

RUSSIAN ASIA

BY I. A. LOPATIN

LIFE OF THE RUSSIAN COLONISTS AND SETTLERS

IT IS generally believed that the Russians first came into Asia in 1581 under the leadership of Yermak, a Don Cossack. This, however, is an erroneous idea. The Russian traders of Great Novgorod penetrated into Siberia more than two centuries earlier. They established trading posts on the lower Ob and started peaceful colonization of the country. Yermak, on the contrary, had a military mission. With the financial aid of Stroganov, wealthy and powerful merchant of the Ural district, he organized a military detachment and attacked Kuchum, Khan of the Siberian Kingdom bordering on Russia. After Yermak's triumphal entry into Kuchum's capital, Ivan the Terrible, then czar of Russia, sent five hundred soldiers as reinforcement, and the conquest of Siberia began in earnest. By 1630 the Lena was occupied; in 1640 Semen Dejnev rounded the north-eastern point of Asia, and in 1643 Poyarkov sailed to the mouth of the Amur. Three years later Khabarov successfully invaded the whole Amur region; thus was the vast territory of northern Asia conquered in the course of fifty years. No similar feat is known to history.

The advance of the Russians into Transcaucasia and Central Asia, however, was not so rapid. A part of Georgia surrendered in 1798, and by 1810 the entire province had been added to the Russian empire. The remaining Transcaucasian territory was taken after the war with Turkey in 1878, while Central Asia was conquered by the Russians only in the nineteenth century.

As already stated, the first Russian settlers in Siberia were the fur traders of Great Novgorod. The adventurers and soldiers who formed Yermak's army or followed him as traders were also northerners of the provinces Vologda, Viatka, and Perm. These settlers established the northern dialect of the Russian language in western and eastern Siberia. Immediately following the conquest, the Russian Government began sending colonists into Siberia. Since the native population of the country was hostile toward the con-

querors, the first colonists to be sent to Siberia were the Cossacks. They were warlike horsemen of the steppes who had lived in continuous war with Tatars and other native tribes along the boundary line of European Russia. This movement of the Cossacks into Siberia was partly voluntary, partly compulsory. They were sent by the Government with their families, cattle, horses, and all household goods and implements. Thereafter, for a number of years, the hardy pioneers had not only to establish themselves in the new territory, but were faced with the constant necessity of repelling the frequently recurring attacks of the aborigines. For this service the Russian government granted them a vast territory and certain privileges. Even at the present time the Cossacks form the most conspicuous part of the population of Siberia.

In many remote and isolated corners of Siberia, the Russian government established prison camps. Convicts and political offenders were sent to these places in great numbers. The territories of Yakutsk and Sakhalin Island were noted especially as places of exile. It has been pointed out by several investigators that the convicts sentenced by the civil courts did not affect the population of Siberia to any great extent. They were prisoners kept in strict isolation without families. Most of them were short-lived and left no progeny. They were feared by the colonists who aided the authorities in keeping them isolated, even killing them if they tried to escape. During the last thirty years many of these penal colonies have been abolished. Since 1905, Sakhalin Island has been cleared of the convicts and opened to free colonization. On the other hand the political exiles have had a great cultural influence upon the Siberian population. Being highly educated intellectuals (frequently men with families and being granted freedom within certain limited areas), they helped to spread education among the colonists, organized libraries, theaters, museums, and other cultural institutions. They have made many great contributions to the scientific investigation and exploration of Siberia. Among them were anthropologists such as Bogoraz, Sternberg, Pekarsky, Seroshevsky, and scientists such as Chersky, Pilsudsky, and others.

A very important rôle in the early Siberian colonization was played by the Russian sectarians. After the reforms of the patriarch Nikon, the Russian Orthodox Church split into two sects.

The Starovyers or old-believers, who did not accept the reforms of the patriarch, very soon broke up into a number of smaller sects which were severely persecuted by the official church and the government. These old-believers left their homes and went into the remote northeastern corner of European Russia and finally into Siberia. When new settlers came to their villages in Siberia, the old-believers left their homes again and moved farther east, choosing the most remote and isolated places, where they could live peacefully according to their old religious traditions.

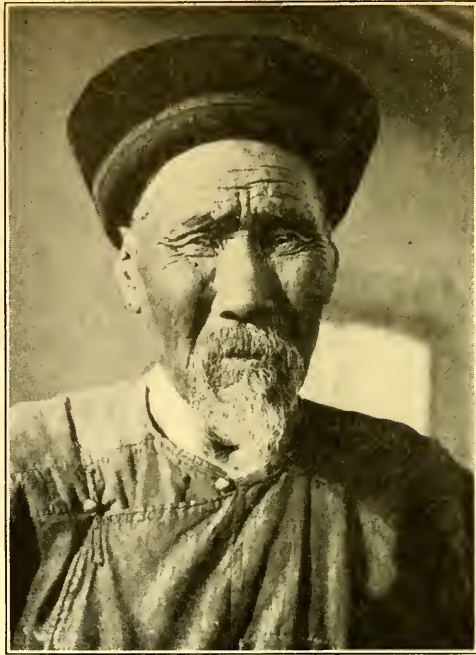
It is noteworthy that the Cossacks and old-believers proved to be excellent colonists of Siberia. Their descendants represent the strongest, most daring, and most industrious people of Siberia today. Because of their enterprising spirit they are called "Russian Americans" by the rest of the colonists.

After the opening of the port of Vladivostok and the completion of the Trans-Siberian railway colonists were sent in large numbers into Siberia. Now they were not northerners, but peasants from the middle provinces of European Russia (Great Russians), Ukrainians, and White Russians. The Great Russians colonized the unsettled prairies of western and eastern Siberia and the Amur Valley; the Ukrainians (or Little Russians) formed numerous and large settlements in the Ussuri Valley, while the White Russians settled several other districts of the Far East. Each of these colonies speaks its own dialect and adheres to its peculiar culture. Even the names of their settlements are the same as the cities from which they came. On the Amur there are again Voronej, Orel, Tambov, as in the central part of European Russia; and on the Ussuri there are Chernigov, Kiyev, Poltava, and other names of well-known cities of Ukraine. For the colonization of the mouth of the Amur where fishing should be the chief occupation, the Russian government, at the close of the nineteenth century, transported a large group of the Ural Cossacks who were known as skilful fishermen.

In the history of Siberian colonization there have been several distinct periods centering around certain natural resources of the country. The first of these periods centered around fur trade in which sable predominated. The trader penetrated into Siberia, moving along the northern part of the country from place to place where sable was plentiful. The skin of this valuable animal even played the rôle of a unit of exchange. Sable disappeared in many places

in western Siberia, but in the eastern provinces of Yakutsk, Kamchatka, and the Far East this valuable fur-bearing animal is still plentiful. Other animals in order of the value of their fur are squirrel, fox, ermine, weasel, otter, bear, wolf, wildcat, and tiger (in the Far East).

Gold comes second in chronological sequence of economic development of Siberia. In European Russia gold has been mined only in the Urals in limited quantities. Gold-bearing areas occur in western and eastern Siberia and in the Far East.



A TYPICAL OLD GOLDI
 Photograph by I. O. Lopatin

Agriculture developed about fifty years after the first colonization in eastern Siberia, especially in southern Transbaikalia—in the fertile valleys of the Onon, Ingoda, Argun, and their tributaries.

RELATIONS OF THE RUSSIAN COLONISTS WITH NATIVE TRIBES

The primitive Finnish and Tungus tribes made little resistance to the Russian advance into Asia, but the more civilized Turkish peoples and especially the Buryat of Transbaikalia proved a serious obstacle. The natives of the Amur Region, the Chukchee, and Koryak offered considerable resistance. Frequently the first Russian military detachments were completely annihilated by the natives, who treacherously violated the treaties made with them and rebelled repeatedly. The subjugation of the natives required great effort and much military skill on the part of the Russians. On the Amur they had to contend with the well-organized and well-equipped Manchu troops who at that time (seventeenth century) were at the height of their military glory. The natives of the Caucasus, the

Gortsy or Mountaineers; offered such strong military resistance to the Russians that the final conquest took place only after sixty years of continuous warfare. The Central Asiatic rulers also put up a stubborn resistance, and the conquest of this country cost Russia heavily in both money and men. Many sanguinary battles were fought, and the final victory was due only to the greater number of the Russian troops and to the military skill of their generals.

Rebellions have broken out among the Siberian natives even in recent times, but on the whole the enmity of early days between natives and Russian colonists has disappeared. The Russian settlers have adopted a certain amount of native culture. First of all, almost all existing geographical names in the new country were accepted by the colonists, for instance, Ob, Irtysh, Altai, and others. Likewise, a certain type of overcoat, shoes, and mittens suitable for the climate of the country were immediately borrowed by the Russians from the natives. Even some dishes and peculiar methods of cooking were adopted, also a few words of the native languages; thus *purga* designates a Siberian snowstorm, *yukola*, dried fish, *phantovot* means to hunt the wapiti.

On the other hand, natives have been greatly influenced by Russian culture. The Turkish tribes of western Siberia, the Buryat, the Tungus of Transbaikalia adopted Russian types of houses and dress, and became peaceful tillers of the soil. Even the Goldi on the Amur and Ussuri who live in close proximity to the Russian settlers have learned to grow vegetables. Great cultural work has also been done by the Russian missionaries. The conversion to Christianity has changed not only their faith, but also their occupation, citizenship, hair-dress, and costume. All natives at baptism receive Russian names (Christian name and family name) and after that consider themselves Russians.

The Russian peasants in Siberia very seldom look down upon the natives, which leads to friendly relations between them. It is true that a Russian girl will never marry even a half-breed native, but a Russian man may have a love affair with a native woman and does not consider it a disgrace to marry a half-breed. The Russian missionaries and philanthropic societies have helped a great many natives to acquire a higher education. Among these educated natives of Siberia there are now such well-known names as Dorji Banzarov, a Buryat, orientalist; Valikhanov, linguist; N. Katanov,

an Altaian Turk, professor of Persian and Turkish languages at the University of Kazan; Tsybikov, a Buryat, formerly professor at the Oriental College of Vladivostok; and Badmayev, also a Buryat, a noted physician in Leningrad.

Some modern Russian writers have become known through their novels dealing with the life of Siberian natives, as, for instance, W. Tan-Bogoras (Tungus, Yakut, and Chukchee stories), Syeroshevski (Tungus and Yakut stories), V. K. Arseniyev (*Dersu Usala*, a story of a Goldi), Karazin, and Mamin-Sibiryak.

Russian architecture, sculpture, painting, and decorative art have also been influenced by the native art of Russian Asia, especially that of Turkistan. The bulb-like domes of the Russian churches in Moscow resemble to a great extent the domes of Samarkand and Bukhara. Through Central Asia and the Caucasus Russian art has absorbed some elements of Arabian, Persian, and even Indian art. Among modern artists there are several like Roerich and Klementiev, who consciously absorb the beauty of the decorative art of Turks and Tungus, Goldi and Gilyak.

LIFE AND CULTURE OF THE NATIVE TRIBES

The population of Russian Asia is extremely varied in its racial and linguistic composition. In the Caucasus alone there are more than one hundred different dialects and languages spoken by the natives. Some of the Russian Asiatics belong to the civilized peoples whose culture may be traced to great antiquity, such as the Georgians, Armenians, and Tajiks. There are, however, also primitive peoples whose culture is not higher than that of most Indians of North America; for instance, the aborigines of north-eastern Asia, such as the Chukchee, Gilyak, Tungus, and the Orochee.

The Caucasus and Turkistan are two of the most interesting ancient centers of civilization. The natives of Turkistan may be divided into four groups: (1) the Aryans (the Tajiks, Persians, Hindus, and Gypsies), (2) the Semites (Jews, Arabs, and Afghans), (3) the Turks (Kirghiz, Tatars, Taranchi, and Sarts), and (4) the Mongols (Dungan and Sart-Kalmuk).

Turkistan was conquered by the Persians in the reign of Cyrus, and was invaded by Alexander the Great. At the end of the second century, B.C. the country was subjected to the invasions of foreign peoples, first, the Yüe-chi, and second, the White Huns in A.D. 450.



GOLDI WOMAN WITH EARRINGS
AND NOSE RING

In 550 the Turks of the Altai country defeated the White Huns and became masters of the country. The subjugated Aryan population not only had a new language superimposed upon its own, but underwent an admixture of Turkish blood. At the close of the seventh century, the Arabs conquered Turkistan and forced its conversion to Islam. In 1219 Jenghis Khan ravaged the country like a terrible hurricane, and at the end of the fourteenth century Timur established his rule. He chose Samarkand as the capital of his empire and made it

one of the most magnificent cities of the world. The last conquerors of Turkistan are the Russians.

Russian Turkistan is a country looking back to an ancient civilization. Excavations at Anau have proved that this place was inhabited by a people with stone-age culture a little earlier than 8000 B.C. Domestication of animals was achieved by them soon after that date. Central Asia is the primary home of some of our domestic animals and plants. Agriculture as well as irrigation was well developed. From time immemorial the Central Asiatic peoples fostered trade between east and west and brought about culture exchanges between the two. The history of Europe has been deeply influenced by Central Asia which is a hive of humanity. Numerous tribes periodically swarmed westward into Europe. Thus, in the fourth and fifth centuries, the Huns advanced into the heart of Europe, while the Avars and the Hungarians invaded France. From the fourth to the tenth century the Bulgars and Khazars were very

active in southeastern Europe. Then the waves of the Pechenegs and Polovtsi rushed over Russia. The Mongols invaded Europe and reached eastern Germany in the thirteenth century. The Osman wave spent itself against the walls of Vienna. The Kalmuks entered southern Russia as late as the eighteenth century. Europe still harbors in the Magyars, the Turks, and numerous Finnish and Mongolian tribes the remnants of the inhabitants of Central Asia.

The natives of Siberia and the Far East are of many racial strains. Western Siberia is peopled by Finno-Ugrian and Turkish tribes. To the latter belong the Tatars of the Tomsk and Altai provinces. All Finns of western Siberia

are reindeer breeders, even the Karagas and Soyot, who live in the southernmost corner of Siberia, the upper Yenisei and its tributaries.

Eastern Siberia and Yakutsk are peopled by three ethnic groups—the Tungus, Mongols, and Turks. The whole of the vast area from the Yenisei in the west to the coast of the Pacific on the east and from the Arctic Ocean in the north to China in the south is populated by Tungus. The Yakuts are a Turkish tribe. Transbaikalia is inhabited by the Buryat, a Mongolian tribe. It should be kept in mind, however, that the Tungus constitute a large portion of the population in both Yakutsk and Transbaikalia.

The population of the Russian Far East is extremely heterogeneous. The Tungus, again, as everywhere in northeastern Asia, form a considerable portion of the aborigines, and live in the Amur region. The Manchus reside in small numbers in the towns along the Manchurian boundary line. With the exception of the civilized



A GOLDI EQUIPPED FOR
WINTER HUNTING



AN OROCHE EQUIPPED FOR
WINTER HUNTING

Manchus all these tribes are primitive hunters and fishermen. The extreme northeast of Asia and Kamchatka is inhabited by the Gilyak, Ainu, Chukechee, Koryak, Kamchadal, Yukaghir, Chuvantzi, Asiatic Eskimo, and Aleut. All these peoples are known in the modern classification as the Americanoids of Siberia. In their language, religion, culture, and in bodily characteristics they are closely related to the American Indians. It is believed by anthropologists that all these peoples reemigrated from America into Asia at the end of the last glaciation.

The culture of the natives of Siberia and the Far East is primitive. The Finnish tribes, the Tungus proper, and the Orok are reindeer breeders and to a certain extent hunters and

fishermen. The Buryat at present raise cattle, horses, and camels, but this pastoral occupation is of comparatively recent origin. Because of the cultural contact with their kindred folk, the Mongols proper, the Buryat, are the most advanced people among all the native tribes of Siberia and the Far East. The Yakut raise cattle and horses, and to a small extent till the soil, but their chief occupations are hunting and fishing. The Americanoids of Siberia are fishermen and hunters. With the exception of the Buryat and a small number of the Yakut, none of the native tribes of Siberia and the Far East are engaged in agriculture. Besides the Buryat and the Finnish, Tungusian, and Americanoid reindeer breeders the remaining tribes have no domestic animals except the dog. The latter is used for driving. Real pottery is unknown to the tribes of Siberia and the Far East, and their utensils are made either of birch-bark, wood, or skin. Their diet consists largely of raw meat and fish. They but rarely use iron or

other metals, chiefly employing bone or horn, and the Americanoids even stone in making their tools and implements. None of these peoples knows the art of weaving, and their clothing is made of skins, chiefly reindeer-skins, though the pelts of all fur-bearers of the region are used for this purpose. The Tungusian tribes of the Amur region employ fish-skins for the same purpose, while the Chukchee, Aleut, and the Asiatic Eskimo even use guts of seal and walrus for certain articles of clothing. Their dwelling is generally a tent made of the bark of a tree or of felt (as the yurt of the Buryat) or of skins. The Koryak and other natives of northeastern Asia also have semi-underground dwellings.

The religion of the Siberian and Far Eastern natives embraces the belief in spirits, the cult of the dead, and primitive magic. The shamans (medicine-men) are believed to have intercourse with spirits. They conjure up spirits, cure the sick with the assistance of their spirit-protectors, foretell the future, and so on. On the whole it may be said without much exaggeration that all Finnish and Tungusian tribes of Siberia, and especially the Americanoids, have only recently emerged from the old stone age. Like the prehistoric man of the Paleolithic age in Europe, they too are extremely skilful in carving bone and reindeer horn, and resemble him to a great extent.

ADMINISTRATIVE, SOCIAL, AND ECONOMIC CHANGES IN SIBERIA
BROUGHT ABOUT BY THE SOVIET GOVERNMENT

Administrative Changes

Great administrative changes have taken place in Russian Asia since the revolution. Under the czar's régime all Russian possessions in Asia were divided into eastern Siberia, western Siberia, Far East, Turkistan, and Transcaucasia. Eastern Siberia was subdivided into four provinces: Transbaikalia, Irkutsk, Yakutsk, and Yeniseisk; western Siberia, into the two provinces Tobolsk and Tomsk. The four provinces of Amur, Maritime, Sakhalin, and Kamchatka composed the Far East, and the seven provinces and the semi-independent Khanates of Khiva and Bukhara composed Turkistan. Transcaucasia was divided into eleven districts. Thus, Asiatic Russia did not differ much in point of administration from the European part of the empire before the revolution, except for the governors-general who were at the head of the administration of the larger units. Each governor-general controlled the governors of the provinces which formed the larger unit. This administrative

system had the practical aim of concentrating power in the hands of the governor-general, because it was more convenient to control the remote parts of the empire through governors-general than directly through governors of each province.

The official language in all Asiatic possessions of the empire was Russian, and instruction in all schools was given in this language. Only missionaries preached among the aborigines in their native tongues.

The Soviet Government has made profound changes in the administrative system of Russian Asia. Nationality has been the basis for the new divisions. All minor nationalities have been given the right to establish their own autonomous republics. The semi-independent Khanates were abolished, and their territories divided on the basis of nationalities. As a result of this policy Russian Asia is now divided into the following parts:

- (a) Constituent Republics: Transcaucasian, Turkoman, Uzbekistan, and Tajikistan.
- (b) Autonomous Soviet Socialist Republics: Buryat-Mongol, Kazakistan, Kirghiz, Yakut.
- (c) Autonomous Provinces: Kara-Kalpak and Kara-Kirghiz.

Social and Economic Changes

(1) Socialization of Agriculture

The life of the people in Siberia has undergone tremendous social and economic changes under the Soviet régime. The most radical change, which explains and covers all others, is socialization. The Communist government endeavors to socialize everything: agriculture, industries, trade, transportation, dwellings, even the cities themselves. Anything individual and private is considered unlawful, and the government is doing everything possible to eliminate it. The process of socialization is not yet completed, but in some lines it has already advanced very fast. Thus, in agriculture in some parts of Russian Asia 60 per cent of the peasants are already socialized. The percentage of farms collectivized in the republic of Kazakistan was forty-two on March 20, 1930. In the basic cotton districts of the republic 80 per cent of the peasant households have been organized into collectives.

The socialization of agriculture was undertaken by the Soviet Government in the very first years of its existence. This enterprise has been taken over on a large scale by the Five-Year Plan. First

experiments in socialization were made on the nationalized estates of former landlords. Large and well-organized estates were taken over by the government and became *sovchos* or state farms at that time. The individual peasant farms were not touched by this policy. Only in 1929 did the government start to socialize them, combining a number of small individual peasant farms into one large-scale collective farm. Making a collective farm, the peasants eliminate all boundaries dividing the land allotments of the members of this collective. All means of production are also to be socialized, such as agricultural machinery, working animals, seed reserves, cattle fodder necessary for the socialized live-stock, farm buildings necessary for the operation of the collective. All work on the collective farm is carried on by its members in accordance with the rules and regulations adopted by the general assembly. The distribution of labor in the collective is carried out by the administration, and no member of the collective may refuse work that he has been commissioned to do. Disciplinary measures may be taken, and a penalty may be imposed on the offender in case of failure to appear for work.

In order to accelerate the influx of individual farmers into collectives the government took a number of suggestive measures. The collective farms from the very beginning of their existence were partially or entirely exempted from various all-union, republican, and local taxes and assessments. The State Bank instructed its branches to grant short-term credits to collective farms, and instructors in agriculture were sent out to assist the collective farms in starting their work. However, such a collective farm is not a commune, and the members of it may retain their houses, small gardens, clothing, and other small personal property. If in addition to completely socializing the means of production the collective farm also creates enterprises to take care of the individual needs of its members, such a collective becomes a commune. The latter is the final aim of the Soviet Government. In a commune all property of the member is in common use. They live in a common house, have one common kitchen and common food; they eat in one large dining room; their children are cared for by special trained nurses. Thus, at present there are three degrees of socialization of agriculture in Russian Asia: state farm, collective farm, and commune.

One of the most important developments in the socialization movement was the creation of machine-tractor stations. In a cen-

tral village among the collective farms such a machine-tractor station is organized with all kinds of up-to-date agricultural machinery for common use and with shops for repairing, mending, and remodeling it.

Socialization of agriculture is progressing so rapidly that the government itself did not expect such great results. It was supposed by the government that there would be over a hundred farms in Siberia in 1931, employing 100,000 workers. It was believed that they would cover over three million hectares of arable land. During 1931 thirteen of these farms were supposed to plant 488,000 hectares with grain, or an area $3\frac{1}{2}$ times greater than that of 1930, and to use 3,000 tractors and 79 combines. It is believed that by the end of the Five-Year Plan period (1933) Siberia will have over 5,300,000 hectares under state farms. On August 1, 1931 there were 93 state animal husbandry farms in Kazakistan with 1,500,000 head of cattle, 596 collective dairy farms, and 108 machine-haying stations. The state livestock farms had 2,200,000 head of cattle by the end of 1931. Nine state fruit-growing farms are to be organized in Kazakistan with a total area of 45,000 hectares during 1932. By the decision of the government thirty state farms for animal breeding are to be organized in Central Asia. The combined pasturage of these farms will amount to 5,500,000 hectares. The two largest of these farms, which will have a capacity of 77,000 head of sheep, will be located near Samarkand and in the Zerovshansk district. The question of animal husbandry is now the chief center of attention in the reorganization of agriculture in Russian Asia. The large state farms serve both as model farms and experimental stations.

In connection with socialization of agriculture and development of large-scale farming a number of large irrigation projects are being developed in Central Asia. Two hundred large excavators were ordered for 1932. The United Construction Equipment Industry is now building a factory in Tashkent for the manufacture of irrigation equipment of the simpler types, which will have an annual output valued at four million rubles. An excavator plant, now under construction in the Urals, which is scheduled to begin operations at the end of 1932, will supply excavating machinery for Turkistan. A comprehensive irrigation development is being carried through with the help of a number of prominent American engineers in this field, including A. P. Davis, formerly head of the

U. S. Reclamation Service and past president of the American Society of Civil Engineers. For the year 1932 a sum of \$120,000,000 has been appropriated for irrigation work in Turkistan.

Agriculture is being organized by the Soviet Government as a large-scale industry. Thus the cultivation of grain and grain trade were organized in 1928 into the powerful Zernotrest (the State Grain Trust). This organization is in charge of gathering, storing, and selling all the grain in Russia. Similar to this are the Ovtsevod (Sheep-Breeding Trust), Sakharotrest (State Sugar Trust), Soyuzmoloko (State Dairy Products Trust), and others. The State Rice Trust, which has been organized by a decision of the government in 1929, will combine all organizations connected with the cultivation of rice. Before the revolution rice cultivation was in an embryonic state, but the Soviet Government is developing this branch of agriculture very successfully. Rice-planting is now concentrated chiefly in Turkistan, Transcaucasia, and in the Far East. The Rice Trust has been commissioned to organize large state farms in these sections. The program of rice-sowing for 1932 provided for an increase in the sown area to 250,000 hectares (617,500 acres), of which the Grain Trust will sow 50,000 hectares, the collectives 175,000, and individual peasants 25,000 hectares.

The further development of the Soviet dairy industry in Russian Asia is planned also largely along the lines of the organization of large collective and state dairy farms. There are dairies with as many as a thousand or two thousand cows on a single farm. Soyuzmoloko (United Dairy Industry), a powerful organization which is in charge of storing and distributing milk in all Soviet Russia, invested in new constructions and reequipment of existing dairy enterprises a total of 17,300,000 rubles in 1930. A large factory for the production of condensed milk is being built in the Novo-Sibirsk district (formerly Novo-Nikolayevsk) in western Siberia, which will produce three thousand tons of condensed milk annually. Refrigerating plants are being scheduled for construction in Siberia and Kazakistan.

The cultivation of cotton in Soviet Russia has also been given a new impetus. It is a well-known fact that Russian textile industry for a long time depended almost entirely on imported cotton. Then the czar's government started to develop cotton cultivation in Russian Turkistan where it had been a native occupation from ancient times. In 1913 the Russian factories had already

two thirds of their demand in domestic cotton. But during the Revolution the production of cotton fell off. Thus, in 1913 the area cultivated with cotton in Russia totaled 512,984 desiatin, in 1919 only 50,000 desiatin, and in 1920 it fell to a miserable 30,000 desiatin. The Soviet Government has endeavored to increase the cultivation of cotton, and in 1931 the area sown to cotton totaled 2,137,000 hectares (5,280,000 acres), an increase of 31 per cent above 1930, more than double the 1929 area, and over three times that of 1913. Russian Central Asia is the chief cotton-growing region, accounting for about 60 per cent of the total acreage; Transcaucasia (especially Azerbaidjan) is second accounting for 10 per cent. The remaining cotton-growing areas are Ukraine, Crimea, the northern Caucasus, and the lower Volga. State and collective farms have taken a large share in cultivation of cotton and accounted for nearly 75 per cent of the area under cotton in 1931, as compared with 43 per cent in 1930 and only 7 per cent in 1929. One of the largest cotton state farms in Russia, known as *Pakhta Aral* (Cotton Island), is located in Kazakistan. Its sown area in 1931 totaled 25,000 hectares (over 60,000 acres), and the Soviet Government expects that by 1933 it will have from 55,000 to 65,000 hectares of irrigated land under cotton. This farm is situated where formerly there was only a sandy waste. The farm is being equipped with an experimental laboratory, a meteorological station, and its own cotton gin. Another large state cotton plantation is the Vakhsh state farm in Tajikistan.

All state and collective cotton farms are equipped with up-to-date machinery. There are 9,600 tractors for all districts of cotton cultivation, and harvesting is done by mechanical pickers. The first factory designed especially for the manufacture of equipment and machinery for cotton plantations has been established at Tashkent. Chemical fertilizers are used extensively. Modern technique is also being introduced as regards the ginning of cotton. The numerous small, poorly equipped mills existing prior to the war have been replaced by a lesser number of large up-to-date plants, with a combined capacity over four times that of the pre-war plants.

Similar achievements have been made in the silk industry. Turkestan and Transcaucasia constitute the chief regions for silkworm breeding, the former accounting for 60 per cent and the latter for 36 per cent of the total output of cocoons. The North Caucasus, the

Ukraine, and the maritime districts of the Far Eastern region contribute a small share (4 per cent). A dozen new silk-reeling factories have been built near the sources of raw material—more than half of them in Central Asia, where there was none at all before the war. Among the largest are those at Margelan, in Uzbekistan, with 480 basins and at Nukha in Azerbaidjan, with 600 basins. The government endeavors to organize state and collective silk-worm-breeding farms and to introduce scientific methods in all phases of the industry. In 1931 the output of raw silk in Soviet Russia amounted to 860 metric tons, more than double the pre-war figure.

A start has been made toward the development of the tea industry in Transcaucasia. The State Agricultural Academy has organized an institute for scientific research in the tea industry in Tiflis with a number of experimental stations.

It is interesting to note that entirely new crops have been introduced into Russian Asia. A special committee (the Commissariat for Agriculture) has worked out measures for the introduction of such crops on a large scale. Special attention is being given to the development of kendyr and kenaf cultivation. Kendyr is a fiber plant which may serve as a partial substitute for cotton in the production of cloth and for jute in the manufacture of rope and twine. Kendyr has been shown by scientific research to be more valuable than cotton for certain kinds of cloth. It is a hardy perennial plant which grows wild over large areas in the valleys of almost all rivers in Russian Central Asia and also in the North Caucasus, Dagestan, and along the lower courses of the Volga and Dniepr Rivers. The cultivation of kendyr may be carried on without extensive irrigation. The government plans to establish a number of large kendyr farms and to spread the cultivation of this useful plant on a large scale. Kenaf is also a fiber plant, and grows almost in the same districts as kendyr. Kenaf may be a good substitute for jute. In order to eliminate gradually the import of the latter, the Commissariat of Trade increased the cultivation of kenaf to 67,000 hectares in 1930. A special organization—the State Kenaf Company—was created to carry on the cultivation of this new industrial crop.

A hitherto unknown rubber plant was discovered by an expedition of the Institute of Central Asia in the Samarkand district in Uzbekistan, in 1930. This plant contains about 8 per cent of rubber, and is found in large quantities in various regions of the re-

public. In the same year a botanical expedition of the Academy of Sciences discovered a number of rubber-bearing plants and others containing volatile oils in the Altai Mountains, near the town of Ust-Kamenogorsk. In the following year the newly organized trust for the development of rubber plantations began work in the Kuyuk Mountains in Kazakistan. The yield of that year (1913) was about 200 tons, and that for the next year is expected to be 2,500 tons. A new experimental factory for the extraction of rubber from rubber plants is being erected in the Kara-Tau Mountains.

Scientific experiments are being made in planting varieties of sugar cane and other tropical and subtropical plants near Sukhum, in Transcaucasia. The Leningrad Agricultural Academy is to organize a special station for growing winter vegetables near Sukhum also. Some of the southern regions of Central Asia and Transcaucasia are using sweet potatoes—a new crop here—instead of potatoes. The Soy-bean and Corn Institute is to prepare a special regional plan for growing various kinds of beans and corn. Special studies are to be made of the use of various feed mixtures for the state and collective stock-breeding farms.

(2) Socialization and Development of Industry

All industries were socialized in the beginning of the Soviet Revolution, and at present there is no private enterprise or private capital invested in mining, textile, or any other basic industry. With the exception of very few concessions, all mines and factories are run by the government. All individual industries are organized as trusts and syndicates, such as Sakharotrest (the State Sugar Trust), Neftye-syndicate (the State Oil Syndicate), and so on.

Since the Revolution all industries underwent the same changes as agriculture. In the first years of the Soviet Revolution the output of products fell to an extremely low level, the worst year being 1920-21. Then with the New Economic Policy (NEP) the output started to rise, and in the Five-Year Plan period it has reached the highest level. In some industries the output has already reached and even surpassed the pre-war level, but in others it still remains below it.

The most interesting enterprise of the Soviet Government in Siberia is the Kuznetsk Steel Plant. Although the opening of such a plant was already decided by the czar's government in 1916, nothing was done until 1929. The Kuznetsk steel plant will have

initially four blast furnaces averaging 505,000 tons a year. It is noteworthy that the Ural Mountains contain a high grade iron ore, but have no coal good enough for the production of coke. All steel plants in the Urals have worked not with coke, but with charcoal. The Kuznetsk basin, on the contrary, possesses enormous deposits of high quality coal, which has already been worked for thirty years. The Soviet Government, therefore, decided to unite the Urals and Kuznetsk into one Industrial Combine. The iron ore will be shipped from the Urals to Kuznetsk, and the coke in turn will be transported in the same cars from the Kuznetsk to the Urals over a distance of more than 1,500 miles. How profitable such an enterprise is only the future will show. The Ural-Kuznetsk Combine is going to be an enormous undertaking. According to the program of the State Planning Commission for 1933, the output of pig iron of the combine is expected to be 6,500,000 tons. Large power plants and all the auxiliaries required of a modern steel plant were already built, and operations started on July 27, 1931.

Another great enterprise in the mining industry is the huge copper plant of Almalik in Kazakistan, which is to be built during the course of the next three years. Since it is only thirty-seven miles from Tashkent, the transportation difficulties are not great. At present a railway line is under construction between Tashkent and Melnikova.

A still larger copper mining and smelting plant with an annual capacity of 175,000 metric tons of copper is to be built at Bertiss, at the western end of Lake Balkhash, in Kazakistan. The cost of construction is estimated at 450 million rubles, of which 100 million rubles were allotted in 1931. The plant is scheduled to be completed and in full operation in 1935. A section of a railroad which will connect the Trans-Siberian railroad at Petropavovsk and the Turkistan-Siberian at Lake Balkhash was completed in 1931.

A huge lead mining and smelting plant (combine) is to be built in Central Asia. The centers of this combine are Chimkent and Turlan in Kazakistan. Capital investments are set at 25-30 million rubles, of which 14 million rubles were to be expended in 1931.

The machine-building industry is also being developed in Russian Asia. Thus in August, 1932, construction work on a huge locomotive plant was begun at Verkhne-udinsk, in Transbaikalia. The plant is scheduled to be finished in December of 1933. Another large locomotive-building plant is under construction on the banks of

the Tom River, nine miles from the Stalinsk Steel plant in western Siberia. It will cost \$77,000,000. The construction is expected to be completed within a year. A large harvester-thresher plant is to be erected in Novo-Sibirsk at a cost of 60,000,000 rubles. Another large plant is under construction in the same city, which will produce coal-mining equipment for the Kuznetsk Basin coal fields.

In meat-packing and canning industry the Soviet Government endeavors to organize large factories with up-to-date equipment and machinery. All such enterprises are, of course, socialized. Among the recently completed plants are those at Omsk in western Siberia and at Frunze in the Kirghiz Republic. Besides, seventeen bacon factories have also been constructed, the largest of which is located at Biisk in western Siberia. The Five-Year Plan provides for the construction of fifty-seven packing plants for all Russia by 1933, and one will be built in Semipalatinsk, in the center of the livestock production in Kazakistan. Its daily killing capacity, working in two shifts, will be 1,200 cattle, 2,400 hogs, and 4,800 sheep. The canning department will produce daily 300,000 cans, working in three shifts. A large fruit and vegetable cannery is to be built at Sardar-Abad in Armenia. It will cost about ten million rubles. The plant is scheduled to begin operations in 1934. Raw material for the cannery will be supplied by a state farm in the vicinity, which controls 5,900 acres of orchards, vineyards, and truck-gardens. A large condensed milk cannery was recently completed in the Sokolsk district of the Northern Region. The annual capacity of the cannery will be ten million cans.

Since the industrialization of East Siberia is dependent to a large extent upon electric power, the Soviet Government has decided to build large power stations on the Baikal, near the city of Irkutsk. The first is to be built at the Cheremkhovo coal mine by 1934, then the Irkut River dam will be built in 1937, and the Barkhatovo and Baikal dams on the Angara in 1938 and 1941, respectively. In November, 1930, the foundation was laid for the first regional power and heating station in Kemerovo, in western Siberia.

Even fur industry is being socialized. The government organizes hunting camps, fur-animal-breeding farms, and fur factories. In 1930 there were 1,358 animals on seven of the larger farms, including 738 silver foxes, 258 blue foxes, 82 other foxes, 95 sables, 59 martens, and 131 miscellaneous species. More than sixty differ-

ent kinds of pelts are exported. Soviet Russia supplies about 25 per cent of the world fur output. The bulk of the furs comes from Asiatic Russia.

(3) Development of Transportation

One of the first great achievements of the Five-Year Plan was the completion of the Turkistan-Siberian Railway. It should be kept in mind, however, that the project of building a railway to connect Siberia with Turkistan was by no means new. The question was raised in 1878, and some preparatory work was done at that time. The entire line of the Turk-Sib (the abbreviated name of the road) is 1,445 kilometers. The economic significance of the railroad cannot be overestimated; it connects cotton and fruit growing Turkistan with grain and lumber producing Siberia. At the same time the Turk-Sib makes possible the development of the rich natural resources of Kazakistan. The cultural significance of the railroad is undoubtedly enormous: it marks the beginning of an industrial revolution for the peoples of Central Asia.

(4) Socialization of Cities

In its efforts to socialize all sides of life the Soviet Government does not hesitate to socialize the dwellings and the cities themselves. Every endeavor is made to adapt old cities to modern life. All larger buildings and apartment houses were confiscated in the very beginning of the Soviet Revolution. Only small houses have been left in the possession of their owners. At present the Soviet Government is erecting a large number of buildings throughout Russia as homes for the workers. All such houses are social dwellings, extremely modern in their construction, with up-to-date conveniences. It is supposed that the inhabitants of such a social house form a commune. Private property is reduced to an insignificant minimum. In an ideal case even food is in common use. Special cooks prepare the food for all the members of the commune, and trained nurses take care of all the children. Particular attention is being paid to new cities and towns which spring up in new industrial centers and new industrial projects. Such cities in Siberia are Novo-Sibirsk (formerly Novo-Nikolayevsk), the port of Igarka, towns at the Kuznetsk Steel Plant, Kounrad near Lake Balkhash, and Karaganda in Kazakistan. Forty million rubles have been appropriated for the building of these new cities. The most interesting of them is Novo-Sibirsk, now the capital of Siberia and one

of the fastest growing of the pioneer cities in Russia. In the past five years its population has increased about 75 per cent, and is now estimated at 210,000 inhabitants. Novo-Sibirsk is the center of a large and prosperous agricultural district and also the center of the Ural-Kuznetsk Combine.

A broad extension of the network of entertainment has been made in order to satisfy the cultural needs of the workers. At present a large number of new theaters, talking picture houses, workers' clubs, and libraries are being built in various cities throughout the country. One of the most striking of such new structures is the theater of Novo-Sibirsk. It seats three thousand, and has been designed along the most modern lines. The stage is placed in the center of the theater with the seats surrounding it. The stage is large enough for trains, tractors, and automobiles to move on it easily.

(5) The Far North

In recent years a development has taken place in the Far North. In Igarka and in the Yartsev and Kirensk regions a few vegetable and dairy state farms have been organized. Several collective farms are also to be established. A state reindeer-breeding farm is being established in the tundras on the Yenisei River. According to the Government's plan, it will have 20,000 head. A newly organized Deer-Breeding Trust is expected to place the farm on a scientific basis and enlarge the number of farms to such an extent that it might take care of the entire reindeer-breeding industry. The number of deer in the herds raised by the natives of the northern regions of Soviet Russia is estimated at two million. It is expected by the Government that by 1933 the number of animals will be increased to 3,500,000, with 800,000 on state farms, one million on collective farms, and the rest raised by individuals.

Even grain cultivation has been given a chance for greater development in the Far North. A state grain farm of 30,000 hectares (74,000 acres) was recently organized by the State Grain Trust in the Amginsk Valley in Yakutsk. The farm will be mechanized to a large extent. Forty-four tractors have already been delivered there as well as tractor-drawn machinery and automobiles.

The most important feature of the Far North is the rapid development of the Northern Sea Route leading through the Kara Sea to the mouth of the Ob River in western Siberia and the Yenisei in eastern Siberia. First experiments in the navigation of this route

were begun by Nordenskiöld as early as 1875; then Russian navigators (General Vilkitsky among them) tried to establish regular communication between their European and Asiatic ports and at last Nansen made his expedition in 1913. But commercial development did not begin until 1921, when the Komsevput (Northern Commercial Route Company) was organized. The increase of shipping via this route is already remarkable: from five ships carrying 8,317 tons of freight in 1921 to forty-six vessels carrying 195,000 tons in 1930. Igarka, a new river port on the Yenisei, is being rapidly developed. Three large lumber mills are already in operation there. The town is growing very rapidly: the population in 1931 was more than six times as large as that in 1930. During the long polar nights the port is constantly illuminated by electricity. At Ust, another port on the Yenisei (400 kilometers below Igarka), a large canning factory began operations in 1931.

In 1930 Komsevput started fisheries on the lower Yenisei River and the hunting of fur-bearing animals. The first fur factory was built in the same year at the Bay of Nydoyamsl. Mineral resources of the Far North are also exploited, especially the graphite of Kureika, which is being used successfully in different industries. The development of aviation, radio, meteorological and ice-breaking services has greatly aided in the development of the northern sea route.

Changes in the Culture of the Natives

The Soviet régime has brought about great changes in the culture of the natives of Russian Asia. Most important are those which have affected education, position of women, hygiene, and public health. Before the Soviet revolution instruction in public schools was given in Russian, and because of lack of schools and teachers illiteracy was widely prevalent among the natives. The Soviet Government substituted Russian for the native tongues, and since 1930 has introduced universal compulsory education which will reach Georgia and Armenia in 1933 and Azerbaidjan in 1934. Some tribes comparatively advanced in culture, such as the Abkhazians and the Ossets, had no alphabet before the revolution. Almost all the Finnish and Tungus tribes also were illiterate. A few Turkish tribes used the Turkish or Arabic alphabets, but the majority of them had none. The Soviet Government introduced alphabets among some of these peoples. Especially great success has been achieved in the Caucasus. Publication of newspapers and books is rapidly increasing there. There were six newspapers in Transcaucasia prior to the revolu-

tion, with a circulation of 80,000. But in 1932 ninety-seven newspapers were published in fourteen languages, with a circulation of 1,200,000. In pre-revolutionary days there was one publishing house in all Transcaucasia, but in 1931 there were twenty. Success is not so great, however, in Turkistan, and as to Siberia and the Far East, the natives of these countries still remain in the darkness of illiteracy. Education in these countries is even worse than before the revolution: then, there were missionary schools there, but now they are not functioning, and no substitute has been introduced.

Among the natives of Russian Asia the position of women in social and economic life is very low. The veil of Mohammedan women practically imposes slavery upon them. The educational and political campaign under the Soviet Government has resulted in much freedom for the Asiatic women. During the election campaign of 1928-29, a great demonstration of freedom for women was held in Baku during which 30,000 Mohammedan women cast off their veils, trampled them under their feet, and burned them in huge bonfires. Another custom, which lowers the social position of women, is the kidnapping of a woman for the purpose of a marriage. This custom is wide-spread among the natives of Russian Asia. The Soviet Government has taken measures to abolish it. Thus, laws were entered on the statute books of Georgia in 1929 making kidnapping punishable by a maximum imprisonment of five years.

Native women are engaged in all kinds of industry. In 1931 there were seven thousand women in the oil industry in Azerbaidjan, where formerly no woman worked. A number of these women now hold responsible posts, such as managers of factories, engineers, or superintendents of schools. A number of women have been elected to the village soviets and other governing bodies.

March 8 has been selected as International Women's Day. Every year on this day great demonstrations take place, and mass meetings are held to celebrate women's achievement of complete equality.

In order to combat backwardness in hygiene and public health among the natives, the government establishes hospitals, ambulatoria, clinics, and dispensaries with special attention to the care of mothers and children.

A Jewish Home in the Far East

One of the most interesting features of new Russian Asia is the Jewish colonization in the Far East. The plan for settling Jews on land was conceived in 1924 when the Soviet Government had

difficulty with the Jews who had been pushed out of the capitalist class and middle class of traders after the elimination of private trade. Bolshevism then was exterminating the last remnants of the Jewish bourgeoisie. The Jewish merchants and traders enjoyed no rights. Jewish agricultural colonization came as a solution of this problem. The mere transfer from the city to the agricultural colony made the Jewish merchant a full-fledged citizen. In several places in Ukraine, Crimea, and southern Russia, Jewish national districts have been formed. The expenditures of the Soviet Government for Jewish colonization from 1924 to 1930 amounted to 9,500,000 rubles. Aside from that, Soviet and foreign public organizations spent 21,000,000 rubles. The Soviet Government has also met 70 per cent of the transportation cost, has given certain privileges in regard to taxation, and has permitted imports of equipment duty free. An enormous area of about ten million acres of land has been allotted to Jews in Biro-Bidjan, in the Far East. Biro-Bidjan has rich natural resources in iron, graphite, coal, gold, building materials, and lumber. The Jewish agricultural population in this colony amounts to 1,500 persons. According to the Five-Year Plan, 48,000 Jewish families were to be transferred to agricultural work by 1933, and 60,000 by 1935. Preparations have been made to organize this colony into an autonomous Jewish administrative territorial unit, in which Yiddish will be the official language.

Nevertheless the Jews are not willing to go to Biro-Bidjan because the industrial development of the Five-Year Plan period has opened the doors of the factories to them. The former Jewish trader prefers to be a wage-earner rather than a plowman in Biro-Bidjan. Taking this into consideration, the Soviet Government has opened Biro-Bidjan to Jewish workers from outside Soviet Russia. But foreign Jews are not much inclined to settle at Biro-Bidjan. Zionists look upon this colony as a competitor to Palestine, and non-nationalist Jews, on the other hand, are suspicious of the elements of Jewish nationalism in it. Many a Jew is discouraged by the fact that Biro-Bidjan is far away from the centers of Jewish population and that it is a wild, uninhabited, and undeveloped country. The Soviet Government, however, endeavors to do everything to attract the Jews to Biro-Bidjan.

OUTLOOK OF RUSSIAN ASIA FOR THE FUTURE

The future of Russian Asia depends upon the development (1) of transportation, (2) colonization, and (3) better organization of

industries. Although some parts of Siberia are now densely populated, yet in the greater part of the country the population is sparse. Under such conditions neither economic nor cultural development is possible. The government, therefore, should encourage the influx of colonists into Siberia, especially into countries as rich in natural resources as eastern Siberia, the northern part of western Siberia, and the Far East. Even Kazakistan needs new settlers and colonists. But all these countries are isolated and in many cases almost inaccessible. The first measure to be taken therefore is to build new roads and railways and to improve maritime transportation. Without better transportation no colonization is possible. When these three needs are satisfied, Russian Asia may be a very prosperous country. Western Siberia, Transbaikalia, and the Amur region will form an immense granary not only for Russia, but also for countries abroad. The output of dairy products, meat, and wool will also be very large. Turkistan and Transcaucasia will easily be great producers of cotton, silk, and fruit, provided irrigation is well organized. The Altai, Transbaikalia, and the Far East may greatly increase the output of gold, copper, lead, silver, coal, and other minerals. The northern part of Siberia and the Far East may easily develop fishing and lumber industry.

As to its political aspect, I should mention that there has been a tendency toward the independence of Siberia, sponsored by Yadrintsev and Potanin in the past and at present by a group of Russian intellectuals abroad. A magazine is being published, and even a flag has been originated. But from a geographical point of view Siberia is not a separate country; there is no natural boundary line between European Russia and Siberia (the Ural Mountains are insignificant), and Siberia is a natural extension of European Russia. It is the same country, predominantly with the same population, language, and traditions.