

SOCIAL SCIENCES

USSR

UNION

OF

EQUAL NATIONS

—See Page 1

No. 13—20 Cents





ALL NATIONALITIES IN THE SOVIET UNION HAVE REPRESENTATIVES WHO SIT AS MEMBERS OF THE PARLIAMENT.

USSR

ILLUSTRATED MONTHLY

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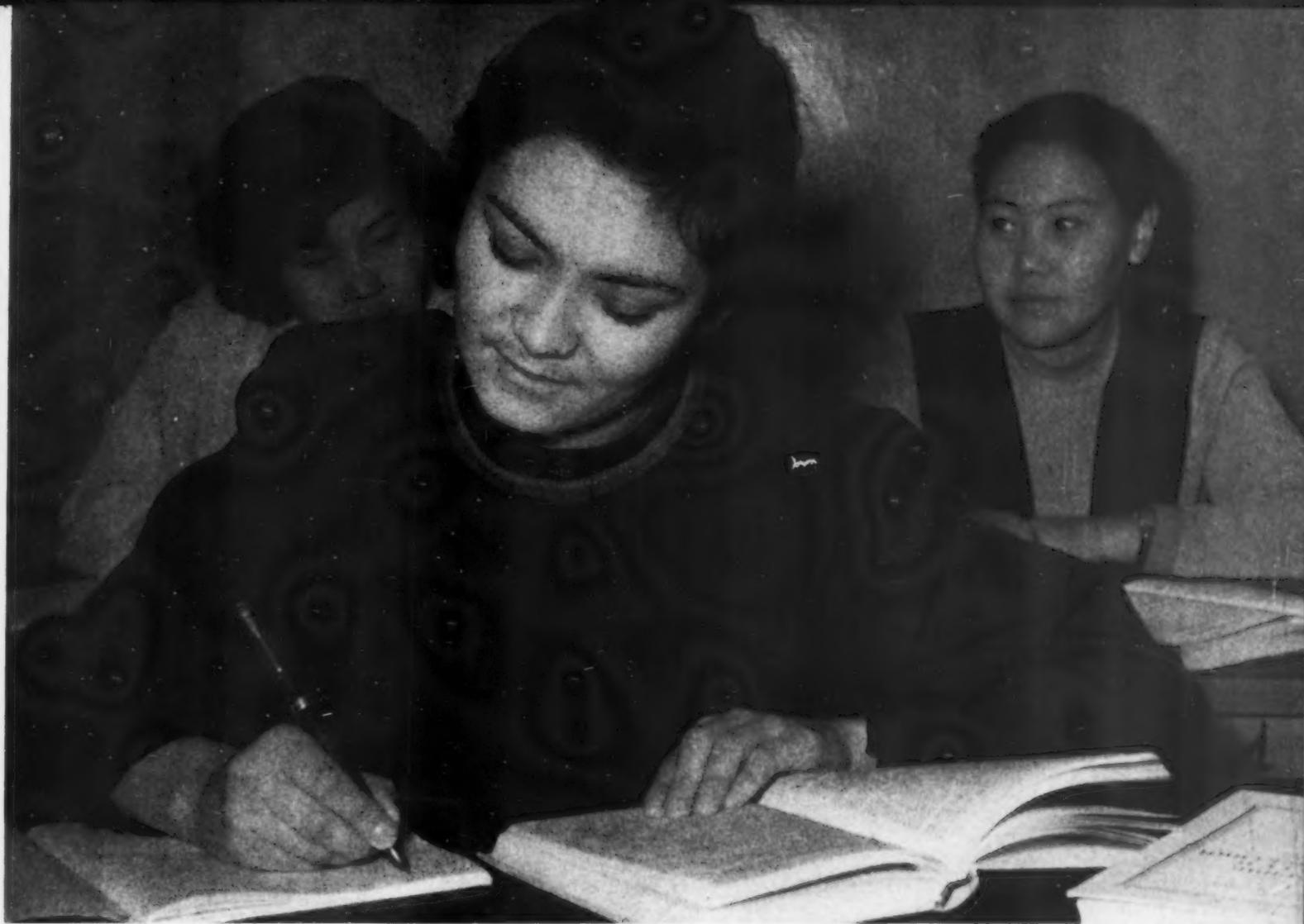
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Lyuba Komarova, student in a Leningrad college, is from the Nenets National Area in the Far North. This small nationality, which before the Revolution of 1917 lacked even an alphabet of its own, has made great progress in every sphere of life with the assistance of all nations of the Soviet Union.

A Country of Many Nations

By Bobojan Gafurov, *Historian,*
Dean of the Oriental Institute of the USSR Academy of Sciences

THE Soviet Union is a country of many nations. More than a hundred languages are spoken which are as different from one another as the features and histories of the peoples they come from. Some nations have a literature dating back to ancient times—there are remnants of Georgian writing 1,500 years old. Other peoples, like the small national groups of the Northern regions or Caucasian highlands, had no written language before the October Socialist Revolution of 1917.

There were scores of such nations in the old Russian Empire, isolated from the stream of modern life, sunk in illiteracy, living by a primitive economy much as their forebears had for centuries. Some peoples were slowly dying off, decimated by poverty and disease. In the most backward border provinces in Central Asia women were chattel slaves, rated lower than domestic animals, living out their lives hidden behind the ugly horsehair veils

that covered them all from head to foot.

Forty years ago a Kazakh, Uzbek, Armenian or Moldavian peasant could not have conceived of machinery to till the soil. He used the same wooden plow his ancestors had. More than a third of all peasant households in pre-revolutionary Russia lacked even the simplest farm tools, a full third had no horses. On territory which is now the Kirghiz Soviet Socialist Republic 100,000 nomad families eked out a penurious existence.

Epidemics of a variety of dread diseases were rampant throughout the country, and especially in the underdeveloped regions. Whole villages suffered from trachoma, cholera or malaria. It was once the rare thing to find a man or woman in Central Asia whose face did not bear the ugly scars of smallpox.

Incidents and examples could be cited in every area of life and for the scores of nations and national groups forgotten by the czarist

regime, except in so far as their labor and the natural resources of the region they inhabited could be exploited for imperial revenue. Any attempt to achieve even a semblance of independence met with the cruelest kind of reprisals. The czarist government through its officials kept the peoples in a state of poverty, ignorance and dependence.

Equal Rights

The October Socialist Revolution spelled the end of colonial exploitation and national oppression. One of the first decrees promulgated in November 1917 was the Declaration of the Rights of Nations of Russia. It established full equality and sovereignty of all nations of the former Russian Empire, the right of self-determination for every nation, large or small. All national and religious privileges and lim-

Continued on page 2



A Russian student (at the right) displays his work to friends from Uzbekistan, Yakutia and Buryat-Mongolia. All of them are attending the Moscow Architectural Institute, which accepts students from every region. Education from elementary school through college is free for everybody in the country.

Kazakhstan, once populated by nomad cattle breeders, now has theaters, schools and libraries. This new university in the capital city of Alma-Ata trains specialists for its growing industry and agriculture.



A Country of Many Nations

Continued

itations which had served to harass and to divide the nations were declared null and void.

The first Soviet Republic to be formed on what had been the Russian Empire was the Russian Soviet Federative Socialist Republic, whose population, besides the Russian majority, includes scores of smaller national groups. Other large nations, following suit, formed their own republics. In 1922 a formal treaty was signed to set up a single state—the Union of Soviet Socialist Republics, the USSR.

The basis of this multinational state was the voluntary union of free nations built on com-

mon interests and fraternal accord. The young Soviet Socialist Republics were prompted to join the union to preserve their newly won independence which could be assured only through mutual assistance and alliance with the Russian nation, by far the strongest and most advanced.

The USSR is now made up of fifteen Union Republics: the Russian Federation, Ukraine, Byelorussia, Uzbekistan, Kazakhstan, Georgia, Azerbaijan, Lithuania, Moldavia, Latvia, Kirghizia, Tajikistan, Armenia, Turkmenia and Estonia. The largest is the Russian Federation with a population of 113,200,000; the smallest is Estonia with a population of 1,100,000. Regardless of size of population or extent of territory, all Union Republics enjoy equal rights.

Each republic has its own constitution, its own parliament and government with a seat in its own capital. Each has its own coat of arms, anthem and flag. Each adopts its own budget and issues its own laws. The Union Republics have the right to enter into direct relations with foreign states, to conclude agreements and to exchange diplomatic and consular representatives. The business of all government bodies is carried on in the native language of the republic.

The territories of some Union Republics are inhabited by national groups other than

the largest nation from which the republic takes its name. Every group, no matter how small, is helped to develop politically, economically and culturally through an elaborate system of self-government.

The largest national groups within the Union Republic are united into Autonomous Republics, each of which has its own constitution and its own legislative and executive bodies. Smaller groups are united into Autonomous Regions or National Areas, depending on the size of their population. The smallest nationalities have their own National Districts.

It would be wrong to conclude, however, that the Soviet Union is a country where different nations, nationalities and national groups live strictly within the limits of their native regions. A Tajik or Latvian can live in the Russian Federation if he so desires, and there is nothing to stop a native of Buryat-Mongolia in the East from moving to Azerbaijan in the South or to any other part of the country.

Differences of race or creed are never a problem in employment, education, marriage or any other aspect of life. Where a person lives, what work he does, what school he goes to, or whom he marries is purely a matter of personal preference.

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Established to meet the requirements of rapidly growing economy of Uzbekistan, the Polytechnical Institute in the capital city of Tashkent offers a broad course of studies. There are 81 Uzbeks with a college education to every 10,000 of their population—twice as many as in France.

Moldavian boys read the works of Russian poet Alexander Pushkin. In all Soviet schools the program is arranged so that pupils study not only their own literature, but the best authors of other nations.



Azerbaijani schools have an enrollment of 700,000, compared with 70,000 forty years ago. Seven-year education is compulsory throughout the Soviet Union. Ten years of schooling is the rule in cities. Native languages are used in all teaching.

Laboratory class at teachers' training institute in Buryat-Mongolia. With the time long past since illiteracy was wiped out, the emphasis is now on obtaining knowledge in all of the many divisions of humanities, science and engineering.

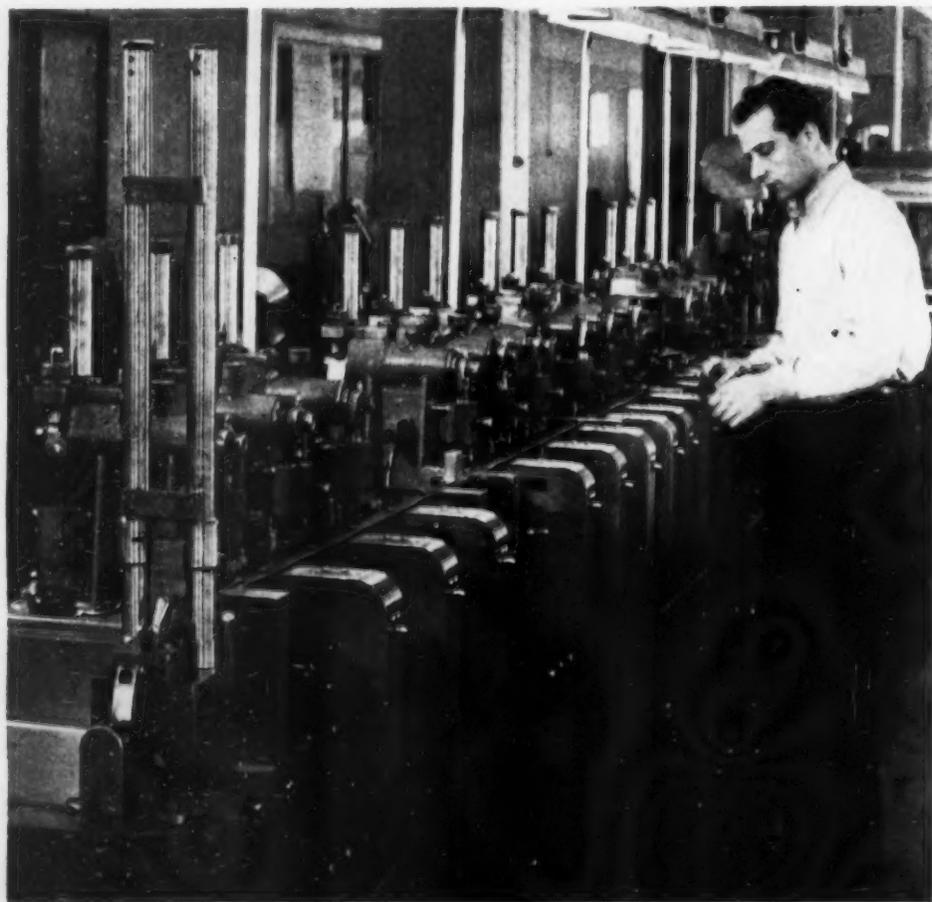




An example of mutual assistance within the Soviet nations in operation. At right is a Georgian miner who came to acquire experience in the Ukraine, a place that has an old history in the mining industry.

A Country of Many Nations *Continued*

Latvian industry, which had declined before the republic joined the Soviet Union in 1940, is humming again. This automatic line in the Riga WEF Electrical works is typical of Latvian industry since then.



Cultural Progress

National groups that were dying out under the harrowing conditions of czarist rule have achieved a remarkable regeneration. A good example are the Yakuts, who live in north-eastern Siberia. Forty years ago they were completely illiterate. They had neither industry nor agriculture of more than the most primitive sort.

Since the Revolution the Yakuts have transformed both their territory and themselves. They have learned to grow crops that were once unknown in that cold, inclement region. Some seventy industrial enterprises are flourishing now—among them coal, gold and diamond mines and lumber mills.

The Yakut today is a member of the commonwealth of Soviet nations with a newly created written language and with his national art and customs preserved but given new and deeper meaning by contact with the culture of the modern world. A Yakut with a secondary school education is no longer a rarity. Last year the University of the Yakut Autonomous Republic had an enrollment of 1,200.

An interesting document has been preserved as a curio in the state archives of the Tajik Republic. It is an order issued in 1919, shortly after the Revolution, by the Department of Education "to register all public education workers, teachers and school employees—thirty-one persons in all—as well as four boarding schools and three elementary schools attended by 152 pupils." That was the whole Tajik school system. Today the republic has more than 2,500 public schools with 350,000 students enrolled.

Among the nationalities of the Soviet Arctic, spread thinly over a great territory reaching from the Norwegian frontier to the Bering Straits, schools were unknown before the Revolution. Today the 600 schools in the seven northern districts teach 50,000 children.

Higher education is within reach of every one of the nations in the Soviet Union. There are more college and university students in the Ukraine alone than in any of the West European countries. There were only four colleges in the whole Asian part of the old Russian Empire. Now that region has 200 universities and colleges.

There are no Union or Autonomous Republics today without their universities and colleges. All have their own experts with specialized secondary or college education, trained from among the native population.

Uzbekistan did not have a single engineer or scientist of native origin before the Revolution. Today this republic has 150,000 trained specialists. There are eighty-one Uzbeks with a college education to every 10,000 of the population—twenty-eight times as many as in nearby Iran, seven times as many as in Turkey, and twice as many as in France. And this is in an area where only two per cent of the adult population could read and write forty years ago.

Academies of Sciences established in thirteen of the Union Republics are working in a variety of fields. The Georgian Academy, founded in 1941, now unites 146 research centers. According to 1955 figures, more than 5,600 research workers are engaged in scientific work.

Economic Development

National statehood, as important as it is, gives only a nominal equality if economic development is not provided for. This is the guarantee for real equality.

In the midst of the enormous demands made upon the country in the past forty years of giant industrial effort interrupted by war and postwar rehabilitation, the time, effort and money were found to lift once backward peoples out of the poverty, superstition and ignorance to which the czarist regime had condemned them.

National planning has been especially concerned in these four decades with those regions of the country which were economically undeveloped. These have been concentration points for help from more advanced regions. While industrial output for the country as a whole increased thirty-fold on the average during this period, in Kazakhstan it increased thirty-six times over, in Kirghizia forty-two times, in Armenia forty-five times, and in Uzbekistan fifty times.

The most highly developed of pre-revolutionary Russia's border regions was the Ukraine, with its metallurgy plants and coal mines. But the Ukraine had to get its machine tools and factory equipment elsewhere. Today the Ukrainian Republic has not only enor-

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Shearing sheep the electric way on a Kirghiz ranch. Animal husbandry today, with its up-to-date equipment and modern science has nothing in common with Pre-Revolutionary times when nomadic life was typical in Central Asia.



Once undeveloped regions now produce machine tools, precision instruments, complex apparatus and other equipment which previously were not made even in industrialized areas of the country. Here is an Armenian engineering works.

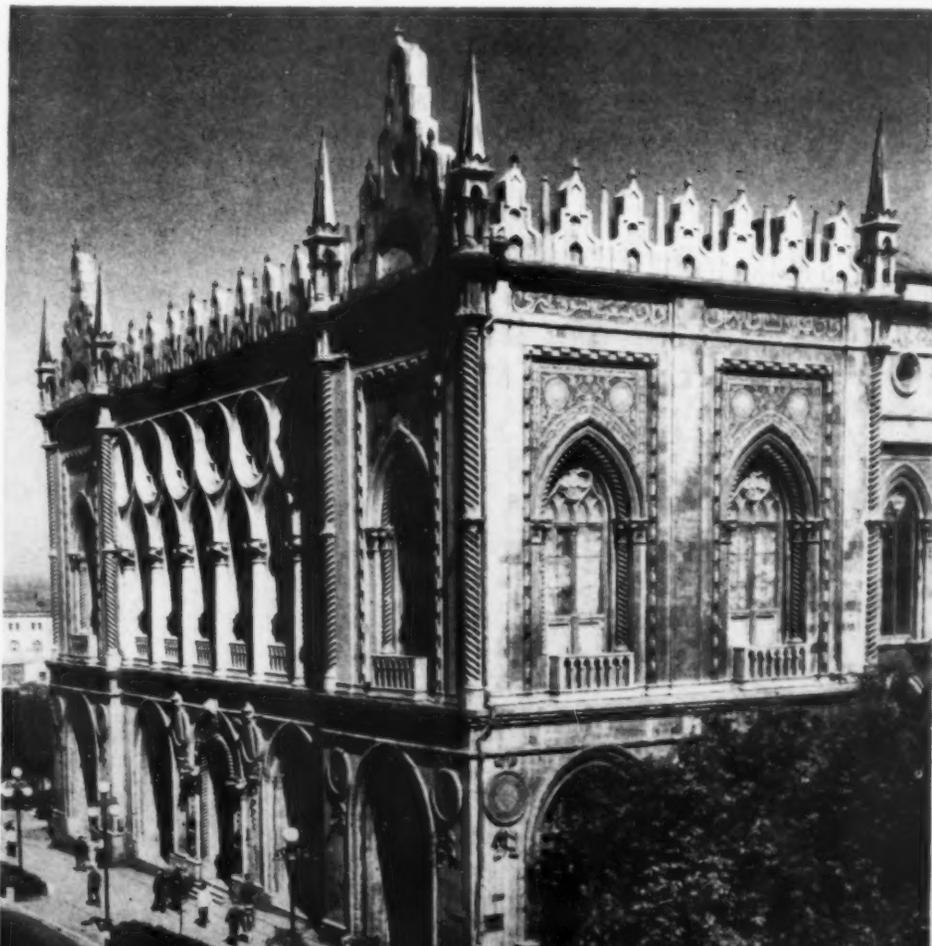
Central Asian regions have long been leading producers of prime cotton, but formerly they had to ship it to European Russia for processing. Now they have many textile centers with a national standing. ▶



Cotton plantation in Uzbekistan. All phases of agriculture in formerly backward Central Asian areas are now highly mechanized. Cotton pickers like this are manufactured by a new farm equipment and machinery plant in Tashkent. ▼



The Academy of Sciences of Azerbaijan in the capital city of Baku is one of the 13 republican academies in the Soviet Union. Thousands of scientists of native origin conduct research in various fields.



A Country of Many Nations

Continued

mously expanded its production of metals, coal, oil and other products, but has developed a machine-tool industry large enough to supply its own needs and those of many other parts of the country.

Latvia is another case in point. Before the First World War it had a fairly well-developed industry. From 1920 to 1940, when Latvia was torn away from the other Soviet Republics, its industry fell into decline, with resulting unemployment and all its consequent miseries. Today there is a great demand for labor with the rapid expansion of all industries, especially those producing machine tools, electric machinery, ships and complex instruments, which are new to Latvia.

The achievements in real economic equality are particularly striking in Kazakhstan. In a region rich in coal, oil and nonferrous metals, the people led a poverty-stricken nomadic life before the Revolution. Today Kazakhstan has a modern industry which turns out more than three-quarters of the country's entire lead production, some forty per cent of its zinc and copper.

It would have been impossible for this republic to become an industrial power if its development had not been financed by the USSR national budget. But it was not only a question of funds. Russian geologists, en-

gineers and miners were a tremendous help in building Kazakhstan's nonferrous metals industry. And it was volunteers from all the Soviet Republics who in the past four years have helped develop the tremendous tracts of virgin lands which have made Kazakhstan one of the leading grain producing areas in the country.

Another example of economic development is furnished by Uzbekistan, which had practically no industry whatsoever before the Revo-

lution. Even cotton, the population's main means of subsistence, used to be shipped thousands of miles away to the textile mills in European Russia for processing. During the past forty years more than a thousand big enterprises of various industries have been built in Uzbekistan.

It is now developing into an important metal and machine producing center. The giant agricultural machinery works in the capital city of Tashkent supplies equipment



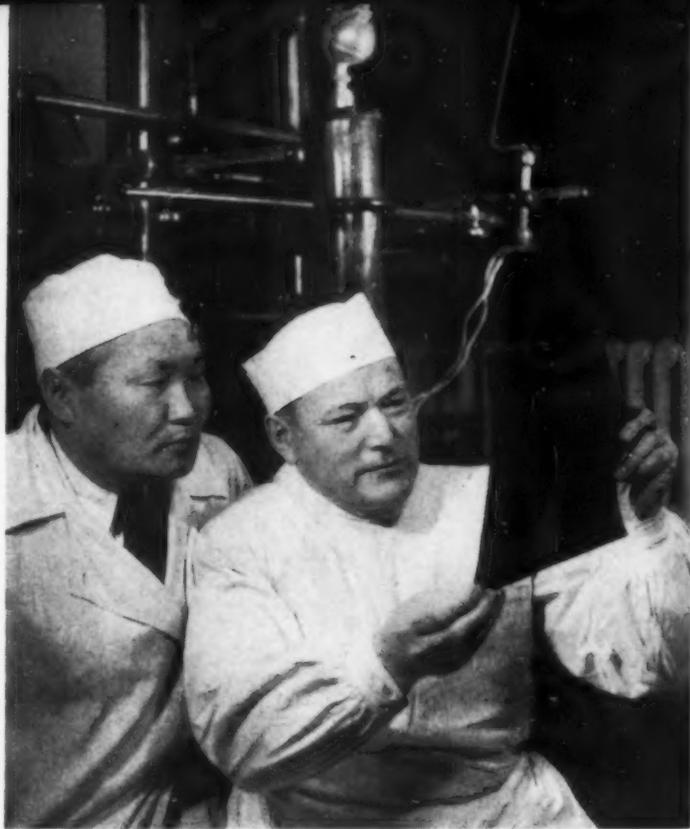
Kalyi Moldobasov, conductor of the Kirghiz Opera and Ballet Theater, began life as a peasant just like thousands of other talented artists of the formerly backward territories. The development of national theatrical and musical arts is always combined with the presentation of the great classics of the world.

Uzbek baby being examined at a children's health center. Uzbekistan has 10,000 doctors now, compared with 175 forty years ago. Free periodic physical check-ups are an important part of the country's health program.



Many remote communities have their own radio stations like this one operating in a Tajik village. Radio and more recently television have helped destroy the former isolation of remote areas from the rest of the world.





Yakutia, northeastern Siberia, was once a wild region with only a trace of civilization. Today it is a country of prospering economy and advanced culture with large contingents of specialists trained from among the natives.



This elderly Tajik peasant from a remote mountain hamlet has grown accustomed to seeing the dentist or doctor for a toothache or pain. There is complete and free medical and dental care for everyone all over the country.

for farms in many regions of Central Asia.

Uzbekistan grows about three million tons of cotton annually, while in 1913 all of Russia produced only 720,000 tons. This republic is not only the country's principal cotton supplier, but also one of its most important textile centers. All of Uzbekistan's pre-revolutionary industry employed 16,000 workers; the textile mill in Tashkent alone employs 20,000 today.

One could with reason apply the old and hackneyed but apt phrase—a country lifting itself by its bootstraps. It was made possible by freeing the creative potentialities of the Kazakh, Uzbek and other peoples, so long dormant under the czarist regime, and by the help freely given by the more advanced peoples.

The entire country contributed brains, man power and money to build a new life in the once backward border provinces. And these provinces have been developed into advanced republics with a thriving industry and agriculture. They now make their own contribution to the prosperity of the whole country.

New Responsibilities

On the very day of the inception of the Soviet Union, each of its nations acquired real power in every sphere of political, economic and cultural life. At every stage of the development of the Union Republics their people assumed new responsibilities.

Within recent years the republics have taken on wider powers to initiate legislation. The sphere of activity of the USSR Supreme Court has been more sharply defined and that of the courts of the republics correspondingly enlarged. As a result of the recent decentralization of industrial management, the republics

have been given new and wide powers with regard to administration of the national economy. In order to give the republics a larger voice in the country's affairs, the chairmen of the Republican Councils of Ministers now sit as members of the USSR Council of Ministers.

These forty years have shown that the new order born of the Socialist Revolution of 1917 was able to create a society without classes or groups interested in using the labor of others for their own enrichment, a society which has destroyed the very roots of national oppression and racial antagonism.

Through the vicissitudes of peace and the hazards of war, the bonds that tie many nations into a socialist state have grown stronger, cemented by a common past, a more prosperous present and a greater future. ■



This girl from an Uzbek textile mill and an engineer from Estonia exchange addresses after meeting in Moscow at a festival of amateur art.

The evening hour at the home of an Uzbek farmer. Larger crops and higher incomes along with general increase of living standards have given these once poverty-stricken peasants a better life than ever before.





BY NIKOLAI GONCHAROV,

Vice-President of the Academy of Pedagogic Sciences

I REMEMBER my own school years in pre-revolutionary Russia, just before the First World War. My family lived in a small village in what was then the Moscow governmental region. The school was a ramshackle, one-room wooden building which housed four classes taught by two untrained teachers. The only division was a big blackboard set up in the middle of the room.

There were fifty boys and girls with me when I entered the first class. Only four of us went through to the fourth grade. Most of the others had dropped out of school before they reached the third grade. Their peasant families could not afford to do without the labor of these youngsters. Within a few years, of course, they had forgotten what little reading and writing they had been taught.

Three quarters of the Russian people before the Revolution were illiterate. Of the small percentage of the population enrolled in general schools—7.9 million in 1915—there were 7.4 million who went to such elementary four-class schools as the one I attended.

The people of the eastern regions—the Kirghizians, Turkmenians, Uzbeks and Kazakhs—had not even that much schooling. At best, among these national groups, only one person out of fifty could read and write; and at worst, one out of 160, as was true among the Kazakhs.

With these peoples—as with all others in the Soviet Union—illiteracy is a remnant of the past. There is practically no village without its seven-year school today, and facilities are rapidly being expanded for full ten-year schooling, roughly the equivalent of the American elementary and high school combined.

The results are plainly evident. The number of children now attending the final high school classes, the eighth to the tenth, is fifty times greater than in 1915.

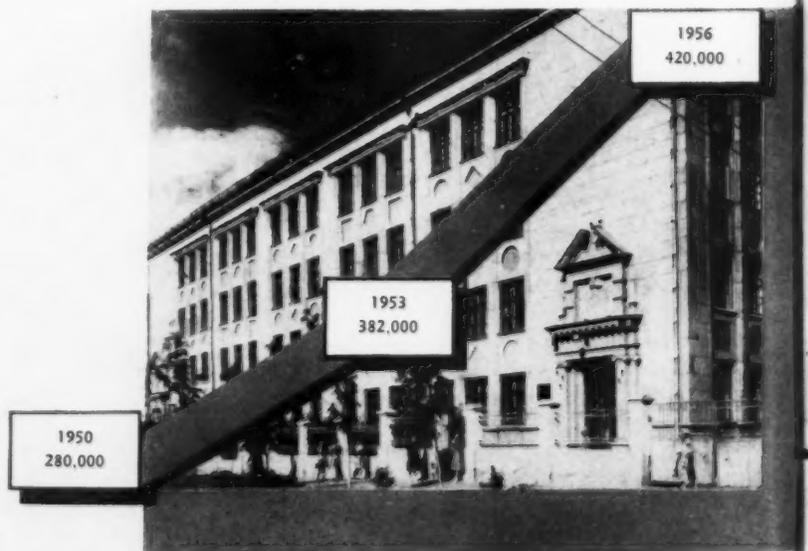
Despite the 220,000 schools and the 1,800,000 teachers of this current school year, and large-scale construction of as many as 10,000 new schools annually, we are still compelled to have two and sometimes three shifts to accommodate the 29 million school children from 7 to 17 in attendance. Thirteen per cent of the national budget has been earmarked for public education.



TODAY'S School CHILDREN —TOMORROW'S CITIZENS

The Soviet Public Schools

NEW STUDENT SEATS IN SCHOOLS BUILT IN 1950, 1953 AND 1956.



The Course of Study

The Soviet educational system is graded throughout, from pre-school age training to graduate training on the university level. We have no such thing as a blind alley school which stops free movement from a lower to a higher rung in our educational ladder. The course of study and the teaching methods are uniform for all the public schools, as are the textbooks.

Each of the republics, of course, orients its curriculum to meet its peculiar regional ethnic and language requirements, but the system is so devised that a student may without difficulty continue his education in a republic other than the one in which he began.

The ten-year school provides a basic knowledge of science, built around a physics-mathematics core, a study of the humanities and polytechnical training. With this preparation, those who complete the ten-year school are equipped either for jobs or for the continuation of their studies on the college level.

In the sciences—physics, chemistry and biology—besides learning the general laws which govern the science, children are given considerable laboratory and field work to demonstrate practical application. In rural schools, for example, laboratory work in chemistry will acquaint students with the properties of various mineral fertilizers. To provide field training in biology many of the schools have their own experimental plots with greenhouses, aviaries and meteorological stations.

We plan, as soon as circumstances allow, to strengthen our work in the humanities and aesthetics and in physical culture.

Physical culture and sports are conducted out of doors if weather permits, or in school gymnasiums. All schools have their own sports groups, and inter-school and inter-urban competition is keen.

Singing and drawing classes are part of the school program. The

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Schoolboys from the city of Gorky on a class excursion to Moscow visit the Tretyakov Art Gallery. These trips are part of the school curriculum.

FIFTH-GRADE BOTANY CLASS IN A MOSCOW SCHOOL. SOME VISUAL AIDS USED IN TEACHING THIS SUBJECT ARE PLANTS, BLACKBOARD SKETCHES AND MOUNTED SPECIMENS.





ALL SCHOOLS HAVE ADEQUATE FACILITIES FOR BOTH INDOOR AND OUTDOOR SPORTS.

The Soviet Public Schools

Continued from page 9

study of history, geography and literature has two points of focus—a world emphasis which provides the children with a background of understanding other countries and their cultures and traditions, and a local emphasis, to give them an understanding of their native region and its contributions to the country and to the world as a whole.

Multilingual Teaching

Since the Soviet Union is a multinational country, classes are taught in more than sixty different languages. In such a comparatively small area as the Daghestan Autonomous Republic in the Caucasus plains, six different languages are used in the schools, and in the Uzbek Republic there are seven.

Instruction in the native language fosters the national culture and helps speed the education and training of much needed local personnel for industry and the professions. In addition, of course, it brings these



Total school enrollment:

7,900,000 in 1915

29,100,000 in 1957

1957

7,500,000

5th-7th
grades

5,000,000

8th-10th
grades

1915

400,000
100,000



nations, some of them separated for centuries from the main stream of progress, closer to world culture.

The Soviet schools teach English, French and German. School 586 in Moscow has an extremely active drama group which performs English and American plays in the original. Many schools—one of them in the remote Siberian steppe village Bagan—have English clubs, wall newspapers in English and maintain a lively correspondence with English and American pen-pals.

More than 77,000 school children participated in a declamation contest held in Moscow last summer with many of them reciting poetry in English, French, German, Italian and Polish.

Polytechnical and Other Problems

There is considerable sentiment among our educators for adding another two years to the ten-year program to strengthen the humanities group of studies, the physics-mathematics core and the natural sciences, foreign language instruction and, particularly, polytechnical training.

Our polytechnical program is neither pre-professional training nor specific job training. It is aimed at supplying the fundamentals which will provide the background for speedy mastery of one or another skill. Classwork is correlated with school shopwork and with practical training at industrial and agricultural enterprises.

In addition to the more usual physics, chemistry and biology laboratories, our schools are being equipped with electrotechnical and other workshops and with automotive shops for trucks and passenger cars. Tractors are not uncommon on our school experimental garden plots and fields, while some rural schools are provided with their own machine and tractor stations.

The course of study for the senior classes now includes machine operation and maintenance, electrotechnics, and basic principles of agriculture. School trips to industrial plants and big modern farms are scheduled at regular intervals. The yearly curriculum provides thirty-six class hours for such trips. Various industrial plants and farms

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SCHOOL PROGRAM OF CHEMISTRY INCLUDES LABORATORY EXPERIMENTS.

THEORETICAL STUDY OF PHYSICS IS APPLIED IN LABORATORY WORK.



HOME ECONOMICS STUDIES INCLUDE CLASSES IN EMBROIDERY FOR THE GIRLS.



BOYS GET FIRSTHAND KNOWLEDGE OF ENGINES IN SCHOOL AUTOMOTIVE WORKSHOP.



The Soviet Public Schools

Continued from page 11

throughout the country provide special instructors to supervise the practical work.

The future direction of development of our schools has been argued with much heat at parents' meetings, teachers' conferences, in professional magazines and in the general press these last four years. There is a fairly large group which believes that the senior classes in our ten-year schools should be more specifically oriented to the professions and to jobs. My own opinion is that this would be a mistake. A general school cannot, nor should it, assume the functions of a professional school. Its purpose is to provide students with a solid and systematic understanding of the foundations of science and to give them preparatory polytechnical training.

There has also been wide discussion of teaching methods which grew out of the insistence of parents that we do more to accustom children to independent work.

Principles of Education

The guiding principle of Soviet education is that each child is an individual and that capabilities and potentialities can be developed most fully by providing every child with a good basic general background. The educational system is designed to develop the individual talents of each boy and girl.

Children with a clearly defined gift for the dance, fine arts, instrumental music or singing may enroll in one of the numerous schools which offer both the academic and specific artistic background required for admission to the conservatories and the institutes of choreography, painting, sculpture and other of the arts.

There is sufficient possibility even in the general school to explore potential capacities. Most schools have a wide variety of after-school activities and clubs—literary clubs, dance groups, chemistry clubs, dramatic circles, clubs for radio and TV builders.

These are supplemented by a variety of non-school organizations and projects—centers for young naturalists and technicians, the Pioneer clubhouses, tourist excursions, children's stadiums and parks, the many thousands of juvenile libraries, cinemas and children's theaters. There are twenty railways built to size for school children. The first children's steamship line began to navigate last summer. The would-be seamen among the school children of Moscow were recently presented with



A SCHOOL GREENHOUSE IS AN EXCELLENT PLACE TO GET THE FEEL OF THE SOIL.

two motorships, the *Mirny* and the *Smely*. Everything aboard these two ships is done by the children.

The children, through the Young Communist League organizations in the senior classes and Pioneer groups in the younger classes, help in community projects. Many years ago, during the national campaign to eliminate illiteracy, young Pioneers taught the old folks how to read and write and then followed it up by bringing books to the villages. Many of the town and village gardens were planted by school children. They do conservation work, help on farms, help build workshops and playing fields, bind library books—all activities which combine work and play and which develop skills and foster independent activity.

The Soviet educational system has played an enormous part in raising the cultural level of the whole of the country's 200 millions. In a very real sense, it is the foundation upon which the future of the sciences and the arts will be built. Today's children study the sciences and the arts that today's adults have made available for them; tomorrow they will themselves discover new laws of science and society.

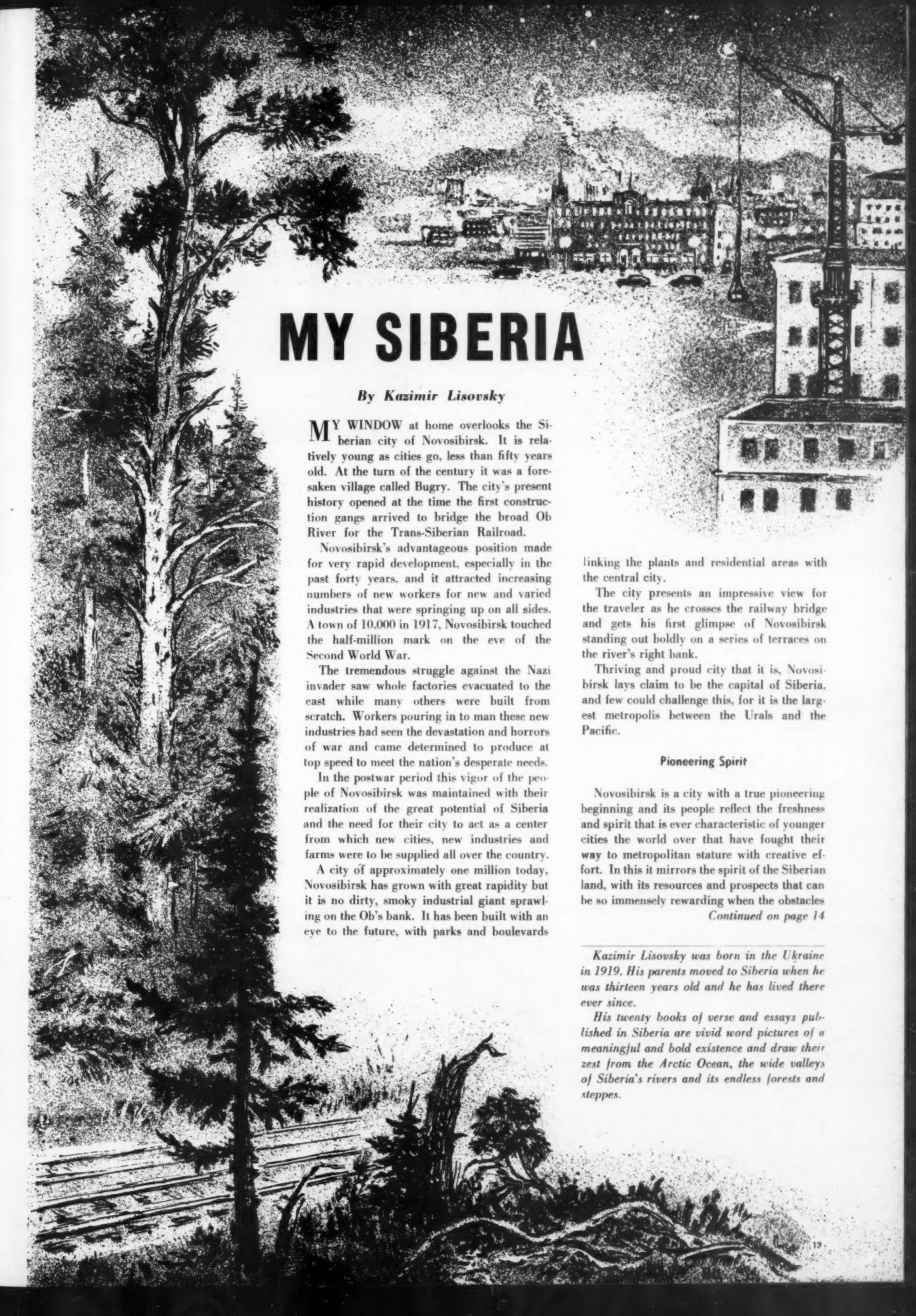
This growing generation will decide the shape of the world to come. With that in mind Soviet educators work to install a respect for other peoples and a love for peace and friendship between nations which is so imperative for today and for the future. ■

SCHOOL ORCHESTRAS OFTEN GIVE CONCERTS FOR PUPILS, PARENTS AND FRIENDS.



PASSENGERS ON SPECIAL CHILDREN'S RAILWAY IN THE SIBERIAN CITY OF IRKUTSK.





MY SIBERIA

By Kazimir Lisovsky

MY WINDOW at home overlooks the Siberian city of Novosibirsk. It is relatively young as cities go, less than fifty years old. At the turn of the century it was a forsaken village called Bugry. The city's present history opened at the time the first construction gangs arrived to bridge the broad Ob River for the Trans-Siberian Railroad.

Novosibirsk's advantageous position made for very rapid development, especially in the past forty years, and it attracted increasing numbers of new workers for new and varied industries that were springing up on all sides. A town of 10,000 in 1917, Novosibirsk touched the half-million mark on the eve of the Second World War.

The tremendous struggle against the Nazi invader saw whole factories evacuated to the east while many others were built from scratch. Workers pouring in to man these new industries had seen the devastation and horrors of war and came determined to produce at top speed to meet the nation's desperate needs.

In the postwar period this vigor of the people of Novosibirsk was maintained with their realization of the great potential of Siberia and the need for their city to act as a center from which new cities, new industries and farms were to be supplied all over the country.

A city of approximately one million today, Novosibirsk has grown with great rapidity but it is no dirty, smoky industrial giant sprawling on the Ob's bank. It has been built with an eye to the future, with parks and boulevards

linking the plants and residential areas with the central city.

The city presents an impressive view for the traveler as he crosses the railway bridge and gets his first glimpse of Novosibirsk standing out boldly on a series of terraces on the river's right bank.

Thriving and proud city that it is, Novosibirsk lays claim to be the capital of Siberia, and few could challenge this, for it is the largest metropolis between the Urals and the Pacific.

Pioneering Spirit

Novosibirsk is a city with a true pioneering beginning and its people reflect the freshness and spirit that is ever characteristic of younger cities the world over that have fought their way to metropolitan stature with creative effort. In this it mirrors the spirit of the Siberian land, with its resources and prospects that can be so immensely rewarding when the obstacles

Continued on page 14

Kazimir Lisovsky was born in the Ukraine in 1919. His parents moved to Siberia when he was thirteen years old and he has lived there ever since.

His twenty books of verse and essays published in Siberia are vivid word pictures of a meaningful and bold existence and draw their zest from the Arctic Ocean, the wide valleys of Siberia's rivers and its endless forests and steppes.

Engineer Nikolai Yevsyukov has pulled long trains a million miles across Siberia. He has seen electricity replace steam engines, and little villages transformed into cities in the twenty years since he began work.



MY SIBERIA *Continued from page 13*

imposed by nature are fought against and overcome.

Across the broad northern belt of Siberia, where its bleak shores are washed by the icy seas of the Arctic Ocean, we find severe blizzards and lonely reindeer breeders. Further south is the taiga with its lumber, extensive mineral resources, gold fields and the newly found diamond deposits. It has a wealth of wildlife that makes fur trapping an industry rather than a sport. Still deeper southward lie vast areas of farmland producing wheat, sugar beet and other crops for the nation's larder. Western Siberia is famed as a major butter producing area. The mountains of the extreme south hold still more mineral deposits and the Kuznetsk coal basin is perhaps the richest field in the world.

The vast expanse of Siberian territory is matched by the stout hearts and spirit of the Siberian people themselves. They are a special kind of people, men and women who have the will to challenge and the backbone to win their almost ceaseless struggle with nature.

They have met the demands of the rugged climate and harsh terrain. "Siberian" has come to be an honored title, a badge for the courageous and persevering.

Million-Mile Engineer

In the course of my frequent trips about Siberia, I have met many of the men and women who are typical of our people. One such individual is Nikolai Yevsyukov, a Siberian locomotive engineer with twenty years of service on his record.

What's so special about a Siberian locomotive engineer? The thermometer in winter often drops to fifty or sixty below zero. Every time you exhale, your breath turns to hoarfrost. Blizzards rage and cyclones rip across the country, but the trains move on schedule. The engineers see them through.

Climate is not the only difficulty. The volume of traffic on Siberian railroads is mounting each year and creating problems that are of real concern.

Yevsyukov works on the Tomsk division of the Trans-Siberian. He started out on a very powerful steam locomotive, but now the line is electrified and the trainmen made the transfer without a hitch. Yevsyukov, with his record of piloting steam and electric locomotives for more than one million miles on the road, says that electricity has saved in both operating costs and man power.

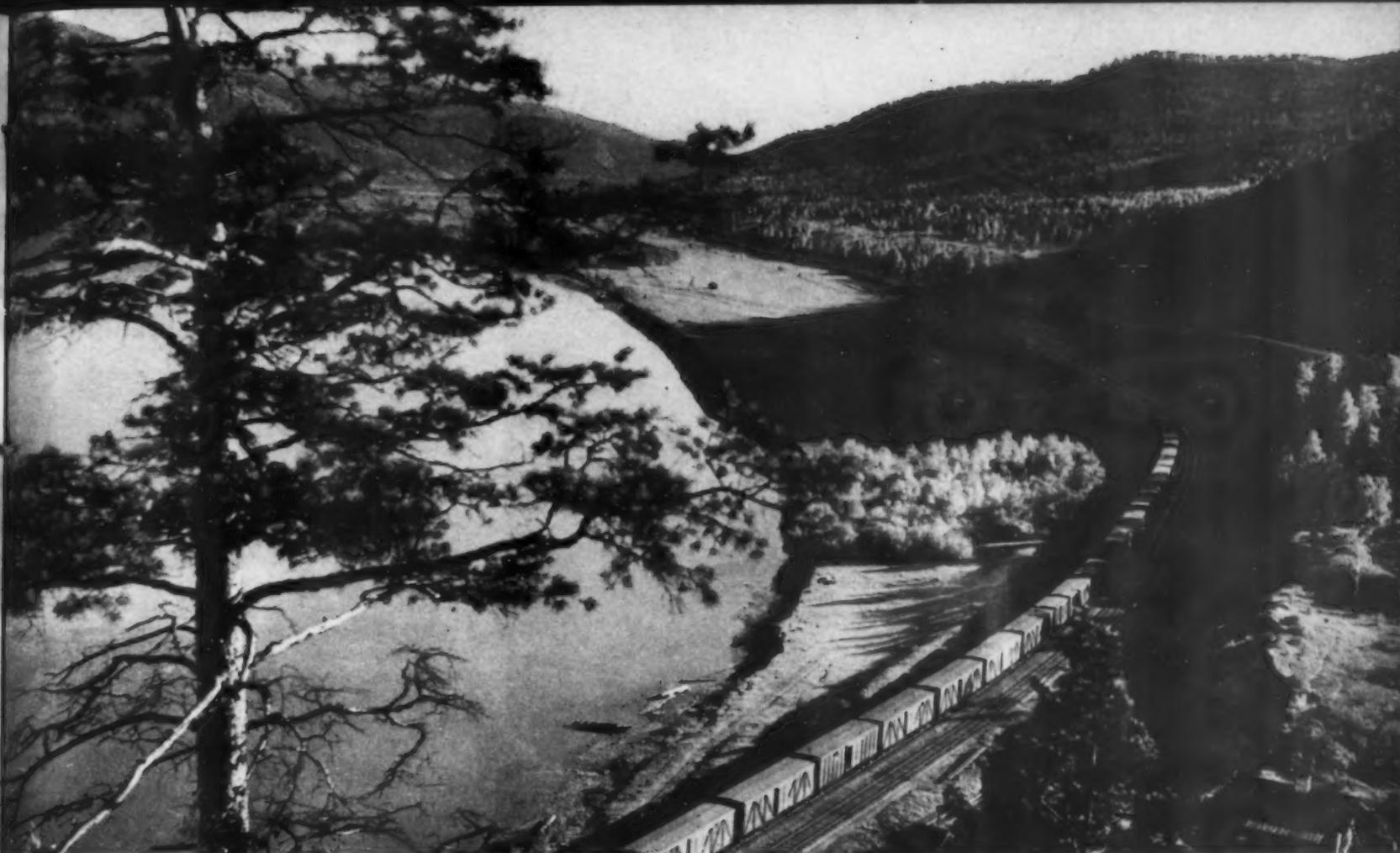
The long freight trains hauled by engineers such as Yevsyukov some twenty years ago were loaded for the run east with ore from the Urals for the Kuznetsk Iron and Steel Works and returned westward loaded with coal for the metallurgical industry of the Urals.

In the relatively recent past there has been a change in the type of freight traffic, however, and today the Kuznetsk Basin has its own iron ore and soon the delivery of Urals ore will be unnecessary.

Yevsyukov recalls that engineers of the Trans-Siberian belonging to an older generation tell how Kuznetsk coal was mainly consumed in the fireboxes of their locomotives.

NEW TOWN. THE ZELYONI SETTLEMENT AT THE PADUN RAPIDS HOUSES THE BRATSK POWER STATION CONSTRUCTION WORKERS. ONCE THE TERRITORY WAS ALL DENSE FORESTS.





THE TRANS-SIBERIAN RAILROAD, ON ITS RUN, SKIRTS LAKE BAIKAL, THE WORLD'S DEEPEST. NEW TRACKAGE IS LAID EACH YEAR TO MEET SIBERIA'S RISING FREIGHT VOLUME.

Today the fuel goes to supply the great Kuznetsk Iron and Steel Works along with many other Siberian plants and still leaves a large surplus for delivery to areas hundreds and hundreds of miles away.

Another of the changes in the car loadings of the big railroad today is the tremendous volume in grain shipments. They are growing steadily as new farms swing into operation on the virgin lands. Siberia also sends a heavy tonnage of fresh creamery butter to distant dinner tables, lush furs that may wind up in foreign lands, timber for construction in new cities or farms, and plenty of meat.

Although Siberia has many engineering plants of its own, the economy is being developed so rapidly that the railroad continues to bring in heavy shipments of machine tools for new factories, automobiles, tractors and harvester combines for the new farms and equipment for hydroelectric stations going up on the Ob, Angara and Yenisei rivers.

Skipper to Dare Rapids at 70

Another of the interesting people I have met is an old riverboat skipper, Konstantin Metsaik by name. He sailed ships as far back as the early 1900's and is still one of the best boatmen on the Yenisei and a teacher of new generations of navigators. For me his name became associated with ventures into wild, unexplored areas.

When Metsaik came to the Yenisei fifty years ago, the banks of this great waterway were only scarcely populated. Late in the twenties he was the first to pilot a lead ship

of a fleet of ocean-going vessels to the new city of Igarka. Later he was first again to bring urgent cargoes to the Arctic city of Norilsk, then under construction.

Four years ago I met him on the Lower Tunguska, a tributary of the Yenisei which had been believed impossible to navigate. Two years later I met him again, guiding a fleet of ships up the Podkamennaya Tunguska, a swift and treacherous stream imperiled by no less than eleven rapids. The ships were laden with cargo for the heart of the Evenk National Area, inhabited by a small people famed as hunters and trackers.

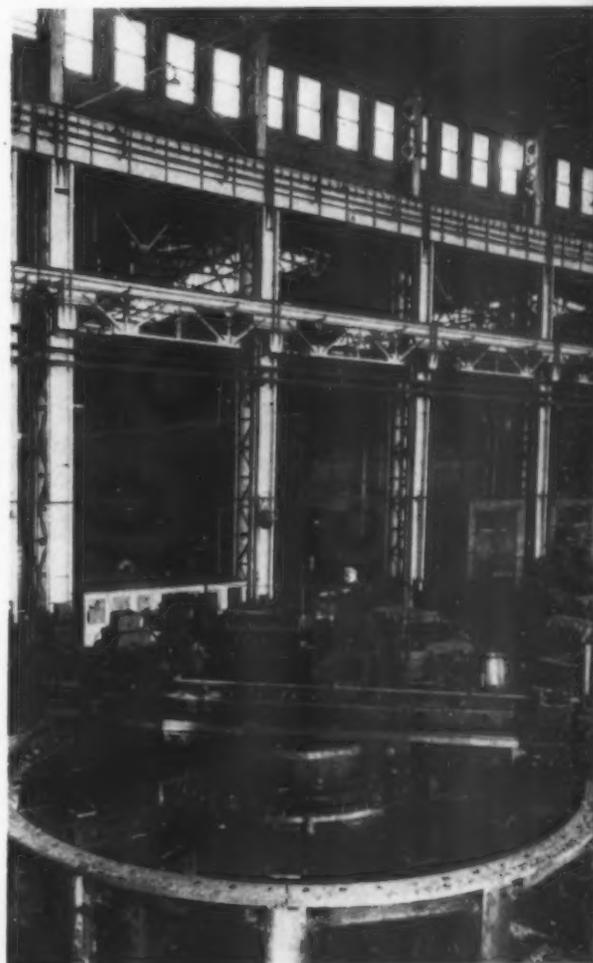
Last year, when a group of veteran Yenisei rivermen were given a big send-off on the occasion of their retirement, Konstantin Metsaik had a place of honor among the gray-haired skippers. But his name was not listed among those retiring, although he was older than many of them and had long since been receiving his pension over and above his regular wages. When he spoke before his old friends, he declared that despite his seventy years, he had no intention of quitting the river.

"Before I retire," Metsaik said, "I'm determined to lead a convoy of river boats up the Big Rapids." This is the Yenisei's worst spot, where a thirty-mile current races between banks not more than twenty or twenty-five feet apart. He wants to be the first to venture this new route from Siberia to Central Asia that will permit regular passenger service upstream from Krasnoyarsk to Tuva.

"I look around me and wonder what is happening," the old skipper recently told me.

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Machine-building plant at Novosibirsk. Huge hydro-electric generators are constructed here.





◀ Apartment houses recently built in Norilsk, young Siberian city beyond the Arctic Circle.

MY SIBERIA

Continued from page 15

"Who'd have thought that there would be such cities on the Yenisei as Igarka or Norilsk?"

Purposeful and Stubborn

One by one the great Siberian rivers are being harnessed by man to light up the big taiga towns and supply power for their developing industry. But there is even more to the accomplishments of these steadfast people. Another bountiful harvest was recently gathered on new Siberian farm lands. It was with last year's harvest that Siberia emerged as one of the great granaries of the Soviet Union.

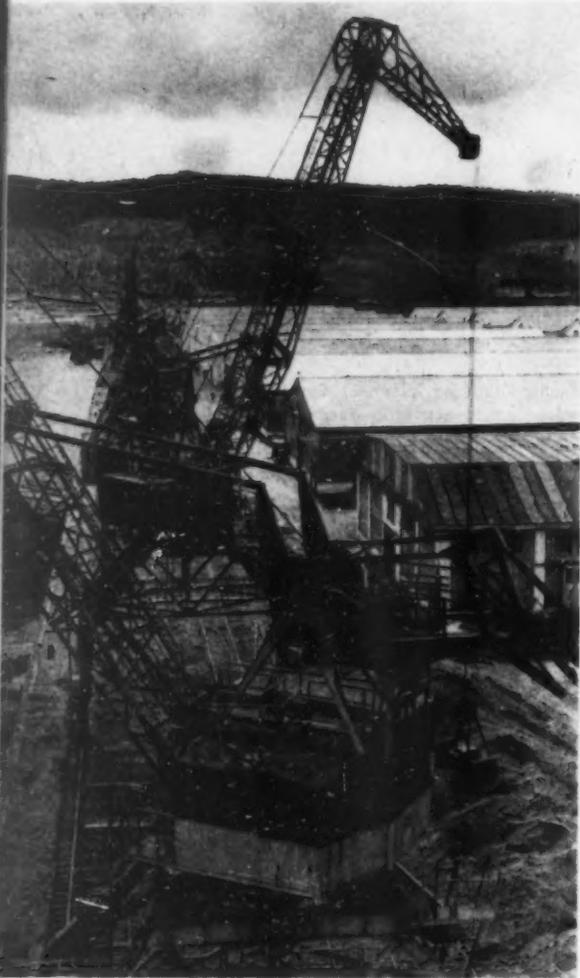
The hard battle that has been quietly fought on Siberian fields to expand the world's supply of bread has its own list of heroes. I met one of these unassuming fighters recently at a conference of leading Siberian farm workers held at a Novosibirsk theater. His name was Mitrofan Ladik.

To give an idea of what sort of man he is, let us go back to September, 1943, when he led his platoon in an attack. He was wounded so badly that he lost one of his legs. After long months in a hospital, Ladik was sent home to Altai Territory and could have retired and lived very comfortably on his pension. But he insisted on returning to his old job as a harvester combine operator.

The full details of how his wound reopened while working, of how he fought against returning to the hospital, and of how he escaped from the hospital to return to his machine because he knew the tractor station was undermanned, would take more space than we have. The long and short of it is that he has been operating his combine ever since and will not be parted from it.

Of course, it might be said that Ladik is an unusually stubborn man and an exceptional case. But the fact remains that Siberia draws many such stubborn people.

And the thousands of young people of pioneering spirit who poured into Siberia for



Nikolai Lobov, a Siberian miner, lives at Prokopyevsk. He is typical of the new generation helping to develop Siberia's rich resources.

◀ New wharf for river freighters on Lena River at Osetrovo Port. Siberian rivers provide a route for heavy traffic, as well as electric power.



Industry's vanguard on the Yenisei River. Sur-
veyors prepare site of a future power station.

the opening of the new virgin lands proves this point. They knew they were coming to an unsettled area, knew they would live in tents until permanent housing could be erected and that there would be many hardships.

But they remained—and won. Galina Ageyeva is one of these people. She came from Skopin, a town near Moscow, about a year ago. Soon afterward her whole family came to join her.

Old Siberia and the New

I remember the difficult years of the thirties when the first big factories were being erected in Siberia and how proud we were as their walls rose and we saw our dreams near realization. All that seems a century ago now as I gaze on the industrial skylines over the banks of the Yenisei, Ob and Angara rivers. The new production centers rose also in the taiga and in the mountains. One of these is the Kuznetsk Iron and Steel Works in the city of Stalinsk.

Mikhail Merkulov came to Stalinsk in 1929 as a laborer to dig the foundation of the new city's first blast furnace. By the time the plant had swung into production of pig iron, turning it into steel and rolling out lengths of rail, Merkulov had become one of the best rolling mill operators. Today his son also works in the Kuznetsk mill.

There is an interesting contrast between the lives of father and son that epitomizes the growth of the city. The elder Merkulov came to the new city as a laborer and worked through the most severe winter weather, often dining on soggy, half-frozen bread, but buoyed up by his faith in the future of his new home town.

Merkulov's son, though confronted by problems of his own, enjoyed all the benefits of a modern city. Siberia is still demanding, but the hardest part of the road has been cleared.

This wide contrast can be applied to more than just a single city or one father and his son. It is the picture of all the great regions of Siberia today. Cities and farms are not just islands in a wilderness. Our old Siberia has changed almost beyond recognition. ■



Cutting a modern highway across the wilderness of Siberian taiga is a big undertaking. Power shovels excavate and dump trucks fill the right-of-way for a road connecting Krasnoyarsk with other towns.



Land of UNLIMITED OPPORTUNITIES

A NEW SIBERIA IS GROWING

By Gennadi Pospelov

TO SOME PEOPLE the word Siberia may bring an instant image of a sparsely inhabited, frozen and perhaps forbidding continent. And to an extent this picture may have been justified in the past. But within the last thirty or forty years a stupendous transformation has taken place in this territory embracing almost a third of Asia, big enough to envelop all of Western Europe three times over.

Siberia begins immediately beyond the Ural Mountains and stretches eastward for almost 4,400 miles to the continental divide, where

mountain streams begin their trip to the Pacific Ocean. The expanses of Siberia from the Arctic Ocean down to the Mongolian and Chinese borders in the south and the steppes of Kazakhstan in the southwest entail journeys of about 2,200 miles across moss-covered spaces, thickly forested plains and highlands that gradually fade into open steppes.

An airplane crossing Siberia from west to east first flies over West-Siberian lowlands, ranking as the world's largest. Its central portion lacks sufficient drainage and the slow-moving streams merge their waters to form a vast swampy area. Eastern Siberia, beyond the Yenisei River, is an elevated country where mountain ranges alternate with highland plateaus. The southeastern part of Western Siberia is covered by the Altai Mountains, with two spurs branching northward. Pro-

tected in the hollow between them lies the Kuznetsk Basin—maintain of Siberia's industry.

Siberia's territorial vastness is matched by its almost unlimited store of natural resources. Even under the czars, with little or no attempt toward studied development, it yielded furs, timber, gold and farm products. But prospectors of later years have uncovered a varied hoard of riches far beyond the wildest dreams of the first Siberian pioneers.

Pages From History



The appearance of the first Russians to come to Siberia is associated with the name of Yermak, leader of a handful of daring Cossacks who crossed the Urals from European Russia at the end of the sixteenth century. The new settlers were explorer-traders who

found great wealth in Siberian furs, which became the currency of the period.

The search for profits drew the pioneering traders further and further eastward through the taiga—thick jungles of majestic forests. Following in their wake came the officials who directed the building of blockhouses and forts. Then townships were established along the broad Siberian rivers that were the principal means of transportation in those days.

By the end of the eighteenth century, Siberia had become a place of exile. This was an unfortunate step for the land brought about by reason of its severe climate and its remoteness from European Russia. Little was known then of Siberia's riches and Russian business interests paid little attention to the area.

But Siberia's fertile soil in the steppes south of the taiga attracted immigrant peasants after the abolition of serfdom about a hundred

SIBERIANS HAVE BRAVED BLIZZARDS AND LONG WINTERS WITH 25° BELOW ZERO COLD TO BUILD THEIR LAND.





years ago. At the end of the last century the Trans-Siberian Railroad was laid to connect European Russia with the Far East and this greatly accelerated the economic development of Siberia. Towns sprang up at points where the railroad crossed major rivers, and another page was turned in the country's history.

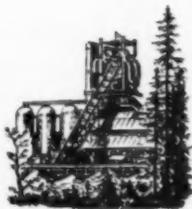
Despite all this growth, however, there were few more than nine million people in all Siberia at the time of the First World War, and nine-tenths of the territory remained uninhabited. The rather meager industrial and farming operations could quite justifiably be described as merely skimming the cream.

The first planned development of Siberia came after the October Revolution of 1917 and this was especially marked following the thirties when the Soviet Union undertook its broad industrialization program. Bold men with plans and know-how, equipment and facilities cut their way through the thick Siberian taiga, built new factories and plants, founded new cities. The old cities saw new industries add to their stature.

The mists of the past were being dissipated to reveal Siberia as a majestic land obedient to the hand of man, holding a giant potential with a most fascinating present and a breathtaking future. The Soviet people began converting wild and backward Siberia into a land of industry and culture.

Today's life in Siberia presents an entirely new picture. It is not a life isolated from the rest of the world as in the old days, but one with all the attractions and benefits of a modern center in an advanced country. Of course, there remain some hardships in Siberian life, as might be expected in any rapidly developing land, but people no longer are fearful of coming here. Quite the contrary, they come eagerly to stake out their future in their new homeland, because they know they will find challenging and well-paid jobs, because their children will enjoy the same opportunities offered in the older sections of the country.

Mainstay of Siberian Industry



There are many industrial centers in Siberia, but the most important is the Kuznetsk Basin, or the Kuzbas as it is called.

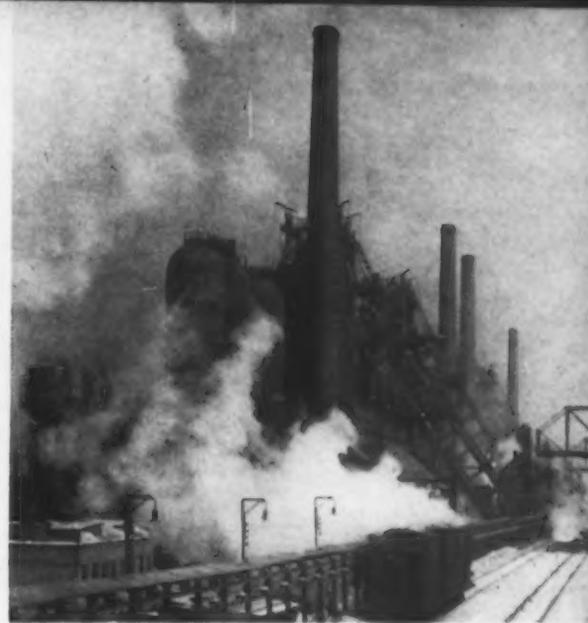
Prior to the Revolution its discovered deposits of coal ran to only 13 billion tons and only sufficient fuel was being mined to keep the Trans-Siberian Railroad operating. Later prospecting figured the deposits at 450 billion tons, or two and a half times all the coal in England. Quite recently geologists issued their revised estimates showing that the tonnage exceeds 900 billion, of which more than a fourth is of coking quality.

The coal in the Kuzbas lies near the surface and is cheap to mine. In some spots it comes from seams 53 feet thick. Various types of coal found in the Basin are of high quality, contain little sulphur and have a low ash coefficient. They provide fuel, coke and raw materials for the chemical industry.

The Kuznetsk Basin is a comparatively young coal producing center, but it already occupies second place in the country, headed only by the famous old Donbas in the Ukraine. It is recording substantial increases every year, and in 1956 its mines delivered 64 million tons, or more than 15 per cent of the entire national output. Four fifths of all the coal mined in the Kuzbas is shipped for consumption outside the Basin.

The high quality coal of the Kuzbas was used as a base for the construction of the giant Kuznetsk iron and steel works in the city of Stalinsk. It was built 25 years ago and in the beginning iron ore was carried by rail from the Urals, some 1,200 miles away. Later the newly developed iron ore deposits nearby were brought into use to the extent that today the plant operates almost entirely upon local ore.

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The 25-year-old Kuznetsk Iron and Steel Works in Stalinsk operates almost entirely on local ore.



Coal center of Prokopyevsk. The Kuznetsk Basin is estimated to contain 900 billion tons of coal.

Railroad and highway construction is perpetual as the economy of Siberia continues to expand.





A residential section in Krasnoyarsk. Housing and municipal construction is accelerated both in old and in new cities all over Siberia to keep up with the rapid growth of the urban population.

Land of **UNLIMITED OPPORTUNITIES**

Continued from page 19

The Kuznetsk plant is considered to be one of the largest in the Soviet Union, but now an even larger metallurgical center is under construction near Stalinsk.

Nonferrous metal producing plants came into the Kuzbas at the same time as the iron and steel industry. Metallurgy provided the foundation upon which Siberia developed its machine building to supply equipment to the railroads and water transport, the mining industry and agriculture.

The Kuznetsk Basin is surrounded by deposits of complex ores, gold, zinc, molybdenum, tungsten, mercury, manganese and aluminum. A huge mining and metallurgical center has sprung up in a comparatively short time on this territory only recently almost un-frequented by man. This center, moreover, is acquiring new enterprises attracted by the availability of raw materials.

Thus, the development started in the thirties is continuing now with industry expanding and new cities growing. The Kuznetsk Basin has changed beyond recognition—its map is covered with new symbols indicating coal and iron mines, blast furnaces, power stations, engineering works, railways and housing developments.

Discovering a New Continent



are 1,000 industrial enterprises and new construction projects in the Krasnoyarsk Economic Region alone, and Siberia has several such economic regions.

It would be no exaggeration to state that the results of prospecting in Siberia during the past few years are equivalent to the discovery of a new continent.

In the marshy wooded West-Siberian lowlands, geologists found deposits of gas and oil, sedimentary deposits of iron, aluminum and titanium. A rich coal basin extends over the southern portion of the lowlands near the railroad. Seams of brown coal that are scores and even hundreds of yards thick lie directly beneath the subsoil and a new industry is

The Kuzbas and its surrounding area is the most expressive, but by no means the only example of Siberia's development. Really great progress has been made in other areas bringing their natural wealth into play. There



developing to energize new heat and power stations being put up there.

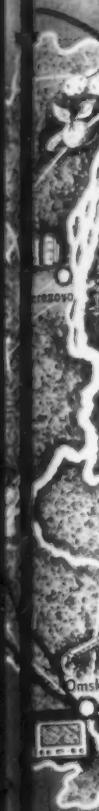
Iron deposits were discovered on the banks of the Ob River near Kolpashevo. This basin contains more than 100 billion tons of ore assaying 40 per cent iron with a large content of vanadium, necessary for the manufacture of high quality steels.

Southward, along the eastern extension of the Urals, the iron ore deposits of Kustanai are already being mined. These deposits are estimated as one of the greatest finds of the past several decades.



A

S



REPUBLIC

ARCTIC OCEAN



Prospecting has shown that Eastern Siberia also has its share of resources for industrial development. On the Lower Tunguska River lies, as yet untapped, a big coal basin, whose territory exceeds that of France. Southward is the Irkutsk Basin. Its coal is already feeding the great chemical industry which has brought to life Angarsk, a new city on the shores of Lake Baikal.

To the south of Krasnoyarsk, near the construction site of a big hydroelectric plant on the Yenisei River, lies one of the largest Siberian iron ore basins. Together with other

deposits on the Yenisei and Angara Rivers, this basin forms an iron ring encircling the Siberian platform from the west.

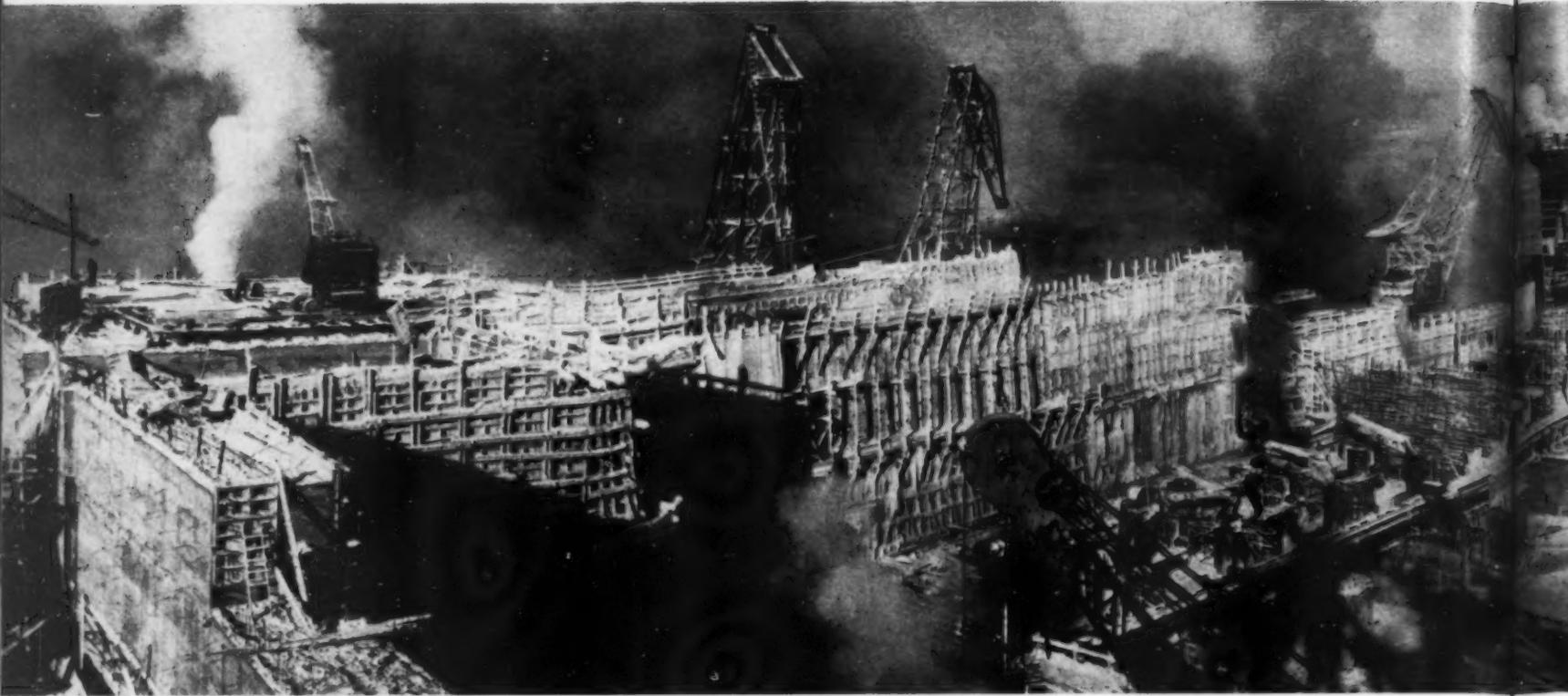
In the basin on the Angara, the first large-scale iron mine of Eastern Siberia was recently put into operation near the city of Bratsk. This mine is designed to supply a big electro-metallurgical plant.

There are rich deposits of nickel at Norilsk, a young and rapidly growing city beyond the Arctic Circle. This city is also providing the country with a dozen other kinds of non-ferrous metals, coal and numerous chemicals.

Within the past few years geologists have found very rich fields of diamond-bearing rock in the wilds of Yakutia, an autonomous republic in northeastern Siberia. An extensive diamond industry is now being established on these deposits.

The discovery, climaxing a hundred-year search, is of world-wide importance because until now the mines in the Union of South Africa held an undivided monopoly in industrial diamonds.

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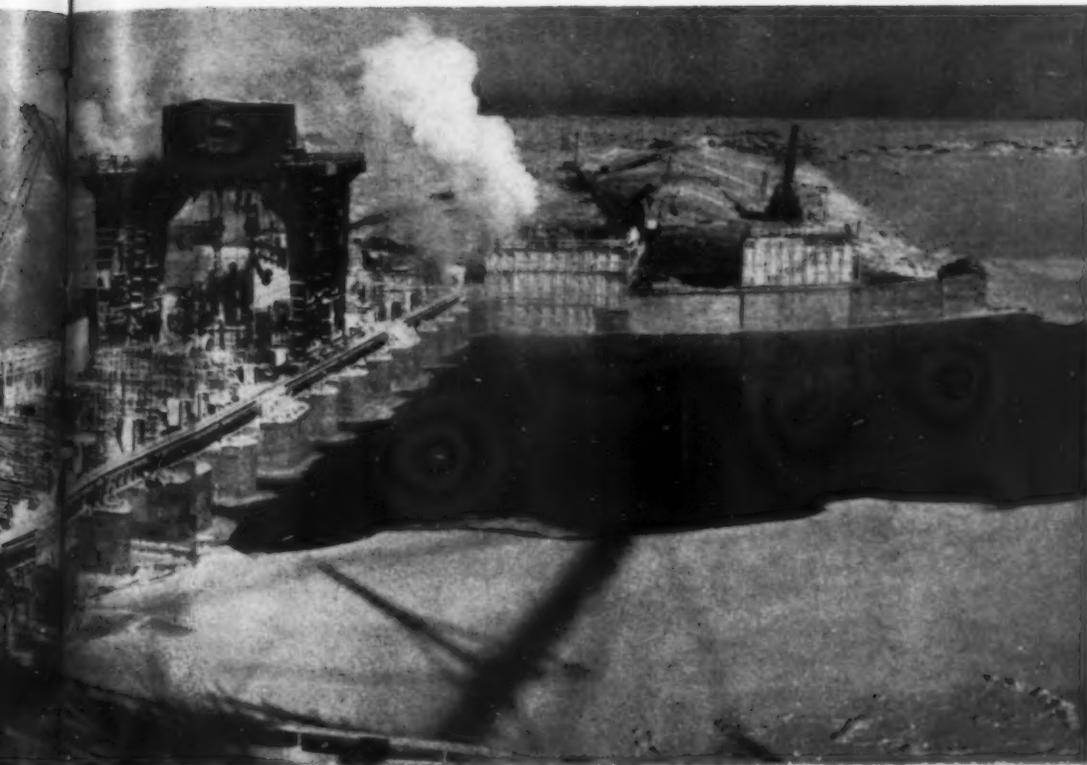


THE IRKUTSK HYDROELECTRIC STATION IS UNDER CONSTRUCTION ON THE ANGARA RIVER. SIBERIA'S RIVERS MAKE UP 90 PER CENT OF THE COUNTRY'S POWER RESOURCES.

Land of *UNLIMITED OPPORTUNITIES* *Continued*

THE VAST LAND OF SIBERIA POSSESSES HALF THE TIMBER RESOURCES OF THE COUNTRY, WITH MORE THAN 70 VARIETIES OF TREES, MAKING LUMBER A MAJOR INDUSTRY.





Rivers and Forests



Historically, Siberia's rivers were its main thoroughfares and even today they carry a heavy volume of traffic. The entire

river network suitable for navigation by ship and the rafting of timber exceeds 62,000 miles.

But the role of the Siberian rivers has been transformed, and huge hydroelectric power stations are being constructed at a rapid rate. Actually these rivers comprise 90 per cent of the power resources of the entire Soviet Union. The Yenisei alone could supply as much electricity as the combined power stations of the country produced in 1953.

The first big plants are under way at Irkutsk and Bratsk on the Angara; the Novosibirsk and Kamenskaya plants on the Ob and the Krasnoyarsk plant on the Yenisei. Still others are in the final designing stages, presaging yet further advances in Siberia's industrial and agricultural expansion.

One-third of the world's forests are in the territory of the Soviet Union and fifty per cent of these are in Siberia, where more than 70 varieties of trees have been identified. It has been established that the severe climate and untouched development of Siberian forests have made for a better quality of timber than that of European forests.

Along with the intelligent felling of timber, there is another major program in the forests covering wild life conservation and rational trapping. Furs were the original

source of Siberia's wealth and now its forests have 25 varieties of valuable fur-bearing animals. The annual shipments of furs from Siberia has frequently exceeded fifteen million pelts. Licensed hunting and trapping and a system of game preserves helps replenish and multiply the valuable reserves of wild life.

The New Granary



Since back in the old days, the forest-and-steppe and open steppe regions of Siberia have been known as a land of grain and butter. The cultivated area has been constantly expanding and plowlands have been driving steadily northward. More than half of this new land has been sown to spring wheat.

But the real champion of Siberia in wheat production is found in the southern zone. The expansion of sown areas in the Altai, Novosibirsk and Krasnoyarsk regions, where tens of thousands of acres of virgin lands were plowed since 1954, have made Siberia a principal grain supplier of the Soviet Union both in the quantity and quality of its wheat. Siberia's soil is so fertile that a man's labor will produce a yield of grain two and a quarter times that attainable elsewhere in the country.

Winning the rank of the nation's new bread basket is but one of Siberia's achievements in recent years. Development in all fields has been both stable and fast. Science and engineering, educational and cultural facilities have been tied into a carefully mapped over-all plan for the vast territory, backed up by the resources of the entire nation.

These promising prospects for the future continue to draw people imbued with the pioneering spirit. They come to Siberia from all sections of the country to take their places in the factories and on the farms, on construction sites and in scientific institutions. These newcomers are welcomed and made at home by the great family of veteran Siberians.

By avoiding any resemblance to the old "get rich quick and get out" operations of former frontiersmen, Siberians are employing the country's best creative brains and most advanced methods to transform their austere land into a flourishing country. ■

LUSH PASTURELAND AND GOOD DAIRY HERDS MAKE SIBERIA ONE OF THE COUNTRY'S TOP BUTTER PRODUCERS.



INSTEAD OF A SWAMP

Luka Gerasimov

foreman in the Kuznetsk Iron and Steel Mills

When I walk through the streets of Stalinsk, past the modern apartment houses the workers of our plant live in, I often think of the swamp overgrown with rushes which once stretched in this place. I used to shoot wild duck here about twenty-five years ago.

I came to Stalinsk—it was called Kuznetsk then—when I was 23 years old. Before that time I lived with my parents in Dnieprodzerzhinsk, the metal producing city in the Ukraine. In 1931, when the Kuznetsk Mills were being put up, I left Dnieprodzerzhinsk

to settle in Siberia for good. I became a blast furnace man, got married and raised a family.

I was here when the first blast furnace was blown and I'm glad that I was one of the Kuznetsk steel workers who had a hand in building it.

It's a different city now, of course, all spread out with factories, mines, schools and apartment houses on both banks of the Tom River. To get any duck shooting today, you must drive sixty miles but that's not too much of a problem if you have a car.



SIBERIANS speak out



I LIKE FARMING

Anna Rempel

farm-girl at the Michurin Collective Farm, Tyumen Region

I haven't been working long, it is only two years since I came to the collective farm hog-breeding section.

When I was in high school, my classmates prophesied a stage career for me. But I liked farmwork. I was brought up on the collective farm, and I wanted to work at home. When

I told the girls I wanted to take a farm job, they talked about its being hard and dirty work. But I decided on hog-breeding anyway. That's what I'm doing now and I like my job. This fall I'm planning to go to an agricultural secondary school. About the stage, I act in an amateur theater group.



A UNIVERSITY CENTER

Innokenti Butakov

Professor at the Polytechnical Institute of Tomsk

Tomsk, where I live, is the seat of Siberia's oldest university and polytechnical institute. In addition to these two, we now have four other institutes. One out of every five Tomsk citizens is either studying or teaching. I have been teaching at the Polytechnical Institute since 1913.

In the old days my native city had Siberia's only university, but Tomsk has fortunately lost this monopoly in the last quarter century since colleges were founded in Novosibirsk, Irkutsk, Omsk, Krasnoyarsk, Barnaul

and Yakutsk. Irkutsk, as one example, has a university and six institutes.

Most of the graduates stay and work in Siberia. It offers a real challenge because of its great size and rapid development in practically every field. The best of the Siberian university trained people do their work in the branches of the USSR Academy of Sciences in various Siberian cities.

Siberia—a university center! What a proud sound that has in a region where only forty years ago the rate of illiteracy was 85 per cent.

WORKING ON NEW LAND

Vasili Bogdanov

tractor driver on the Uchum State Farm, Krasnoyarsk Territory



The village of Solyanka, where I was born and grew up, lies near the Trans-Siberian Railroad. It is distinguished from the many villages surrounding it by the presence of an agricultural experimental station. My parents worked at this station, and now my sisters and my brother work there.

I always liked machinery and after graduating from a secondary school I entered the Kamalinskoye School of Farm Mechanization. When I was through with the course, I was asked to stay on as an instructor. You can imagine how proud I felt when I was entrusted with the job of training people my own age as tractor and combine operators.

It is said that youth is easily carried away. I don't know how true that is, I did a lot of thinking before I decided to go along with some friends of mine to work on virgin land at the Uchum State Farm.

I've been here two years now and I'm glad I made that decision. The land we work is very fertile and our tractor-field brigade has set a fine record. I'm married and my wife Raissa and I have a new son. He looks like a Siberian farmer, big and husky, and he's already beginning to talk like one.

PAY IS GOOD

Agrafena Minenkova, weaver in the Barnaul Textile Mills

When I see bales of serge with the trademark of our Mill in the stores of my home city of Barnaul, I feel good about it. I wove some of this fine fabric.

I have been working for seven years and I have become an experienced automatic loom operator. I turn out 15 to 20 per cent cloth above quota every month. The Mill pays for high productivity and my pay is good. In the past year my monthly earnings never went below 1,000 rubles.

After work I go to school. I want to become a technician. I'm enrolled in the four-year course at a branch of a specialized textile school which the Mill set up. I'm fond of sports and get in a lot of skating in winter and swimming in summer.



PEOPLE LIKE OUR COOKING



Alexei Dzhashi, chef of the Baikal Restaurant in Irkutsk

I have been feeding people for 32 years now. From time to time I meet acquaintances coming to our city of Irkutsk from all over the country.

"Eh, Alyosha," they cry, "those were the good old days! Remember that meal you served us? It still makes our mouths water."

At our restaurant bearing the name of the Siberian Lake Baikal we have many such meals, each with its own following. One of the most popular delicacies is a winter dish. People around here call it "smithereens." Now that's a dish. You take a frozen whitefish or trout, smash it to bits—that's where the name comes from—cover with onion, sprinkle with pepper and then dip in vinegar.

To make sure that "smithereen" fanciers



SIBERIAN THEATER

Margarita Ozhigova

stage director at the Novosibirsk Theater of Opera and Ballet

Our theater seats an audience of 2,000, and since we opened in May 1945, we have played to full houses. Our repertory includes 47 operas and 17 ballets, the finest of the Russian and foreign classics and of modern composers and choreographers. Among our productions are Moussorgsky's *Boris Godunov* and *Khovanshchina*, Tchaikovsky's *Enchantress* and *Voyevoda*, several operas by foreign classics.

We had the distinction of being the first theater to produce Morozov's ballet *Aibolit* and Korchmarev's ballet *Scarlet Flower*. One of our recent productions, very well received, was Alexander Kasyanov's opera *Yermak*. Its theme was the history of Siberia. To celebrate the fortieth anniversary of the October Revolution, we are doing Tikhon Khrennikov's *In the Storm*.

don't freeze, we serve vodka with it. The vodka must be taken straight—as much as you dare at one gulp. It's true that French culinary art calls for a dry, white wine with fish, but that would be too mild for frozen "smithereens." The saying here in Siberia is that if you don't wash it down with straight vodka, it will put hoarfrost on your stomach.

"Whitefish a la Siberia" is another of our specialties. When I served it to some foreign guests, they all came back to the kitchen for the recipe. It should be served with our Baikal Salad made with pork, fruited sauerkraut and green peas, all crowned with a pitted apricot.

It seems that not only Irkutsk but most of Siberia likes our cooking. Such discriminating people are a pleasure to feed. ■



Once "a horrible little town," transformed Omsk now has municipal, housing, educational, cultural and medical facilities to match the country's best.

Nothing now remains of Dostoyevsky's description of Omsk. The old houses in the city's outlying sections are being pushed out by new housing projects.



SIBERIA'S OMSK:

A CITY TRANSFORMED

By Leonid Dnyeprov

"**O**MSK is a horrible little town. There are practically no trees in it. In summer, heat and dry winds that blow up lots of sand, and in winter snowstorms. I didn't see anything green growing there at all. A dirty little town."

That is Dostoyevsky's note on Omsk when he was exiled to Siberia by a czarist court in 1854 to serve a term of hard labor as a political prisoner.

Until the October Revolution of 1917 Omsk remained "a horrible little town" of wooden hovels with tiny windows, roofs thatched with straw, and unpaved streets which turned into mud ditches in the spring and fall. In winter the town was buried in snowdrifts and during the dry hot summer days it was cloudy with yellow, acrid dust. A town without a sewage system, without water mains, the streets pitch-dark at night. The one street in town which boasted stone houses and cobblestone paving was occupied by wealthy merchants.

Omsk is a relatively old city. It was founded some 250 years ago. Originally a military fortress, it had developed into a large trading



Beaches like this one on the Irtysh River provide recreation for thousands. Winter sports are also very popular. The city has an excellent ice hockey team, and many a skiing and skating champ calls Omsk his home town. Seven colleges here round out the city's sports life with intercollegiate events.

center for western Siberia by the latter part of the nineteenth century. Its industry, however, remained undeveloped until the Soviet period, for the most part confined to small semi-handcraft enterprises that employed ten to fifteen people as an average.

This was pre-revolutionary Omsk, the administrative center of all of western Siberia. Without even a pretense of sanitation, it was a prime center for epidemics, with an infant mortality which was notoriously high.

Dostoyevsky's Omsk has long since disappeared. In its stead stands a large and modern city. Its present industrial output is 190 times greater than in the pre-revolutionary period. It turns out machine tools and precision instruments, combines and radios, gasoline and automobile tires, shoes, furniture, knit goods, tobacco, meat and dairy products among many other things.

Omsk is an important transport junction. The freight turnover of the Omsk Railway is greater than that of all of England's railroads. Boats navigating on the Irtysh River carry cargoes from the Arctic Ocean to the Chinese border. Siberia's immeasurable wealth, its

Continued on page 28

There are many new apartment house projects in Omsk with landscaped lawns like this one. Housing construction has top priority in the city, but the population increase continues to make it a problem.





Garden-like entrance to a machine-building plant in Omsk. This Siberian city manufactures precision instruments, combines, radios and auto tires.



The Drama Theater is one of four in Omsk. The Siberian chorus and dance ensemble, social clubs and amateur theatrical groups are extremely active.

SIBERIA'S OMSK:

A CITY TRANSFORMED

Continued from page 27

timber, minerals, furs, grains, all come to Omsk for shipping to various parts of the Soviet Union.

Those who lived in Omsk before the Revolution still remember the wretched-looking building that was the only hospital in town. All told it had 30 beds and one doctor. Today Omsk has 50 medical institutions and 10 hospitals equipped with the most modern medical apparatus.

Forty years ago there was not one school beyond the secondary level. Today the city has seven colleges, three institutes for scientific research and 26 technical schools. Many hundreds of doctors, teachers, engineers and agronomists are graduated each year. There is work for all of them in the villages, towns and cities of Siberia.

In 1911 there were only two small public libraries, now there are 70 with 2½ million books on the shelves. There are four theaters,

14 moving picture houses, a circus, a television station, an excellent symphony orchestra and the deservedly famous Omsk People's Chorus.

The old city has changed almost beyond recognition. The decrepit wooden huts have been replaced by modern many-storied stone houses, and the dusty alleys have given way to wide asphalted thoroughfares. The old horse-drawn cart which was the only form of transportation is now an anachronism in a city served by trolley and motor buses.

But the most striking change, perhaps, is in the pervading color of the city. A drab gray before the Revolution, Omsk is now a city whose dominant color derives from its mass clusters of greenery. Its maples, apple and willows turn sidewalks into shady lanes. Poplars line the city's beaches along the Irtysh bank and the bridges that span the fast flowing Om. More than three million trees and bushes were planted in Omsk in the last five years, with the

active participation of thousands of citizens.

It was thought foolhardy at one time to try to grow fruit in a climate where the temperature drops to 40 and 50 degrees below zero in the winter, but now Omsk has 4,000 fruit and berry orchards with 160 acres planted as collective fruit orchards by city workers.

Not so long ago one of the Omsk residents received a letter from relatives in the Ukrainian city of Zaporozhye. The letter expressed the common misapprehension that Siberia was a land where nothing would grow. "Do you ever see an apple or a flower out there?" it asked.

Instead of answering the question, the Omsk man packed a box of apples from his own orchard and shipped it to his relative as tangible evidence of the transformation that is going on not only in that distant city, but throughout all of Siberia. ■



PUBLIC SQUARE IN OMSK. GARDENS AND GREENERY HAVE MADE THE CITY ATTRACTIVE AND COLORFUL, A FAR CRY FROM ITS DRABNESS OF DOSTOYEVSKY'S DAY.



▲ This is Mayakovsky Street, one of the many avenues shaded by rows of trees. Green is now the dominant color in every section of the city.

◀ Flowers in abundance adorn the parks of Omsk. Science has even developed fruit trees which can survive the severe winters typical of this area.



Siberian Folk Chorus

By VALERI PETROV

SOLOIST GALINA AGEYEVA ATTIRED IN A COLORFUL SIBERIAN COSTUME.



THE SIBERIAN FOLK CHORUS IS POPULAR NOT ONLY FOR ITS INTERPRETATION OF TRADITIONAL FOLK SONGS BUT FOR ITS ORIGINAL COMPOSITIONS ABOUT MODERN SIBERIA.



"THE LITTLE PERCH," BEING ENACTED HERE, IS ONE OF THE MORE POPULAR OF THE PLAY-PARTY SONGS AND DANCES.

INNUMERABLE songs have been composed in the boundless expanse of Siberia. Some relate the story of the first Russian settlers, others reflect the hard and bitter lot of Siberians in the old czarist times. The songs set in a later period narrate how the new life is being built.

These folk songs, widely sung in cities and countryside, make up the repertoire of the Siberian Folk Chorus, founded ten years ago in the city of Novosibirsk. The members of the chorus, some ninety strong, became the best known amateur folk singers and dancers from the surrounding rural and industrial districts.

As their concert tours became larger, the Siberian Folk Chorus won a national reputation for its interpretation of native folk songs and dances. In 1953 it was acclaimed as winner of the first prize at the Fourth World Youth Festival in Bucharest. And now it is regarded as one of the leading folk choral groups in the country.

This chorus has been highly commended by music critics for its soft, melodious renditions, its fine blending of voices and clear diction. Siberian audiences are especially pleased that the chorus adheres to the appealing local pronunciation and traditional Siberian delivery.

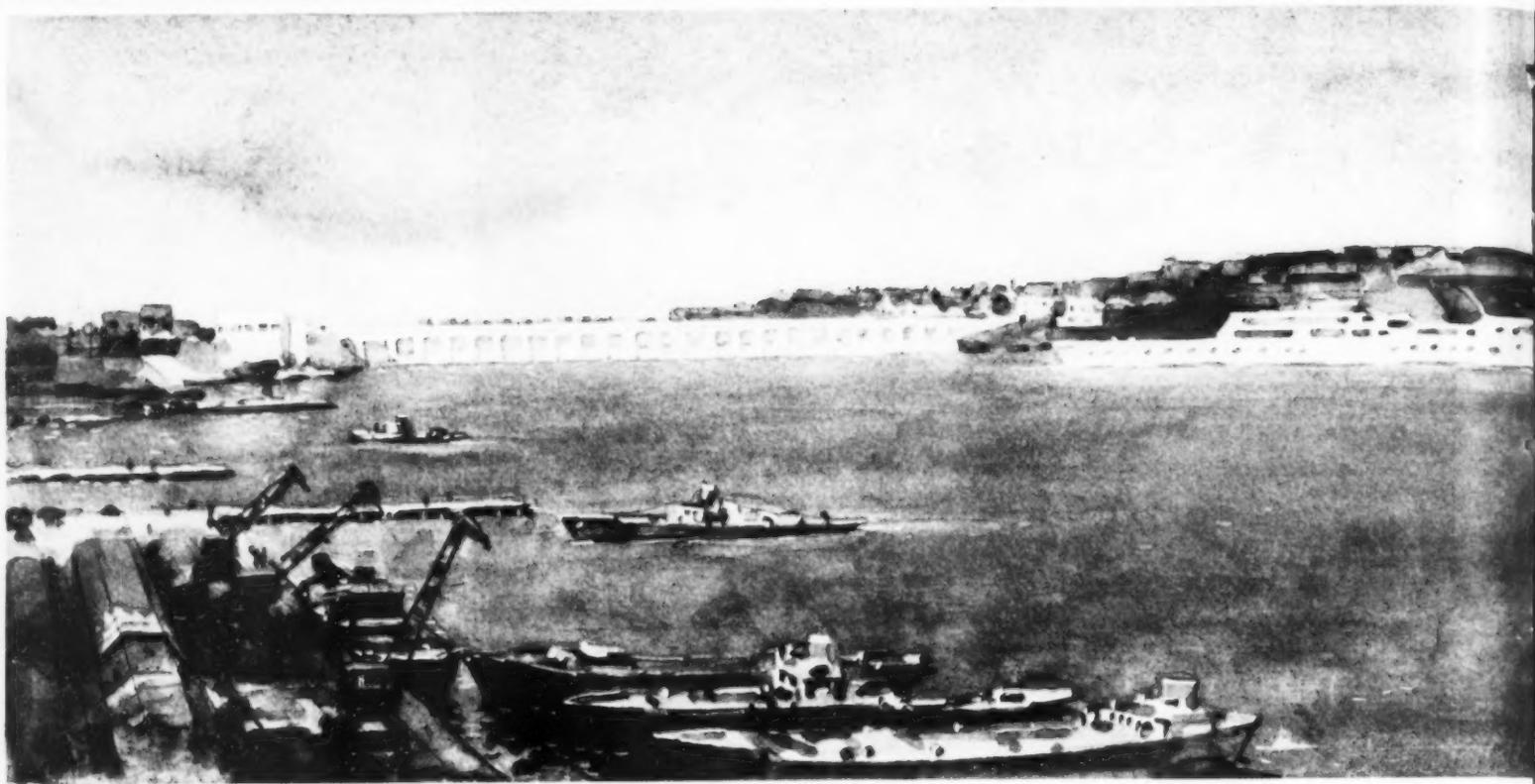
Concerts by the chorus are invariably a bright and most picturesque spectacle. Although they have accumulated more than 100 songs and dances, there are a few numbers that are in continual demand everywhere. These include: "How Bitter, Bitter," a song of czarist Russia; a lyrical maidens' song, "She Hid the Ring," and the rollicking "How Mother Got Ivan Ready for the Trip." Many of the play-party songs and game dances such as "The Little Perch" and "The Siberian Round Dance" are sung and danced throughout Siberia.

This popular chorus not only presents the songs and fables of its native land, but it also collects its folklore. It maintains constant contact with small farm choruses, talented singers and dancers who come directly from the people. These contacts keep the chorus supplied with fresh material because of its ability to fathom local folk art. Thus the chorus composes its own new songs about modern Siberia and its people. Many of these compositions have won wide popularity and have essentially become modern folk songs. ■

SOLOIST VALENTINA CHIKALOVETS CHARMS AUDIENCES WITH MODERN FOLK DITTIES. ►



FORBES
UN



AN ARTIST'S CONCEPTION OF HOW REVERSING THE COURSE OF A SIBERIAN RIVER, NOW FLOWING WASTEFULLY THROUGH THE WILDERNESS TO THE ARCTIC OCEAN, WILL CHANGE LIFE ALONG THE BANKS.

A FUTURE OASIS IN CENTRAL ASIA AFTER THE REVERSED RIVERS WOULD BRING SIBERIAN WATERS TO THE DESERTS BY A SYSTEM OF DAMS AND CANALS.





ALONG BANKS.

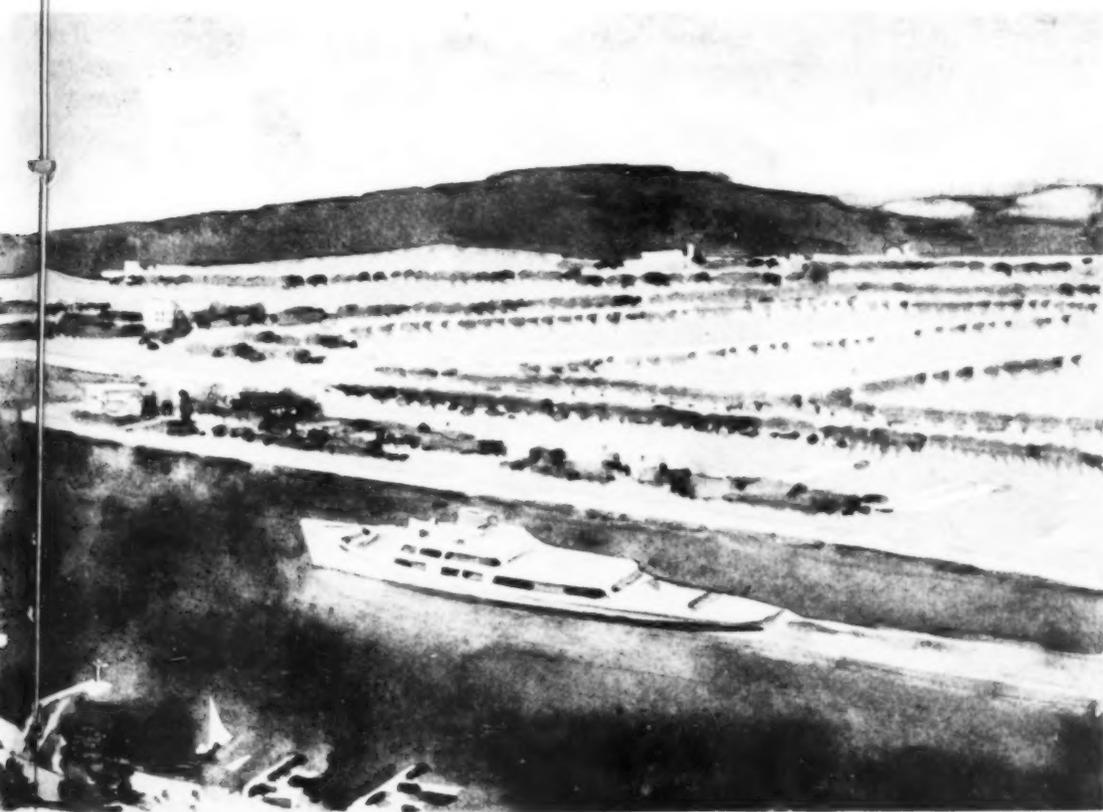


The Siberian Rivers

Will Flow *Backward*

Interview with Mitrofan Davydov, Hydraulic Engineer

AND CANALS. THESE LANDS COULD SUPPORT 600 MILLION PERSONS.



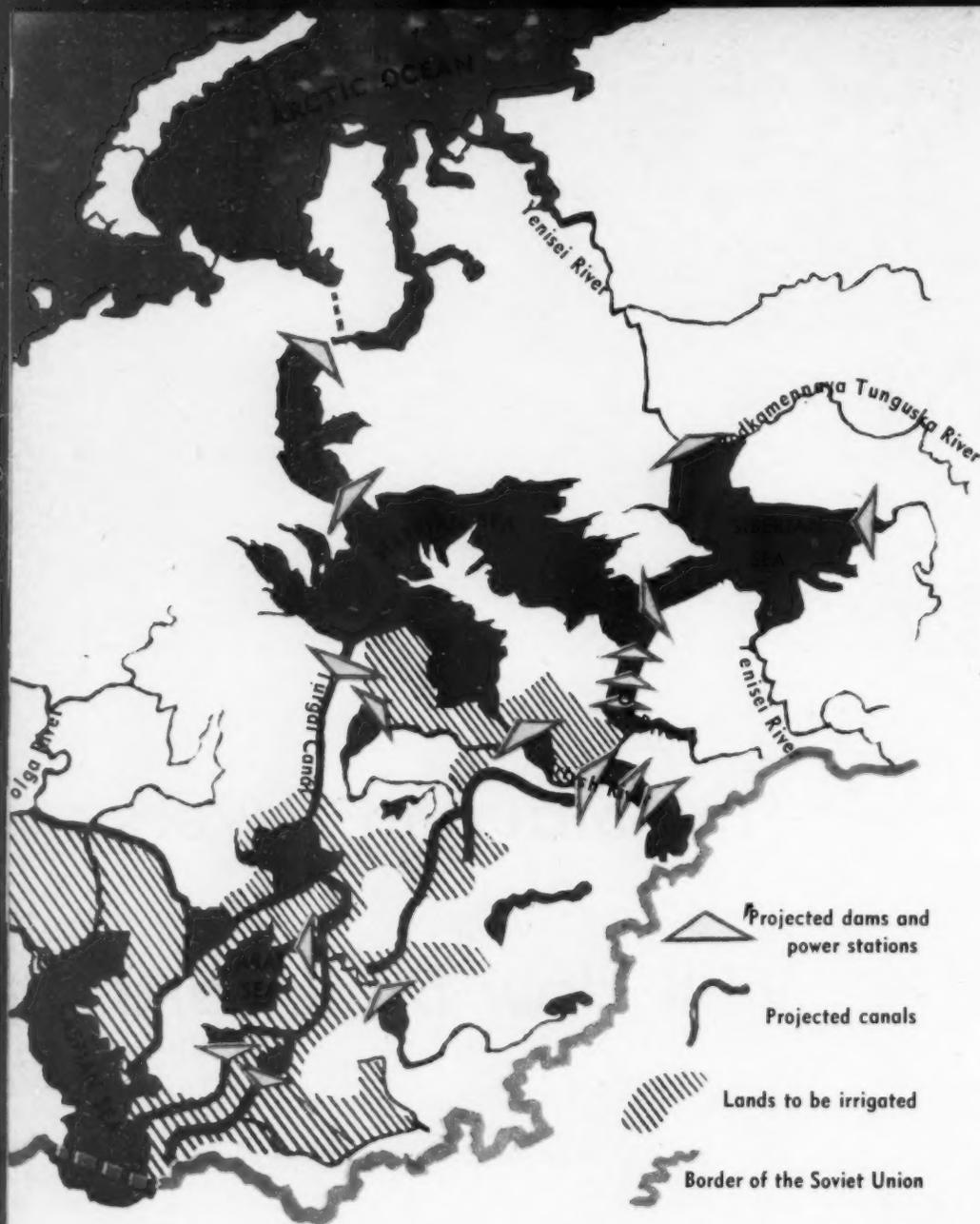
TO BRING the waters of mighty Siberian rivers to the great deserts of Central Asia, to turn the sand wastes of the Kara Kum and the Kzyl Kum into fruitful gardens—this is the expansive project which Mitrofan Davydov, hydraulic engineer, has been planning for a quarter century.

The Kara Kum and the Kzyl Kum spread east of the Caspian and Aral Seas. For most of the year they are lifeless, burnt out spaces. It is only during the very brief spring rains that the desert suddenly blooms in a fantastic display of color and beauty, as though nature for this short interval were displaying all its magnificent potentialities.

But as soon as the rains end, everything withers and dies. Only the oases remain green. There, under a burning sun, cotton and olives and dates are grown. Subtropical vegetation blossoms with astonishing swiftness, and herds fatten on the rich pastureland.

These are man-created oases, made by tapping underground waters for irrigation. But millions of acres of this sun-flooded land are dead without water. With sufficient irrigation, cotton, fruit orchards and shade trees could be grown everywhere in the Kara Kum and Kzyl Kum regions, and towns and villages could

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The Siberian Rivers Will Flow Backward

Continued from page 33

be built along new rivers and canals. This is Mitrofan Davydov's project.

Davydov was born on the fringe of the Kzyl Kum desert at the close of the last century. The son of a worker, he also was a laborer in his youth. It was only after the October Revolution of 1917 that he was able to study at the Institute of Hydraulic Engineering in Tashkent.

Since then Davydov has designed and supervised several hydrotechnical projects on the Vakhsh, Naryn, Chirchik and Syr-Darya Rivers in Central Asia. He was chief engineer for the construction of the Kama hydroelectric station which recently began operating in the West Urals. But all this time he has been possessed by the one idea—from where could enough water be obtained to irrigate the deserts of his birthplace in Central Asia?

How the seed of an idea germinated, how it began to grow after many thousands of hours of slow calculation and an infinity of

drawings and charts is Engineer Davydov's fascinating story.

Reversed Rivers to Revive Deserts

"I was forced to the conclusion," he says, "that the answer to my question was in the north—the big Siberian rivers. The Ob and the Yenisei are thousands of miles long and they carry hundreds of billions of gallons of water. People in the north call the Yenisei 'the ocean's brother.' Its flow equals five rivers the size of the Nile, ten of the Rhine, or thirty of the Elbe. As for the Ob, it has more water than the Volga, Dnieper, Don, Svir and Niemen combined.

"That's a lot of water. But the difficulty is that the rivers of Siberia flow northward and empty their waters into the Arctic Ocean where it is of no use to anyone.

"In the north and in Siberia there is lots of water and little sunshine, while in the south the proportions are reversed. Nature separated the deserts and the big rivers by thousands of miles. We can't carry the sun's heat from Central Asia to Siberia, but we can get the Siberian water to the desert. For that we need to change the courses of the Ob and the Yenisei, reverse their flow and so shift part

of their inexhaustible supply of water to the south.

"What I have in mind is a large man-made river flowing through the middle of the desert. We have the river on paper. We expect in the not too distant future to have the actuality.

"The source of this future waterway will be the Ob River below the point at which the Irtysh flows into it. A big dam will be built there. Its overflow will create an artificial sea in Siberia. The lake and the river, which will flow south, will flood an area where a river once ran. Now it is thickly wooded marshland.

"The interesting fact is that thousands of years ago the Ob flowed not north but south, through what is now the Turgai district. That was during the last glacial period. Evidence of that is the ancient bed of the Ob. The glaciers moved northward; earthquakes changed the earth's surface and the Turgai, a plateau between Western Siberia and the Aral-Caspian depression, was formed as a result of these tremendous upheavals. This plateau checked the flow of the Ob southward. When the river is turned about, it will flow in the same direction as it did thousands of years ago.

"The flood lands of the rivers Irtysh and Tobol will bring the man-made Siberian Sea right up to the divide between Western Siberia and the Aral-Caspian depression. The plateau can be cut by a big canal. Powerful pumping stations will send water from the Siberian Sea into the canal. This will make it possible for the Ob to emerge onto the southern slope of the plateau. From that point on, the flow will be natural. In two big branches the river will flow along the beds of dried-up rivers and the new channels onto the waterless plains of Central Asia.

"As for the Yenisei, it flows east of the Ob, and at 60° north latitude the two rivers approach each other. To create a second Siberian Sea, it will be sufficient to build a dam on the Yenisei at the closest point, below the mouth of the Podkamennaya Tunguska tributary, which feeds into the Yenisei from the east. From here water will flow into the Kas River, a western tributary of the Yenisei, turn its course backward and join up with the first Siberian Sea to flow with the Ob toward the Central Asian deserts and the steppes of Kazakhstan.

"A river in the desert! From my own experience I know what it could mean to have these billions of gallons of water flowing in places where a mouthful is often a luxury. I grew up in this desert zone and I still remember from my childhood what a blow it was when the level of the river Syr-Darya dropped. People stood looking on as the irrigation ditches dried up. It was starvation looking back at them. I can still see my mother crying at the edge of a ditch as it dried up—a picture that has stayed with me all these years. Perhaps it was then that my passion for things hydrotechnical was born."

Gazing Into the Future

What will Central Asia and Siberia be like after the courses of the Ob and the Yenisei are reversed?

Mitrofan Davydov's answer is a fascinating look into the future. The combination of water

and sunshine will change the desert lands east of the Caspian and Aral Seas beyond recognition. Siberian water will irrigate more than 250 million acres of arid land, an expanse greater than the irrigated land in the United States, Canada, Australia, Japan, Egypt and Italy combined.

Cotton plantations, vineyards, citrus groves and fields of rice and sugar beet will ripen where there was nothing but sand before. There have been estimates which show that this gigantic oasis could support 600 million people.

Water will change the climate too. Greater evaporation will help moisten the air in the Aral-Caspian depression and make the climate more genial. In Kara Kum the daily and annual temperature ranges will approximate those in Italy. Siberian weather will also be moderated. The water evaporating in Central Asia will create air currents that will turn north to mitigate the harsh Siberian weather. The artificial seas near the Ob and the Yenisei will also help. It is altogether possible that the permafrost boundaries in Western and Central Siberia will retreat to allow millions of acres of this barren land to be cultivated.

The Siberian rivers will be turned about not only to irrigate deserts and arid steppes, they will also be used to generate power. As they race southward, the Ob and the Yenisei will be harnessed to the turbines of the power stations of Siberia, the Southern Urals, Kazakhstan and Central Asia.

The man-made river that is to flow between Siberia and Central Asia will run to a depth of about 35 feet. It will be connected with the Arctic Ocean, Lake Baikal in Central Siberia, the Baltic Sea to the west, the White Sea to the north and the Black Sea to the south. The new waterways will handle a large amount of freight along their total navigable length of approximately 5,000 miles.

"Of course the job of reversing the Siberian rivers is an immense undertaking," says Engineer Davydov. "Almost 18 billion cubic yards of earth will have to be excavated and removed—about a hundred times more than in building the Panama Canal—and 25 million cubic yards of concrete will have to be poured. But it is altogether feasible. And who knows? As the project develops we may even find it possible to use atomic energy for our excavating. That would help us enormously to speed up digging on the big canals, to lay new river beds and to build the artificial lakes.

"But even with the present technical facilities at our disposal I fully expect to be around to see Siberian water flowing through the irrigation ditches of Central Asia. And keep in mind," Mitrofan Davydov says as a sort of emphatic postscript, "that I passed my sixtieth birthday a couple of months ago."

As to the present stage of what was once Davydov's dream, a whole team of experts are busy now drawing up plans for this far-reaching project under his supervision. Expeditions have done the ground explorations in both Siberia and Central Asia, have studied the area of the future lakes, the disposition of the Ob and the Yenisei and the sites for the future dams. This is the dream in reality, the beginning of an unprecedented reconstruction of the surface areas of a continent. ■



A scene among the boundless wastes of the Kara Kum and Kzyl Kum deserts in Central Asia. There is rich, fertile soil here and much southern sunshine, but the need for water is desperate.



All of the major Siberian rivers carry their tremendous volumes of water northward. In the inhumanity of nature's jest however, none goes to the south, where the water is essential to revive the deserts.

Man with a plan: Mitrofan Davydov, who designed and supervised several important hydrotechnical projects, now foresees a time when Siberian rivers will pour throbbing life into the Central Asian deserts.



KOSTROMA is much like other small Russian towns. The buildings, for the most part, have two or three stories. The few motorbuses are enough to handle whatever passenger traffic the town has. The main street is lively, but turn off on one of the side streets and you are on a quiet country lane. Kostroma is an old town, founded 800 years ago on the shore of the upper Volga.

Like most of Soviet cities and towns, Kostroma has its own playhouse. It is housed in a three-story building with a hall that seats 800 people.

The theater's early history followed the pattern of the commercial playhouse of the period, with no permanent company or fixed repertory. The high price of tickets ruled out any kind of mass audience, so that theater-owners tried to meet overhead by offering two, sometimes three, openings in one week. The productions, of course, suffered as a consequence.

In spite of these handicaps, however, some of the Kostroma productions, notably Shakespeare's *Hamlet* and *Macbeth*, Corneille's *Le Cid* and plays of the Russian dramatists Griboyedov, Gogol and Ostrovsky, won the theater considerable fame.

After the October Revolution of 1917, to make the drama accessible to all the people, ticket prices were sharply reduced in theaters throughout the country and the deficit met by annual subsidies from the government. The Kostroma Theater, until it became self-supporting in 1940, received an annual subsidy of 300,000 rubles and was able thereby to set up a permanent company.

That was a big step forward. For the actors it meant security, peace of mind, and the possibility of building a tightly knit and highly trained company. They no longer had to wander from town to town on one-night stands that gave them a speculative livelihood at best. For the audience it meant that the lowest paid worker could afford a theater seat to the world's great plays.

The Kostroma is a much different theater today. It has a staff of 116 actors, directors, musicians, wardrobe people, electricians and other personnel. It is rare that the company does not play to standing room audiences. It has a current repertory of twenty plays done in sequence, with most of them given from sixty to eighty times.

Among the favorites are Alexander Ostrovsky's *The Forest*; Jack London's *Theft*; the Spanish classic, Lope de Vega's *Girl with a Pitcher*; Boris Gorbатов's *One Night*; the play by the Tur brothers, *Wheel of Fortune*; and *Doctor of Philosophy* by the Serbian playwright Branislav Nusic.

During the course of the year there are from ten to twelve premieres. The most successful last year were *Madame Sans-Gêne* by Sardou and Moreau, *Eternal Source* by the Soviet playwright Dmitri Zorin, and *When the Acacia Blooms* by Nikolai Vinnikov, another

A Theater in KOSTROMA

By Alexei Morov



SCENE FROM LUCY, PLAY BY GERMAN MAZIN. NINA MEDVEDEVA PLAYS LUCY; VASILI MAKASEYEV, HER FATHER.



THE COMPANY WORKS SIMULTANEOUSLY ON SEVERAL NEW PRODUCTIONS. DIRECTOR VASILI BEZMENOV REHEARSES A GROUP HERE, IN ONE OF THE THEATER'S OFFICES.

Soviet dramatist. Plays are selected by the Art Council, a rotating group of members of the company. The play now in preparation is Alexander Ostrovsky's *There's a Bit of the Simpleton in Every Wise Man*, a favorite of Soviet audiences.

Kostroma premieres are gala events and seats are at a premium. The whole town tries to jam into the theater, and discussion of artistic pros-and-cons goes on for days following the opening. Frequently the audience tends to speak its mind with considerable heat. Arkadi Movson's *The Second Track*, for example, was discussed off the stage after twelve performances. Kostroma audiences refused to take it.

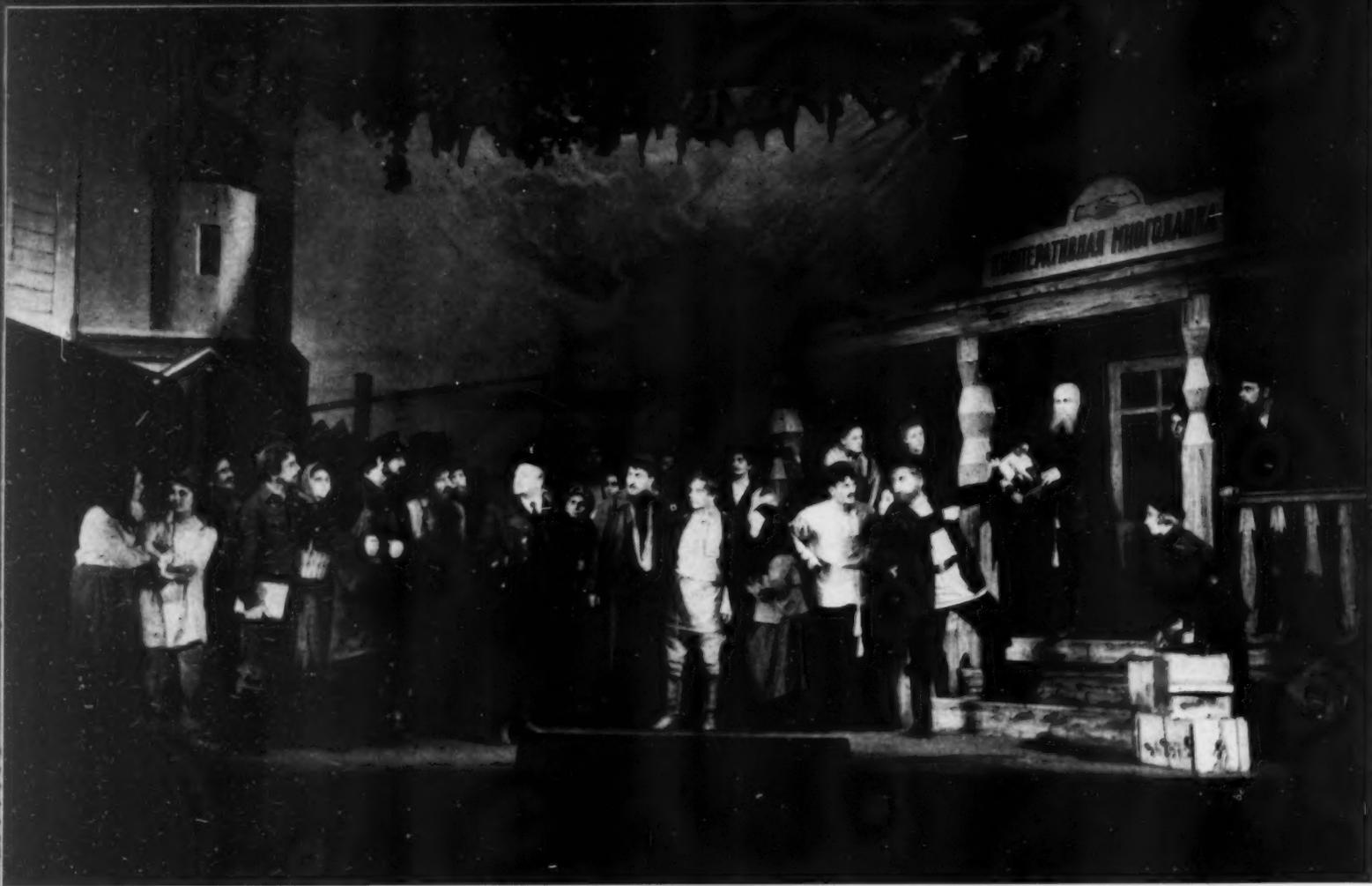
The theater has set a high standard for its productions and the results have been evident in box office receipts. Not only has the theater required no financial subsidy for a good many years now, but there has been enough money taken in at the box office to provide bonuses for actors and other company members over and above their regular guaranteed salaries.

The Kostroma company does considerable touring. In the last few seasons it has performed in Moscow, Sochi, Ivanovo, Yaroslavl

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THE STONE NEST BY HELLI VUOLIJOKI, FINISH PLAYWRIGHT, ENJOYS A SUCCESSFUL RUN AT KOSTROMA THEATER.



A SCENE FROM *ETERNAL SOURCE*, A PLAY BY DMITRI ZORIN, SHOWING EVENTS SOON AFTER THE 1917 REVOLUTION. IT IS VERY POPULAR WITH KOSTROMA AUDIENCES.

A Theater in KOSTROMA

Semyon Savin, an engineer in a machine building plant, and his wife Maria go to the theater regularly every week. The theater manager says, "One day I'll put up a poster saying Benefit Performance of *The Forest* by Ostrovsky. The 1,000th Performance Attended by the Savins."

THE ART COUNCIL, COMPOSED OF COMPANY MEMBERS, LOOKS OVER SKETCHES OF SETS FOR NEW PRODUCTION.



Continued from page 37

and elsewhere. The Moscow production was *Savva Chalyi*, by the Ukrainian dramatist Ivan Tobilevich, a play of his region's past written around folk songs and legends.

Members of the company have received tempting offers from troupes in towns much larger than Kostroma, but the group has developed so high a morale and artistic unity that it is rare for a member to leave.

Klavdia Vetkovskaya, one of the leading actresses, has won wide acclaim for the insight with which she interprets character. Her Anna Karenina and Katyusha Maslova, both Tolstoi figures, are particularly noteworthy. Svyatoslav Astafyev, who recently passed his twenty-fifth year of work in the theater, is another Kostroma favorite.

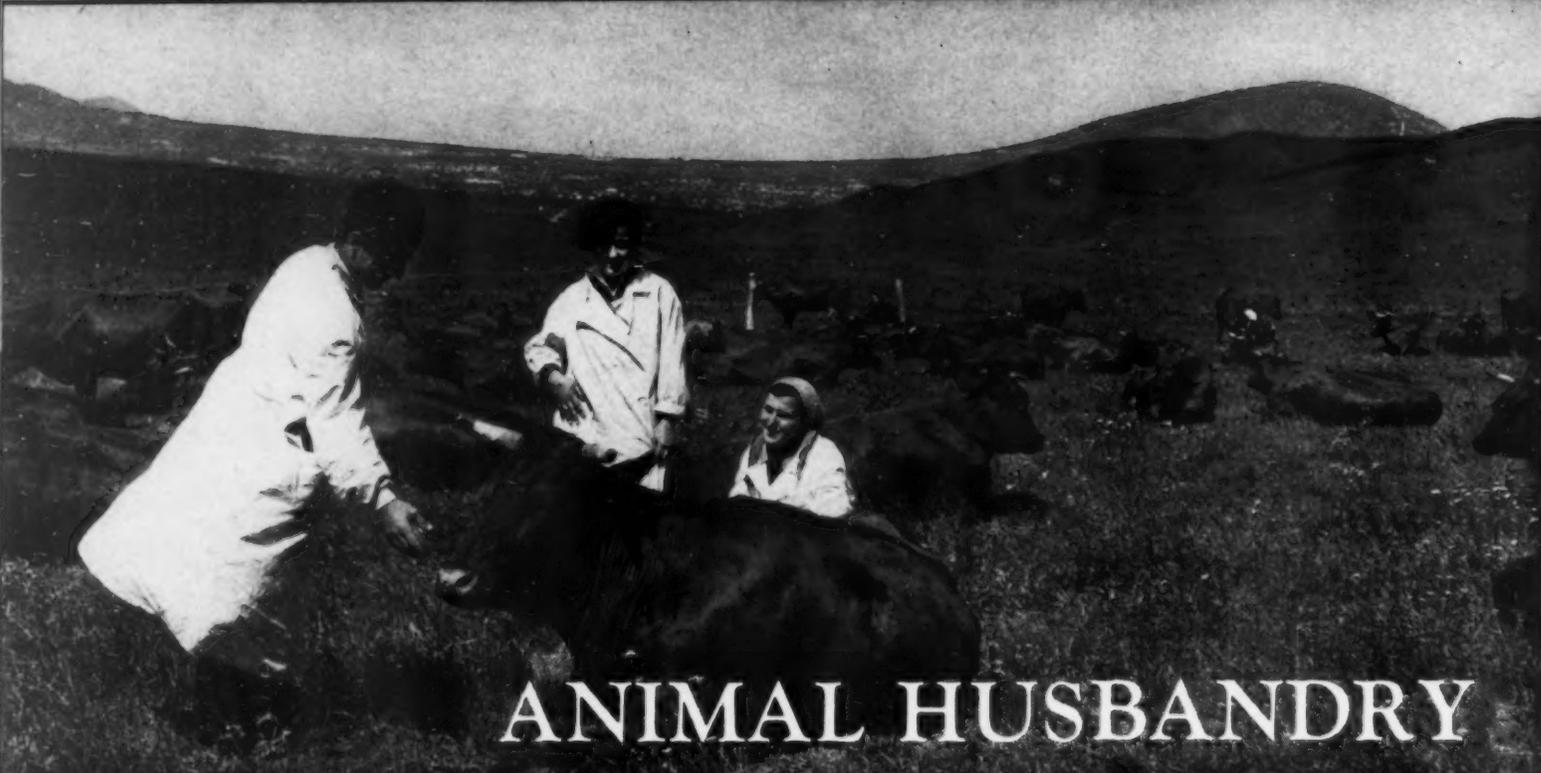
Company members are highly regarded by Kostroma citizens for both their artistry and their public-spirited activities in organizing and working with amateur theater groups and local workers' clubs. An expression of this regard was the recent election of two company actors to public office—Astafyev as deputy to the regional legislature and Khrabrova as member of the city council. ■



IZA MAMAYEVA PREFERS TO PUT ON HER OWN MAKE-UP. IT HELPS HER TO CONCENTRATE ON HER ENTRANCE.

MANY ENTHUSIASTIC PLAYGOERS LIKE THESE OFTEN GATHER AT THE STAGE DOOR AFTER A PERFORMANCE. COMPANY MEMBERS ARE MUCH RESPECTED BY KOSTROMA CITIZENS.





ANIMAL HUSBANDRY

ON A COLLECTIVE FARM

By Mikhail Sukhanov

Photos by Alexander Mokletsov

IT ALL BEGAN with casual talk around the Proletarskaya Volya Collective Farm, and in the way that small talk sometimes has of enlarging and spreading, in a matter of days it was *the* point for discussion. Praskovia Kobets who had been working at the farm for years, in her rather belligerent way, had been insisting that every cow on the farm could be gotten to turn out a good deal more milk.

"There are always people around," she threw back at the hecklers, "who can fish up a million reasons for doing things in the same old way." They laughed but listened. "What's to stop us?" she insisted. "We've got good animals, every one of them the Red Steppe breed. We've got plenty of feed, automatic troughs, electric milkers, well-trained specialists, not to speak of the dairy experience most of us have, and just look at the yield we get."

"Don't jump out of your blouse," somebody said. "You sound as if every cow was running dry and the farm was going under tomorrow. We got more than 4,000 quarts of milk from every animal last year."

"And Raduga—didn't she give 6,000? That's exactly what I'm saying." And Praskovia, who has been milking for years and knows the idiosyncracies of every animal on the farm, gave them a long list of cows with better than average milk yields that made them sit up and take notice.

"And I don't think," she added with considerable emphasis, "these are one bit better than the others. We just do a better job on them. We can get more milk from all the cows. I know it—it's a matter of trying and doing it, all of us older hands. And teaching the youngsters at the same time. They've got a better education than we have, but they don't have the experience. That's what we can give them. And they're good and willing workers. Take Sasha Kuzminova, for instance, she's only been here a short while and already she does a better job than many of of us. I worked with her."

There was much nodding of heads. "You've got a point there," conceded the listeners, most of them old and experienced milkers.



One of the farm's pedigreed bulls of the Red Steppe breed who sire highly productive cows.

AUTOMATIC MILKING IS USED AT THE FARM, BUT OFTEN HAND-STRIPPING BOOSTS VOLUME OF MILK.





THESE MILKMAIDS STARTED WORKING RECENTLY, AFTER COMPLETING A SPECIAL COURSE IN DAIRY FARMING AT THE HIGH SCHOOL.

Ambitious Planning

Pyotr Kulachenko, who has been head of the farm's dairy division for 25 years, a quiet and sensible man whom people listen to, raised the question in a formal way at the general meeting of the collective farm membership early this year.

"You know," he began, "it's not bragging to say that we here in Stavropol Region have a good reputation for stock and dairy. Take our farm. We own more than 12,000 animals—cows, sheep, and pigs. We have modern barns with excellent equipment, good pasture, twenty thousand acres of fertile wheat land that also grows feed corn and potatoes in large quantities so that fodder is no problem. The only thing we need now is the will to go ahead."

The will was there too, the meeting proved. And within a short time the farm's 22 specialists—agronomists, livestock breeders and veterinarians—and the most experienced of the dairy people had drafted a plan to raise output in meat and milk with the understanding that spring was to see the first results.

It was an exceedingly bold plan. It proposed to double meat output from the 1956 figure of 700 tons to 1,400 tons and to boost milk yield from 2,800 to 3,100 tons.

What real basis was there for the ambitious goal at which the Proletarskya Volya Collective's Farm aimed?

There was the existing potential meat supply, of course—pigs would provide 400 tons, sheep about 300 and rabbits and poultry another 60 tons. With cattle, however, the job was a good deal more difficult. Natural increase would not provide additional meat quickly enough so that other methods would have to be improvised. The first called for improved feeding, the second called for the purchase of young animals from private owners at market prices.

The rules of the collective farm, adopted by the farmers themselves, permits each of its members to own a cow, one or two pigs, several sheep and poultry. The usual practice had been to slaughter the surplus young animals when they reached a weight of 100 to 130 pounds and sell the meat at market.

These animals, bought young by the collective farm, would be raised and fattened until they were two or three years old and weighed 900 to 1,000 pounds. This would serve to increase the income of the collective farm as a whole and the individual income of each of its members and would provide an additional 700 tons of beef at the lowest estimate.

The milk problem could be solved more easily since the plan required 4,300 quarts from each of the 800 cows on the farm, only about 200 more than last year's yield.

When Semyon Lutsenko, the farm chairman, summed up the consensus of opinion at the meeting that approved the plan, he said, "Of course we can't provide now for all the difficulties which may crop up, but certainly the plan is realistic enough and altogether possible."

Continued on page 42



Visiting scientific workers are listening attentively as the farm chairman Semyon Lutsenko explains the details of the livestock breeding program.

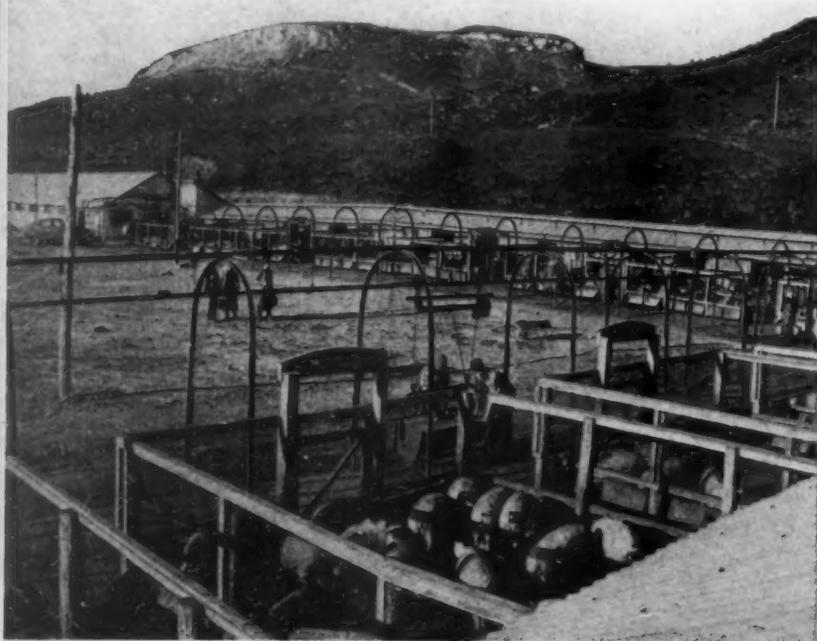
ANIMAL HUSBANDRY ON A COLLECTIVE FARM

Continued from page 14

A flock of sheep with some young lambs in a mountain pasture, where both cooler weather and the lush grasslands encourage growth and better wool.



Fattening pens for the farm's hogs are mechanized with self-feeding devices to keep the feed coming to meet lusty demands of hungry porkers.



Despite Cloudbursts and Hailstorms

One of the things which no one could have predicted was a cloudburst after two months of bone dry weather, a torrent that drowned out meadows, pasture and orchards, followed by a hailstorm which killed an eighth of the crop, more than 2,700 sown acres. It happened just when the new plan was beginning to show results.

It was a hard blow, even for Semyon Lutsenko, who had been through more hard times than good. But he wasn't a man to lose his bearings. He took stock of the damage, salvaged what he could and went ahead with the work. The income of the farm was not affected by the calamity. As with other collective farms, its crops were insured by the state against natural disasters.

However, the plan to increase the output of meat and milk looked as though it would have to be abandoned, for all the fodder and much of the feed crop had been damaged. The idea was actually considered but it was voted down by a large majority of the farmers. So much interest had been generated by the plan that almost the entire population of the fourteen villages included in the collective farm—young and old—mustered to save the feed crop.

The work they did was unusual, but unusual measures were the only ones that could be effective! Every corn plant was examined and in each case where the plant had been badly damaged by hail, a healthy one was transplanted in its place from a densely planted spot. The cornfields damaged beyond repair were quickly resown.

All this happened in early May. By the beginning of June it needed a practiced eye to differentiate damaged from undamaged fields. Then work went ahead on the plan. By that time, similar plans had become general for the collective and state farms in the entire country under the impetus of the challenge to overtake the United States in the production of milk, butter and meat per person of the population within the next few years.

At the Proletarskaya Volya Farm the race is well under way. Even this year, in spite of the many difficulties, some prepared for, some unforeseen, like the hailstorm, the results turned out to be very inspiring.

Time to Count Chickens

The Russian version of the old proverb is "Don't count your chickens until the fall." With autumn here, the first results of the new animal husbandry program at the farm may safely be listed.

The cattle herds have been increased by 300 head. The calves set aside for market are much heavier this year than last as a result of better care and feeding. The farmers, who personally own about 2,000 head of cattle, have been selling their young calves to the collective farm to replenish the herds.

The ewes have lambed well. There are 127 lambs for every 100 sheep and in the best of the flocks, 136 for every hundred.

Hog breeders have done especially well. There are three times as many pigs as last year. This was done by increasing the number of sows for one-time farrowing before sale as pork. As compared with the 64 sows on the farm last year, there are almost 400 now.

The poultry division has hatched 40,000 chicks which are now being raised and fattened. The pond has had to be enlarged to hold 3,000 ducklings and new rabbit hutches have been built.

All this has made it possible for the farm to practically double its output of meat and to sell to the state as much during the first six months of this year as it did the whole of last.

The dairy farm has done very well indeed. To fulfill the plan, an average of 380 quarts of milk a month had to be obtained from each of the farm's 800 cows. Actually the yield hit an average of 400 quarts. Praskovia Kobets and some of the other top-notch milkers got as much as 500 to 560 quarts.

Two new cowsheds were built, making a total of 21, equipped with automatic drinking bowls and electric milkers. Two new stations were set up for artificial insemination. A second pen for hog fattening was equipped with a mechanized kitchen.

The improved method of tending the animals; the use of automatic herders, electrically operated; the self-feeding devices for pigs and the specially sown pastures have cut the cost of milk production by 10 per cent and of meat by 20.

The timely work done to repair the hail damage and a good crop of grass and fodder have assured the farm an abundant feed supply.

The farm's success has turned no heads, least of all sober Semyon Lutsenko's. There has been no let-up in activity. The collective farmers have far-reaching plans for the future.



THIS GIRL TENDS SOME OF THE 40,000 CHICKS HATCHED DURING THE PAST YEAR.



TO HOUSE THE INCREASED FLOCK OF POULTRY A NEW BUILDING HAD TO BE ERRECTED.

Even Higher Income Next Year

Animal husbandry is a major source of the increasing living standards of the farmers. More than 9 million of the 21½ million rubles cash income came from this area of the collective farm's work last year. It is interesting to note that while the total cash income multiplied by three in the years 1951 to 1956, the income from animal husbandry multiplied by four, another indication of the farm's potential for livestock development.

More income for the collective farm means, of course, more income for each of its members, no small incentive for these hard working farmers. They do well now, particularly experienced people like Praskovia Kobets.

Last year she and her husband, who works in the cattle division, earned a total of 14,432 rubles in cash and four tons of grain, 2.7 tons of potatoes and other vegetables, 200 pounds of butter and 2.7 tons of feed. At current market prices this produce would come to about 8,000 rubles. The Kobetses are a family of five.

Proletarskaya Volya and another farm jointly own this resort in the Caucasian Spa of Kislovodsk. Collective farmers get accommodations free.

The income the family received in cash and in kind is its net gain, since the collective farmers themselves do not spend anything on production needs. All these expenditures are covered from the budget of the collective farm.

In addition to the share of the farm's common income each family profits from its privately owned economy. The Kobetses have a cow, chickens, kitchen garden and orchard which last year brought them an income of 5,000 rubles.

The photo below shows the family of Philip Lukovsky. There are three working members in the family. Philip is the assistant chief of one of the divisions, his son Yakov works in the stable and his daughter Katya, in the dairy. Last year they earned 28,368 rubles in cash, 8 tons of grain, 5 tons of vegetables and 400 pounds of butter—a total of some 45,000 rubles.

By next year, with the plan to boost milk and meat production to the very ambitious American level in full swing, the Lukovskys, the Kobetses, and all the other families in the Proletarskaya Volya Collective Farm expect their incomes to reach a new level. ■

In good weather the family of Philip Lukovsky likes to eat in their garden near the house. Everybody enjoys the cook-out, especially the children.



PHOTOGRAPH BY U...

WAR WIDOWS

By Georgi Radov



MARIA POTAPOV WITH HER SON VICTOR, A BLACKSMITH, AND HER DAUGHTER NINA, WHO WORKS AS A NURSE.



VASILI POTAPOV WAS KILLED IN ACTION IN 1944.

TO SEE Rozhdestveno, some thirty miles outside of Leningrad, is to see a prospering collective farm village of typical cottages—some rebuilt, others not too new. The village is perhaps more noticeable than most by virtue of its luxuriant gardens and greenhouses. Otherwise it could be mistaken for a hundred others, except to the perceptive observer who can interpret the deep and tragic lines that war has etched into the faces of some of the villagers.

We visited the Potapov family and before we could phrase a question, we found ourselves seated at the dinner table. The food was simple but abundant. At the table with us were Maria Potapov, the mother, a woman with a lined, tired face much older than her brisk youthful movements; her tall, pretty daughter and a son of 18 or thereabouts.

There was a faded photograph on the dresser—it could never have been a good one, probably snapped by a harassed photographer at the front—of a soldier in trenchcoat and fatigue cap, his carbine at his shoulder, a relatively young man.

"Your husband?" I asked.

Maria Potapov gave me the photograph in reply. On the back was scrawled in almost

illegible pencil "Vasili Potapov. Killed in Action. 10/31/41." The boy had switched off the radio and the room was suddenly quiet.

Maria said after a moment: "He went on reconnaissance and didn't come back. A friend sent us the photograph with a note that Vasili had been killed. He was wrong—that time. Vasili's unit had been surrounded by the Germans. He and some others broke through and got back to their company. But by that time the Germans had overrun this village, so we got no news for three years. We thought he was dead but all the time he had been fighting at the front. Three years, and then in 1944 at Leningrad he was killed."

She told the story quietly. A familiar story it was, the boy and girl had heard it repeated a hundred times before, but they listened without touching their food. The mother burst out in sudden, uncontrolled anger. "Just look what the war did! How many widows it made!" And then more quietly, "I was left with three children. Maria Amelin was left with four, another neighbor with three, and still another with two. And how many more are there?"

There was no one to answer her question.

We ate without speaking for a moment. Then I asked "How did you manage all these years?"

"It was a struggle," she said. "But now the collective farm is doing well and we earn a good income. My children are grown up, Nina is a nurse at the hospital and Victor works at the smithy. Vladimir, my eldest, is married and has a young daughter. He has his own house. I would have liked," she added sighing, "to have seen them through college. I didn't give them the education they should have."

"Why do you say things like that, mama?" the girl protested. "I went through high school and then nurse's training, didn't I? and Victor went through technical school and he's working at his trade."

But Maria Potapov kept insisting. "It's what I should have done. Lukin is a widow with three children and she managed it. Her son is going to college."

After dinner she showed us around the hothouses and then left us at the farm office.

The bookkeeper, a gray-haired woman in a kerchief, a widow also, remarked "There's a woman after my own heart. What a time she's had of it, raising those three children without a father. But I've never heard her complain. You ask her how she's getting along and she says, 'Fine, I'm getting along fine.' She gets a pension, of course, like all the war widows, but I don't mind telling you that our farm wasn't always in the good shape it is in now. Our village was part of the front line twice, and you can imagine what was left each time and what it took to rebuild. Maria had her family troubles beside. Vladimir, the eldest, became too fond of vodka, got into a bad scrape and landed in jail for two years. Maybe it's what he needed to bring him to his senses. He's working now and has a little girl and everything is going all right. But I can tell you his mother didn't have an easy time of it."

We walked around the village. There wasn't much to remind one of the war now. The cottages stood on both sides of the village street. From a little way off, we could hear the hum of the generators at the farm's hydro-power plant and the sound of fast running water. Through the pines we glimpsed a columned building—the combined elementary and high school, and near it a two-story library.

"Reported Missing"

But we grew conscious of the war again as we stopped to talk to Maria Amelin, a round-faced, sturdy, middle-aged woman—another of the war widows.

"I was left with four children, three daughters and a son. My husband was reported missing," she said in answer to our question. "I'll never know what happened to him," she added, almost as though she were talking to herself.

The terrible sound of that phrase—"Reported Missing." Was the soldier Nikolai Amelin, farmer from the village of Rozhdestveno, hit by a bomb and blown up beyond identification? Was he taken prisoner and shot somewhere along the route of march to a prison camp by a degenerate SS guard? Or had he been burned in the crematories of Maidenek and his ashes scattered to the winds?

"When troubles come," said Maria Amelin, "they never come singly. Just after I learned that my husband was gone, the cottage was bombed, so we were left without a house. The whole village was in a bad way." She shook her head, "We've had our share of troubles and a little more. But things are different now. The farm gave us lumber and helped us build this house. It isn't a bad house, is it?" she smiled.

It was a solidly built house with a television antenna on the roof. As we stood there talking, a young dark-eyed woman with a child in her arms came to the door. "My daughter and son-in-law live here too," our hostess explained. "My two other daughters work in a Leningrad factory, and my boy, the youngest is in his last year of high school."

We looked at this woman who had raised four children under such difficult circumstances with admiration. She caught our glance, and afraid that we would think she was boasting, she hastened to add, "I'm not



MARIA LUKIN'S HUSBAND ALSO DIED IN ACTION. SHE RAISED FOUR CHILDREN. THIS IS HER GRANDSON.

the only one here. Most of our widows have children and have managed to raise them. Stop at Maria Vasilyev's house. She's one of our best workers and her children are doing very well indeed. Her son Boris got through a training school for locomotive engineers, and her daughter Tanya is studying at a technical school in Leningrad. She's a good student, lives in the dormitory and gets along very well on her student stipend. Then you ought to visit Alexandra Syurtukov and Galya Ivanov and . . ."

We pleaded lack of time but before we left we stopped at a house that stood somewhat apart from the others, at the edge of the fields. Two women lived here: Maria Lukin and her old mother-in-law.

A "Lucky" Woman

Maria Lukin greeted us and invited us in. Her children, she told us smiling, had grown their wings some time ago and flown away. "This is the only one I've managed to keep, my grandchild." She lifted the sturdy little boy in her arms. "I told my eldest daughter, 'Bring him to me. How am I to live by myself?'"

"What are the children doing?" we asked.

"My two girls went to the specialized food trades school in Leningrad. Olga, the eldest, is now in charge of a laboratory at a big factory in Vyborg. Nadya is in the Urals, she's head of a department in a candy factory in Zlatoust."

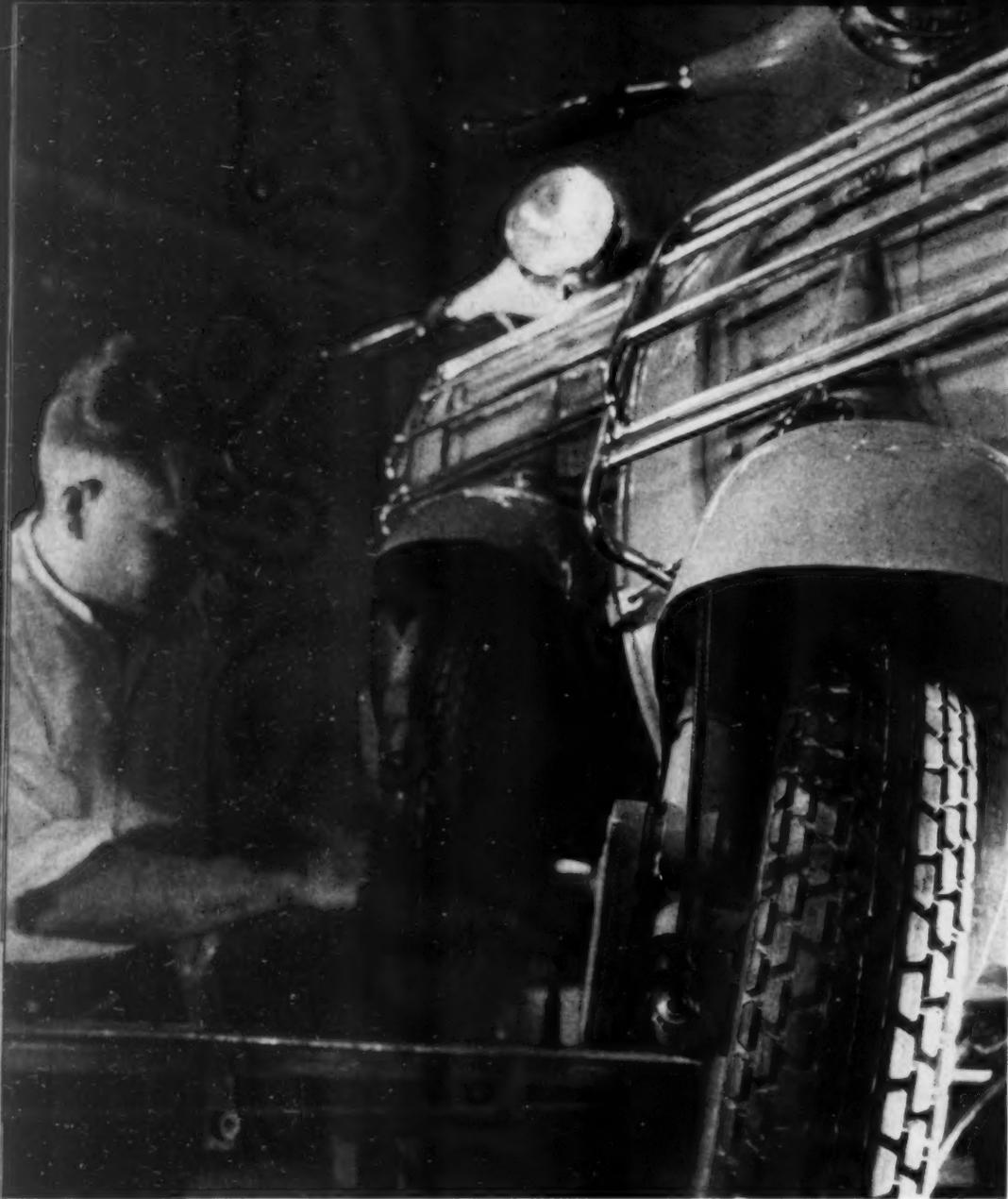
"And your son?"

"Anatoli," she said with evident pride, "is going further than his sisters. He's at the Chemical-Technological Institute at Leningrad studying engineering."

"How did you manage by yourself?" we asked.

"I've been lucky in my children," she said. "When the girls began to grow up, they helped around the house. And my son is a very good student. He gets a state stipend. Yes," she repeated, "I've been lucky in my children."

The old lady had been sitting by caressing the grandchild. "Lucky," she said scathingly. "That's what you call lucky. What kind of life does a woman have without a husband? Lucky indeed! What madman was it who thought up war! I lost two sons and a grandson at the front!" With an angry wave of her hand she caught up her great grandchild, as though to shield him from the horrors that had befallen her sons and grandson. ■



A help wanted sign at the entrance gate says that the Vyatka Plant needs operators for lathes and milling and polishing machines, mechanics, plasterers, carpenters, laborers, technicians and engineers for various specialized lines.

◀ A final assembly of a motor scooter at the Vyatka Plant, where just over a year ago tommyguns were the main item of production.

TOMMYGUNS INTO MOTOR SCOOTERS

By Yuri Pavlov .

THE VYATKA PLANT in the Western Urals was one of those built during World War II for the production of military supplies. It turned out tommyguns principally, besides other small arms. It was at Vyatka that the Georgi Shpagin gun, the Soviet Army's best, was designed and built.

A year ago, after the declaration of the Soviet Government on disarmament, the plant was one of many shifted over completely to the production of consumer goods. This was only one aspect of a large disarmament program which involved a reduction in the standing army at first by 640,000 men and then by another 1,200,000, the disbanding of 63 divisions and brigades, the putting of more than 350 ships into "mothballs" and the closing of a number of military academies.

The Vyatka plant, with its several thousand workers, was faced with these problems when military orders stopped coming through: What type of consumer goods to produce and how to keep operating during the retooling process?

The plant management consulted with the ministry of trade. The officials of the ministry suggested that the plant ought to produce refrigerators and washing machines. This suggestion was presented to a full meeting of the plant personnel.

It was a turbulent meeting with much heated discussion and tempers flaring. The majority of those present rejected the proposal. Pyotr Artamanov, chairman of the factory trade union committee, summed up the discussion, "Refrigerators and washing

machines are being turned out by dozens of other plants. It's wasteful to use the highly trained workers of our plant on the production of these relatively simple items."

That seemed to express the general sentiment and the meeting was stalemated until fitter Ivan Babakin threw out the idea of making motor scooters. The proposal met with the approval of the meeting and the factory management. That is how the first Soviet mass production of motor scooters was initiated at the Vyatka plant.

Valentin Kamzolov, the chief engineer of the plant, who has been designing weapons for a quarter of a century, had something of a readjustment to make. But the problems involved in retooling were too challenging to leave him much time for regrets.

Commenting on one of the most immediate problems—employment during the change-over—he says. “We were anxious to avoid stops in work during reconversion since it meant loss of wages for the period. We decided to produce record players while retooling was going on. To judge by the demand, not only inside the country but abroad, our Vyatka record players hit the mark. We turned out four million in a year. We then added a new design of motorcycle sidecar which also met with favor.”

With reconversion complete, Vyatka production lines now turn out motor scooters in a variety of finishes—light blue, green and silver, and scooter pickups for light delivery. Both handle easily, are durable and are priced low. They sell in quantity. The first lot to come off the line was shipped to Moscow for the World Youth Festival.

Vladimir Belyakov, co-designer of the machine, predicts that the plant will have turned out 10,000 by the end of this year and a much greater number in 1958. The scooter has a $4\frac{1}{2}$ horsepower motor and will run about 80 miles on a gallon of gas. The tank holds three gallons.

The machine has decided advantages over the motorcycle. It is simpler to service, easier to run, and rides more smoothly owing to an ingenious wheel suspension arrangement. Plant engineers are now busy on designs for a new and improved model. ■



VLADIMIR BELYAKOV, CO-DESIGNER OF THE VYATKA SCOOTER, USES ONE TO RIDE TO HIS COUNTRY HOUSE.

THIS HANDSOME VYATKA SIDECAR FOR MOTORCYCLES WAS AWARDED THE FIRST PRIZE AT A RECENT MOSCOW SHOW. IT HELPED THE PLANT FILL A CONVERSION PERIOD GAP.



By IVAN FETISOV,

Chairman,
Yaroslavl Economic Council

YAROSLAVL is one of many regions in the Soviet Union whose industrial potential will be vastly accelerated by the new type of industrial management placed in operation a few months ago. This drastic country-wide overhauling of managerial organization away from highly centralized ministries in Moscow to control by local economic bodies was a carefully considered measure to bring management into step with the young colossus of Soviet industry that has grown since the 1917 Socialist Revolution.

The momentous changes in the industrial picture of the country in these past forty years may be illustrated by Yaroslavl Region. Like every other region, it was shaped into an economic unit with its own peculiar character by a long process of historical development.

The city of Yaroslavl dates back to the eleventh century when it was founded as a trading post at the intersection of the Volga River and a highway which led northward from Moscow. The walls of the old citadel still stand as a relic of a bygone age.

The first flax mill in Russia was built in the region which subsequently developed as a textile center. Even before the Revolution, the cities of Yaroslavl, Shcherbakov and Uglich, which are included in the region, had a well developed light industry by the standards of the time. But the region had no heavy industry, and even its light industry, if one were to measure by today's standards, was woefully small.

After the Revolution heavy industry was developed, and today Yaroslavl Region produces big trucks and buses, tires, ships, electrical equipment, road construction machinery and printing presses. Its light industry produces textiles, shoes, watches, hardware, crockery, furniture and foodstuffs.

Yaroslavl Region has grown into an industrial area with more than 200 plants which produce an annual twelve billion rubles' worth of goods. These are administered now under the regional economic council. In addition there are smaller factories administered by the municipalities.

With this extraordinary growth in a relatively short span of years, the old methods of centralized management from ministries at the capital, which had proved sufficient to their time, had become outmoded. As a matter of fact, they were a deterrent to further growth. It was not unusual to find plants in one and the same locality which had no contact because they were attached to different ministries. Very frequently this overly centralized management resulted in expensive duplication of effort and in unproductive paper work.

The immensely greater and infinitely more complex industry required a type of industrial management more closely related to local factors, and more responsive to local needs and initiative. The present type of territorial man-



THE BEAR, A HISTORIC YAROSLAVL SYMBOL, CROWNS THESE NEWLY MANUFACTURED HEAVY-DUTY MOTOR TRUCKS.

agement was devised to meet the changed conditions.

Administration is through local economic councils. These, of course, do not function as isolated units divorced from the national economy. They still remain integral parts of the national economic plan, but the territorial councils bring management close to the production source, to factory and construction site needs, resources and problems.

This new form of management is now administering Yaroslavl Region, one of the hundred and five economic areas into which the country has been divided. The Yaroslavl economic council and its divisions for various branches of industry are headed by specialists who are thoroughly familiar with local conditions and with the requirements of their particular industry.

Members of the council have been visiting factories under their jurisdiction and working out with plant personnel better and less wasteful procedures. The council, as a case in point, has undertaken the big job of cutting down sharply on hauling gasoline tanks, metal bodies for dump trucks and a sizable list of such items from other cities. The council proposes to have local plants manufacture these items.

After a study of the foundries in Shcherbakov plants, the council has come to the conclusion that, given proper use of their capacities, by next year Shcherbakov should be able to make all its own castings. The plants heretofore have been ordering castings from other parts of the country, a costly and unnecessary procedure.

The council plans to step up production in every area of Yaroslavl Region. In some cases this will involve considerable development. Flax production is one area which has been noticeably limited by the relatively small capacities of the processing plants. Flax has been cultivated for centuries in Yaroslavl and Russian linens are much in demand in the world's textile markets.

It required obstinate efforts under the old ministerial form of management for local groups and collective farms to convince the appropriate ministry of the need for expansion. The processing plants are now managed by the regional council and development steps have already been set in motion.

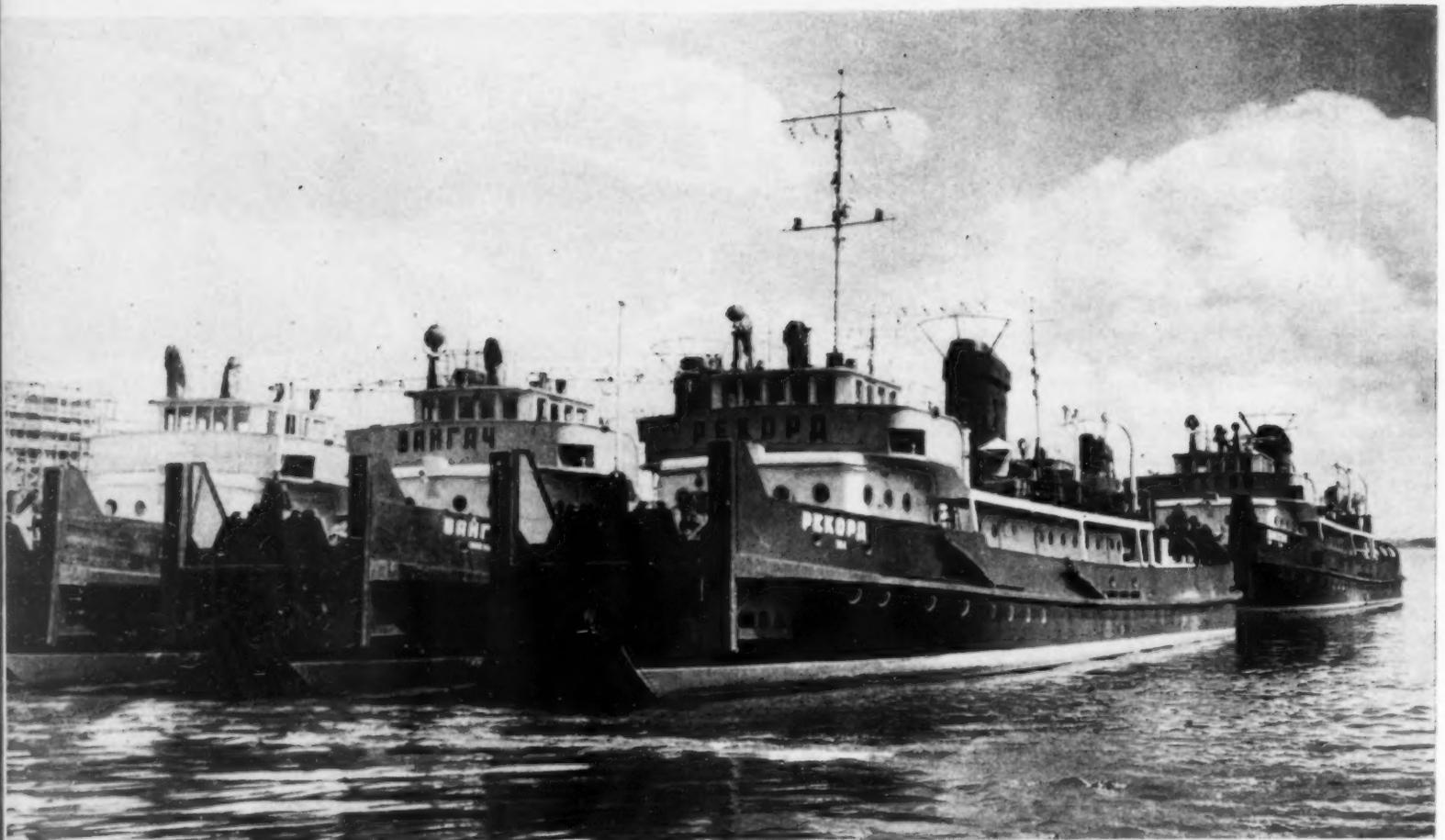
These and other problems which challenge the new administrators are by no means simple. Many of them involve changes and procedures of great magnitude, but the prospects are correspondingly great. The council foresees a well advanced engineering and metal-working industry in Yaroslavl within the next few years. It envisions a greatly expanded chemical industry.

The council is exploring in new industrial directions—a new process for producing synthetic rubber, equipping the tire factory to

Continued on page 50

MANY STYLES OF SHOES COME FROM THIS FACTORY.

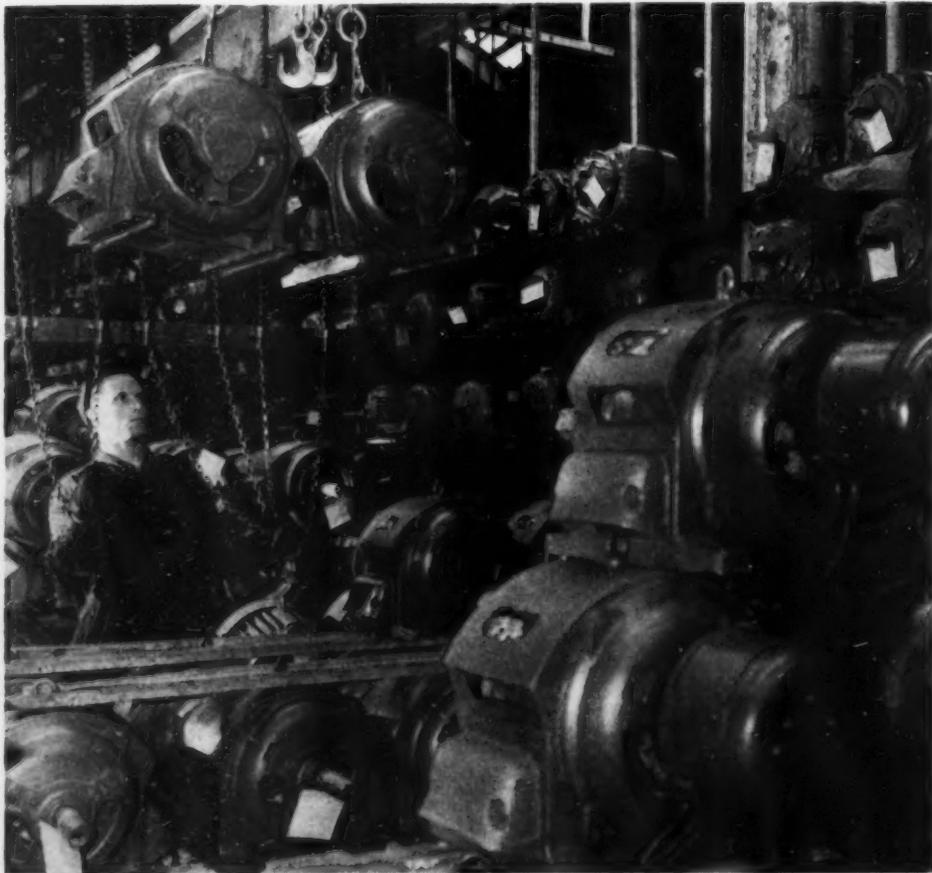




PRODUCED IN THE BUSY SHIPYARDS OF SHCHERBAKOV, THIS FLEET OF STURDY RIVER TUGS FLOATS ROW UPON ROW, PREPARED TO WORK HARD IN HARBORS EVERYWHERE.

LOCAL MANAGEMENT OF INDUSTRY *Continued from page 49*

A LARGE ASSORTMENT OF ELECTRIC MOTORS IN VARIOUS SIZES AND H.P. CAPACITIES ARE MADE IN THIS PLANT.

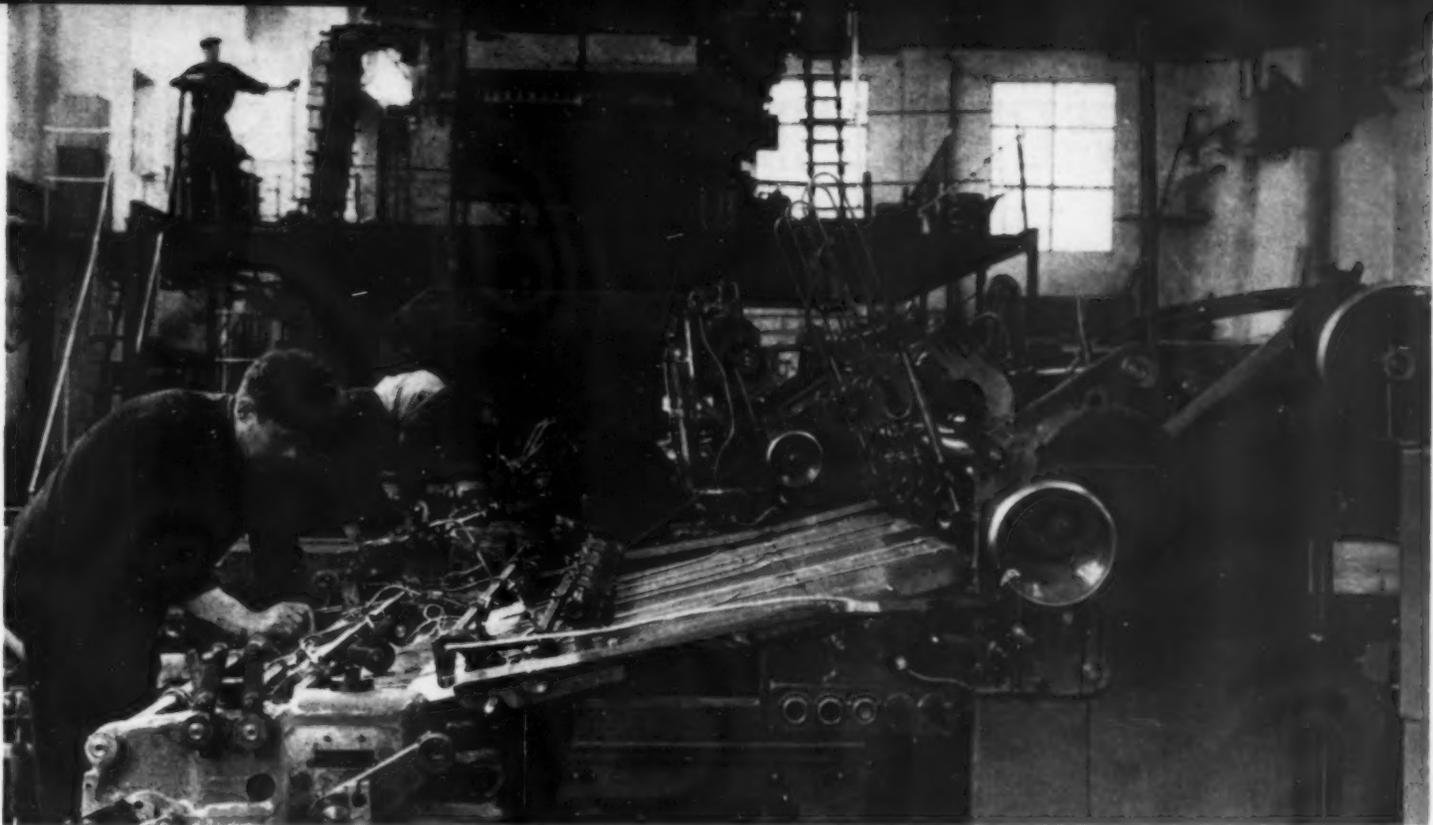


produce tubeless tires, the possibility of new varieties of textiles.

In the last analysis, the new management plan will be effective in Yaroslavl, as elsewhere, to the degree that it fosters local initiative. The prospects there too are promising, if only by virtue of the fact that the plan was inspired by the workers in industry and developed, through factory meetings and letters to the press, into a project of national significance, perhaps the most important economic development of recent years.

Production plans for 1958 have already been mapped out at conferences of engineering and technical people and at meetings of workers in particular trades. Innumerable suggestions and proposals, some of great value, have come out of these meetings to be whipped into final shape by the economic council and incorporated into the 1958 plan—ways of increasing technical standards, of more productive specialization, of better integration between allied branches of industry.

The council itself is setting the example and the pattern for developing local people by involving workers in managerial functions. The technical committee recently formed by the council has a membership of eighty. Included with eminent scientists and engineers of national reputation are workers like Alexander Larikov, a toolmaker of the automobile plant; Nina Kosyreva, a worker in the synthetic rubber plant; Galina Sharova, a spinner in the



NEW PLANT RECENTLY BUILT IN THE CITY OF SHCHERBAKOV IS PRODUCING PRINTING PRESSES AND OTHER EQUIPMENT FOR THE COUNTRY'S PRINTING INDUSTRY.

textile mills; Fyodor Ivanov, a carpenter; Nikolai Lebedev, a drop hammer operator; Vasili Chiselev, an electric welder.

These are the men and women who have already made contributions in one or another way to better Yaroslavl industry, either through inventions or through personal example of leadership in their own shops. They

now contribute their knowledge and experience as members of the management council.

Although the regional form of management is only months old, its impact on Yaroslavl industry is already marked. Its effect upon the industrial development of the entire country and the consequent well-being of every Soviet citizen gives every indication of great promise.



VOLGA WATCH, DIME SIZE, IS UGLICH-MADE.

TOOLMAKER ALEXANDER LARIKOV AND PAVEL UFIMTSEV, DESIGN ENGINEER, ARE BOTH MEMBERS OF THE 80-MAN TECHNICAL COMMITTEE OF THE ECONOMIC COUNCIL.



FOR 5/17
UN

AMERICAN CATERERS RETURN VISIT

By Dmitri Petrov

IN THE FALL OF 1956 a group of Soviet leaders in the field of institutional and public catering visited the United States. They toured New York, Chicago and Washington, and on returning home published an account of their visit in a booklet, *The Restaurant Industry in the USA*. Last spring Soviet caterers played host to a delegation of American experts and showed them restaurants, cafeterias, and factory and institutional dining establishments in Moscow, Leningrad and Kiev. The American visitors and Soviet hosts had many meetings enabling them to lay the basis for cooperation in the future.

Both Aim at Same Goal

"We both have a common aim—that of feeding people well. All our efforts are devoted to it," Nikolai Kiknadze, culinary manager of the Aragvi Restaurant in Moscow, said in his toast at the dinner given in honor of the visiting American caterers. Colonel Ralph M. Bauknight noted in his reply that Moscow restaurant executives are quite good. "We were convinced of this in practice," he said. "That's why we wish to thank you for the wonderful hospitality you are showing us."

The American caterers' tour was arranged according to their expressed desires, and they saw whatever they wanted to see. The guests spent a half day inspecting the dining facilities of a large engineering works in Moscow.

Here they found ten spacious comfortable halls seating 1,900, with a reserved section for customers on special diets. A wide assortment

of dishes was offered at most reasonable prices. Workers were able to have convenient, quick service and tasty meals at any time. The serving arrangements were so scheduled that no more than 20 minutes need be spent on lunch, even at peak hours. A variety of services was offered: regular cafeteria style, self-service buffets, and advance orders.

In addition to the usual cash-on-the-counter method of payment for meals, this industrial dining establishment offered its clients books of meal tickets good for ten days. Another feature that interested the Americans was a mobile buffet and dining service with spacious buses equipped to provide hot meals at a rapid pace.

Friendly Talks

"No salt—no taste; no bread—stomach chaste," says a Russian proverb, and it sounded quite apt when voiced by Alexander Novoselov, director of the Moscow Automatic Bakery No. 5, in his story about the enterprise. Its basic feature is a circular conveyor invented by the Soviet engineer Georgi Marsakov thirty years ago. Bread is prepared in a continuous chain of separate operations untouched by human hands. The daily output of this plant, one of the numerous bakeries of Moscow, is 225 tons of eight kinds of bread and other baked goods.

That day several entries were added in the guest register of the factory. Donald K. Tressler, scientific director of the Quartermaster General's Food and Supply Institute, noted: "This bakery is extraordinarily interesting. It is in exemplary sanitary condition."

AMERICAN VISITORS (STANDING) ARE SHOWN IN ONE OF TEN DINING HALLS OF AN ENGINEERING WORKS IN MOSCOW WHERE SOME 1,900 CAN BE SERVED AT ONE SITTING.



The American caterers were warmly received at the Moscow restaurants Sovietsky, Prague, Leningrad and Volga. They also visited cafeterias, snack bars and food stores. Everywhere their visits were accompanied by friendly conversations. John W. Marriott, president of the Hot Shoppes restaurant chain, found time to taste the food in a student dining room, to dine with the girls of a confectionery factory, and even to dance to jazz music.

Professor Tressler, a specialist in refrigerating engineering, visited the USSR Refrigerating Industry Scientific Research Institute. He was especially interested in the elaboration of scientific problems at the institute and the staff's familiarity with achievements of the refrigerating industry abroad.

"I feel you know as much about the American refrigerating industry as I do," the professor jocularly remarked to Shalva Kobulashvili, director of the Institute. He was glad to learn, by the way, that his researches on refrigeration had been published in the Soviet Union. One of Tressler's scientific works, translated into Russian, was presented to him by the Institute staff as a souvenir of his visit.

"We must aim at an all-sided exchange of experience," the professor reiterated several times.

The guests learned more about the refrigeration industry in an excursion to the Moscow Ice Cream Plant, a big factory of "cold sweets." Its daily production of ice cream is 100 tons, in 36 varieties. Ice cream is very popular with Muscovites. The American guests also thought the ice cream cakes they tasted there were pretty good.

New Understanding

Although the touring caterers went through many food serving establishments, their visit was not confined to business alone. There was time to take in the sights of Moscow, Leningrad and Kiev, and they saw a number of theatrical productions, visited museums and galleries and got a broad view of life in the three cities.

At the close of the visit, Ward B. Cleaves, president of Cleaves Food Service, declared: "Our conception of your life has changed completely; and this refers to everything—beginning with construction and ending with people. We had heard a lot about your hospitality, but the reception we received surpassed all our expectations." ■

Alexander Smirnov, First Deputy Minister of Trade, invites John W. Marriott and the wives of other delegates to sample a soup in a student cafeteria.



Ralph M. Bauknight (left) and Donald K. Tressler gladly sign the guest register after a breakfast that brought compliments from both of them.

"Excellent cooking," says Martin J. Harding to Pyotr Kozyrev, chef of the Sovietsky Restaurant, and Colonel Bauknight is in complete agreement.



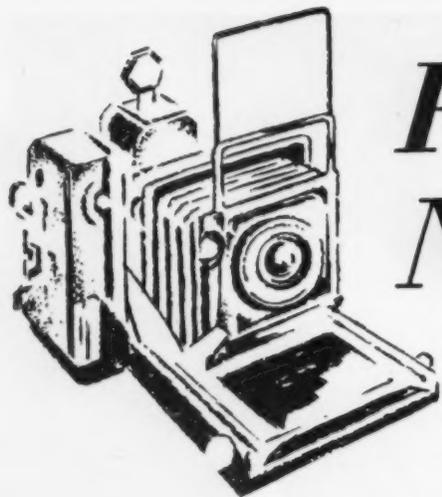
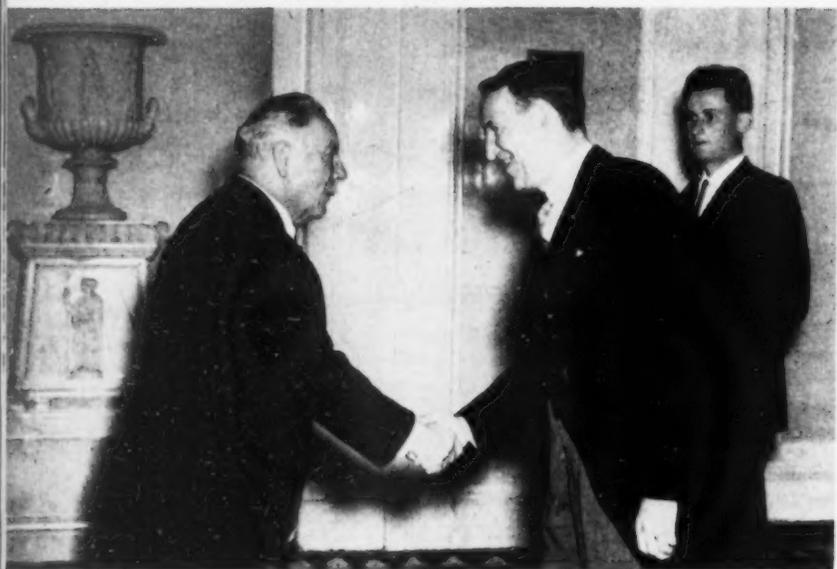


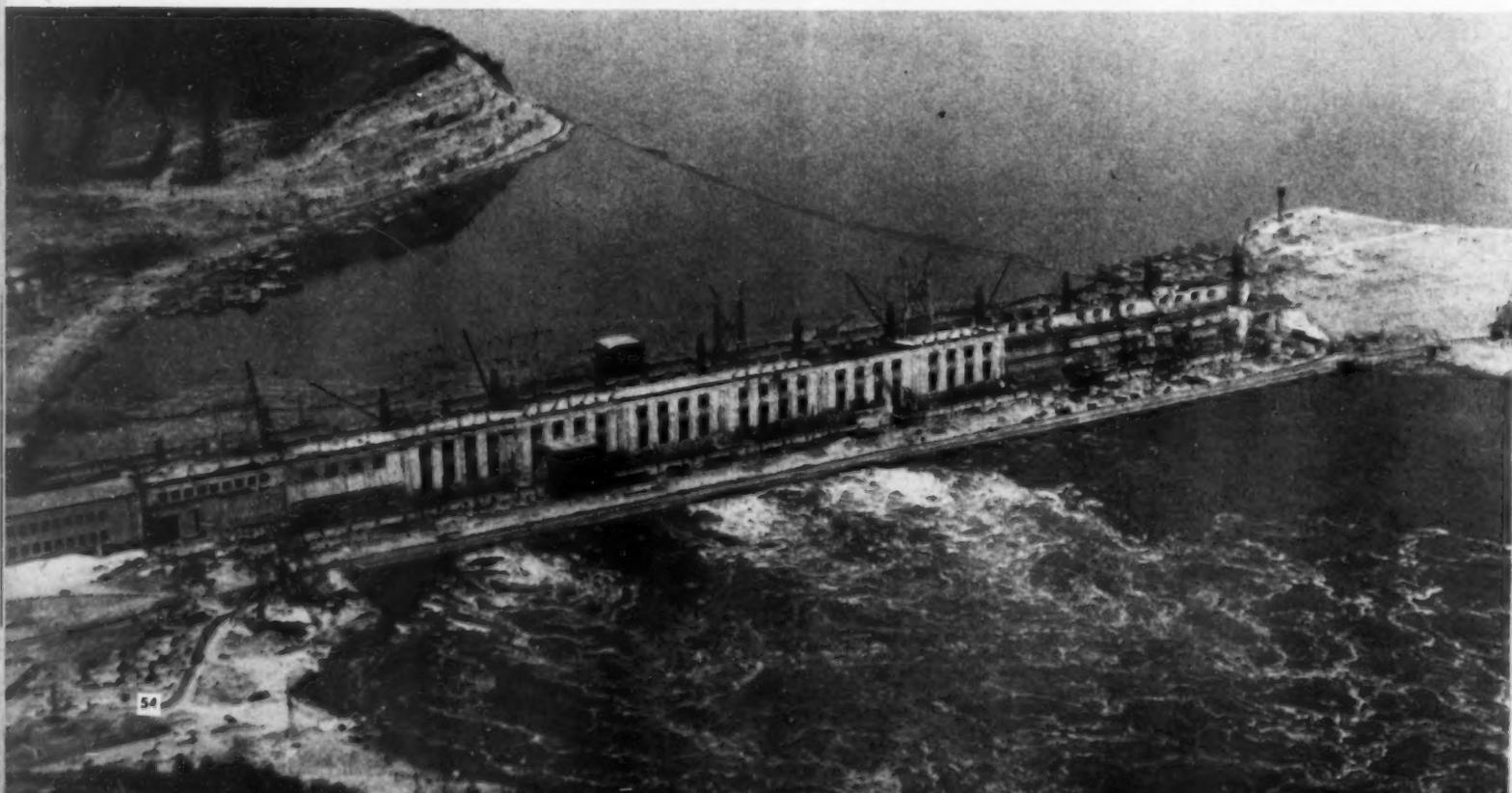
Photo News



NEW U.S. ENVOY TO MOSCOW—Llewellyn E. Thompson, Jr., American Ambassador Extraordinary and Plenipotentiary, is greeted by Klement Voroshilov, President of the Presidium of the USSR Supreme Soviet, as he called to present credentials. Both spoke of improving relations between the countries and of working for the settlement of international problems to ensure peace.

NEW MARK SET IN THE HIGH JUMP—Yuri Stepanov of the Leningrad city team set a new world record for the high jump in a meet with Helsinki last July. Stepanov cleared the bar at 2.16 meters (7 feet-1 inch). Previously a mark of 7 feet- $\frac{1}{2}$ inch had been set by Charles Dumas at the Los Angeles Olympic trials in June, 1956. This photo shows Stepanov in practice jump.

VAST INLAND SEA—The reservoir of the Volga River hydroelectric station near Kuibyshev will be the largest in the USSR, with a length of 310 miles and a width of 25. When completely full the Kuibyshev Sea will hold 75.8 billion cubic yards of water. The inland sea is so vast the engineers designed special harbors for vessels during storms. In addition to supplying power, this great dam will be a major factor in flood control of the Volga basin area.





CHRISTENED FOR WORKER—New freighter launched at Krasnoye Sormovo shipyard in Gorky is named for Tikhon Tretyakov (see inset), oldest yard worker who retired after 60 years of service. Now 90, he attended the ceremonies with his whole family. Many ships, plants and streets are named for veteran workers.



BILLION KILOWATT HOURS PRODUCED EACH YEAR—The Kakhovka Hydroelectric Power Station on the Dnieper River has a reservoir of 25 billion cubic yards of water and has already covered approximately 100 square miles. It will irrigate millions of acres of arid Ukrainian land. The surrounding reservoir areas will be put to use by stocking them with valuable fish.



WINTER FASHIONS—The latest designs of the fashion experts of Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Rumania and the Soviet Union were modeled at a fashion show in the Sports Palace of the Lenin Stadium in Moscow. Each country showed fifty numbers in suits, coats and gowns. Capacity audiences attended the show.

LATEST JET AIRLINER—The TU-110, a new four-engine passenger plane recently put through its paces in Moscow, has a speed of 600 miles per hour. One model has a capacity of 78 passengers, the other 100. It flies non-stop for over 2,000 miles. Safety factor has been stressed in the ship's engineering.



Shakespeare's Plays on Soviet Stages

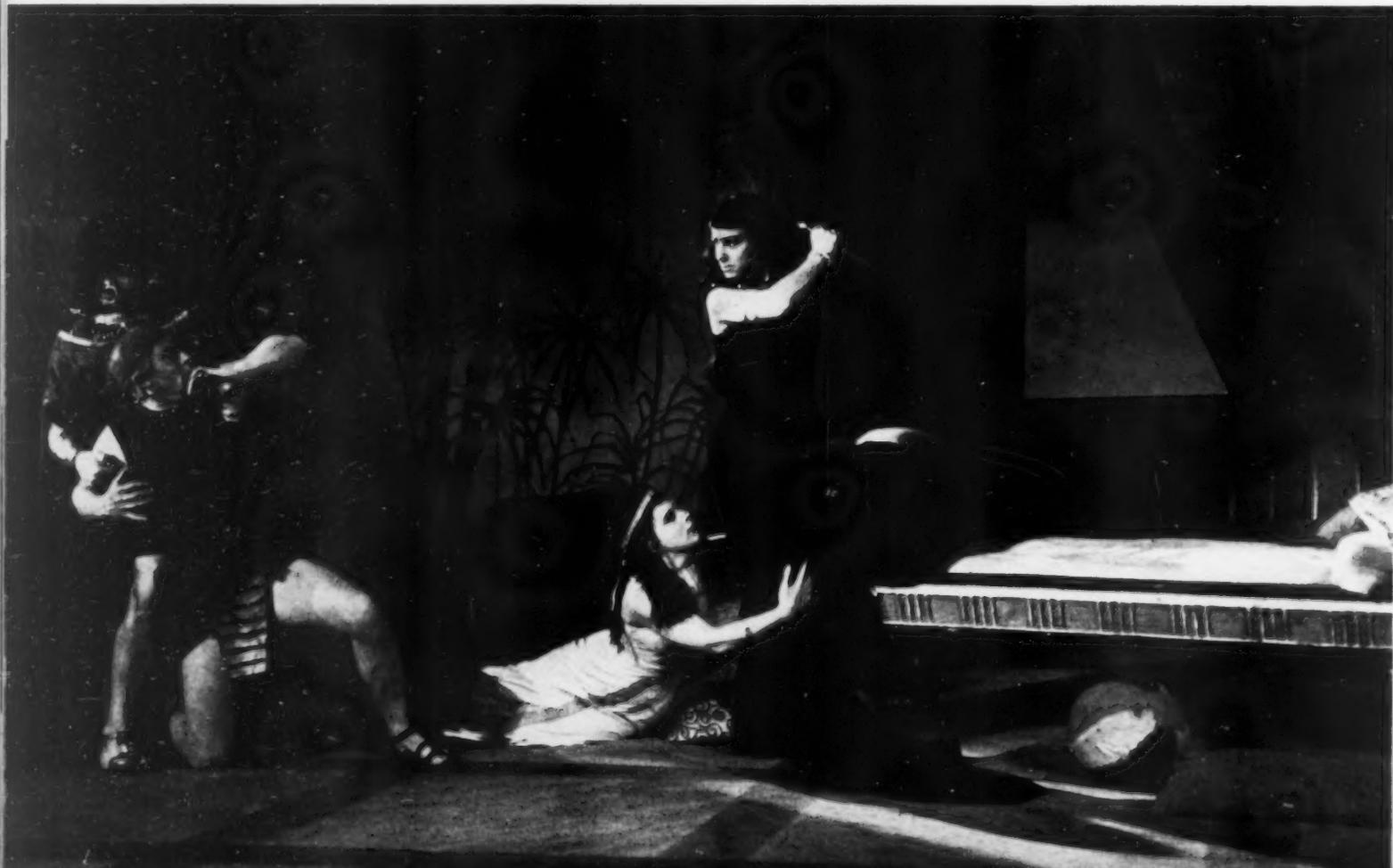


A TAJIK CHARACTERIZATION OF KING LEAR. SHAKESPEARE'S WORKS HAVE BEEN TRANSLATED INTO 25 SOVIET NATIONAL LANGUAGES, SELLING 3 MILLION COPIES.



SCENE FROM ACT II OF HAMLET AT MOSCOW'S MAYAKOVSKY DRAMA THEATER. SOVIET THEATERS HAVE STAGED A WIDE VARIETY OF SHAKESPEARE'S PLAYS.

ANTHONY AND CLEOPATRA AS STAGED BY THE TALLINN DRAMA THEATER IN ESTONIA. EACH SOVIET REPUBLIC HAS COMPANIES PRODUCING THE WORKS OF THE BARD, AND THERE IS A WIDE INTERCHANGE AS THEY TOUR THE NATIONAL CIRCUIT. SHAKESPEARE'S GREAT PUBLIC POPULARITY IS AN ASSURANCE OF CAPACITY AUDIENCES.





THE COMPOSER FREQUENTLY APPEARED IN CONCERTS AS A BRILLIANT PIANIST PLAYING BOTH COMPOSITIONS OF HIS OWN AND THOSE OF THE WORLD'S MUSIC CLASSICS.

A Symphony of Light

SERGEI PROKOFIEV'S SEVENTH

By Dmitri Shostakovich

AN OLD CRITIC once put it that time has a way of avenging itself upon rebels. Today's radicalism becomes tomorrow's convention. It was nearly half a century ago that Sergei Prokofiev began his revolt against stultifying classicism and at once brought down upon his head the fury of the orthodox.

Musical obscurantism was in the saddle a half century ago, courageous innovators were few and very far between. Prokofiev played his first compositions to an almost empty concert hall. "Such music is enough to drive a man mad!" That was the comment of more than one critic outraged by the merciless dissonance of the brass section with which the performance had ended. These 1913 press comments on the first performance of the Second Concerto for Piano and Orchestra, this at a time when Prokofiev was a well-known concert pianist—make curious reading today: "To the devil with these musical futurists. Our alley cats can make better music."

By the time Prokofiev died, forty years later, his Seventh Symphony, his opera *War and Peace*, his Concerto for Cello and Orchestra, and many other of his works held an honored place in the world's library of musical classics.

When Maxim Gorky first heard Prokofiev's *Ugly Duckling*, the lovely

musical setting for a rather pedestrian text, he remarked, "Why, that is Prokofiev's own story he has written." It was a clever and perspicacious comment, for the composer had indeed suffered the isolations of the ugly duckling for a long time before the world saw him as the graceful, lovely swan.

It was evident to me as well as to many others when the Seventh Symphony was first performed in 1952 that here was Prokofiev's greatest work. I wrote then of its bright, clear lyricism, its extraordinary harmony and its living, affirmative themes. Now, five years later, after the symphony has been played from most of the world's concert stages, I find no reason to change my judgment. As a matter of fact, were I writing it today, I should add those many new qualities I have since found in the composition.

Each of the four movements is superb poetry in music, the work of a subtle artist. The delightfully melodic theme creates for me an effect of tremendous light, like the light of early morning when the first rays of the sun finger the sky. It is cool, but there is the promise of warmth as the morning stars fade out. Slowly the warmth comes, skillfully phrased as the theme develops and the full beauty of the

Continued on page 58

A Symphony of Light

Continued from page 57

harmony is disclosed. I find myself hard put to explain this loveliness. It is as difficult to express beauty in art as in nature. In his charming story *Beauties*, Chekhov makes this observation: "There are times when the clouds are crowded haphazardly on the horizon, painted in all conceivable colors by the sun hidden behind them—crimson, orange, gold, lilac and tarnished rose. One cloudlet is like a hooded monk, another like a fish and the third like a turbaned Turk. The conflagration that has spread over a third of the sky ignites the cross on the church and the windows of the manor, takes fire again in the river and the ponds and amid the trees, and far away against the sunset a flock of wild ducks fly against the evening sky. All who look upon this sunset agree that it is awesomely beautiful, but no one knows or can say just what its beauty is."

This is true for music and for art in general. I know that the first

Yevgeni Mravinsky, believed by many to be the best interpreter of Prokofiev's music, conducts the Seventh Symphony, the composer's last work.



movement of the Seventh Symphony is captivatingly beautiful, but I find it almost impossible to explain the beauty in language. One often hesitates even to try, for fear that the graceless technical words and the sentences full of harsh-sounding nomenclature unavoidable in musical analyses will dispel the very beauty one is hoping to capture.

But then the second movement begins and we abandon our prior attempts at explanation. The music bursts like a shower of glittering sparks and we are seized by a heady feeling of freedom, the sense of being utterly unbound and unconstrained. "There is dancing here," the composer might well have written as direction for this movement. And indeed, the spirit of the dance does pervade the music from beginning to end of the movement—a drifting and yet impulsively passionate waltz.

This charming music is obviously akin to the waltzes of Tchaikovsky and, of course, to the waltzes of Prokofiev himself in *War and Peace*. There is a chaste purity through the whole of it and it would seem as though the diaphanous spirit of Natasha Rostova were dancing to the lovely sounds. There is something intoxicating about it, something that touches the mind like golden wine, not with the intoxication of drink but with the light happy giddiness of youth. I am alive, it sings, and there will be many such bright tomorrows.

And this music, so joyful and vigorous, so young and alive, was written by a man in his sixties, a man in the late evening of his life—the Seventh Symphony, his sunset. What mighty will then guided the consciousness of the artist, one cannot help thinking with reverence.

The same unconquerable vitality radiates from the slow and lyrical third movement. It is felt everywhere the music reaches. The bucolic pipe-like oboes and the entire sonorous structure would require a poet's phrasing to interpret it into language.

The last movement has the character of a dance, festival music—its symphonic illumination, as it were. And if a meditative and even pensive note does steal in toward the end of the movement—well, no festival can last forever.

Much more could be said about the Seventh Symphony and undoubtedly said better. The Symphony has its own great eloquence, that is certain. It belongs with the masterpieces of contemporary symphonic music, those which will be listened to with love and veneration for many generations after ours.

The Seventh is not program music with the descriptive pictures evoked by music of that type. But that does not prevent us from understanding it, from valuing its tonal effects and from appreciating its modern, challenging character.

Plekhanov, a Russian philosopher, wrote early in the century that "one may say with certainty that every artist worthy of that great name will enhance his powers largely if he can assimilate the great liberating ideas of our times. But these ideas must become part of his flesh and blood and he must express them like an artist." Later on in his essay, he continues, "He who believes it possible to sacrifice form for idea ceases to be an artist even if he was one before that."

It is possible to appreciate neither the essence nor the development of Prokofiev's art without understanding these words of Plekhanov. Prokofiev did not make pronouncements in defense of the modern ideas which have enriched music. He did not have to. His work was imbued with them. They were part and parcel of his creative being.

Never did Prokofiev feel that he could sacrifice form for idea. He was a truly great artist and a separation between the essence of art and its forms could never exist for him. The essence of art is always enveloped in a specific form which is indivisible from it. The profile of our time is alive in the musical substance of Prokofiev's Seventh Symphony as it is in many other of his works.

My feeling is that we have not studied Prokofiev's music sufficiently or deeply enough. This is regrettable since in many respects he was the ideal of the artist, a man who lived at one with his people, who responded to every current among them, who thought their thoughts, who sorrowed and rejoiced with them.

Prokofiev might well have served to exemplify these words of Philipp Emanuel Bach: "A musician must be stirred himself if he wishes to stir others and must be able to feel all the feelings that he might wish to evoke." Though on the surface calm, reserved, reticent, Prokofiev was just such a musician as Philipp Emanuel Bach described. There was great passion beneath that delusive exterior, strong and warring emotions which found expression in his music.

It is a great pity that he did not live to see his new and brilliant triumph.

(Translated from the newspaper *Literary Gazette*)



THE COMPOSER (LEFT) WITH SERGEI EISENSTEIN IN 1943. PROKOFIEV WAS THEN WORKING ON THE MUSIC FOR A FILM WHICH EISENSTEIN WAS PRODUCING.

PROKOFIEV: HIS LIFE AND WORKS

Autobiography of a Composer

THERE are few parts of the globe where Sergei Prokofiev's music has not been played. To meet the demands of a large and constantly growing world audience, the Moscow Music Publishing House has just announced publication of the first volume of a collected edition of the composer's life and work.

Intended for the layman, the autobiography, illustrated with early photographs, is eminently readable and presents the composer's reflections on the development of Soviet music, innovation in music, style and phrasing, subject matter and thematic treatment, the theater and motion picture music, and the relationship between composer and audience.

The autobiography carries over only until the middle thirties, but even as incomplete as it unfortunately is, the wealth of original material, the striking insight of Prokofiev into his own work and that of other composers, and the probing sincerity of the comments make the book required reading for musicians and musicologists.

Continued on page 60



THE YOUNG PROKOFIEV AT THE ST. PETERSBURG CONSERVATORY OF MUSIC IN 1908.



THE LAST PHOTOGRAPH OF SERGEI PROKOFIEV, TAKEN IN 1952. A PROLIFIC COMPOSER, HIS WORKS COVER ALMOST EVERY FIELD OF MUSIC.

PROKOFIEV: HIS LIFE AND WORKS

Continued from page 59.

For American music lovers generally, the most engrossing part of the narrative will undoubtedly be Prokofiev's reminiscences of his stay in the United States.

The composer's concern with lucidity in music receives repeated emphasis in his book. The demands that the people make upon art, he comments, "are growing with truly incredible rapidity, and the Soviet composer must take account of this growth if he is to grow himself. It is like shooting at a moving target. Only by aiming ahead, by sighting for tomorrow, will the composer be able to keep from falling behind to the level of yesterday's demands."

Many of Prokofiev's comments, made two and three decades ago, have lost none of their relevance for today. "The times have passed when music was written for a very small circle of aesthetes. Now large numbers of people have begun to appreciate serious music and they listen with a discerning ear. Composers," he warns, "if you repel these new audiences, they will turn away from you to jazz. If you are able to hold them, you will win an audience infinitely greater than older com-

posers could ever hope to reach. This does not mean, however, that you must humor your audiences. The people want big music, big themes. They understand much more than some composers imagine. They have a great eagerness to learn and to develop."

Here is another of the composer's notes which bears on this point. "Not so long ago," he writes, "I happened to play at the Chelyabinsk Tractor Works. I was amazed at the close attention which listeners paid to my concerts. I must say that the Chelyabinsk workers demonstrated more interest in the program than certain much more musically sophisticated audiences in West European cities."

A supplementary section of the volume is made up of articles dealing with different periods of the composer's life and work. Both Myaskovsky and Asafiev write on aspects of his music, other eminent figures in the arts write on Prokofiev's relation to their media. Both the composer's mother and his wife write on the more personal aspects of his life, his preferences in music and books, the development of his idea.

Here he is shown at home relaxing at a chessboard, playing with children, walking in the woods of Nikolina Gora, where he loved to spend his summers, or working on a new score, completely absorbed in a world of thought, emotion, musical imagery. Elsewhere we see him rehearsing his ballet, demanding perfection, uncompromising in both artistic principles and practice. Again he is seen in a cinema studio, searching for the music that will heighten a mood, express a character. Gradually a picture of both the warm-hearted man and the creative artist emerges in the round. ■



◀ The gay young couple signs the marriage register as their friends wait in the background.

Wedding Party at a Factory Club

VALENTINA VESELOVA, a rate-setting technician and Yuri Melyashov, an assembler, work in a large machine-building plant. They met at an amateur art circle of the plant's trade union club.

Yuri, an accomplished accordionist, is the conductor of the club's orchestra. Valentina met him when she tried out for a part as a soloist. She has a pleasing soprano and sings with ease.

Their appearance together at concerts has made them very popular with the public and, not unstrangely, they were attracted to each other. Finally word got around that Valentina and Yuri were engaged. The young people of the plant decided to make a real affair of the wedding and the club hall was brilliantly decorated for the event with 150 guests at the tables.

Many toasts were drunk to the health of the newlyweds and the orchestra played gaily despite the temporary loss of its leader. The drummer proved to be a satisfactory substitute, and the bride entertained the guests with numerous lyrical songs. ■



Engineer Vladimir Kuklin adds his good wishes to a modest gift of chinaware for the newlyweds.



◀ Yuri Melyashov kisses his bride Valentina during the wedding reception, after drinking the first of many toasts offered by their exuberant friends.

The 150 guests enthusiastically applauded every toast to the health of the newlyweds and were very appreciative of the bride's vocal numbers.





PELMENY—

Siberian meat dumplings

THE word "pelmeny" has been used in Siberia since time immemorial. Various dictionaries give different explanations of its origin, but all agree that this is the name of a most popular Siberian dish. Small meat-balls are wrapped in dough, boiled and served in many ways, depending on individual tastes.

In the old days it was traditional for the whole family to work at making these tasty meat dumplings. The hunter or lumberjack would gather his folks and they would spend the long Siberian evenings rolling hundreds of disks out of dough and filling them with ground meat. Many an hour would pass unnoticed amidst small talk and songs.

When completed the pelmeny would be placed out in the freezing cold. By morning they would be ready to put in a bag. Such a bag is no great load, but the hunter or lumberjack thus provided could wander for days across the forests. When tired in the evening, he lit a fire, tossed two or three dozen frozen pelmeny into a pot of boiling water and in almost no time had an excellent supper.

Nowadays pelmeny is a favorite dish of the entire country and not of Siberia alone. In cities and villages alike you can often meet a whole family helping the housewife to make pelmeny as in the old days. But now this is not only a home-made dish. If you wish to avoid the time-consuming kitchen work, you will have nothing more tedious to do than pick up quick-frozen pelmeny at a neighborhood store. They are sold in packages of nine or eighteen ounces each, ready for boiling.

Recipe for Pelmeny

The dough for pelmeny is approximately the same as for noodles. Sift one and a half cups of flour into a bowl, add a quarter of a cup of water, one beaten egg and a dash of salt.

Mix the ingredients well and knead. Pinch off pieces of dough and press into thin rounds about two and a half inches in diameter. Place approximately a teaspoonful of raw ground meat on each disk. Wrap the dough around the meat and pinch the edges together.

The minced meat for pelmeny is made of $\frac{1}{2}$ lb. each of beef and pork. Some people prefer lamb to pork. The meat is ground once or, for better results, twice with a medium sized onion and, if desired, a little garlic. A little water should be added to the minced meat. Mix well, seasoning with salt and black pepper. Housewives desiring to save time may purchase ready-ground meat loaf of beef, pork and veal.

Drop pelmeny in boiling salted water or bouillon and boil for about ten minutes. When the pelmeny have risen to the surface, they are ready to eat. Remove from liquid and serve hot with butter or sour cream, vinegar or mustard.

If pelmeny are to be fried, boil only three minutes, then fry both sides in butter. Another way to serve pelmeny is in soup. To keep the bouillon clear, the pelmeny should first be placed in boiling water for several seconds. Then boil in soup. When they rise, the dish is ready. ■

SPORTS

of the

NATIONALITIES

By Victor Kuprianov

WHAT is your favorite sport? Baseball? Golf? Football? Basketball? Duck-on-the-Rock? Shark hunting? Here are some more you may enjoy knowing about. They are games played by various nations of the Soviet Union and each can draw out a sizable crowd of fans, too.

In a class by themselves are the ball games. We have a great many of them, led, of course, by soccer. But there's the old Russian game of *lapta*, which has a vague resemblance to American baseball. You need a small ball and a bat. There are two sides, and the team at bat attempts to hit the ball out of reach of the defending players. It has its

own set of rules and I shall deal with it in a special article sometime later.



Georgian swordsmen engage in a sport that has been passed down from one generation to another. It is a colorful national sport and has many fans.

own set of rules and I shall deal with it in a special article sometime later.

Probably nothing can compare with the fun of throwing, kicking or batting a ball around. Add a horse to a ball game and the thrill is quickly compounded. There's a game with a ball played on horseback that developed among the peoples inhabiting the Caucasus and Central Asia, where children really learn to ride about the time they first walk. It goes under various names, the easiest to pronounce being *lelo*.

In the Caucasus this game is played with a small ball and a rather long staff at the end of which is a webbed net similar to a Lacrosse racquet. All the players are mounted, and the idea is to cross the goal with the ball in the net of the racquet without being dismounted in the fast-riding, quick turning contest.

You'll get the general idea of the game from the photograph on our inside back cover—opposite page 64. The best players have an eagle eye, lightning-fast reactions and are excellent horsemen. In the Caucasus the players dress in their national costumes, making a very colorful appearance on the field.

An equally thrilling version—but without the ball and racquet—is played by the peoples of Central Asia. These skilled horsemen call their game "skinning the goat." Actually there's no skinning. A goat or an inanimate object is placed at the center of the playing field, while the players line up at the far ends. On a signal they race for the "goat." The man reaching it first has to scoop up the goat and ride it across the goal line. Points are scored only when a player has been able to carry the "goat" across without anyone taking it from him.

Everyone does his best to hang on to it, but usually the "goat" changes hands more often than a basketball. Of course if a live goat were used in this game, the rather rough treatment might leave it skinless—and perhaps that's the source of the game's name.

There are a number of other games based on the same general idea, and part of their popularity is found in the fact that any number of men may play. In the old days *lelo* was played by whole villages with no fixed boundaries. And the game might go on for hours.

Another game on horseback played in Central Asia is *er sodarysh*—a man-to-man affair in which the object is to unhorse your opponent. It is an exciting and virile contest and so well liked that many children in the cities engage in a modified form of it. One child is the horse and the other, the rider on his back. Two such teams play, each trying to spill the other . . . very much like similar contests played in schoolyards of many countries.

A contest combining horsemanship, singing and wrestling makes an un-

Continued on page 64



Racing reindeers. This exciting northern sport on snow skiis provides a tingling thrill. No whip or urging on is needed for these fleet animals.

SPORTS of the NATIONALITIES

Continued from page 63

usual sort of game for the peoples of Central Asia. The competitors ride around on their horses playing a stringed instrument called the domra and singing verses of their own composition. Next they compete in racing their steeds and finally dismount and engage in a wrestling event called kuresh.

Over in the mountain villages of the Caucasus there is another sport that has a mass of followers—archery on horseback (see photo on this page). Most of us would find hitting a target with an arrow difficult enough on firm ground, let alone attempting to shoot from a dancing steed.

Something akin to the jousts of the knights of old has been maintained in the Caucasian game of ishindi. The attacker is armed with a well-padded lance and attempts to unseat his opponent while the latter dodges the thrusts and, if he can, takes the lance from his foe. Players become very skillful at this and large audiences get a real bang out of watching the man and horses play for position.

Up to this point we've dealt only with horses, but in the northern portions of the country reindeer racing is quite a sport. One of the big events on the sports calendar is the Northern Tournament held annually to see the winter out. The photo on top of this page shows how it is done with the "rider" on skiis.

Central Asian wrestling or kuresh is an event for men with well-developed muscles. The contest begins with the opponents holding each other's sash (worn waist high) as shown in a photograph on page 63. In Armenia, wrestling is a part of almost every social event.

All these national games—and many more than we have room to describe—are part of every national holiday. Participants dress in their national costumes, dance their dances, sing their songs, enjoy their native foods and go in heavily for national tournaments.

At the same time, however, the more common and traditional sports maintain their hold on the fans and players alike. The Caucasus, for example, for all its fancy horsemanship contests, is one of the country's leaders in basketball and soccer, not to mention track and field events. And so it is with every other area of the country. The peoples of all Soviet republics continue to develop their athletes for contests in international sports, but they have not neglected their native games that were played for generations back. ■

◀ Archery while on horseback is indeed a difficult sport that requires a steady arm and a keen eye. Caucasian riders become quite expert marksmen.

RACING WITH THE BALL IN A GAME OF LELO, VERY POPULAR IN THE CAUCASUS. ▶



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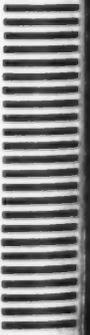
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