

SOVIET ADVISERS IN CHINA

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In view of the scarcity of authentic information coming out of Communist China it may seem futile to attempt to review the subject of Soviet advisers at the present time. The limitations of source material make it difficult to see the whole picture in its true perspective and confront the student with an almost impossible task of evaluation and assessment. The purpose of this interim report is to examine certain phases of Soviet-Chinese relations within the framework of Soviet strategy in sending advisers and experts to China. Based on the very scanty data gathered from the Chinese press, this study cannot be free from their limitations. Whatever conclusions reached must, therefore, be considered tentative.

Inasmuch as world revolution is the primary aim of Soviet leaders, China to them represents a vast communist potential. Being a traditional foothold of Western imperialism, China offers to revolutionary propaganda elements which might set the whole Far East ablaze. Sharing with China a common frontier over 3,000 miles in length, the Soviet Union can never feel safe until China is completely subjected to Russian control. The strategic planners in the Kremlin have long wished to

China tied to Moscow politically, militarily, and economically. It is in order to attain this objective that the sending of advisers and experts to China has become a major policy of the Soviet Union.

Western experts differ widely in estimating the number of Soviet advisers and experts working in Communist China today. Outside sources have put the number as high as half a million! Commenting on this figure, the Economist¹ has this to say: "The figure sounds fantastic, and it probably includes the old White Russian emigrés in Manchuria and Shanghai." Other writers like Max Beloff,² Robert C. North³ and G. P. Hutheesing⁴ are extremely vague in their estimate of the nature and number of Soviet personnel in China. While it may be profitable to speculate how they are organized and how their duties are assigned, a brief review of an earlier attempt to make full use of Soviet advisers in China may cast some light on this intricate subject and may help solve some of the exasperating puzzles.

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1. The Economist (London), January 9, 1954, p. 101.
 2. Soviet Policy in the Far East, London, 1953, pp. 87-90.
 3. Moscow and the Chinese Communists, Stanford, 1953, p. 269.
 4. The Great Peace, New York, 1953, pp. 128-129.

II

After Michael Borodin was accepted as adviser by the Kuomintang at Canton, swarms of Soviet agents promptly poured into China in 1924. From 1924 to the spring of 1927 a great red machine was set in motion. Soviet advisers not only found their way to the Chinese revolutionary army, but also penetrated most civilian organizations such as schools, colleges, factories, and labor unions. Under the direction of Stalin and the Comintern, Moscow spared neither effort nor money to create a Chinese Soviet Republic.

A raid upon the office of the Military Attaché of the Soviet Embassy in Peking on April 6, 1927 resulted in the publication of a large number of Soviet documents. Much evidence was brought to light, as the documents clearly showed that not only were Borodin and Galen directed from Moscow, but also that a large staff of advisers and experts were attached to every force in China. The documents further proved that Moscow furnished the funds, plans, and brains, while the Soviet Embassy and Soviet consulates in China became centers of subversive activities. Generally speaking, there were three Soviet groups operating in China at that time: military, political and secret police.

According to Captain Eugene Pick⁵, who worked under both Borodin and Galen, there were 63 military experts under General Galen (later identified as Marshall B. K. Bluecher, Commander of Special Far East Red Army). Acting as the head of the Military Department, Galen had complete control over the following offices: (A) Staff Office - operative, administrative, and economic bureaus; (B) Headquarters of General Advisers, each of whom had a staff of officer-instructors who were either attached to Chinese generals at the fighting front, or acting as teachers in military training schools, or organizing special services behind the lines; (C) Military Engineering Department, and (D) Inquiry Department, the chief work of which was not that of an information bureau but the making of topographical maps.

With Peking as the center headed by the Military Attache, these advisers were assigned to duties in different regions and designated as Northern Group, Central Group, and Southern Group.

In order to raise the efficiency of the army and consolidate Soviet influence, a series of schools such as those for

5. China in the Grip of the Reds, Shanghai, 1927, pp. 18-19.

infantry, artillery, cavalry, machine-guns, engineering, and counter-espionage were founded to which the Soviet instructors were assigned.⁶ Where no such schools could be established, as in Tientsin (then occupied by the anti-Communist forces of Chang Tso-lin), a group of instructors nevertheless remained, mainly for espionage and subversion. In May 1924, Galen founded the Whampoa Military Academy, which was supplied and operated with Russian funds and staffed by Russian military advisers under the nominal supervision of Chiang Kai-shek.

As a rule, every military adviser sent to China must first report at the Soviet consulate at the port of entry. Thus Captain Pick states that "if the register in the Shanghai consulate were examined, it would be found that in 1925-1927 over 300 officers of the Army had registered there and had proceeded thence to Canton, Amoy, Swatow, Nanking, Hankow, and Peking. The majority arrived by steamer from Vladivostock armed with a card from the General Staff of the Army."⁷

In addition to military advisers there was a great number of political workers and instructors who were sent to China by

6. N. Mitarevsky, World Wide Soviet Plots, Tientsin, 1927, p. 29.

7. E. Pick, op. cit., p. 26.

the Third International. All of them worked under the direction of Borodin, who, as a colorful agent of the Comintern, not only represented the Politbureau but also had full charge of all consular officers. In each consulate there was an agent of the Third International masquerading as a vice-consul. The consular staff was subordinate to Borodin, not to the Ambassador. The Consuls in Hankow, for instance, appeared daily at his office and made report directly to him. For purposes of infiltration and propaganda Borodin succeeded in introducing one Soviet adviser into every department of the Hankow government. As a consequence, Pavlovich was assigned to the Ministry of Foreign Affairs, Prof. Stein to the Ministry of Finance, Iliashevich to the Central Bank of China, and Dahlin to the Ministry of Justice.⁸ It was through these advisers that Bolshevik methods of agitation and propaganda were introduced.

According to Captain Pick, Borodin organized over the whole of China "nests" of the Communist Party; he organized unions of industrial workers, farmers, transport workers, clerks, artisans of all kinds, and coolies of every description; he founded the communist union of young men; he organized the revolutionary

8. Ibid., p. 21.

council; he created a Department of Propaganda for China and Asia; he went far towards destroying the Kuomintang and re-organizing the Left Wing so that the Communists would dominate the revolution.⁹

The third group of advisers consisted of those who made up the military cheka. As early as 1925 Borodin offered it to the Kuomintang and proposed to import men to organize a Chinese organ similar to the G.P.U. As none of his colleagues was enthusiastic about it, the matter was dropped.¹⁰ However, taking advantage of Feng Yu-hsiang's request for more Soviet arms, Borodin was successful in having a military cheka founded in that year in Feng's army to check on its generals, officers, and men. A few months later Nicolai Volin arrived from Moscow, and a military cheka was established in Hankow early in 1927 with branches at Wuchang, Changsha, and Nanchang. Headed by Petroff and Bramin, it was an exact copy of the organ in the Soviet Union which keeps a check upon the movement and utterance of every man.

Thus the pattern of Soviet strategy emerged clearly. A great red machine was formed in China. Although the functions of these advisers often overlapped, they were so closely inter-

9. Ibid., p. 16.

10. Ibid., p. 28.

related that one agent belonged to any two or three or all of them. They used assumed names and travelled under Finnish or Polish passports. Agents of the Third International even obtained diplomatic immunity by acting as vice-consuls, and openly engineered the propaganda machine. For three successive years a network of Soviet institutions guided and directed the whole revolutionary movement in China for the cause of world communism.

The failure of the revolution in China in 1927 was a severe blow to Stalin, but it strengthened his determination to proceed from that time on with that program whenever a suitable opportunity presented itself.

Unable to be of any assistance to the Chinese Communists, who were then forced to work underground, the Soviet Government concluded, in 1931 and 1933 respectively, two secret agreements for economic concessions with the provincial government of Sinkiang. A commission headed by Stalin's brother-in-law, Svanidze, was sent to draw up a plan of reconstruction for the province.¹¹ A host of Soviet advisers and experts were dispatched to Urumchi to exercise economic and political control. From 1933 to 1942

¹¹ Alexander Barmine, One Who Survived, New York, 1945, pp. 231-232.

the province of Sinkiang became a police state on the Soviet model. It was not until Sheng Shih-tsai shifted his allegiance from Moscow to Chungking that the Soviet advisers were withdrawn and all machinery in the tin mines and in the oil fields dismantled.

III

Three years later an excellent opportunity for Soviet manoeuvres came with Russia's entry into the Far Eastern War. As a result of the Yalta agreement, the Soviet Union obtained territorial concessions and restitution of the former rights of Tsarist Russia in Manchuria, including the lease of Port Arthur and the control of the main railway.

While in Manchuria the Soviet Army of Occupation under the command of Marshall Malinovsky stripped down the major industrial plants and dismantled industrial machinery and equipment. In addition to Japanese technicians and Chinese workers, a great number of Soviet experts were employed in connection with the removal of these assets. As the names of these experts are recorded in Bailey's Report on Japanese Reparations, one can check them with those employed in China in later years. Since they do not appear to be now working in China, it may be assumed that these experts withdrew with the Red Army in 1946.

In sending its army to Manchuria the Soviet Union intended, but failed, to secure economic concessions from the National Government. In November 1945 Slatekovsky, the economic adviser to Marshall Malinovsky, proposed the "joint" operation of 154 industrial and mining enterprises including specified coal mines, power plants, iron and steel industries, oil refineries, chemical industries, and cement industries, comprising over 80 per cent of the heavy industry of Manchuria. The Soviets further insisted on the "joint" operation of the Chinese-Soviet Corporation for Civil Aviation in Manchuria. Compliance with these demands was even made a condition for the withdrawal of the Red Army from Manchurian soil.¹²

After these protracted negotiations brought no result, several self-appointed experts were sent by Moscow to extend assistance to the Chinese Communists. While such assistance took a variety of forms, the personnel employed may be grouped into the following two categories:

(I) Military personnel: Besides supplying the Communists with arms and ammunition captured from the Japanese Kwantung Army, Moscow sent instructors, especially in artillery and

12. Statement by T.F. Tsiang before the Political Committee, United Nations General Assembly, November 25, 1949. In, China Handbook, 1950, pp. 369-370.

mechanized warfare, to Communist military schools in Kiamusze, the capital of the red regime at that time. Soviet aviation instructors were also employed in the training of a Communist air force. One center was situated at Tzitsihar and the other at Khabarovsk.¹³

It was, and is, a well known fact that Soviet military personnel participated in operational activities in the civil war in Manchuria and manned the guns of Chinese Communists. The evidence that they assisted in the manufacture of arms and ammunition was proved beyond dispute. According to the Nationalist intelligence reports, six technicians who were German POWs were dispatched to the arsenal at Mishan, which specialized in the manufacture of Soviet-type and American-type tommy guns. Over 3,000 trained workers, some of whom were Soviet citizens, other Japanese POWs, were sent to the arsenal at Tiehli for the manufacture of hand-grenades, shells, and rifles. Five Soviet and three Japanese experts were sent to the Arsenal near Fuping, specializing in chemicals. Over 150 trained workers, partly Soviet and partly Japanese, were supplied to the Arsenal at Mutangkiang, which had been remodelled for the manu-

13. Ibid., p. 361.

facture of rifles, machine guns, and ammunition. A number of Soviet experts aided in the rehabilitation of the Mukden Arsenal, which is one of the largest arsenals in the Far East.¹⁴

(2) Technical Personnel: Fifteen Soviet experts from Harbin reported for duty on March 13, 1948 at the Hsiao Fengman hydro-electric power plant soon after it was taken over by the Communists. Over 100 Soviet technicians assisted in the restoration of industrial and mining enterprises. In the North Manchurian mines a "joint" corporation for their development was formed with Soviet advisers and experts occupying important posts. The Neilungkiang Valley Gold Mine Administration, for instance, was headed by a Soviet General Manager to control and regulate the famous gold mine. Since then the "joint" stock companies have mushroomed all over Manchuria.

But it was in the sphere of railways that Soviet advisers rendered the most significant assistance. Not only were the factories of the Chinese Changchun Railway and the Dairen Machine Works remodelled for the manufacture of arms and ammunition, but also a large number of Soviet engineers and railway workers assisted in the rebuilding of railway lines. Under the

14. Ibid., p. 364.

direction of M.S. Yerogov and A.I. Yemshanoff over 1,500 Soviet experts were employed in this railway not counting the thousands of technicians and workers. With Russian troops remaining in Port Arthur and Dairen, the Soviets have considerable say in railway management.

IV

Thus far we have dealt with a group of Soviet advisers appointed by the Kremlin for service in China. They were paid entirely by Moscow and may be called the "unsolicited" advisers.

The other group working in China since 1949 consists of those who have been "invited" by Communist China and are being paid either by the Chinese People's Government or at the expense of "joint" stock companies. It is with this group that this paper is primarily concerned.

With a view to legalizing the presence of these advisers in China, the Soviet Union and Communist China concluded two agreements, one in 1949 and the other in 1950. The 1949 agreement concluded July 1 in Moscow was known as the trade agreement between the Soviet Commissariat of Foreign Trade and the "Manchurian People's Democratic Authorities". In the following month over 200 Soviet advisers and experts were dispatched for

service in Manchuria and North China. Although the terms of the agreement have never been made public, evidence showed that in September 1949 over 500 kilometers of rails were transported to China which helped greatly in the rapid restoration of the Tientsin-Pukow, the Peking-Hankow, the Lunghai, and the Hankow-Canton Railways. Railway and bridge experts such as Zingorenko, Kihonov, Silin, Nilinikov, Zasedayev, Shatalin, Smirnov, Bashnin, Bagrov, and Egorenko were among the first arrivals in this group.

The presence of these experts was confirmed by Liu Shao Ch'i who, in a speech before the Sino-Soviet Friendship Association on October 5, 1949, remarked that "the Soviet Union has now sent more than 200 specialists to serve in the Northeast and other parts of China. Comrade Stalin has instructed them to impart all their knowledge and technique to the Chinese people."

The 1950 agreement signed on March 27 in Moscow dealt specifically with the employment of Soviet advisers and experts for service in China.¹⁵ This agreement was the natural by-product of three other agreements concluded on the same day, namely the agreements for "joint" stock companies for oil, for

15. People's Handbook of 1952, p. 194; of 1953, p. 199.

non-ferrous and rare metals in Sinkiang, and for Sino-Soviet civil aviation. Under these agreements China agrees to provide land, buildings, and supplies, while the USSR is to provide technical personnel and equipment. Valid for 30 years, they provide that half of the petroleum and minerals thus exploited goes to the USSR. While both parties have the same rights, the general manager has to be a Soviet citizen.

The 1950 agreement also came into being as a consequence of the Sino-Soviet agreement for the extension of a 300 million dollar credit to China signed on February 14, 1950. Article Two of the latter agreement provides the supply by the Soviet Union of "equipment and materials including equipment for electric power plants, mills for metals and works for machine tools, mining equipment for coal and other deposits, railways and other transport equipment, rails and other materials for the reconstruction and development of the national economy of China."

It is in line with this provision that additional experts were to be selected and sent to China. However, for reasons which have not been explained, a great many non-technical personnel were smuggled into China with the result that by May 1950 the total number of Soviet personnel in China was reported to

have reached 23,000.¹⁶ In Shanghai alone 2,000 so-called advisers and their families were concentrated in the residential area of Hungjao.¹⁷

As the number of "unsolicited" advisers has been growing year by year, Communist China has been obliged to cope with the situation by setting up an administrative machinery specifically charged with the duty of supervision and control of Soviet experts in China. With Lai Tsu-lieh as its first director, this agency is known as the "Bureau in Charge of Experts' Affairs", forming a separate unit of the Government Administrative Council headed by Chou En-lai. Actually, however, the Bureau acts merely as a liaison office and performs its duties through registration and statistics.

Since the presence of Soviet technical experts has received more publicity in Communist China than the non-technical personnel, it may be worthwhile to note some of their contributions to China's effort toward industrialization along the following lines:

(1) Iron and Steel. Since iron and steel claim the top priority, over twenty or more Soviet experts are now working

16. NYHT, May 7, 1950.

17. Chinese News Service, New York, Sept. 8, 1950.

at the Iron and Steel Works at Anshan alone. Under their direction three new projects - a heavy rolling mill, a seamless tubing mill, and a renovated blast furnace - were completed in November 1953. The Communists claim that since 1950 the Soviet Union has mobilized its best designers of metallurgical plants to design these two mills. High frequency induction-heating hardening machines are among the latest Soviet technical equipment that has been sent to China. With a frequency of 20,000 cycles per minute, these machines generate very great heat.

With these automatic mills in operation, Communist China is now able to produce huge quantities of rails and structural shapes for railway, bridge, and building construction as well as tubes for oil pipes for locomotives, ships, airplanes, and tractor parts. To celebrate the completion of these projects the Soviet Union sent a large delegation to China headed by no less important a figure than Russia's top metallurgist and recently appointed Vice-Premier I.F. Tevossian. Seventy-seven Chinese workers who had received technical training from the Novotagil steel mills in the Urals recently returned to China and have become the main production force at Anshan and other plants.

With the adoption of the Soviet fast charging and full-blast iron-smelting method and the high speed steel making method, Soviet experts have been assigned to other plants such as those at Tientsin, Tangshan, Taiyuan, Shanghai, Tayeh, and Chungking. By adopting Soviet techniques the Iron Smelting Plant at Shichingshan has succeeded in producing an average of 1 ton of pig iron per 0.8 to 0.85 cubic meter of the available volume of blast furnace in October 1953. The Ma An Shan plant near Shanghai, when fully restored to production, will free Shanghai from dependence on distant pig iron supplies. Four blast furnaces in this plant recently renovated by Soviet experts are now producing more than half the pig iron required in Shanghai.

(2) Machine Building. With the introduction of the Soviet high-speed method of metal cutting evolved by Vasili Kolsov, Soviet advisers and experts are now found in all leading machine works such as the First Machine Works, the First Automobile Plant, both located at Mukden, the Measuring and Cutting Tool Plant at Harbin, the machine works at Tsinan, Taiyuan, Sian, and Shanghai, all of which have received machinery and equipment from the Soviet Union. During the last years the multi-cutter multi-edge cutting method has been initiated and popularized, and has raised considerably the production of machine tools.

Since most of the lathes in the plants are now arranged for high speed cutting, 75 per cent of the lathe turners have mastered the high speed cutting techniques. For instance, the machine builders at Tsinan have turned their first Soviet designed 9.6 meter planer, a high precision heavy machine tool consisting of over 6,000 parts with all its operations controlled by electric power. The tool manufacturing plant at Harbin, which has a floor space of 40,000 sq. meters, has installed 280 machines and is now producing more precision tools than the combined output of all existing tool plants in China.

The automobile plant, the first of its kind in China, is based on designs and blue prints made in the Soviet Union. According to Communist claim, 70 per cent of the building work will be mechanized and the machinery and equipment are being supplied by the Soviet Union and its East European satellites.

(3) Coal. In the coal industry the speed of tunneling has been greatly raised with the adoption of Soviet multi-tunnel and deep-tunnel methods. Many vertical and inclined shafts and open-cast workings are being developed in coal fields at Peki, Fushun, Ch'isi, and Liaoyuan.

But the Fushun coal mine is due for entire reorganization as the existing four mines have only ten years' life left in

them. According to a report from Hong Kong,¹⁸ in the first quarter of 1953 out of a total production of 300,000 tons in Manchuria, North China, and East China, 100,000 tons consisted of sand, shale, and stones. Although this report is probably inaccurate it may be assumed that the quality of Manchurian coal is very poor and that production is far below the planned norm.

In view of the shortage of coal great efforts have been made to develop the open-cut coal mine at Fusin. With the assistance of Soviet experts, excavation work began in April 1951 and was completed in May 1953. To accelerate the work, vast electric shovels and other mechanized equipment from the Soviet Union have been installed. The high degree of mechanization and the automatization of signalling and transport make it possible to maintain the efficient methods of centralized supervision in operating a mine.

The adoption of high speed tunneling methods has also enabled other coal mines to increase their output, such as those at Yincheng, Peipiao, Hokang, Chiaho, Shuangyashan, and Jalantor in Manchuria; Kailar, Chingch'ing, Mentoukou, Hungshan, and Chiao-tso in North and Central China. Work on the sinking of new

18. Manchester Guardian, December 31, 1953, p. 5.

coal pits is being carried out, and operating costs are being reduced.

In the Tatung colliery the "Dunbas" type mining combines are at work, which involve a series of operations doing away with manual labor. As a consequence, a national record was broken by 766.7 cubic meters in October 1953. Under Soviet supervision a coal pit with an estimated annual output of more than 1,800,000 tons is to be constructed at this colliery. Similarly, after having adopted Soviet methods, 30 per cent of the output in Huainan Coal Mine is hewed by machines, while in the Pingsiang coal mine the first mechanical coal-cutter started work in August 1953. Among recent Soviet installations in this mine mention should be made of an ultra-violet ray center which gives the underground workers good artificial sunlight. Intended for use in coal pits, a new basic type mine lamp, a kind of electrical safety lamp, is being manufactured by the Fushun Mining Lamp Factory. A powerful mine ventilator operated by a motive force of 224 horse power has recently been completed by the Mukden Ventilator Factory. This type of ventilator will be supplied to various mines in the country.

(4) Electric Power. In the power industry the Soviet methods of high-speed overhauling have been introduced. By the

use of lower grade coal as fuel, power generation costs have been reduced. It is in the city of Fusin that the first automatic power plant in China has been constructed. Automatic recording machines check every stage of operation and, if the Communist press is to be believed, the new equipment of this plant is the best that Soviet factories can produce.

In Mukden, Kaiyuan, and Harbin new electric generators from the Soviet Union are now in full operation. The Shiching-shan plant near Peking has been renovated, while in Taiyuan a very large thermal power plant is being constructed which will generate electric power thrice the existing capacity. Designed and blue-printed by the Soviet experts, the whole plant is being equipped by the Soviet Union.

Further south in Chengchow where the Peking-Hankow and Lungbai Railways meet a new power plant on a larger scale is being constructed. With more than 20 Soviet experts working at present in this plant, it is one of the 141 major construction projects which the Soviet Union in September 1953 agreed to help. In the capital of Hunan the new Siangtan electric power plant has doubled its generating power after being renovated by Soviet experts.

In the Northwest the No. 2 power plant at Sian, renovated by Soviet experts, started recently to generate electricity to supply industrial needs of that area. A high voltage transmission line has recently been set up between Sian and Hsien to carry electric power to that textile center. At Urumchi, the capital of Sinkiang province, the construction of an automatic thermo-power plant was completed on December 30, 1953 under the direction of over 20 Soviet experts. Automatic from coal feeding to power generators, this plant is designed completely on Soviet lines and all new machinery from the Soviet Union has been installed.

In this connection mention should be made of another high voltage transmission line built in Manchuria in November 1953. Covering a distance of 369.25 kilometers, this powerful line is linking up Anshan, Mukden, Fushun, Penki, Fusin, and other centers. Through this network many new power stations supply abundant and cheap electric power. Though most of the materials were made in China, the entire project was designed by Soviet experts.

(5) Oil. In northwestern China, said to be abundant in oil reserves, prospecting teams under the direction of Soviet and Chinese experts in 1953 discovered 19 petroliflic formations as well as many new strata and outcrops of petroleum. Since

Soviet equipment for drilling and pumping have become available high speed oil drilling methods have been introduced in all oil fields. On October 28, 1953 a new national record of 162 meters a day was set by the drillers at the Chiuchuan oil field.

With the use of high speed drilling machines, drillers at the Yumen oil field claim to have surpassed the production targets for 1953. Out of the 6 test wells drilled to the east and west of the present field 5 produced oil. To end the haphazard method of exploitation, Soviet experts made proposals for better location of wells, for restoration of old ones, and for systematic drilling so that the true extent of the field might be better determined. But as the shallower and more accessible oil zones are gradually exhausted, there is the technical complexity of working the deeper strata of these fields.

With the increased output of crude oil, it began to be shipped eastward for refining in Manchuria. On November 1, 1953 the first consignment of crude oil was transported on trucks to Wu Hsiao L'ing, the present terminus of the Lanchow-Sinkiang Railway. From Lanchow it was transported by train to Manchuria.

In the Wusu oil fields in Sinkiang new oil wells have been sunk. In 1952 a new oil refinery was commissioned and an old

refinery renovated which helped increase its capacity 30 times. Under the direction of Soviet experts sent from Baku, an up-to-date oil cracking plant is now under construction. When completed it will increase the rate of extraction of gasoline from crude oil. According to a latest report, the wells are now producing 19 times more crude oil than in 1951.

(6) Mineral Resources. The gold mines on the south side of the Amur River and on the Chinese side of the Altai Mountains had long been exploited by Russian miners despite repeated protests from the National Government. While verifiable information is lacking at present, it is safe to assume that the exploitation work is still being continued by Soviet experts.

For the development of the copper mine at Tungchuan in Yunnan modern tools and Soviet prospecting methods are now being used. The new installations will soon enable the mine to function on a scale outpacing any previous output. In the K'ochiu tin mines further south three new projects - a thermo-power plant, an ore-dressing plant, and an automatic tramway conveyer - were completed in November 1953. The improvement of working conditions in the mines has speeded up production and has already raised the output of tin ore from 200 kilograms to 1,600 kilograms per man shift.

For the exploitation of tungsten and other minerals in Sinkiang the activities of Sino-Soviet "joint" stock company for non-ferrous and rare metals have never been reported. All we know is that under the terms of the March 1950 agreement half of the current production goes to the USSR for 30 years, the same pattern as that of the oil concessions exacted by the Soviet Union from Roumania.

In 1947 stocks of uranium ore were discovered in the Peitashan area in Sinkiang, which in 1947-1948 became the scene of ruthless attack by Outer Mongolian forces supported by Soviet aircraft. Since Sinkiang fell into the hands of the Communists in September 1949, this area has been declared "closed territory". From an Indian source it was revealed that Communist China was forced to sign a secret agreement to permit exclusive Russian control of this area.¹⁹ It is believed that quantities of this ore have been shipped to Tannu Tuva for the manufacture of atomic bombs.

In view of what the Soviets did in obtaining uranium ore from Czechoslovakia,²⁰ the conclusion seems justified that the

19. Lahiri, "Communist New Deal in Sinkiang," United Asia 3 (2), 1950, pp. 141-144.

20. J. Kasparek, "Soviet Russia and Czechoslovakia's Uranium," Russian Review, April 1952, pp. 103-105.

same tactics have been used in seizing it from the Chinese Communists. Bakulin, the Soviet commercial representative at Prague in 1945, was the same official who three years earlier had forced the Governor of Sinkiang to sign the tin mines and other "ancillary" minerals agreement.

On the Sikang-Tibetan plateau more than 30 non-ferrous and rare metals have recently been discovered in addition to rich deposits of asbestos. The news concerning the discovery of another uranium ore deposit in this area has been wrapped in utmost secrecy and can be verified only by future events.

For military and political considerations, intensified efforts are being made to complete the Sikang-Tibet highway (1,600 kilometers), which will be linked by the Chinghai-Tibet highway (1,130 kilometers) and later by the Tihua-Khotan and Khotan-Llasa highways. As surveying and prospecting teams have already been dispatched into a part of the completed sections of these highways, the report concerning further discoveries of rare metals is worth watching.

(7) Light Industries. With Soviet technical aid, the most phenomenal development has been the expansion of textile industries. Supplementing existing mills, two completely mechanized

flax-processing mills have been built at Harbin. Two Soviet women, Z.A. Gavrilovna and Najanskaya, have been identified as working for these mills. In the new automatic linen mill up-to-date Soviet dyeing and bleaching machines have been installed.

In other parts of China mention should be made of the state-owned cotton mills recently completed at Taiyuan and Sian and the two mills at Chengchow, each with 20,000 or more spindles in operation. The automatic cotton mill built at Hsienyang in June 1951 started its production in May 1952. Similar mills have been built at Nanchang, Wuchang, Hsiengt'an, Kunming, and Tihua.

In the paper industry 13 new mills have been built and expanded. The invention making possible the use of straw in pulp opens up a new source of raw material supply for the industry. Much credit is due to N.Z. Verechitan, paper expert and adviser to the Ministry of Light Industry, who has developed a new chemical process for treating rice-stalks to produce certain kinds of paper. He has been assisting the paper factories at Peking and Tientsin, while Fadeyev and Terehov are now working for paper mills in Manchuria.

(8) Agriculture and Water Conservancy. The adoption of the Soviet close-planting and deep ploughing method has contributed to increased yields. Introduced to China by F.G. Luchenko, Soviet agronomist and Adviser to the Ministry of Agriculture, this method is being applied on an ever-widening scale throughout the country. In essence it involves more intensive planting of seed, further colonization, and enlargement of arable land areas with a view to greater increase of food production. With the introduction of Soviet type of fertilizer (a combination of mineral fertilizer with organic fertilizer in granular form) and with strict selection of seeds, yields per hectare have increased. As the fertilizer and cultivator combines have impressed Chinese peasants by their efficiency, Soviet methods are now popularized.

During recent years the Mendelian theory of heredity was rejected as incorrect and the Michurinist theory as developed by T.D. Lysenko has been adopted as a guide for research in biology and agricultural science. The Michurin-Lysenko ideas fit very well with the views of the Communist leaders, who maintain that all men are created the victims and creatures of the environment in which they are reared. Although Lysenko was

dethroned in the Soviet Union,²¹ he is still being worshipped in Communist China.

In livestock breeding Soviet experts have introduced many improvements. In northwestern China and Inner Mongolia the Soviet plan envisages an increase of 8 million head of cattle and provides inoculation of 10 million head of livestock and cross-breeding of 260,000 local sheep with the improved "Merino Kazakh" breed.

For conservancy work, the idea of making the river navigable and of increasing agricultural production is an old one in China. But to harness the water power to generate electricity is a Soviet inspired plan. Limited space precludes a full discussion of the conservancy projects blue-printed by Soviet experts. It may, however, be pointed out that the work of Bukhov on the Huai and Han rivers and of Shapayev on the Yungting river is open to criticism. In accordance with Soviet formula, which eliminates the use of reinforced concrete, the Kuanting Reservoir and the various dams along the Huai river are all built in sections of permeable and impermeable clay, gravel, and stone. Slide resisting slabs are being used for the abutments. Re-

21. The Economist, (London), July 11, 1953, p. 88.

quiring no foundation piles at all, this type of construction is strongly objected to by Chinese engineers, and many sceptics have doubted its quality and imagine collapse and possible disaster.

(9) Railways and River Transports. Since the Communists seized power in 1949, six railway lines have been built or rebuilt, namely, Liuchow-Chennankwan line, Chengtu-Chungking line, Tienshui-Lanchow line, Chinchow-Chengteh line, the northern section of the Tung-Pu line, and the Chinhsien-Chengtzutung branch of the Chinese Changchun Railway.²² In addition, the following lines are now under construction: (a) Paoki-Chengtu line, (b) Lanchow-Sinkiang line, (c) Yakeshih Forestry Railway, (d) Canton-Meih sien line, (e) Nanning-Kankiang line, and (f) Fengtai-Shach'eng line.

In the construction of these lines the Soviet experts have been playing an important role, especially in the application of Soviet methods to Chinese conditions, the use of native raw material, the mastery of railway building in mountainous terrain, the improvement in railway operation and management, and in the repair and construction of bridges.

22. Li Chang, "Railway Construction in China", Far Eastern Survey, March 25, 1953, pp. 37-40.

In connection with the strengthening and construction of bridges special mention should be made of the work of Kihonov and Zingorenko in the reinforcement of the 3-mile Yellow River Bridge on the Peking-Hankow Railway. Since November 1952 all trains pass over the bridge at full speed. Adopting Soviet methods, the construction of the Fowkiang Bridge, 371.48 meters in length and with 19 arches, was completed on November 23, 1953. The Hsiang River Bridge, connecting Chuchow and Hsiangtan on the Hankow-Canton Railway, was completed on January 7, 1954. On November 27, 1953 the construction of a gigantic project - the Han River and Yangtze River Bridges - was started; they will eventually link not only the three cities of Hankow, Wuchang, and Hanyang, but also the two trunk lines of Peking-Hankow and Hankow-Canton.

For water transport the Communists have claimed that by adopting the Soviet "single line towing method" (also known as "one line to mind method") transport capacity on important rivers has been tripled. Introduced by Romanov, this method and the latest Soviet push method have raised the towing capacity by 30 per cent. Similarly, another harbour expert, Vasevich, has made improvements in harbours and succeeded in raising transport efficiency and in reducing freight charges.

(10) Education. Since 1950 the whole educational system has undergone a number of important changes to meet Communist China's current needs. With the launching of the first Five Year Plan, all technical schools have been reorganized. Based entirely on Soviet educational theory, the present system has as its aim the production of a mass of workers and technicians trained to do a fast and efficient job in as narrow a field as possible. The whole educational ideal is not wide and varied knowledge but saturation with Communist ideology.

Coupled with this reorganization are fundamental changes in teaching methods. All colleges are now required to make full use of Soviet pedagogy and teaching materials. Briefly, these changes are: from general to highly specialized training, linking theory closely with practice, encouraging collective faculty preparation of lectures, and training students to do independent research work. Each course is no longer the responsibility of one professor but of a whole team.

Since the "practical task" dominates all investigations and research, it is the view of the Communists that, after the teaching program is revised, the teachers "will come to see the necessity of blending political ideology into the teaching program." Professor Nikchin, one of the five Soviet advisers at the National

Tsing Hua University, pointed out that "in teaching physics, the students should be enabled to understand not only the physical phenomena, but also the fact that modern physics is based on materialism, for which reason criticism of idealism forms a necessary part of study."²³

It is against this background that the People's University was founded. Dedicated to the preparation of theoreticians and propagandists of Communism, this University alone has 40 Soviet experts and has turned out a large number of cadres at the expense of the quality of education. Similarly, in Mukden and in Shanghai, 34 and 70 Soviet instructors respectively are now teaching at the Russian language schools which train not only translators of Russian, but also highly skilled and politically alert personnel such as agitators, activists, propagandists, and shock workers.

In the Ministry of Higher Education a Soviet adviser named Fomin is playing an important role. It is probably under his direction that Soviet advisers and experts are assigned to various educational institutions. At the National Tsing Hua University, for instance, there are five Soviet experts, namely,

23. People's Daily, Peking, November 5, 1953.

Satorich (Civil Engineering), Mikchin (Power Plant), Tsepchov (Architecture), Korchko (Hydraulic Engineering), and Jementsev (Metal Cutting). Satorich serves also as "Adviser to the President", and it is he who is the real administrative head of the University.

(11) Armed Forces. Owing to the meagerness of information, very little is known concerning the vital role which Soviet experts are now playing in the defence forces of Communist China. Judging by what they did in China in 1924-1927, it is not unlikely that sovietization in the armed forces is progressing rapidly from political control to training. Soviet Union and Communist China now have almost the same organization and the same procedure in training, and they employ the same tactical theories. It follows, therefore, that those institutions which have contributed to the security of the Communist dictatorship in the USSR have now been introduced into Communist China.

As might be expected, political sections are established in every force, and increasing numbers of Soviet advisers and instructors are supervising training, organization, security, and political indoctrination. In the Ministry of Public Safety

(Secret Police) alone the number of Soviet advisers is reported to exceed 300.²⁴

In addition to assisting the Communist air build-up, Soviet experts are now directing the development of a Chinese navy. In the course of the last few months first class naval bases have been expanded along the China coast. According to a Nationalist report, three Russian torpedo boats were put into service in January 1954 in the straits of Formosa and MKY-type vessels have been built in the Kiangnan Dockyards, Shanghai, under the supervision of Soviet experts. Being an ideal base for submarine and rocket launchers, the Island of Hainan is being built into a first class naval base. Increased Soviet "snooper-sub" activities have been reported near Indo-China and various Chinese ports.

V

From the above survey some tentative conclusions may be drawn. First, Soviet advisers and experts have infiltrated into China's every important enterprise affecting her economic and political life. This procedure, being part of the Soviet

24. Private communication.

time-table for the domination of Communist China, is in general line with the strategic planning of the Kremlin. Second, whatever may be the scale of Soviet aid to Communist China, two things appear to be clear beyond doubt: (a) It is the policy of the Soviet Union to tie China's economy into that of the Soviet bloc and make China dependent upon the USSR for weapons and industrial equipment. (b) Through its advisers and experts the Soviet Union is creating a politically conscious urban proletariat in China which maintains a potentially strong second front against the West. By means of penetration and indirect control, the Soviet experts have made the Chinese fanatical followers of the Soviet Union. Thirdly, these advisers and experts represent a new class of colonial administrators. While there are some first class men, the majority of them appear to be mediocre. Judged by their social standards at home, living in China with a good salary is in itself a considerable privilege for them. This explains why they are usually recalled after two years' service. Closely observed by the agents of the secret police, they are under strict discipline in their movements and are prohibited from mingling with the native population. But since the Russians have a capacity for winning affection, Chinese opinion has shifted favorably towards them. As a result of practical appeals to

generate pro-Soviet feeling, Russian efforts to gain Chinese friendship appear to have been most successful.

This preliminary survey, however fragmentary in nature, has revealed certain salient features of the China policy of the Kremlin and lends support to the hypothesis that, by keeping its role as the main source of material aid to China, the Soviet Union poses as a benefactor and thereby is in a strategic position to influence Chinese policy. Communist China has to subordinate herself entirely to Soviet strategy and tactics in the world power struggle.