trade with Britain, all show the direction to be taken by Soviet trade with the United States," predicted Bron in his statement to the press, explaining that the break with England would facilitate the effort by Soviet industrialists to trade directly with American firms, through the authorized trading companies in the U.S., such as Amtorg, eliminating the European middle-man, and to enter into "closer relations with the American technical world."<sup>13</sup>

### **"A ruble in the hand"— plus electrification of the whole country**

Less than one year after Bron's arrival in the U.S., a new peak in trade between the United States and the U.S.S.R. had been reached. By the end of March 1928, the total trade was estimated at \$80,000,000, against \$34,000,000 for the corresponding six months the year before.<sup>14</sup> A year later, under the headline "A Ruble in the Hand," *Time* wrote: "It is not so many years since 'Bolshevik' was a popular synonym for a low, ruffianly fellow and 'ruble'—for the ultimate in worthless money. But though the U.S. Department of State remains un-



aware of the existence of the Union of Soviet Socialist Republics, U.S. industry is now inclined to believe that Russians habitually pay their bills and that a ruble in the hand is as good as 51½¢ in the bank.” *Time* listed the contracts with American corporations recently signed by Amtorg. Besides Albert Kahn, Inc.,<sup>15</sup> these included Hugh L. Cooper and Company, Inc., for a \$100 million hydroelectric power plant, Dneprostroi, then the largest in the world; Freyn Engineering for design of steel mills; Stuart, James & Cooke for building and equipping coal mines; E. I. du Pont de Nemours and Nitrogen Engineering for construction of fertilizer factories; and other major American companies.<sup>16</sup> (figure 2)

*Time*'s list was oddly missing two extremely important contracts with the International General Electric Company (I.G.E.): one signed by Bron on May 24, 1929, for assistance in the development of the electrical power industry, and an earlier, highly significant six-year contract he negotiated with General Electric's chairman, Owen D. Young, I.G.E. president Clark Minor, and I.G.E. director, S.A. Trone (the latter had experience in managing hydroelectric projects in pre-revolutionary Russia).<sup>17</sup> Under this contract, signed on October 9, 1928, I.G.E. would establish a technical bureau in Moscow to supervise the installation of the equipment and maintain direct contacts with Soviet electrical projects. The contract also set an important precedent by



Figure 2. Signing contract: *sitting left to right*, Albert Kahn; Saul G. Bron, President of Amtorg; *standing left to right*, N. Ol'khovskiy, attorney at Amtorg; Moritz Kahn, and J. Michaels, attorney at Amtorg. Detroit, 9 January 1930. Photo courtesy Albert Kahn Associates, Inc.



Figure 3. Signing contract for hydraulic turbines and generators for Dnieper River Hydroelectric Power Plant (DneproGES), 1929: *sitting left to right*, Col. Thomas B. Whitted, Vice-President of NewportNews Shipbuilding and Dry Dock Co.; H.H. Dewey, Vice-President of International General Electric Co.; Saul G. Bron, Chairman of Amtorg; A.V. Winter, Chief Engineer; and Col. L. Cooper, Consulting Engineer for Dneprostroi. *Economic Review of the Soviet Union* 4. no. 7 (1 April 1929): 131.

providing for five-year credit for purchases of electrical equipment up to \$26,000,000, with only a 25 percent down payment. Finally, the contract provided for settlement by the end of six years of G.E.'s \$1.75 million claim against the Soviet government (the value of its interests in Russia that were nationalized after the revolution) achieved by charging "supplementary interest" over the rate normally extended by the company to its best customers. (Although the interest rate was higher than G.E. might have required of another buyer, it was much lower than the Soviets had until then received elsewhere on long-term credit.) This clause had special significance since the refusal to pay Americans about \$800 million for confiscated property and pre-revolution debts remained the main reason for the U.S. administration's unwillingness to recognize the U.S.S.R. and for American banks' refusal to extend credits and loans critical for the further development of Soviet-American trade.<sup>18</sup> (figure 3)

The importance of the General Electric contract in Soviet industrialization is hard to overestimate. It was a key element in carrying out the electrification plan of the Soviet Union, GOELRO.<sup>19</sup> In addition to the company's involvement in the major electrification projects in the U.S.S.R., including Dneproges,<sup>20</sup> and the electricity generated by G.E. equipment in Soviet power stations,

thousands of G.E. motors and other electrical equipment were used in Soviet plants and factories all over the country. No significant branch of Soviet industry developed in the 1930s without assistance from the General Electric Company.<sup>21</sup>

Interest in American technical achievements in the U.S.S.R., according to Bron, was so keen, even among the general public, that the words “modern” and “American” had become virtually synonymous, and modernization of Soviet industry became practically equivalent to “Americanization of industry.”<sup>22</sup> Despite the decline in the total volume of Soviet foreign trade during that period, in the 1927–28 fiscal year, the volume of Soviet-American trade totaled about \$120,000,000, compared to \$92,600,000 for 1926–27 and \$48,000,000 for 1913.<sup>23</sup> Commenting on this remarkable growth in trade between the two countries in the absence of a formal political or economic agreement, Louis Fischer wrote in 1930 that “the greatest improvement in Russia’s foreign position during 1928 and 1929 was the favorable trend of relations with the United States. In the absence of diplomatic relations, a kind of extra-diplomatic relations has come into existence which are occasionally as satisfactory as some of the Soviet Union’s usual diplomatic contacts with European countries.”<sup>24</sup>

### Ford: “Helping the Russians to help themselves”

Following the historic agreement with Albert Kahn and groundbreaking contract and settlement with General Electric, Bron secured numerous other contracts with leading American companies. But the main focus remained the tractor and automobile industries. Just as the domestic tractor industry at the onset of the Five-Year Plan in 1928 was practically non-existent, the condition of the auto industry was rudimentary and the system of highways insignificant, considering the enormous expanse of the country. “Mud is knee deep, bridges are damaged, horses are exhausted, and the drivers strain themselves so much that one might think they are trying to drag their own cart,” admitted *U.S.S.R. in Construction*, an illustrated Soviet propaganda magazine.<sup>25</sup> There were only two pre-revolution auto factories: the AMO factory in Moscow, built during WWI and equipped with American machinery, which was producing 600 trucks, and the Yaroslavl factory, with annual output of 200–300 three-ton trucks.<sup>26</sup> “If we do not develop our automobile industry, we are threatened with the heaviest losses, if not defeats, in a future war,” wrote *Pravda* on July 20, 1927.

On July 13, 1928, the Soviet Council on Labor and Defense (STO) determined to develop an automobile industry in the U.S.S.R. When deciding on the type of automobile, American models were to be considered first and foremost, with two criteria in mind: 1) the future Soviet automobile must have the lowest cost and simplest design, and 2) considering the state of Russian roads, it must be the hardest vehicle possible. A specially-appointed commission—headed by the vice mayor of the Moscow City Council, M.I. Rogov, and including M. L. Sorokin, the director of Moscow Automobile Trust (Avtotrest), and I.A. Khalepsky—was instructed that the supplier of component parts must furnish a complete set of working drawings for the chosen model and, in exchange for the massive order (6–7 million rubles a year for 3–4 years), would provide technical assistance in construction of a new plant and its further operation.<sup>27</sup> On August 30, 1928, Bron brought the Rogov commission to the U.S. The next day’s *New York Times* mentioned the commission among the passengers arriving on the *Mauretania* and quoted them as saying that they came to study the tractor and truck industry with a view to building plants in Russia. “The program in which they are interested calls for an expenditure of \$40,000,000,” wrote the *Times*, also quoting the Russians as saying that they were mostly interested in trucks and tractors because their people were too poor for pleasure vehicles.<sup>28</sup>

After a year-long study, on March 4, 1929, VSNKh created the state automobile trust, Avtostroi, to facilitate development of the automotive industry, and on April 6 of the same year it decided to build another industrial giant, an automobile plant 250 miles east of Moscow, near Nizhny Novgorod (soon renamed as Gorky).<sup>29</sup> The plant would have the capacity to produce 100,000 automobiles per year by the end of 1932. At the time of this decision, the U.S.S.R., with its rapidly growing industries, possessed only 20,000 cars and trucks—half of them not in working condition, amounting to 5 percent of the traffic on Soviet roads.<sup>30</sup> It was no wonder then that Moscow was “thrilled” by the news from New York that Ford was considering technical assistance to the Russian automobile industry and was actually advocating recognition of the Soviet government. “Cheap mass production is a Soviet goal, more precious from the practical standpoint than world revolution,” the *New York Times*’ Walter Duranty reported from Moscow. In Soviet eyes, Ford was “the arch-mogul of that achievement.” Reporting her impressions of Russia ten years after the October Revolution, the *New York Times* corre-

spondent, Anne O'Hare McCormick, wrote: "The word for industrialization in Russia is Americanization, and the passion to Ford-ize the Soviet Union is even stronger than the passion to communize it."<sup>31</sup>

But Bron's task in Dearborn was not easy. Getting Albert Kahn on board certainly "broke the ice" and even left Ford feeling somewhat left out, as he had de facto relinquished his interest in the Soviet tractor industry.<sup>32</sup> The idea of "helping the Russians to help themselves" evidently was more attractive to Ford than building a plant as a concession, as had been offered to him in 1926.<sup>33</sup> (Just as he had feared, most of the foreign concessions in the U.S.S.R. were cancelled at the end of the decade.) But Ford certainly still remembered the scathing 1926 report by his experts and the failed attempt to offer him at that time a contract to build a tractor plant as a concession, and a more recent attempt to approach Ford had been a complete fiasco. The Soviet commission that had arrived in Dearborn in early 1928 seemed to have had little idea of how to conduct negotiations, especially since none of its six members could speak English. As Ford's production director, Charles Sorensen, remembered, "Not only words had to be translated, but working principles of private enterprise had to be explained to uncomprehending Communists. I might just as well have been talking to a delegation from Mars." After two months of tiresome discussions, the delegation left without reaching any agreement. "Much to my surprise," continued Sorensen, "another Soviet commission came over in the later part of 1928."<sup>34</sup> Besides Bron, this group included vice chairman of the VSNKh, Valery I. Mezhlauk, and chairman of the State Bank of the U.S.S.R., A.L. Sheinman, dispatched by Stalin to strengthen Bron's position in the negotiations by demonstrating that he was fully authorized to make a major financial commitment and that the Soviets meant business.<sup>35</sup>

Nevertheless, the negotiations moved slowly and since the outcome was not obvious, Bron continued the negotiations he had started in 1928 with the General Motors Company, which seemed to be open to the concession scenario and to providing credit.<sup>36</sup> Stalin watched the progress of both negotiations with great impatience. He instructed Bron that the Soviet Government would prefer Ford, but that the absence of credit was an obstacle. General Motors' vehicles, on the other hand, cost more and the company was less inclined to take full responsibility for construction of the future plant. On February 8, 1929, he sent an urgent coded telegram to Amtorg:

"Greatly displeased with the delay in the negotiations on the auto plant. Command to speed up the business and report the results of negotiations with [General] Motors." And on February 11: "We repeat. Command acceleration in negotiations with Motors not to miss the construction season. Command regular information on the progress of negotiations with Ford and Motors."<sup>37</sup>

On May 31, 1929, after complicated negotiations and despite the absence of official relations between the two countries (and thus without full legal protection for American entrepreneurs), the largest Soviet contract with an American firm was signed by Henry Ford, Ford Motor Company Vice-President Peter E. Martin, Saul G. Bron for Amtorg, and Valery I. Mezhlauk on behalf of VSNKh for assistance in building near Nizhny Novgorod a colossal automobile plant with projected annual capacity of 70,000 trucks and 30,000 cars. (figure 4) The agreement was to run for nine years, including technical cooperation between the Ford Motor Company and Avtostroi for five years after the completion of the plant, which was expected to go into operation within four years. It involved the purchase of \$30,000,000 worth of Ford cars and parts within four years and specified VSNKh's desire "to erect in the U.S.S.R. an automobile plant or plants for the manufacture of passenger automobiles similar to the Ford Model 'A' and commercial



Figure 4. After signing contract for technical assistance in building the Nizhnii Novgorod (Gorky) Automobile Plant: *left to right*, Valery I. Mezhlauk, Vice Chairman of the Supreme Council of the National Economy of the USSR; Henry Ford; Saul G. Bron, President of Amtorg, Dearborn, Mich., 31 May 1929. Photo courtesy of the Bron family.



trucks similar to the Ford Model ‘AA’ with all improvements which may be embodied therein by the Ford Company during the term of this agreement.”

The contract also granted VSNKh the right to use all present and future Ford patents and inventions for materials, component parts, and methods of production for these models. It also granted VSNKh the full rights to make, sell, and use Ford units throughout the U.S.S.R. and to make and use all River Rouge plant tools and machinery. Further, Ford agreed to permit access to his plants in Detroit and Dearborn to up to fifty Soviet engineers, foreman and other employees of VSNKh per year, “for the purpose of learning the methods and practice of manufacture and assembly in the Company’s plants,” and to send his own “experienced and competent technical personnel” to Russia to help install the equipment and train the working force.<sup>38</sup>

### Nizhny Novgorod: “Where Russian Fords are produced”

In the beginning Ford “A” cars and “AA” trucks were assembled, using parts shipped from Detroit, at two smaller prototype plants (assembly plants No. 1 and 2): a conversion of the old Gudok Oktyabrya (“Whistle of October”) factory in Kanavino near Nizhny Novgorod for assembling 12,000 vehicles a year, and a new KIM plant in Moscow for assembling 24,000 thousand vehicles. Both plants would be designed by the Albert Kahn firm. In mid-August 1929 the firm mailed detailed drawings of the KIM plant from Detroit to Russia so that construction could start before the cold weather. As was done for the tractor plant in Stalingrad, the structural steel elements were prefabricated in the U.S. by McClintic-Marshall Products and disassembled down to nuts and bolts for shipment to Moscow. On February 1, 1930, the first Soviet Ford “AA” truck, a 1.5-ton *polutorka*, rolled off the conveyor belt of the Assembly Plant No. 1 (Gudok Oktyabrya) in Kanavino. (figure 5) On November 6 of that year Assembly Plant No. 2 (KIM) in Moscow began delivering the same model.<sup>39</sup> (figure 6)

Meanwhile, the Ford company provided complete sets of working drawings and specifications for the cars and trucks, furnished a general layout and technological project of the main plant in Nizhny Novgorod, and shipped 72,000 knocked-down Fords for assembly during the first four years of the plant’s operation, after

which it would gradually switch to Soviet-made components.<sup>40</sup> The architectural and engineering design and on-site construction supervision of the main plant in Nizhny Novgorod, as well as of a nearby city to house 35,000 workers and their families, was done by the Austin Company of Cleveland, Ohio.

Following a visit by Austin engineers to the proposed site, the company signed the initial contract with Avtostroi on August 23, 1929.<sup>41</sup> This contract was supplemented by the typical three-way Amtorg contract signed



Figure 5. First Soviet Ford AA truck leaving Assembly Plant No. 1 “Gudok Oktyabrya” in Nizhni Novgorod, 1930. Photo by Max Alpert, courtesy of RIA Novosti.

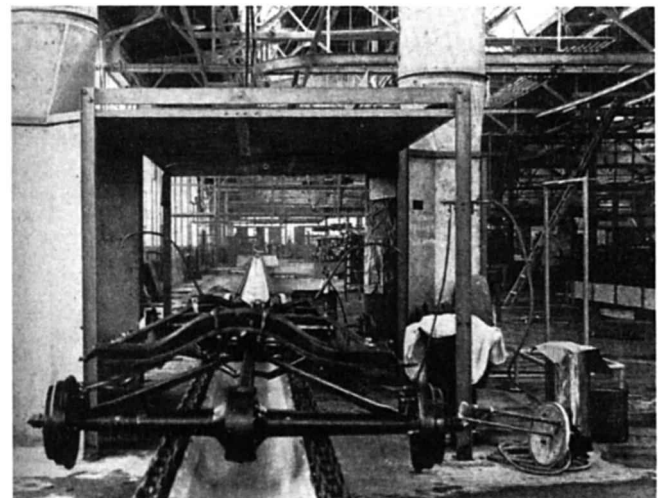


Figure 6. Conveyor belt at Assembly Plant No. 2 (KIM) in Moscow, 1931. *Economic Review of the Soviet Union* 6, no. 4 (15 February 1931).

by Saul G. Bron with the Austin vice president, George A. Bryant, and the head of Avtostroi, S.S. Dybets, on October 30, 1929.<sup>42</sup> It was the largest single foreign contract awarded by the U.S.S.R., for which the Austin Company was to receive \$40,000,000 in gold. If the work was finished in fifteen months, as the company promised (the Soviet preliminary calculation was four years), it would receive a bonus. The Soviet organizations Avtostroi and Metallostroi were to supply construction materials, equipment, and the workforce.

Over 100 Austin staff in Cleveland worked on the drawings during the winter of 1929–1930, while 120 Soviet engineers and technicians, stationed in Dearborn and assisted by Ford engineers, were preparing specifications for equipment. The Soviet workers occupied offices on the second floor of a building on Miller Road, within the River Rouge complex, and had access to everything that went on there during the next six years, until 1935. So much a part of the Ford organization had they become that they even had stationery printed with the Ford Motor Company address. Ironically, in 1932, in the midst of the Great Depression, when Communist “hunger marchers” stormed the plant, the Soviet engineers, whose number had grown from fifty a year to almost four times that number, watched the demonstration from their office windows and stayed on to continue their study of Ford methods.<sup>43</sup>

On May 1, 1930, the first Austin engineers, including George A. Bryant and Allan Austin, son of the company president, Wilbert J. Austin, arrived on the site of the future “Ford” plant, a deserted stretch of land between the rivers Volga and Oka, near the village of Monastyrka, twelve kilometers from Nizhny Novgorod. The company aimed at having as much work done as possible during the summer months, when the days in the area are long and the climate is very much like the northeastern United States. Winter conditions are quite different. (figure 7) From November until April the sun is up for only six hours and the temperature is always below freezing, reaching 22 degrees below zero Fahrenheit, with frost up to six feet deep, presenting many construction problems not encountered in milder climates. The construction process was also ridden with problems caused by the lack of skilled workers and conflicts between the Austin Company and its Soviet counterparts, and between the counterparts themselves.<sup>44</sup> But despite all these difficulties, by November 1, 1931, just a few days before the fifteen-month deadline, the automobile plant in Nizhny Novgorod was mostly completed. The



Figure 7. Building of Nizhnii Novgorod (Gorky) Automobile Plant. *USSR in Construction*, no. 1 (1933).

last Austin engineer left the site on December 1, 1931, and on January 1, 1932, the manufacture of automobile parts began, supervised by American machine operators. (figures 8–10)

Originally called Nizhny Novgorod Automobile Plant (NAZ), in 1933 it was renamed Gorky Automobile Plant (GAZ), and from 1935 to 1957, the Molotov Automobile Plant (ZIM). It was the largest automobile plant in Europe, second only to Ford’s River Rouge plant, designed by Albert Kahn, after which it was modeled (as had been stipulated by Ford). It consisted of twenty completely equipped structures with steel or reinforced concrete frames, masonry and steel sash walls, insulated wood roofs, and wood block floors. It covered an area of 600 acres, with approximately 3,000,000 square feet of floor space, and was surrounded by a modern system of reinforced concrete highways. The dimensions of the largest structure, the assembly building, all steel and glass, which included six assembly lines, was 1,800-ft. long and 350-ft. wide. The cost of the plant with equipment was \$120 million. Its projected capacity was 94,000 1.5-ton trucks and 50,000 cars a year. (This goal, though, was never fully achieved.)<sup>45</sup>

The first truck rolled off the NAZ assembly line on January 29, 1932. (figure 11) By the time the construction and equipment of the plant were completed, a total of 102 American firms had supplied tools and machinery. A later memo by the Austin company, describing the Nizhny Novgorod project and listing all the machinery, equipment, and their manufacturers, stated:



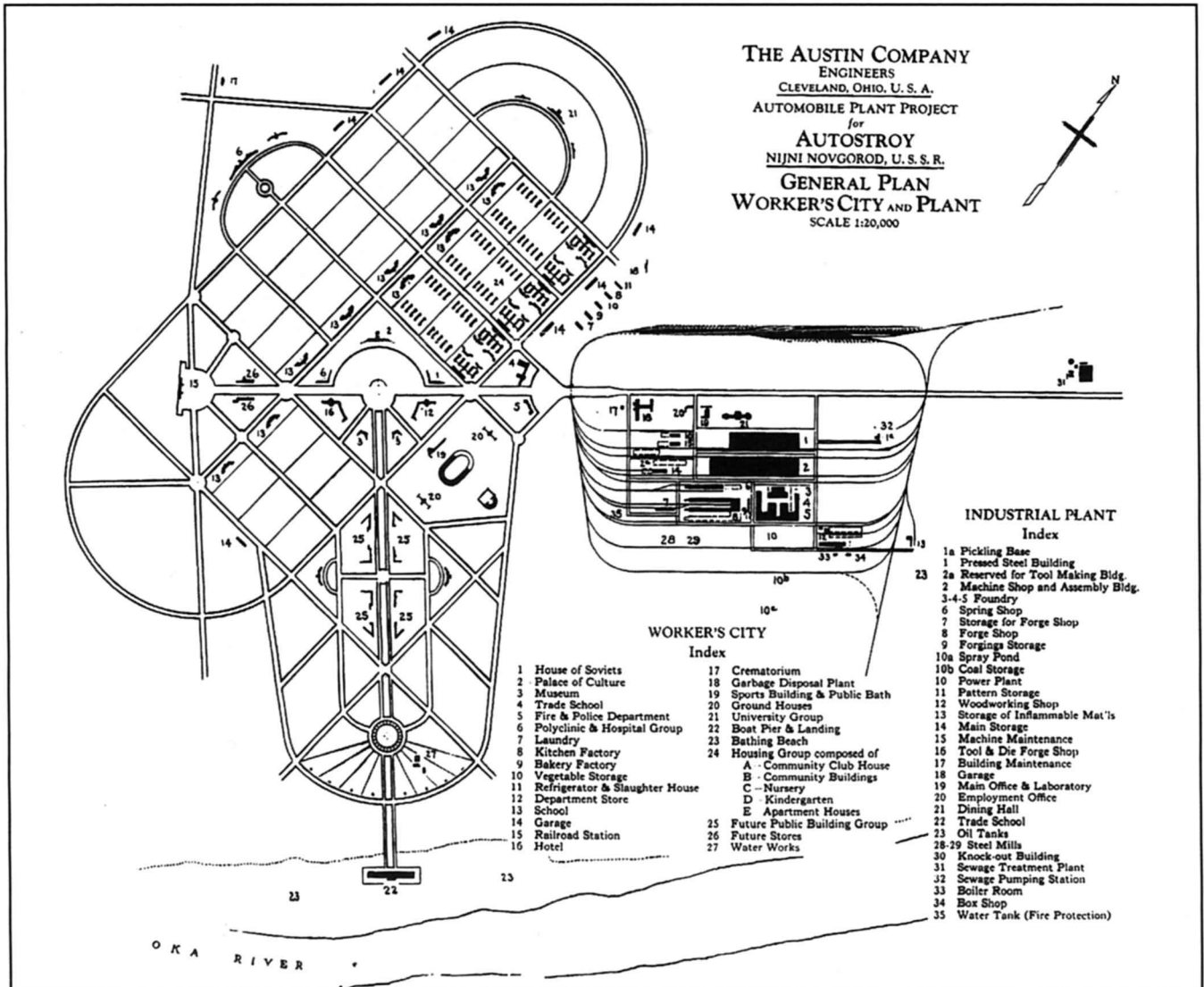


Figure 8. Automobile Plant and Worker's City in Nizhni Novgorod (Gorky). General plan, rendering by The Austin Company, 1929. Photo courtesy of the Western Reserve Historical Society.



Figure 9. Panoramic view of Nizhni Novgorod (Gorky) Automobile Plant. *USSR in Construction*, no. 1 (1933).



Figure 10. Construction of assembly shop at Nizhnii Novgorod (Gorky) Automobile Plant. *USSR in Construction*, no. 3 (1933).

... [A]lthough, at no time, during the construction period, was there any serious discussion of other possible use than for its original intended purpose, it seems logical to assume that such a well equipped plant—just as has recently been done in the U.S.A.—could easily be converted to the manufacture of many implements of war.<sup>46</sup>

As early as 1935 the plant started production of an armored truck which would be extensively used during WWII. In 1935, it manufactured a number of T-38 light tanks and in 1938, several BT tanks. During the war the plant switched almost fully to military production. The Ford AA engines and their Soviet analogues GAZ-AA and GAZ-M were installed in T-37, T-38, and T-40 tanks. In June 1941 the plant was making T-60 light tanks and later T-70s. In October 1943 the plant switched to making the SU-76 self-propelled vehicles used for anti-tank artillery, producing 380 of them per month by September 1944. Components of Ford's Model AA were used in the three-axle BA-I armored cars, made at Gudok Oktyabrya in Kanavino, and in production of tankettes at the KIM plant in Moscow, where its engine and transmission were also used in building the T-41 and T-37 amphibious tanks.<sup>47</sup> (figure 12)

### Great Depression and “Red Business”

The arrangement with Ford created a powerful impression on the American business and political world, serving to convince a large number of hesitant firms that the Russians were good customers. Soviet-American trade, facilitated by Amtorg under Bron's leadership, more than doubled during 1928 compared with 1927 and reached a high of \$128,793,000 in the fiscal year



Figure 11. First Ford AA truck rolling off the main conveyor at Gorky Automobile Plant, 1932. Photo from the GAZ Group archive.

1929–1930.<sup>48</sup> According to the U.S. Department of Commerce, by early 1930 exports to only the European part of the U.S.S.R. ranked sixth among the markets for American products, compared to twentieth place in 1928, with industrial equipment amounting to 80 percent of all purchases.<sup>49</sup> By March 1, 1930, 1,700 American firms sold goods to Amtorg, more than 400 firms were involved in an ongoing trade with the U.S.S.R., and 104 technical assistance contracts with foreign companies, most of them American, were in operation in Soviet industries.<sup>50</sup> (Only a year earlier Germany had held the leading position in the U.S.S.R.'s imports.) In many cases these contracts were saving American jobs, and after the beginning of the Great Depression the U.S. government was especially reluctant to block mil-



Figure 12. Assembling T-70 tanks at Molotov (Gorky) Automobile Plant, 1942. Photo courtesy of the State Political Archive of the Nizhny Novgorod Region.



lions of dollars in purchases from American companies promised by Bron following the Soviet break with Great Britain. If the U.S. government did not respond favorably, it could be logically expected that the Soviet buyers would turn to Germany which had the advantage of proximity as well as regular diplomatic relations and a trade treaty that included extensive government-backed long-term credits.

American businesses, concerned about keeping their factories in operation, were eager to tap into vast Soviet markets despite the continuing warnings by the State Department that due to the lack of diplomatic representation in the U.S.S.R., the U.S. government was unable to provide security to Americans conducting business there, and any companies transacting such business "must do so at their own risk."<sup>51</sup> Feinstein described that in 1929–1930 representatives of the largest American companies "cooled their heels" in the reception rooms of Amtorg with the hope of obtaining contracts.<sup>52</sup> "What are we going to do about the Russian menace anyway? Shall we stop selling them machinery and equipment?" asked vice president of General Motors, James D. Mooney. "I visited a great variety of mines, factories and powerhouses in Russia and I saw very little machinery and equipment that could not be duplicated out of European countries, and that these countries would not be glad to sell Russia."<sup>53</sup>

As all Amtorg's commitments on purchases were met, the manufacturers extended direct credits, euphemistically termed "scheduled partial payments." The contracts of I.G.E. and General Motors, for example, allowed that payment for goods would be made in 25 percent installments at the time of delivery, and then six months, one year, and eighteen months after delivery.<sup>54</sup> Even though the U.S. government was less flexible when a proposed deal would involve credits rather than procurements, long-term credits were also becoming more frequent, and officials had no complaints as long as the arrangements did not turn into loans.<sup>55</sup> Ninety percent of the orders placed in 1929 involved credits. Besides the five-year credit Bron secured from I.G.E., complete equipment for a power plant for the Stalingrad Tractor Plant was ordered on a five-year credit from the Westinghouse Electric International and International Combustion Engineering.<sup>56</sup> "Not only has the number of American firms granting credits to Soviet purchasing organizations increased," Bron was quoted in the Soviet press, "but the terms have become more favorable. Credits of three years or more were received by

Amtorg from a number of leading firms during 1929. Credits for one year or more were extended by nearly 200 companies."<sup>57</sup>

On September 23, 1929, in "Big Red Buyers," *Time* wrote: "Reviewing the Soviet-U.S. trade situation last week, big, jovial, loosely clad Comrade Saul Bron, Chairman of the Amtorg Trading Corp., observed that his organization alone purchased for the Soviet Government two years ago \$2,500,000 worth of U.S. goods, bought \$11,000,000 last year, is buying \$25,000,000 worth in 1929." According to Bron, more than 2,000 American firms were trading with Soviet Russia by that time. *Time* also commented:

[W]hen he first came to Manhattan three years ago, cheerful Comrade Bron used to ask business acquaintances why the U.S. did not recognize Soviet Russia. Today he considers that question of academic and rather secondary importance. Commercial recognition of the Soviet Union by U.S. industry is now wholehearted, enthusiastic.

Bron's correspondence with Moscow, though, makes it clear that he did not consider the issue of recognition to be of secondary importance. However, as he must have realized early on, it was rather difficult to balance the promotion of Soviet commercial interests with involvement in the pursuit of the Soviet political goals. In December 1927, while advising on the prospects for normalization of Soviet-American relations, Bron explained in a letter to the Commissar for Foreign Affairs, G.V. Chicherin, and Commissar for Foreign Trade, A.I. Mikoyan, that the sensitive position of Amtorg in the United States did not allow for explicit engagement in political discussions.<sup>58</sup> Although he was a participant in many such discussions behind the scenes, Bron's main focus remained on trade and technical assistance contracts with American firms, which he believed would inevitably pave the road to recognition. In 1929, referring to the Department of State's positive statement on the status of Soviet-American relations in connection with Ford's contract on the one hand, and the Hoover administration's philosophy of "development of good business relations and cultural understanding in the absence of recognition" on the other, he wrote that "the serious public here understands better and better the absurdity and inconsistency of the official position. Doing big business is the only method of bringing this absurdity to the logical limit."<sup>59</sup>

And big business he did. In his book *Soviet Economic Development and American Business*, published in New York



in early 1930,<sup>60</sup> Bron assessed the results of the first years of the Five-Year Plan. Reviewing the book, an American critic wrote that he was especially impressed by “its revelation of the extent to which American business is aiding the Russians, in a technical and material way, adapting the methods of American mass-production to a communistic state of society.”<sup>61</sup> Using this as the basis of a plea for U.S. recognition of the Soviet Union and for establishing normal trade relations, Bron cited the three-fold increase in trade from 1927 to 1929, with American exports to the U.S.S.R. during the first nine months of 1929 valued at \$91,768,531. According to Bron, in addition to the forty-four leading American companies providing technical assistance to Soviet Russia (as was reported that year by Amtorg to the Department of Commerce), more than fifty additional technical assistance contracts in almost all important industries were under negotiation. Three years after Bron took office in 1927, with still no diplomatic relations between the two countries, the Soviet Union was America’s seventh-largest customer and its largest foreign purchaser of industrial machinery.<sup>62</sup>

However, investments by Americans in the development of Soviet Russia were still impossible, because the U.S. government banned foreign countries that had not settled their debt to the United States from offering securities for sale in the U.S. Quoting Bron’s book, *Time* wrote under the heading “Everybody’s Red Business”:

Comrade Bron’s logical conclusion: The U.S. will sooner or later, and probably sooner, extend full diplomatic recognition to Soviet Russia, because American manufacturers and financiers are beginning to realize that the real possibilities of Soviet-American trade cannot be attained under the present abnormal relations.<sup>63</sup>

Bron’s conclusion echoed Moritz Kahn’s belief expressed in his October 1929 letter from Russia to Albert Kahn: “Although communism can thrive in Russia, it can never thrive in America, because the economic conditions of the two peoples differ so radically. But I believe that sooner or later America is bound to recognize Russia, and if so, then why not sooner than later?”<sup>64</sup>

It would take another three years before diplomatic relations between the U.S.S.R. and the U.S. were established in 1933.<sup>65</sup> By that time Kahn architects had already left Russia and Bron had been transferred to London, where, in early 1930, after diplomatic relations between Great Britain and the U.S.S.R. were resumed in October 1929, he was appointed chairman of Arcos

and head of the U.S.S.R. Trade Delegation. In reviewing the development of Soviet-American trade before his departure, Bron said:

The rapid growth of Soviet-American trade is shown by the fact that the business of the Amtorg has doubled since 1927. From a comparatively insignificant organization formed six years ago, the Amtorg Trading Corporation has developed into probably the largest exporting organization for American industrial and agricultural equipment. In leaving this country I wish to say that it has been my privilege to work with a number of your leading men in the field of business and it is, to a great extent, their wholehearted cooperation that has made possible the notable development of Soviet-American business relations.<sup>66</sup>

### “What more do we need as business men?”

After a successful term as head of Amtorg in New York, Bron was energetically pursuing a similar policy in Great Britain, and by June 1930 had already negotiated several large contracts. Most important, the British government had agreed to guarantee \$150,000,000 in credits for business with the U.S.S.R. during the next two years. On April 11, 1930, soon after the Anglo-Soviet Trade agreement was signed, Bron signed contracts with Imperial Chemical Industries to supply fertilizers and with Armstrong-Vickers to supply tractors—both on a credit basis. On November 17, 1930, he signed an agreement with the Associated British Machine Tool Makers (the largest contract this company had ever entered into with a single buyer), and on April 28, 1931, with Metropolitan-Vickers Electrical Company for technical assistance in the manufacture of steam turbo-generators and industrial motors. At a luncheon at the Russo-British Chamber of Commerce, held on July 17, 1930, British Secretary for *Overseas Trade*, George Gillett, quoted Bron reporting that the value of manufactured products exported by the United Kingdom to the Soviet Union during the first half of 1930 was double the 1929 exports.

In *Fighting the Red Trade Menace*, H.R. Knickerbocker recounted Bron’s visit to Manchester shortly after his arrival in England. He described Manchester as “a perfect example of a divided personality” typical of Western business groups when brought in commercial contact with Soviet Russia, “with its lure and with its threat,” pointing out that Manchester was caught in the tension between the manufacturers of textile machinery, happy with their profit from sales of their machines to the U.S.S.R., and the textile manufacturers, fearing losses from increased Soviet competition resulting from the export of these machines. According to Knickerbocker,

it was proof that “Manchester wanted to have its cake and eat it too.” (The last observation could probably also describe the U.S. State Department’s attitude towards Amtorg’s procurements in the U.S.)

In welcoming Bron at the crowded session of the Manchester Chamber of Commerce devoted to Russia for the first time since before WWI, the Chamber’s president, Herbert W. Lee, stated that Manchester now believed that the potential for safe and profitable trade with Russia had significantly improved and that “if Russia places large orders, if she keeps to the spirit as well as the letter of her contract, what more do we need as business men?”

Continued Knickerbocker:

Bron, be it said, has accomplished a job reminding one that the Soviet foreign trade monopoly not only has all the well-known advantages of a trust but disposes over diplomatic talent of a high order. His task was to take over an organization “Arcos,” that had been literally dynamited out of existence by British authorities in the famous raid that led to the break in diplomatic relations in 1927, and as that organization’s head to regain the confidence of the British trading public. Plainly, no easy assignment, but Bron has achieved something when a Manchester business man says of him as he did to me, “He made a good impression, an honest man; a capable fellow who puts his case well.”

As we now know, the British trading public’s confidence would be put to the test many times during the following decades. But at that time, in the words of Knickerbocker, “When Lancashire textile machinery manufacturers met Lancashire textile manufacturers in the Club, the most frequent remark heard was, ‘Well, if we didn’t, somebody else would.’”

Knickerbocker concluded his book with a prophetic analogy: “We have never experienced a five-year plan before. We have never witnessed the effect upon ourselves of a nation, Communist or otherwise, operating under a planned national economy. . . . If this is cryptic it is because the Five-Year Plan is cryptic and only Marxists claim the future can be mapped.”<sup>67</sup>

### History of “History of Factories and Plants”

This mapped future, however, was not a part of the personnel policy of one Marxist named Stalin. Despite Bron’s achievements in the U.S. and Great Britain toward the industrialization of his country, on September 20, 1931, the Politburo adopted a decision to recall

Bron back to the U.S.S.R.<sup>68</sup> In Stalin’s eyes Bron, like Kahn, had fulfilled his mission. The Soviet ambassador in London informed His Majesty’s government that “Mr. Saul G. Bron has left London on a temporary visit to Moscow.”<sup>69</sup> He never came back.

Bron’s recall coincided with correspondence between L.M. Kaganovich<sup>70</sup> and Stalin about the selection of an editorial board for the monumental project, “History of Factories and Plants,” initiated by Maxim Gorky who wrote in his article about the project that “to better understand the present, we need to learn about the past.”<sup>71</sup> The project’s objective was to take over the “amateur” initiatives that had started sprouting at the factories and, as described in the decisions of the Politburo and the Central Committee of September 5 and October 10, 1931, “to portray the entire picture of development of old and new plants and their role in the country’s economy.”<sup>72</sup> The original list of chief editors for this ambitious series on the history of industrial enterprises across the U.S.S.R., including all the industrial giants built under the First Five-Year Plan, was prepared by N.I. Bukharin and was comprised of well-known Soviet writers, industrial leaders, and several party leaders. Kaganovich presented to Stalin his own list, which excluded Bukharin and added Mezhlauk and G.M. Krzhizhanovskii (then head of the energy commission at the Commissariat for Heavy Industry). But Stalin removed both Mezhlauk and Krzhizhanovskii and suggested adding more high-ranking state officials and members of the Central Committee, including Kaganovich himself.<sup>73</sup> This important project could not be left without close ideological censorship and Party control. Publication of the series was entrusted to the Association of State Book and Magazine Publishers, OGIZ, founded in 1930 and subordinated to the Council of People’s Commissars (Sovnarkom), thus establishing the state monopoly over publishing in the U.S.S.R. By putting high-ranking Party and state officials in charge of the “History of Factories and Plants” project, Stalin de facto started the process of the ideological monopolization of Soviet history, as well.

After his return to Moscow, Bron remained for some time a member of the Collegium of the Commissariat for Foreign Trade. He and his family even moved in at 2/20 Serafimovich Street, known as *Dom pravitel’stva* (“Government House”), the recently built residence of the upper echelons of the Soviet hierarchy described by Yuri Trifonov in his novel, *House on the Embankment*. In 1933 Bron was appointed chairman of the Chamber of Commerce of the U.S.S.R., mostly a ceremonial posi-

tion, but in 1935 he was further demoted and given a job as a deputy to the head of OGIZ, Mikhail P. Tomsky,<sup>74</sup> a far cry from his position as president of Amtorg or head of the trade delegation in London.

Returning from his trip to Russia in 1936, the head of the Trades Union Congress in Great Britain, Sir Walter Citrine, described his meeting in OGIZ with Tomsky, who had been recently deposed as the head of the Trade Unions of the U.S.S.R., and Bron, whom he had met a good deal in England: "We had a long chat together, in the course of which both impressed upon me that the Revolution had proved worth while." Citrine was amazed that both Tomsky and Bron were so enthusiastic despite their own bitter experience. "Then again," added Citrine, "I did not know what the position of our interpreter was. He might conceivably be a GPU man, and they might quite well know this."<sup>75</sup>

Citrine was right; if there was a place in Soviet Russia where one could hide from the Stalin-OGPU-NKVD omniscient eye, OGIZ certainly was not such a place. On August 23, 1936, during the first Moscow show trial,<sup>76</sup> after realizing that he was about to be arrested, Tomsky committed suicide. Bron then remained in charge of OGIZ until the end of October 1937. One of his responsibilities was to oversee the publication of the "History of Factories and Plants" series.

In November, the new director, Pavel F. Yudin, in line with Stalin's unfolding vigilance campaign against "alien elements," declared that OGIZ was contaminated with members of "Trotskyist-Bukharinist, Cadet, Social Revolutionary, Menshevik, Bundist, and German-Japanese organizations," and "traitors and spies beginning with . . . Tomsky and Bron." He demanded that "all this scum be kicked out, burned out with a red-hot iron" and ordered the heads of divisions to submit lists of all foreigners working there, even if they had lived in the Soviet Union for fifteen years, and everybody who had been in any opposition parties or lived abroad. This was followed on November 5 by a memo to Stalin from the Commissar of Defense, L.Z. Mekhlis (nicknamed "Red Army Inquisitor"), which read: "Comrade Yudin submitted a list of 29 employees. Most of them have already been expelled from the Party or arrested. But there still are dozens of questionable people in OGIZ who are hostile to the Soviet government." A handwritten note on the first page of Mekhlis' memo read: "To Com. Yezhov. Must arrest all this OGIZ scum. I. Stalin."<sup>77</sup>

Bron had been arrested on October 25, 1937. (figure 13) Three months later, in January 1938, publishing of the "History of Factories and Plants" was discontinued, the editorial section of OGIZ responsible for the project was closed, and its archive and 267 manuscripts prepared for publication were confiscated by NKVD; much of it was destroyed.<sup>78</sup> Only thirty manuscripts had been published by that time. The reasons for termination of the series were complex, most immediately because editing and rewriting of the texts could not keep up with the changes that were taking place in the Soviet approach to history and with the disappearance of the people, described in these texts, because of their arrests. Gorky's idea of the necessity of learning about the past had given way to the Stalin ideology of revising that past.

### "Traitors, spies, wreckers, and saboteurs"

By the end of the second *piatiletka*, industrial development had slowed, with industrial growth falling from 28.8 percent in 1936 to 11.8 percent in 1938.<sup>79</sup> But Stalin and other Soviet leaders, reluctant to acknowledge how much the first five-year plan depended on foreign technical aid, refused to recognize that among the reasons for the Soviet industrial deceleration in the mid- and late-1930s was the nation's inability to continue importing Western technology and expertise at the high rates of the early 1930s. Instead, they attributed the economic problems to alleged subversive activity, espionage, and anti-Soviet conspiracy orchestrated from abroad.

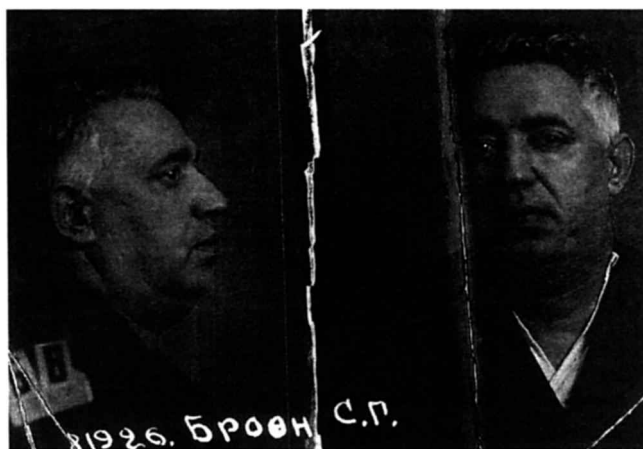


Figure 13. Saul G. Bron's photo from NKVD file after his arrest. Lubyanka prison, Moscow, 25 October 1937. Photo courtesy of the Bron family.



Stalin's remedy for all shortcomings was even greater repression. The entire Soviet industry became impaired by Stalin's purges; the mass arrests and executions of experienced managers and their replacement with inexperienced ones disrupted production and additionally contributed to the country's industrial slowdown.<sup>80</sup>

On January 23, 1937, the second in the series of infamous Moscow show trials began. It became known as a trial of the industrial elite. Most of the accused were the Soviet industrial leaders from the most important commissariats, including heavy industry, transport, energy, and coal and chemical industries. The defendants were accused of a conspiracy to "violently overthrow the Soviet government" in order to "restore capitalism" and to weaken the U.S.S.R. to bring its defeat in a future war through "wrecking, diversionary and spying activities." The trial ended with death sentences for thirteen of the accused, and long-term sentences to prison and hard labour for four others. In February 1937, watching the sweeping arrests and executions of industrial managers at all Soviet plants built under his leadership, the Commissar of Heavy Industry, G.K. Ordzhonikidze, committed suicide.<sup>81</sup>

The situation became especially grave in the automobile industry which, largely due to shortages of steel that was badly needed for military production, did not prove to be as successful as tractor production. To make things worse, Ford's contract was terminated in November 1934, five years sooner than anticipated, after a succession of disagreements and in accordance with the new Soviet policy of discontinuing foreign aid (with a \$578,000 loss to Ford). By 1935 no American specialists remained in Gorky to train Soviet workers to handle the imported machinery. On October 7, 1937, as a part of Stalin's campaign against "spies, wreckers, and saboteurs," *Pravda* ran an article accusing the Gorky plant of "deplorable" work: the expensive imported machinery stayed idle or was broken due to negligence and lack of proper maintenance. (Out of fear of severe punishment for not meeting the demands of the production plan, Soviet foremen often kept exhausted machinery running rather than stopping an assembly line for repair.) During the first six months of 1938 alone, 407 specialists at the plant were arrested. It was not a coincidence that so many "wreckers" and "spies" were found at the plant which was built with the help of foreign experts and where most of the engineers and skilled workers went through training abroad. Virtually every Soviet engineer who had any connection with Detroit was ar-

rested, most of them were accused of espionage. Following the arrests, productivity plummeted.<sup>82</sup> (A grim joke was that if the factories had as many engineers as were held by GPU-NKVD, they would have the job done.) The American workers, who had come to the U.S.S.R. in great numbers during the Depression, had been disappearing from Gorky, too. By 1937 most of them had either returned to the U.S. or been arrested. Some of them never returned, evidently perishing in the Gulag, while others managed to return to America only decades later.<sup>83</sup>

Along with repressions against foreigners and those who went through training in the U.S., Stalin's machine inevitably turned to those who facilitated Albert Kahn's and other westerners' contributions to Soviet industrial development. During the second wave of Stalin's show trials, those who worked at the commissariats for foreign trade became particularly vulnerable. Technical intelligentsia, including highly qualified specialists who had been trained in pre-revolutionary times or abroad, also were among the primary targets. A prolonged stay or frequent visits abroad and regular contacts with foreigners became sufficient cause for accusations of espionage.<sup>84</sup> Under the headline "Red leaders feared victims of cleanup," *The New York Times* reported on November 30, 1937, that five high Soviet officials had disappeared from public life, and that among those missing was Saul G. Bron. The news was especially alarming in light of the 704 executions on charges of treason, spying and sabotage during the previous four months. A dispatch from the American Embassy in Moscow, dated January 7, 1938, contained a list of over a hundred prominent Soviet figures who had recently suffered from the purge, specifically naming officials who had been connected with the U.S. "through the nature of their work." Besides Saul G. Bron and his successor at Amtorg, Peter A. Bogdanov, the list also included Ivan L. Arens, former Soviet Consul General in New York, and Valery I. Mezhlauk, former vice chairman of the VSNKh.<sup>85</sup>

During the interrogations at the Lubyanka prison Bron was initially accused of overpaying for imported machinery and of revealing in 1935 to a visiting Englishman facts about the famine in the Ukraine, repressions against the "Trotskyites," and other negative information about conditions in the U.S.S.R. As interrogations continued, the accusations grew more ominous. After five months in prison, on April 21, 1938, Bron was tried in a closed session by the *troika* (the three-member Military Collegium of the Supreme Court of the U.S.S.R.).

According to the minutes, the trial started at 16:45 and ended fifteen minutes later, at 17:00. The sentence stated that since 1928 Bron had been “an active member of a right-wing anti-Soviet diversionary terrorist organization and an associate of one of its leaders, Tomsky, together with whom he was engaged in subversive activity by publishing Trotskyite counter-revolutionary literature”; that he was “preparing a terrorist act against Comrade Stalin”; and that he was “an agent of British intelligence.” He was sentenced to death by firing squad and was executed the same day. His wife, Klara Bron, died in a labor camp for wives of “enemies of the state.”<sup>86</sup>

Saul G. Bron, the largest “Red Buyer,” was buried in a mass grave at Kommunarka, Butovo, near Moscow, one of the sites of mass executions during Stalin’s terror in the 1930s–50s. (He would be posthumously rehabilitated by Khrushchev in 1956 but would remain “untouchable” by Soviet historians.) Also at Kommunarka rest the remains of Valery I. Mezhlauk, Bron’s neighbor at 2/20 Serafimovich Street, who together with Bron signed the contract with Ford in 1929. Bron’s two other neighbors and his travelling companions, who in 1928 arrived with him in New York on the *Mauretania*, Innokentii A. Khalepsky and Mark L. Sorokin, lie there, as well. It is estimated that one-third of the Government House residents, about 700 people, including Marshal Tukhachevsky, became victims of Stalin’s repressions. Also buried at Kommunarka are Sergey Dyakonov, the first director of the Gorky Auto Plant, who received a photograph signed “from American Ford to the Soviet Ford”; Stepan Dybets, the head of Avtostroi, who signed the Austin contract; and Eliazar I. Gurevich, who once worked at the Cheliabtraktorstroi office in Detroit and later became a chief engineer of the Chelyabinsk plant. Most of the specialists and workers at the plant who worked at 500 Griswold Street or went through training in Detroit became victims of Stalin’s repressions in the late 1930s.<sup>87</sup> The first director of the Chelyabinsk Tractor Plant, Kazimir P. Lovin, who set up the tractor construction bureau in Detroit, and the first directors of the Stalingrad and Kharkov plants, V.I. Ivanov and P.I. Svistun, were executed, too.

While the “economy axe” ended Kahn’s cooperation with the U.S.S.R., it was a real axe that was in store for most of his Soviet counterparts. Practically everybody who was involved in securing the foreign aid contracts and purchasing equipment for construction of the industrial giants of the first Soviet five-year plan, who traveled abroad or worked side by side with foreign specialists in

Russia, perished during Stalin’s purges. Their liquidation helped to conceal the truth about the origins of the early stages of accelerated industrialization in the U.S.S.R. which was supposed to go into history as an unparalleled achievement of the brilliant genius of the “great architect of Communism,” Comrade Stalin. In his speech to the Central Committee on results of the Five-Year Plan on January 7, 1933, Stalin recited three basic forces responsible for this historic achievement: the enthusiasm of the workers, the leadership of the Party, and the advantages of the Soviet economic system.<sup>88</sup>

### “National suicide” or joint victory?

In 1944, in a conversation with the president of the American Chamber of Commerce, Eric Johnston, Stalin admitted that “about two-thirds of all the large industrial enterprises in the Soviet Union had been built with United States material aid or technical assistance.”<sup>89</sup> As this study shows, the crucial share of this aid and assistance was secured by Saul G. Bron during his tenure as chairman of Amtorg and brought to fruition during the Albert Kahn firm’s three-year term as consulting architects to the Soviet Government, laying the foundation for the entire Soviet automobile, tractor, and tank industries. During the following decade, the Soviet Union accomplished what E.H. Carr later described as “a monumental achievement at a monstrous price.”<sup>90</sup> Millions of Soviet citizens and hundreds of thousands of foreigners gave their labor, and often lives, to the industrialization effort. Still, the goal was achieved. By the end of the 1930s, Soviet leaders could declare that the U.S.S.R. was one of world’s major industrial powers, competing with such industrial giants as the United States, Germany, and Great Britain.<sup>91</sup> And hundreds of industrial enterprises that were built in the 1930s east of the Volga River and beyond the Urals, far from the future front line, constituted the industrial base for military production that would become a decisive factor in the Soviet victory over Nazi Germany.

Albert Kahn died in 1942. Late in life he recalled, probably with a twinkle in his eye: “When I began, the real architects would design only museums, cathedrals, capitols, monuments. The office boy was considered good enough to do factory buildings. I’m still that office boy designing factories. I have no dignity to be impaired.”<sup>92</sup> Being forgotten by Soviet historians did not impair his dignity either. Sixty of Kahn’s buildings are listed in the American National Register of Historic Places. His

many awards included the *Chevalier légion d'honneur*, a gold medal at the Paris International Exposition of Arts and Sciences; a silver medal of the Architectural League; and a special award by the American Institute of Architects for his outstanding contribution to the nation's WWII effort, including the Chrysler Tank Arsenal, the Ford Willow Run Bomber Plant, and Wright Aeronautical “Plant 7” in Wood Ridge. To some degree, in meeting the challenge of building the defense industry of his country during 1938–1942, Kahn utilized the experience of building this industry ten years earlier for Soviet Russia, with his plants building tanks and aircraft “in every Allied industrial stronghold from Detroit to Novosibirsk,” his Soviet tanks attacking the Nazi from the East, and his Liberator bombers from the West.<sup>93</sup>

Twice in his life Kahn happened to be the right man in the right place at the critical time. If in 1903 Detroit was to become the center of the automotive industry, it may have been inevitable that it would produce a new industrial architecture. Yet it was the emigration of a poor rabbi's family from Germany to Detroit that resulted in the Ford-Kahn collaboration—and twentieth-century industrial architecture was born. If in 1928 Russia was to move “from a plow-horse to a horsepower economy,” it may have been inevitable that it would turn to America for assistance. But it was the combination of two men, both excised from Soviet history in the country they helped to build, both Jewish, one American and one Russian, one a capitalist who believed that “it was the right thing to do,” the other a Bolshevik who believed in the power of “American technique”—those two men turned out to be the catalyst, and industrialized Russia was born.

Sadly, both Kahn and Bron during their lifetimes were unfairly accused of being traitors in their home countries (with the consequences for the former, fortunately, far less tragic than for the latter): one for providing professional services to the ideological enemy, the other, as a result of providing these services to his own people.

In 1944, Louis Kahn, then President of Albert Kahn, Inc., wrote about Kahn's plants in Russia: “What those plants have meant to the democracies in turning back Hitler's hordes is a story only the postwar world will hear.”<sup>94</sup> But it was more than a quarter century after WWII when the first investigation of the Kahn firm's role in Soviet industrialization was done by historian Antony C. Sutton in his books *Western Technology and Soviet Economic Development 1917–1930* and *National Suicide: Military Aid*

*to the Soviet Union*.<sup>95</sup> Sutton's research, however, conducted during the height of the Cold War, focused only on the negative effect on the U.S. of its technology transfer to the U.S.S.R., exploring Kahn's Russian legacy in that context and claiming that by giving the U.S.S.R. the capacity to produce military vehicles, the U.S. committed “national suicide.”

Now in the post-Soviet era, we can objectively appreciate the historical significance of Kahn's work in Russia. As we now know, it did not result in America's national suicide, and despite all the transferred technology, the U.S.S.R. collapsed in 1991, short of the seventy-fifth anniversary of the Bolshevik revolution. Instead, at the time of the Nazi threat to the world, Kahn's work in both countries ultimately led to strengthening the U.S.S.R. and the Allies in their fight against the common enemy.

### Postmortem: Only one such account

The architectural firm Albert Kahn, Inc., continues to exist today. The ink-on-linen drawings for the Stalingrad, Chelyabinsk, and other Russian plants designed in Detroit by Albert Kahn architects are now in the collection of the Bentley Historical Library, University of Michigan. Promstroiproekt in Moscow, formerly Gosproektstroï, where Kahn architects and engineers worked in 1930–1932, was dissolved as a state-run organization in 1990 and is now a private company. Amtorg Trading Corporation, surrounded by controversy, survived the Cold War but did not survive the collapse of the Soviet Union, quietly disappearing in 1998.

Russia's oldest car manufacturer, the automobile plant in Nizhny Novgorod, is today the key holding of the privately-owned GAZ Group. Except for the trucks and off-road vehicles for military use assembled under the U.S. Lend-Lease Program during WWII, the plant never produced foreign models after the Ford contract had been terminated. But in 2012, eighty years after the first Soviet Fords rolled off its assembly line, as if mirroring that historic contract, the plant began manufacturing the Skoda Yeti under a contract with Volkswagen. It also contracted with Daimler to manufacture Mercedes-Benz Sprinter and—finally—with General Motors to assemble the new Chevrolet Aveo. (figure 14)

The Kahn-designed tractor plant in Stalingrad was completely destroyed during WWII but rebuilt in 1944. The plant was privatized in 1992, went through a bankruptcy in 2005, and was reborn as the joint-stock Volgograd





Figure 14. Gorky Automobile Plant in Nizhny Novgorod (GAZ), 2011. [www.skyscrapercity.com](http://www.skyscrapercity.com).



Figure 15. Volgograd (formerly Stalingrad) Tractor Plant, 2011. [www.volganet.ru](http://www.volganet.ru)



Figure 16. AZLK "Moskvich" (formerly KIM) auto plant in Moscow, 1970s. [www.mzma-club.ru](http://www.mzma-club.ru)

Tractor Company. At the time of this writing, it is part of the multinational enterprise Concern Tractor Plants, Russia's largest tractor producer in a joint venture with AGCO Corporation. (figure 15)

The AZLK "Moskvich" (formerly KIM) auto plant in Moscow, following privatization in 1991, went bankrupt and ceased production in 2002. A portion of the abandoned plant, now owned by Renault, is producing Logan and Sandero models. (figure 16)

Chelyabinsk, in 1930 a typical provincial Russian town with nothing but decrepit wooden houses, has become a thriving industrial center. The Chelyabinsk Tractor Plant, now ChTZ-Uraltrac, is still the main manufacturer of powerful crawler tractors in Russia. However, the legendary facility, still one of the largest in the world, has fallen on hard times in recent years due to outdated equipment and lack of funds for modernization. In 2011, coming full circle since 1930, the plant's new owners secured the aid of an American company, Caterpillar, to provide investment and expertise for joint production of industrial machinery. (figure 17)

\* \* \*

Soviet industrialization was a complex economic and political undertaking about which much remains unclear due in large measure to a deliberate policy during the Soviet era of replacing the facts about one of the most important periods of Soviet history—from the early days of industrialization to the beginning of the Great Patriotic War, including American involvement in



Figure 17. Interior of the assembly building at Chelyabinsk Tractor Plant, 2007. Photo from S. Ustiantsev, *Elita rossiiskoi industrii: Cheliabinskii traktorny zavod* (Nezavisimyi Institut istorii material'noi kul'tury, 2008).

Soviet industrial development—with censored or fabricated accounts. Throughout the Cold War years neither country was willing to publicly admit reaching out to the other during the Great Depression: the Soviet Union would have to admit that to build Socialism it needed to turn for help to the world's utmost capitalist country; the United States, that it provided help to the Bolsheviks in order to keep some of its own factories working. Regrettably, the resistance to restoration of this history persists in modern-day Russia where many still see such restoration as a threat to Russia's national self-image and international prestige, somehow detracting from Russia's role in defeating Nazi Germany. It is hoped that the full account of the origin of the Soviet industrial giants, including the role of foreign aid in their creation, will one day paint a complete and accurate picture of the history of the industrialization of Russia, and that this story of two men and of their contribution to bringing the Russian economy into the modern industrial age will serve as one such account.

\* \* \*

**Main trade and technical assistance contracts between Amtorg and American manufacturing and engineering companies signed from 1928 through March 1, 1930<sup>96</sup>**

Akron Rubber Reclaiming Company, Akron, Ohio—Technical assistance in construction of a rubber reclamation plant.

Allen and Garcia Company, Chicago, Illinois—Technical assistance in design and construction of coal mines in Donbass in the Ukraine and Kuzbass in Siberia.

The Austin Company, Cleveland, Ohio—Technical assistance in design and construction of automobile plant and adjoining workers' city in Nizhny Novgorod.

E.B. Badger & Sons, Boston, Massachusetts—Technical assistance in chemical industry for dry wood distillation.

Arthur J. Brandt, Detroit, Michigan—Modernization and expansion of AMO automobile plant in Moscow.

Brown Lipe Gear Company, Syracuse, New York—Technical assistance in automobile and tractor industry.

Burrell-Mase Engineering Company, Pittsburgh, Pennsylvania—Modernization and expansion of gas and oil industry in Grozny, Southern Russia.

Hugh L. Cooper and Company, Inc., New York, New York—Consulting engineers for construction of Dnieper Hydroelectric Power Plant (Dneproges, extended in 1928).

Arthur P. Davis, Lyman Bishop & Associates, Oakland, California—Consulting engineers for irrigation projects in Central Asia and Transcaucasia.

Frank E. Dickie, Detroit, Michigan—Technical assistance for Aluminum Plant Construction Bureau.

DuPont de Nemours & Company, Wilmington, Delaware—Technical assistance in chemical industry and construction of nitric acid and fertilizer plants.

Eastman Construction Engineering Company, Philadelphia, Pennsylvania—Technical assistance in production of cellulose.

Electric Auto-Lite Company, Toledo, Ohio—Technical assistance in production of electrical equipment for automobiles and tractors.

Hardy S. Ferguson and Company, New York, New York—Technical assistance to Severoles in construction of a paper mill near Archangelsk.

Ford Motor Company, Detroit, Michigan—Technical assistance in construction and operation of Nizhny Novgorod (Gorky) automobile plant and production of cars and trucks.

Frey Engineering Company, Chicago, Illinois—Consulting engineers to Gipromez in designing and equipping 18 new metallurgical plants, including Kuznetsk Metallurgical Plant, and re-equipping 40 other plants (extended in 1928).

Harry D. Gibbs, Hyattsville, Maryland—Technical assistance in chemical industry in production of aniline.

Goodman Manufacturing Company, Chicago, Illinois—Technical assistance in manufacture of coal-cutting equipment in Donetsk, Ukraine.

T.G. Hawkins, Jr., New York, New York—Technical assistance in modernizing coal industry.

Hercules Motor Company, Canton, Ohio—Assistance in production of engines for trucks at AMO automobile plant.

John J. Higgins, East Orange, New Jersey—Technical assistance in electro-technical industry.

International General Electric Company (I.G.E.), Schenectady, New York—Technical assistance in development of electrical industry.

Irving Air Chute Company, Inc., Buffalo, New York—Technical assistance in aviation industry.

Albert Kahn Architects and Engineers, Inc., Detroit, Michigan—Designing buildings for the Stalingrad Tractor Plant and general contract for consulting services in industrial construction.

Koppers Construction Company, Pittsburgh, Pennsylvania—Technical assistance in designing and installing coke ovens.

Lockwood-Green and Company, New York, New York—Technical assistance in design and construction of textile mills.

Lucas & Luick, Chicago, Illinois—Technical assistance in construction of a gas plant in Moscow.

McDonald Engineering Company, Chicago, Illinois—Technical assistance in construction of industrial plants.

Arthur G. McKee and Company, Cleveland, Ohio—Technical assistance in design and construction of Magnitogorsk Metallurgical Plant in the Urals.

Newport News Shipbuilding and Drydock Company, Newport News, Virginia—Technical assistance in construction of hydraulic electric turbines and generators.

Nitrogen Engineering Corporation, New York, New York—Technical assistance in construction and operation of a large synthetic ammonia and fertilizer plant.

Oglebay Norton & Company, Cleveland, Ohio—Technical assistance in design, construction and operation of iron mines near Krivoi Rog in Southern Ukraine.

Radio Corporation of America, New York, New York—Technical assistance in radio communication.

Radiore Company, Los Angeles, California—Technical assistance in non-ferrous metal industry for exploration of ore deposits.

Roberts & Schaefer Company, Chicago, Illinois—Technical assistance in mine construction for coal industry in Donbass.

C.F. Seabrook Company, New York, New York—Technical advisors in road-building near Moscow.

Seiberling Rubber Company, Akron, Ohio—Technical assistance for design and construction of a tire plant in Yaroslavl.

Southwestern Engineering Corporation, Los Angeles, California—Technical assistance in non-ferrous metal industry for design, construction and operation of concentration plants.

Sperry Gyroscope Company, Brooklyn, New York—Technical assistance in manufacture of sonic detectors, directoscopes, gyroscopes, and other instruments.

Stuart, James & Cooke, Inc., New York, New York—Technical assistance for modernization of coal mines in Donbass in the Ukraine (Donugol), Kazakhstan, and near Moscow.

Timken-Detroit Axle Company, Detroit, Michigan—Technical assistance in automobile and tractor industry.

E. Waite, Walpole, Massachusetts—Technical assistance in manufacture of asbestos products.

Westvaco Chlorine Products, Inc., Charleston, West Virginia—Technical assistance in production of chlorine.

Archer E. Wheeler and Associates, New York, New York—Technical assistance in copper and other non-ferrous metals industry.

Winkler-Koch Engineering Company, Wichita, Kansas—Technical assistance in oil industry, supplying equipment for cracking plants.

J. C. White Engineering Co., New York, New York—Consulting services for Svir Hydroelectric Plant near Leningrad.

Norman D. Wimmmler—Technical assistance in non-ferrous metal industry.

W. A. Wood—Technical assistance in non-ferrous metal industry.



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## On translation and transliteration:

For the convenience of non-Slavist readers, the author uses the Library of Congress system of transliteration with some modifications, including, for Russian names in the body of the text, transliteration of Cyrillic letters in initial and final positions (e.g., Iu=Yu, as in Yudin; iia=ia, as in Izvestia; nyi=ny, as in Krasny), and omitting hard and soft signs. For well-known names of people and places, the customary English spelling is retained (e.g., Joseph Stalin, Chelyabinsk, Nizhny Novgorod, Gorky). However, all bibliographic notes preserve the standard Library of Congress system of transliteration. On first usage, the names of Russian institutions are given in English translation followed by a transliterated Russian acronym. When citing sources from Russian archives, the standard citation convention for these archives is used where every document is identified by its collection number (fond in Russian), the number of the record group (opis), the number of the file (delo), and the page number (list), with the name of the archive in the beginning of the citation (e.g., RGASPI, f. 558, op. 11, d. 739, l. 28.) All translations from Russian are by the author, unless specified otherwise.

## Notes

1. Address by Mr. Saul G. Bron, Chairman of Board of Directors, Amtorg Trading Corporation, at the luncheon meeting of Export Managers’ Club of New York. November 27, 1928 (New York: Amtorg Trading Corporation, 1928), 7.
2. Mikoyan begged Stalin to excuse him from the appointment explaining that he did not have enough education (“could not put two words together in writing,” in his own words) and had a short temper not conducive to the position. See Mikoyan’s letter to Stalin, 27 July 1926, and Stalin’s letter to Mikoyan, 10 August 1926, RGASPI, f. 558, op. 11, d. 34, ll. 87, 102, 105 (cited in S.S. Khromov, *Po stranitsam lichnogo arkhiva Stalina* [Moscow: Moscow State University, 2009], 97, 99).
3. Archive of the President of the Russian Federation (hereafter AP RF), f.3, op. 66, d. 283, ll.39–40 (cited in G.N. Sevost’ianov, *Moscow-Washington, The Road to Recognition. 1918–1933* [Moscow: Nauka, 2004], 89); Memo from the People’s Commissariat of Foreign Trade of the U.S.S.R. to I.V. Stalin, 28 March 1927, AP RF, f. 3, op. 66, d. 276, l. 40 (incl. in *Moscow-Washington, Policy and Diplomacy of the Kremlin, 1921-1941*. Collection of documents in 3 vols., ed. G.N. Sevost’ianov [Moscow: Nauka, 2009], 1:322–333); Norman E. Saul, *Friends or Foes? The United States and Soviet Russia, 1921–1941* (Lawrence, Kans.: University Press of Kansas, 2006), 134.
4. Arcos-America was a division of Arcos (All-Russian Cooperative Society) which was acting as a Soviet trade mission in Great Britain from 1920.
5. The few exceptions included the All-Russian Textile Syndicate, agricultural cooperatives Tsentrosoiuz and Sel’skhosoiuz, and several fur trading companies which later were absorbed by Amtorg.
6. Ernest C. Ropes, “The Shape of United States-Soviet Trade, Past and Future,” *Slavonic and East European Review* 22, no. 2 (August 1944): 91–92.
7. J.M. Tatcher Feinstein, *Fifty Years of U.S.-Soviet Trade* (New York: Symposium Press, Inc., 1974), 55.
8. It was suspected that Khurgin’s death might have been collateral damage and that the accident was arranged by Stalin’s long arm to remove Khurgin’s guest, Ephraim Sklyanskii, who was Trotsky’s closest companion and supporter.
9. Feinstein, *Fifty Years*, 40 (see n. 7).
10. M.Y. Mukhin, “Amtorg: Nelegal’noe torgpredstvo,” *Poligon*, no. 2 (2000): 31–34.
11. “New Head of American-Soviet Trading Organization,” *Soviet Union Review* 5, no. 6 (June 1927): 92. *Soviet Union Review* was a monthly bulletin about economic and cultural life in the U.S.S.R. published by Soviet Union Information Bureau, Washington, DC.
12. “Economic Conditions in the United States,” a memo by the People’s Commissariat of Foreign and Domestic Trade of the U.S.S.R., AP RF, f. 3, op. 66, d. 468, ll. 19–27 (incl. in *Moscow-Washington, Policy*, 1:341 [see n. 3]).
13. “Amtorg Head Says Orders Are Coming Here That Would Have Gone to England,” *The New York Times*, 4 June 1927; “Mr. Bron on Soviet-American Trade,” *Soviet Union Review* 5, no. 7–8 (July–August 1927): 121.
14. Frederick L. Schuman, *American Policy Toward Russia* (New York: International Publishers, 1928), 251.
15. See Sonia Melnikova-Raich, “The Soviet Problem with Two ‘Unknowns’: How an American Architect and a Soviet Negotiator Jump-Started the Industrialization of Russia, Part I: Albert Kahn,” *IA: Journal of the Society for Industrial Archeology* 36, no. 2 (2010): 57–80.

16. "A Ruble in the Hand," *Time*, 17 June 1929.
17. The fascinating story of Solomon A. Trone, a Latvian-born Jewish engineer who worked for General Electric and negotiated the 1928 I.G.E. contract with Bron, and who was involved in construction of the Dnieper Hydroelectric Power Plant (Dneproges), is told in a documentary by M. Chanan, "The American Who Electrified Russia" (2009). DVD and streaming are available from Artfilms.com.
18. Direct Settlement with General Electric Company, U.S. State Department Decimal File, 861.51/2566-2735, Financial Conditions, Foreign Credits/468, U.S. National Archives and Records Administration (hereafter NARA); Letter from S.G. Bron to A.I. Mikoyan about signing of the agreement with General Electric Company, 17 October 1928, AP RF, f. 3, op. 66, d. 288, l. 87; Agreement between Amtorg and International General Electric Company, 9 October 1928, Archive of the Foreign Policy of the Russian Federation (hereafter AVP RF), f. 0129, op. 5, P. 125, d. 309, ll. 17-24; Owen D. Young's letter to Amtorg, 9 October 1928 (reproduced in Louis Fischer, *The Soviets in World Affairs: A History of the Relations Between the Soviet Union and the Rest of the World, 1917-1929* (London: J. Cape, 1930), II:766-767.
19. GOELRO (State Commission for Electrification of Russia), the first Soviet plan for economic recovery announced by Lenin in 1920 under the slogan "Communism is Soviet power plus the electrification of the whole country."
20. The Dnieper Hydroelectric Station, also known as Dneprostroi Dam, the largest hydroelectric power station in Europe at the time of its construction and one of the largest in the world. It was constructed under the direction of Col. Hugh L. Cooper; GE engineers took part in the construction, and the first five giant generators were manufactured by General Electric.
21. Alan M. Ball, *Imagining America: Influence and Images in Twentieth-Century Russia* (Oxford, UK: Rowman & Littlefield Publishers, Inc., 2004), 133.
22. "American and German Technique in the U.S.S.R.," *Economic Review of the Soviet Union* 4, no. 6 (15 March 1929): 114. More on Soviet fascination with American industrial progress, see Hans Rogger, "Amerikanizm and the Economic Development of Russia," *Comparative Studies in Society and History* 23, no. 3 (July 1981): 382-420. *Economic Review of the Soviet Union* was a semi-monthly survey of Soviet economic developments and of trade between the U.S. and the U.S.S.R. published by Amtorg.
23. *The Soviet Union: Facts, Descriptions, Statistics* (Washington, DC: Soviet Union Information Bureau, 1929), 161.
24. Fischer, *The Soviets*, II:806 (see n. 18).
25. *USSR in Construction* 1 (1933). *USSR in Construction* was a propaganda picture magazine published from 1930 to 1941 in the Soviet Union in Russian, French, English, and German to "reflect in photography the whole scope and variety of the construction work now going on in the U.S.S.R." Propaganda aside, it became an artistic gem, with oversized pages and multi-page fold-outs offering great examples of early twentieth-century photography.
26. "Development of Automobile Traffic in the U.S.S.R.," *Soviet Union Review* 6, no. 7-8 (July-August 1928): 117-118. AMO (Avtomobil'noe Moskovskoe Obschestvo) was founded in 1916 as Moscow Automobile Joint-Stock Company. It became Stalin Auto Plant (ZIS) after reconstruction and modernization with American assistance under the contract between Amtorg and Moscow Automobile Trust (Avtotrest); later it became Likhachev Auto Plant (ZIL) and now it is AMO-ZIL. Structural design of the forge was done by Albert Kahn company. (See Melnikova-Raich, "The Soviet Problem," 80, n. 105 [see n. 15].) The forge was fully manufactured in the U.S. (by Lehigh Structural Steel Co. in Allentown, Pa) and shipped to the U.S.S.R. (V.D. Tsvetaev, *Sovremennaia fabrichno-zavodskaia arkhitektura* [Moscow-Leningrad: Goststroizdat, 1933]: 59).
27. Resolution of the Soviet Council on Labor and Defense on development of automobile industry in the U.S.S.R., The State Archive of the Russian Federation (hereafter GARF), f. R5446, op. 4, d. 536, l. 2 (incl. in S.S. Khromov, *Industrializatsia Sovetskogo Soiuz: novye dokumenty, novye fakty, novye podkhody*, 2 vols. [Moscow: In-t rossiiskoi istorii RAN, 1997], 2:37-40).
28. "Mauretania Here After a Fast Trip," *The New York Times*, 31 August 1928. It's worth mentioning that one of the members of the Commission, I.A. Khalepsky, likely had an additional agenda. He was a leading Soviet tank expert and a close associate of Tukhachevsky, and his inclusion on the government commission appears consistent with a working agreement that in June 1928 Amtorg was required to sign with the Red Army's Procurement Administration, which for obvious reasons could not directly contract with American firms. In 1930 Khalepsky, by then the head of the Red Army's Mechanization and Motorization Directorate (UMM RKKA), would arrange the purchase and shipment of two Christie M-1930 tanks, complete with detailed working drawings and accompanied by a Christie's engineer. See I.A. Khalepsky, Report of a business trip abroad, 6 June 1930, Russian State Military Archive (RGVA), f. 31811, op. 1, d. 7, ll. 35-47; M.Y. Mukhin, "Amtorg. Amerikanskii tanki dlia RKKA," *Otechestvennaia istoriia* (May 2001): 55.
29. The city was named Gorky after the famed Soviet writer, Maxim Gorky. In 1990 the name was changed back to Nizhny Novgorod.
30. "Ford Company to Aid Development of Soviet Automobile Industry," *Economic Review of the Soviet Union* 4, no. 12-13 (1 July 1929): 231; "The Nizhny Novgorod Automobile Plant," *Economic Review of the Soviet Union* 6, no. 23 (1 December 1931): 531.
31. Walter Duranty, "Talk of Ford Favors Thrills Moscow," *The New York Times*, 17 February 1928; Anne O'Hare McCormick, *The Hammer and the Sythe: Communist Russia Enters the Second Decade* (New York: Alfred A. Knopf, 1928), 26. On Ford's history in Russia, see Allan Nevins and Frank Ernest Hill, "The Russian Adventures," in *Ford: Expansion and challenge, 1915-1933* (New York: Scribner, 1954); Mira Wilkins and Frank E. Hill, *American Business Abroad: Ford on Six Continents* (Detroit, Mich.: Wayne State University Press, 1965).
32. Malcolm W. Bingay, *Detroit Is My Own Home Town* (New York: Bobbs-Merrill, 1946), 309; Christine White, "Ford in Russia: in pursuit of the chimerical market," in *Henry Ford: Critical Evaluations in Business and Management*, ed. John Cunningham Wood and Michael C. Wood (New York: Routledge, 2003), 2:64.
33. The failure of the domestic tractor program prompted the Soviet government in 1926 to approach Ford with an offer to build a tractor plant as a concession. After spending five months in the U.S.S.R. in April-August 1926, Ford experts expressed a number of concerns, chiefly the fate of foreign companies whose plants in Russia had been nationalized, making them less than confident that the same would not happen again, especially in the absence of diplomatic relations between the U.S. and the U.S.S.R. Furthermore, VSNKh's Main Concessions Committee, Glavkonsesskom, asked Ford to advance credit to the Soviet government for the purchase of manufactured tractors at the government-set fixed prices, in addition to investing millions of dollars in a plant; Ford flatly declined this proposal. Report of the Ford Delegation to Russia and the U.S.S.R., Acc. 1870, box 1, Benson Ford Research Center, The Henry Ford, Dearborn, Mich. See Melnikova-Raich, "The Soviet Problem," 58 (see n. 15).
34. Charles E. Sorensen, *My Forty Years with Ford* (New York: W.W. Nor-

- ton & Co., 1956), 194.
35. RGASPI, f. 558, op. 11, d. 726, ll. 105–106 (incl. in Khromov, *Po stranitsam*, 274–275 [see n. 2]). Sheinman did not stay through the negotiations; he was called back to Moscow but instead, in the words of Sorensen, “for reasons of his own,” on the way back defected in Berlin. Sheinman’s “own reasons” probably had to do with the news he received from Moscow about the April 1929 Plenary Meeting of the Central Committee, where Stalin defeated the moderate (or right) opposition in the Communist Party.
  36. Saul G. Bron’s letter to A.I. Mikoyan about American business circles’ attitude towards the U.S.S.R., 9 February 1928, RGAE. f.5240. op.18, d. 241, ll. 202-203 (incl. in *Russia and USA: Trade-Economic Relations 1900–1930*, ed. G.N. Sevost’ianov [Moscow: Nauka, 1996], 257).
  37. RGASPI, f. 558, op. 11, d. 726, ll. 7, 13 (incl. in Khromov, *Po stranitsam*, 276 [see n. 2]).
  38. Agreement Between the Ford Motor Company, the Supreme Council of National Economy, and the Amtorg Trading Corporation, 31 May 1929, Amtorg Records 1929–1930, Acc. 199, box 1a, Benson Ford Research Center, The Henry Ford, Dearborn, Mich.
  39. A.A. Dzerzhkovich, “Amerikanskaia proektirovka zheleznykh konstruktssii. Avtosborocnaia v Moskvu,” *Stroitel’stvo Moskvu*, no. 2 (1930): 3. Gudok Oktyabrya factory was later incorporated into the Gorky Automobile Plant. KIM (Communist Youth International) auto plant in 1939 became MZMA (Moscow Compact Car Factory), before changing its name in 1969 to AZLK (Lenin Communist Youth League Automobile Factory); after WWII, it became the manufacturer of a small Moskvich passenger car. More on the KIM auto plant, see Kenneth M. Straus, *Factory and Community in Stalin’s Russia: The Making of an Industrial Working Class* (Pittsburgh, Pa: University of Pittsburgh Press, 1998).
  40. “Technological project” is a document in which the engineers describe in detail all the items related to the technological process.
  41. State Archive of Nizhny Novgorod Oblast’, f. 2431. op. 1, d. 187, ll. 3–12 (incl. in *Russia and USA*, 367–381 [see n. 36]).
  42. Supplemental Agreement between Avtostroi and the Austin Company with an attached letter signed by the President of Amtorg Trading Corporation, Saul G. Bron. Austin Company Records, MSS 5040, Container 19, folder 22, Western Reserve Historical Society, Cleveland, Ohio.
  43. W.J. Austin, “Technical Assistance in Building the Nizhny Novgorod Automobile Plant,” *Economic Review of the Soviet Union* 6, no. 9 (1 May 1931): 207–208; “Detroit Engineers Direct Soviet Industrial Revival,” *Michigan Manufacturer and Financial Record* 45, no. 16 (19 April 1930). Wilkins, *American Business*, 221 (see n. 31).
  44. On building the Gorky Auto Plant and the adjacent city, and a detailed account of disputes between the Austin Company and Avtostroi, see Richard Cartwright Austin, *Building Utopia: Erecting Russia’s First Modern City, 1930* (Kent, Ohio: Kent State University Press, 2004). More on the history of the Austin company in the Soviet Union, see Martin Greif, *The New Industrial Landscape: the Story of the Austin Company* (Clinton, N.J.: Main Street Press, 1978).
  45. Philip K. Davis, Engineer, the Austin Company, “The Building of Molotov Where Russian Fords Will Be Produced,” *Journal of Worcester Polytechnic Institute* (April 1932): 83–88; “The Fifteenth Year Begins,” *Soviet Union Review* 9, no. 11 (November 1931): 204.
  46. “Automobile Plant and Workers’ City ‘Avtozavod,’ Nizhni Novgorod (Gorki) U.S.S.R.,” Austin Company Records MSS 5040, Container 19, folder 18, Western Reserve Historical Society, Cleveland, Ohio.
  47. Walter S. Dunn, Jr., *Stalin’s Keys to Victory: The Rebirth of the Red Army in World War II* (Mechanicsburg, Pa.: Stackpole Books 2007), 35; Robert Scoon, “Those Communist Model A’s,” *The Restorer* 14, no. 6 (March-April 1970):19; M.N. Svirin, *Bronia krepka. Istoriia sovetskogo tanka. 1919–1937* (Moscow: Yauza, 2005), 143-154.
  48. *Economic Handbook of the Soviet Union* (New York: American-Russian Chamber of Commerce, 1931), 125.
  49. “American Exports to Soviet Union Show Large Increase,” *Economic Review of the Soviet Union* 5, no. 10 (15 May 1930): 208.
  50. “Foreign Technical Aid in the U.S.S.R.,” *Soviet Union Review* 8, no. 5 (May 1930): 86.
  51. “44 American Firms Are Aiding Soviets,” *The New York Times*, 30 November 1930.
  52. Feinstein, *Fifty Years*, 62 (see n. 7).
  53. J.D. Mooney, “Soviet Trade and the United States,” *Economic Review of the Soviet Union* 6, no. 10 (15 May 1931): 223.
  54. Feinstein, *Fifty Years*, 62 (see n. 7).
  55. Katherine A.S. Siegel, *Loans and Legitimacy: The Evolution of Soviet-American Relations, 1919–1930* (Lexington, Ky.: University Press of Kentucky, 1996): 103–104; Ropes, “The Shape of United States-Soviet Trade,” 91–92 (see n. 6).
  56. “Amtorg Purchases in July Exceed \$20,000,000,” *Economic Review of the Soviet Union* 4, no. 16–17 (1 September 1929): 278.
  57. Interview with S.G. Bron, *Ekonomicheskaia zhizn’*, Moscow, 1 June 1928.
  58. Saul G. Bron’s letter to G.V. Chicherin and A.I. Mikoyan, 6 December 1927, AVP RF, f. 04, op. 3, p. 14, d. 195, ll. 124–126 (incl. in *Soviet-American Relations. Years of non-recognition. 1927–1933*, ed. G.N. Sevost’ianov and J. Haslam [Moscow: Mezhdunarodnyi Fond “Demokratiia,” 2002], 81–82).
  59. Saul G. Bron’s letter to A.I. Mikoyan, 12 June 1929, RGAE. f. 5240, op. 18, d. 243, ll. 147–148 (incl. in *Russia and USA*).
  60. Saul G. Bron, *Soviet Economic Development and American Business* (New York: Horace Liveright, 1930).
  61. Jon Carter, “Russia Again!,” *Outlook and Independent* 155 (May 21, 1930): 108.
  62. Bron, *Soviet Economic Development*, 99, 144–146 (see n. 60); “44 American Firms,” (see n. 51); *Economic Review of the Soviet Union* 5, no. 22–23 (1 December 1930): 471; *Economic Handbook* (1936), 352 (see n. 48).
  63. “Everybody’s Red Business,” *Time*, 9 June 1930.
  64. Letter from Moritz Kahn to Albert Kahn, 10 October 1929, Albert E. Kahn family archive.
  65. The first official trade agreement between the U.S.S.R. and U.S.A. would be signed on July 14, 1935.
  66. *Soviet Union Review* 8, no. 2 (February 1930): 30–31.
  67. Hubert R. Knickerbocker, *Fighting the Red Trade Menace* (New York: Dodd, Mead & Co., 1931), 150–157, 294–295.
  68. Letter from Kaganovich to Stalin, 11 September 1931, *Stalin i Kaganovich. Perepiska. 1931–1936*, ed. O.V. Khlevniuk et al. (Moscow: Russian Political Encyclopedia, 2001), 97, n. 12.
  69. “Russian Trade Representation in the United Kingdom,” *The Chemical News and Journal of Industrial Science* 142 (1931): 186.
  70. Lazar M. Kaganovich (1893–1991), one of Stalin’s main associates, was secretary of the Central Committee of the Communist Party from 1928 to 1939.
  71. Maxim Gorky, *History for Factories and Plants*, first published in *Pravda*, 4, 7 September, 1931.
  72. Archive of Russian Academy of Science (RAN), f. 359, op. 2, d. 421, ll. 4–6 (cited in S.V. Zhuravlev, *Fenomen “Istorii fabrik i zavodov”: gor’kovskoe nachinanie v kontekste epokhi 1930-kh godov* [Moscow: Institut rossiiskoi istorii RAN, 1997]), 5; Russian State Archive of Socio-Political History (hereafter RGASPI), f. 17, op. 162, d. 846, l. 2, and d. 853, l. 12 (cited in *Stalin i Kaganovich*, 86 [see n. 68]).
  73. Letter from Kaganovich to Stalin, 20 September 1931, and Letter



- from Stalin to Kaganovich, 21 September 1931, RGASPI, f. 558, op. 11, d. 76, l. 73 (incl. in *Stalin i Kaganovich*, 110, 112 [see n. 68]).
74. Mikhail P. Tomsky (1880-1936), member of the Politburo and Central Committee of VKP(B), leader of the All-Russian Central Council of Trade Unions. In the 1920s, Tomsky, Bukharin, and Rykov represented the moderate (or right) wing of the Communist Party that helped Stalin, during the power struggle that followed Lenin's death in 1924, to purge the left opposition led by Trotsky, Kamenev, and Zinoviev. In 1929 Stalin moved against his former allies and defeated them, forcing Tomsky to resign from his position in the Politburo and as leader of the Soviet trade unions.
75. Sir Walter Citrine, *I Search for Truth in Russia* (Boston: E.P. Dutton, 1936), 133-135.
76. The Moscow show trials were a series of three trials held between 1936 and 1938 as a part of Stalin's Great Purge. The defendants, many of whom were sentenced to death and executed, included most of the surviving Old Bolsheviks who were charged with conspiring with the western powers to assassinate Stalin and other Soviet leaders, dismember the Soviet Union, and restore capitalism. The most recent and detailed account of Stalin's Great Purge and show trials can be found in Karl Schlögel, *Moscow 1937* (Cambridge, U.K.: Polity Press, 2012).
77. Stenographic record of the meetings at OGIZ, 10 November-27 December 1937, GARF, f. R4851, op. 1, d. 18, ll. 2-9, 13-17, 41-43 (cited in *Obshchestvo i vlast', 1930-e gody: povestvovanie v dokumentakh*, ed. A.K. Sokolov [Moscow: ROSSPEN, 1998], 178-179, 228); "Memo by L.Z. Mekhlis to the secretaries of the Central Committee of VKP(b) about the situation in OGIZ," AP RF, f. 3, op. 24, d. 325, ll. 162, 163.
78. GARF, f. 4851, op. 1, d. 11, l. 128; d. 937, l. 4; f. 7952, op. 1, d. 24, ll. 44, 52, 54. (cited in S.V. Zhuravlev, *Fenomen*, 13, 39, 74-77 [see n. 72]).
79. Vadim Z. Rogovin, *Stalin's Terror of 1937-1938: Political Genocide in the USSR* (Oak Park, Mich.: Mehring Books, Inc., 2009), 116.
80. Roberta T. Manning, "The Soviet economic crisis of 1936-1940 and the Great Purges," in John Arch Getty, Roberta T. Manning, eds., *Stalinist Terror: New Perspectives* (Cambridge, U.K.: Cambridge University Press, 1993), 137-138. More on the Stalinist repressions in industry, see Donald A. Filtzer, *Soviet workers and Stalinist industrialization: the formation of modern Soviet production relations, 1928-1941* (London, U.K.: Pluto Press, 1986), and *Moscow 1937*, 411-432 (see n. 76).
81. The official version was death from a heart attack, although there is some evidence, if ultimately inconclusive, that Georgy (Sergo) K. Ordzhonikidze might have been murdered at Stalin's orders.
82. E. Podrepny, E. Titkov, *Nizhegorodskie mashinostroiteli—Krasnoi Armii* (Arzamas: AGPI, 2010).
83. On the work and fate of American workers in the U.S.S.R., see Tim Tzouliadis, *The Forsaken: An American Tragedy in Stalin's Russia* (New York: Penguin, 2009); Vincent E. Baker, "American Workers in the Soviet Union Between the Two World Wars: From Dream to Disillusionment," thesis (Morgantown, W.Va.: West Virginia University Press, 1998); and John Scott and Stephen Kotkin, *Behind the Urals: An American Worker in Russia's City of Steel* (Bloomington, Ind.: Indiana University Press, 1989).
84. V.N. Khaustov, *The Lubyanka: The Soviet elite in Stalin's Golgotha: 1937-1938. Documents* (Moscow: Mezhdunarodnyi fond "Demokratiia," 2011), Doc. No. 9.
85. "The Continuation of the Purge," Dispatch No. 856 from the U.S. Embassy in Moscow, U.S. State Department Decimal File 861.00/11711-11787, Political Affairs/271, NARA.
86. Saul G. Bron's file from the Central Archive of the Federal Security Service of the Russian Federation (TsA FSB RF); Reports by Commissar for Internal Affairs (NKVD) Ezhov to Stalin about the testimonies by the accused, 30 November 1937 and 16 February 1938, AP RF, f. 3, op. 24, d. 404, ll. 1-35, and d. 405, ll. 33-40; and TsA FSB RF, ASD R 9869 (incl. in Khaustov, *Lubyanka* [see n. 84]).
87. Sergei Ustiantsev, *Russian industrial elite: Chelyabinsk Tractor Plant* (Yekaterinburg: Nezavisimyi Institut istorii material'noi kul'tury, 2008), 35-36.
88. I.V. Stalin, "Itogi pervoi piatiletki," in I.V. Stalin, *Complete Works*, 18 vols. (Moscow: Gospolitizdat, 1951), 13:213.
89. Eric Johnston, Telegram, 30 June 1944, U.S. State Department Decimal File, 033.1161, NARA.
90. E.H. Carr and R.W. Davies, *Foundations of a Planned Economy 1926-1929* (London: Macmillan, 1969), 2:451.
91. David R. Shearer, *Industry, State, and Society in Stalin's Russia, 1926-1934* (Ithaca: Cornell University Press, 1996), 9.
92. Helen C. Bennett, "You Can't Build Skyscrapers with Your Head in the Sky," interview with A. Kahn, *American Magazine* 108 (16 December 1929): 121.
93. Adrian Fuller, "Detroit's Key to Defense Speed," Detroit Free Press, quoted in "Albert Kahn—Defense Builder," *Western Architect and Engineer* 147-148 (February 1942): 25; "Art: Industry's Architect," *Time*, 29 June 1942; "Architect of Victory," *The Detroit News*, 10 December 1973.
94. Memo by Louis Kahn, 7 February 1944, Albert Kahn Papers, Scrapbook "Russian Work," box 13, Bentley Historical Library, University of Michigan, Ann Arbor, Mich.
95. Anthony C. Sutton, *Western Technology and Soviet Economic Development 1917-1930* (Stanford, Calif.: Hoover Institution Press, 1972); *National Suicide: Military Aid to the Soviet Union* (New Rochelle: Arlington House, 1973).
96. *Economic Review of the Soviet Union* 7 (1 April 1930): 131-132.
97. Dieter Marcello (director), "Albert Kahn: Architekt der Moderne" (Marbach: Suedwestfilm, 1996). A documentary tribute to Albert Kahn filmed on location in Detroit, Russia, Italy, and Germany. The film includes rare 1902-1945 footage from U.S. and Soviet film archives. DVD is available at [www.amazon.de](http://www.amazon.de) and at the Art, Architecture & Engineering Library, University of Michigan.