

ICIAL SCIENCES ✓

USSR

SOVIET UNION
MARKS

40th ANNIVERSARY

—See Page 1

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THIS NATIONAL HOLIDAY DEMONSTRATION ON ONE OF MOSCOW'S STREETS IS TYPICAL FOR ANY SOVIET CITY.

USSR

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Front and back covers: Portraits of Moscow University students, natives of the fifteen Union Republics of the USSR.

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FORTY YEARS

By Georgi Zhukov, Chairman of the USSR State Committee
for Cultural Relations with Foreign Countries

THE SOVIET UNION will be forty years old on November 7 (October 25 by the old calendar used in pre-revolutionary Russia). The national holiday commemorates more than the birth of a new state. It was a new era that was born on that day in 1917 for this country spread over two continents, one-sixth of the world's land area.

John Reed in his *Ten Days That Shook the World* describes that "slice of intensified history," the evening when the workers and soldiers of Petrograd stormed the Winter Palace, then sheltering the Provisional Government which had placed itself in opposition to the people and thereby spelled out its own impending doom.

This is "history as I saw it," wrote John Reed.

Like a black river, filling all the street, without song or cheer we poured through the Red Arch, where the man just ahead of me said in a low voice: "Look out, Comrades! Don't trust them. They will fire, surely!" In the open we began to run, stooping low and bunching together, and jammed up suddenly behind the pedestal of the Alexander Column.

"How many of you did they kill?" I asked.

"I don't know. About ten..."

After a few minutes huddling there, some hundreds of men, the army seemed reassured and without any orders suddenly began to flow forward. By this time, in the light that streamed out of all the Winter Palace windows, I could see that the first two or three hundred men were Red Guards, with only a few scattered soldiers...

Carried along by the eager wave of men we were swept into the right hand entrance, opening into a great bare vaulted room, the cellar of the East wing, from which issued a maze of corridors and staircases. A number of huge packing cases stood about, and upon these the Red Guards and the soldiers fell furiously, battering them open with the butts of their rifles, and pulling out carpets, curtains, linens, porcelain plates, glassware... Somebody cried, "Comrades! Don't touch anything! Don't take anything! This is the property of the People!" Immediately twenty voices were crying "Stop! Put everything back! Don't take anything! Property of the People!"

... Roughly and hastily the things were crammed back in their cases, and self-appointed sentinels stood guard. It was all utterly spontaneous. Through corridors and up staircases the cry could be heard growing fainter and fainter in the distance. "Revolutionary discipline! Property of the People..."

"Pazhal'st' tovarishtchi! Way, Comrades." A soldier and a Red Guard appeared in the door, waving the crowd aside, and other guards with fixed bayonets. After them followed single file half a dozen men in civilian dress—the members of the Provisional Government... They passed in silence; the victorious insurrectionists crowded to see, but there were only a few angry mutterings...

At five o'clock the next morning—November 8—the All-Russian Congress of Soviets proclaimed the victory of the people's uprising in Petrograd. That same day, Lenin, who had organized the revolt for peace, bread and freedom, spoke at the Congress to a storm of applause.

"The question of peace," he began quietly "is the burning, the acute question for our time." This simple phrase was to become the guiding principle of foreign policy of the Soviet state. He read the first decree of the new republic, the Decree on Peace; it was adopted unanimously. And he read the second, too, the Decree on Land.

The October Revolution made possible the reorganization of the structure of the old society and brought about a new life for Russia's poverty-ridden millions. The land and its natural resources, industry, railroads and banks were all transferred to the people whose toil had built the country's wealth.

The Revolution was victorious because the majority of the people fought for it; the progress which followed was sustained because the people worked for it. This is what they had suffered for, and they were quick to respond to the call of the Communist Party which was prepared to lead them, a party which so well voiced their needs.

In every corner of the world men were stirred and heartened by the victory of Russia's people, and watched with hopeful eyes the founding of the first socialist state. It stood as symbol for all oppressed humanity, for all exploited.

When the young republic of workers and peasants was attacked soon afterward by fourteen foreign states which had declared "a crusade against communism," workers all over the world cried out, "Hands off Soviet Russia." They joined together to help the fighting republic and to ward off the threat of a new predatory war. In the United States, too, many organizations were active in defense of the new nation.

To build socialism in a country economically backward, ruined by war and encircled by enemies was the task the nation set to. More than once the plow and the hammer had to be put down and the gun picked up to ward off invaders. Eighteen of the forty years had to be spent in military defense of the country and in rebuilding the economy after war's destruction.

But what a vast change those forty years have brought. The republic fighting for its very existence has grown into a first-class power. It has made the gigantic leap from an agrarian economy of scarcity to a modern industrial country that bids fair to lead the world in production for plenty—a nation of great hydroelectric plants, of advanced machine tools, of modern agriculture, atomic energy for peace.

The Soviet Union is a country without unemployment in which national income has increased seventeen times over in forty years. A country of universal literacy which trains more scientific workers than any other country. A country which takes first place in the world in book publication.

A country of state-financed social insurance, of maternity grants, free medical aid, free college and professional training. A country which spends a good deal more on its education and social services than it does on its armed forces and armaments. A country in which *real* wages in the past five years alone have risen by 44 per cent for workers and *real* income for farmers by 68 per cent.

There is one figure, perhaps the most startling by its very simplicity, which points up the fundamental rise in living standards of these forty years—that the average span of life has doubled as compared with that in pre-revolutionary Russia.

It is true, and we make no secret of the fact, that in some important economic areas our

Concluded on the next page

country has yet to reach and to exceed the production indices of the leading western countries. But the once enormous economic gap between Russia and the most advanced powers of the West has been almost bridged. It has already narrowed to the point where the Soviet Union is recognized as the second greatest industrial power in the world.

The forecast for agriculture is as promising. Large-scale farm mechanization and collective operation offer almost unlimited possibilities for constant increases in agricultural output. Within the next few years the Soviet Union is resolved to overtake the United States in per capita production of meat, milk and butter.

The Soviet Union inherited the slums and cellar dwellings of pre-revolutionary Russia. Tremendous progress in housing was made, and the project would have been completed long ago had it not been for the Second World War. Fascist destruction left 25 million people homeless. Shelter had to be found for them, and quickly.

To help relieve the housing shortage that was even more aggravated by the growing industrial population, design became a secondary consideration, as did many of the comforts. The problem has been alleviated by the unprecedented scale of construction since the war, but it will be a dozen years yet before it is completely solved.

If one is to make an honest judgment of progress, whether it be of an individual or a country, one must take as a point of approach what the individual or the country had to start with. Judged by this fundamental criterion, the Soviet people have every reason to be proud of their country as a lasting and ever strengthening symbol of the creative power of socialist work.

But as firmly persuaded as they are of the rightness of socialism, the Soviet people have no intention of imposing their system of society upon any other people. They believe in coexistence with all countries, whatever their system of government. They believe that time, peaceful competition and the power of ideas will make the ultimate decision.

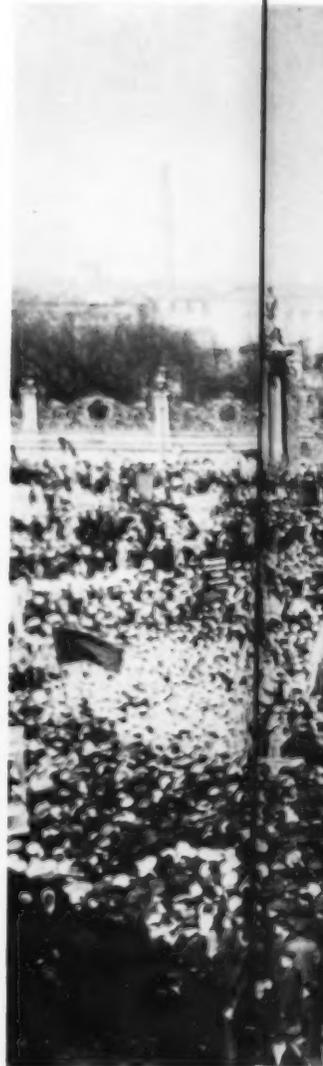
In this spirit, we open our doors wide to visitors from all parts of the world. In the past year alone, the Soviet Union was visited by 487,000 foreign tourists. In the same year, 561,000 Soviet citizens visited sixty-one foreign countries.

All over our land, in big cities and small villages, foreign visitors are hospitably welcomed, whether they are workers or farmers, artists or scientists, statesmen or business people. The Soviet Union believes that exchange between countries, whether in commodities, scientific knowledge or culture, should continue and expand regardless of their differing social systems or the temporary complications and difficulties which sometimes arise in the relations between states. It hopes that the level of exchange with the United States will soon reach that achieved with other countries.

On this fortieth anniversary of its Socialist Revolution, the Soviet Union extends a hand in peace and friendship to all countries and all peoples. ■



On November 7, 1917, the people of Russia took state power into their own hands. The nation set about building a socialist society, but a civil war was launched by counter-revolutionary forces abetted by the interventionist armies of fourteen foreign countries. This photo shows the head of the first Soviet government, Vladimir Ilyitch Lenin, addressing workers and peasants who were forced to take up arms to defend their new-born republic.



Detachments of aroused workers backed by revolutionary soldiers and sailors brought victory to the people's cause by storming the Winter Palace in Petrograd (now Leningrad) and overthrowing the reactionary government of capitalists and landlords that was following a policy opposed to the interests of the overwhelming majority of the population. Here is a view of a mass demonstration in support of the Revolution after the people's government had been established.



Soviet Union

IN THE MAKING

A Photo History

1917-1957



Soviet Union

1917-1957



The first decrees adopted by the Soviet Republic the day after the victory of the Revolution answered the immediate needs of the country and its people. World War I was still raging over the battlefields of Europe and the Decree on Peace proposed to all the warring countries the conclusion of a just peace without annexations or indemnities, on the basis of self-determination for all oppressed nations. The Decree on Land turned over all land to the peasants free, without compensation to the former landlords.



During the Civil War cavalry regiments composed of workers and peasants played an honored role. The courageous energy of the people fighting for their newly-won liberty made possible the rout of the trained professional armies of the former czarist generals and foreign interventionists.



The young Soviet state began to muster its people's army early in 1918. The first volunteer soldier was Pyotr Grigoriev, shown here. Within the first few months hundreds of thousands rallied to the defense of their encircled country.



The country's economy had been brought to the brink of collapse by World War I. The Civil War and foreign intervention that continued until 1922 added to the chaos. Most factories were gutted. Others were idle for want of raw materials and fuel. Mines, bridges and railways lay in ruins. There was a desperate shortage of food and clothing.

Restoration of the country was a prime task. The people realized that the ultimate goal was their well-being and they backed up their government at every step. This painting shows Lenin discussing the country's pressing problems with workers of the Trekhgornaya Textile Mills in Moscow.



Soviet Union

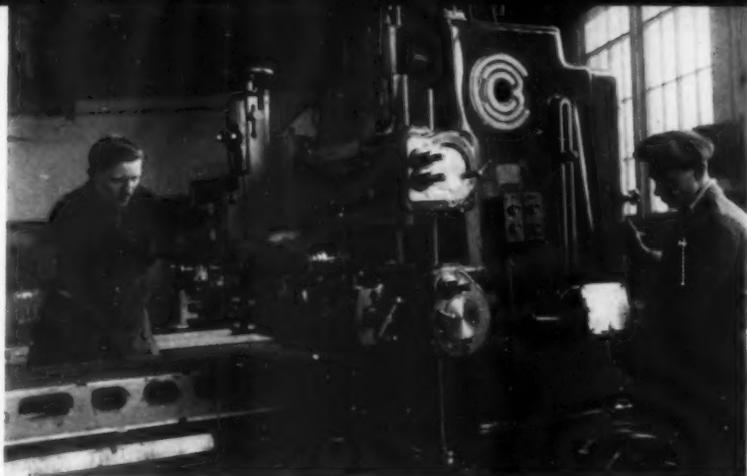
1917-1957

During the reconstruction period rather primitive methods had to be used. Shown at the right is one of the earliest projects after the Civil War, the laying of an oil pipeline. Today's mechanized methods are reflected in the photo below showing the building of a natural gas line 800 miles long.

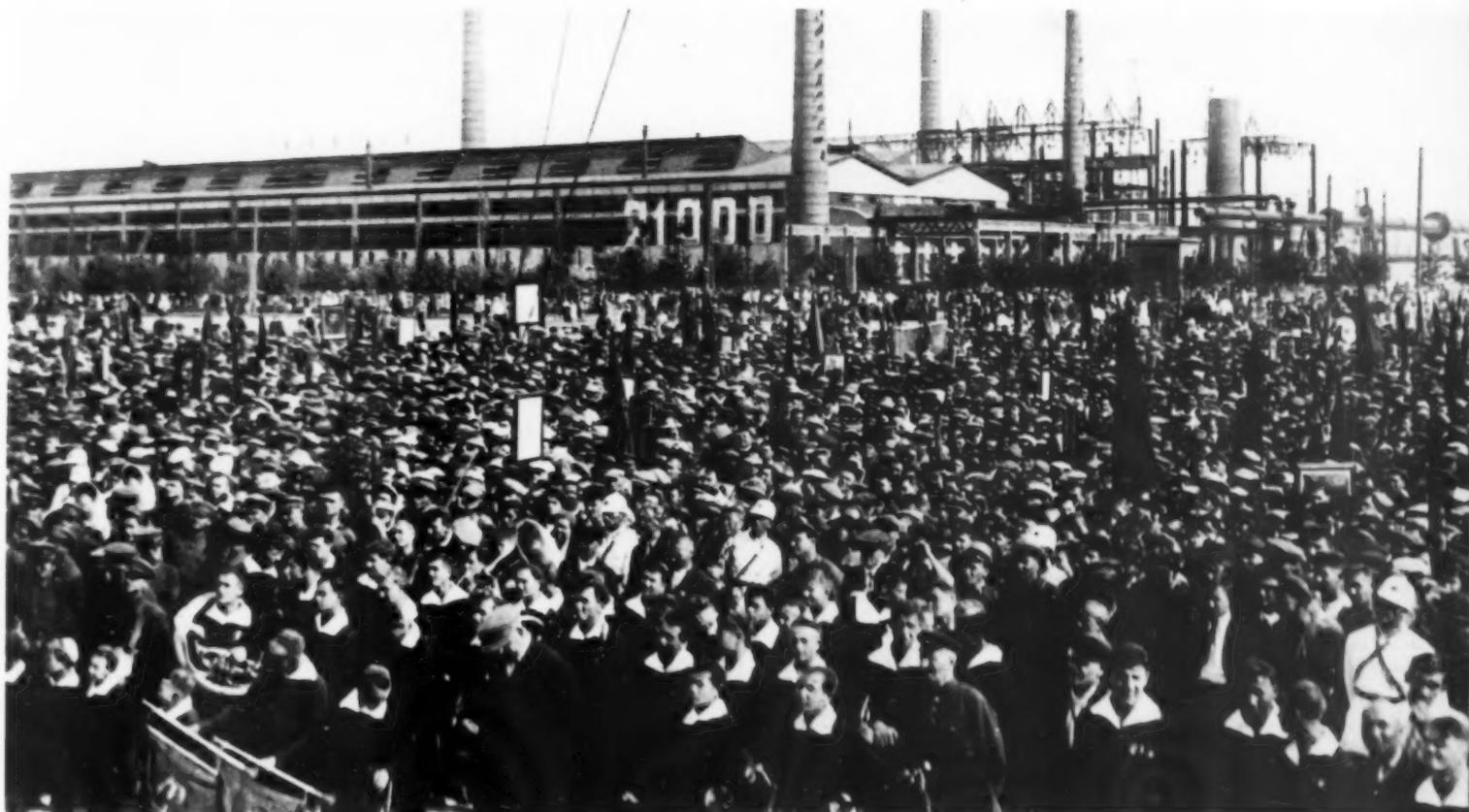


Struggling through severe hardships compounded by the denial of foreign loans and by the economic and political embargo, the Soviet people restored their ravaged country and by 1926 industrial output reached the level of 1913. But that was the level of backward czarist Russia. In 1928 the five-year plans were started which transformed the formerly agrarian country into a modern industrial power. The initial project of the First Five-Year Plan was the Dnieper Hydroelectric Station, completed in 1932 when it ranked as Europe's largest.





One of the most significant results of the prewar five-year plans was the creation of a machine building industry. The Soviet Union now makes practically every machine tool needed for its own expanding industry and is filling orders for many countries.



Completion of each new plant or factory, railroad or mine was viewed with pride by the builders and general public since everybody considered himself part-owner of the country's increasing wealth. This photo shows a meeting of the builders of the Magnitogorsk Iron and Steel Works in the Urals in the early thirties.

This blast furnace in the Ukraine was also placed in operation in the early thirties. The increased production of metals, machinery, fuel, electric power and building materials made possible the mechanization of agriculture, the construction of thousands of consumer goods factories and the expansion of housing construction.



U.S.S.R.

Soviet Union

1917 — 1957

The first Soviet-made tractors were produced in the summer of 1927. One of these early machines is shown here making its debut on the fields of Central Asia. It was the first time local peasants had seen a tractor. But even in more advanced regions farm mechanization had to be started from scratch.



This is how the peasant worked his plot prior to the Revolution, when the wooden plow was his principal implement.



This photo from the late twenties shows peasants bringing in their animals to a newly organized collective farm. Within a few years the vast majority of the country's peasants had pooled their land, livestock and tools to be owned jointly and worked cooperatively. This made possible the introduction of modern machinery and scientific farming methods that were beyond the means of the poverty-stricken farmsteads inherited by the country.

An extensive network of state machine and tractor stations was established to serve the collective farms. They not only lent machinery but also provided advice from experienced agronomists and veterinarians.

Volunteers from the industrial centers poured to the rural areas to teach farmers how to care for the machines. Millions of farmers took free courses in new crop methods, livestock raising and farm administration. It was a nation-wide effort to modernize the country's agriculture, to accomplish in a decade what other countries had done in centuries.





The Soviet Union built its own farm machinery industry which soon mechanized all the principal agricultural processes. The country produces some 400,000 tractors annually along with millions of other farm machines. This photo shows the delivery line at the Lipetsk plant, one of the recently commissioned enterprises.

The collective farm system brought tremendous changes in the life of the peasant. His labor was made incomparably easier and more productive. Farm families now have high and steady incomes. Pictured here are Soviet farmers of today. For them wooden plows and the life-long hardships of their fathers are relics of the past.

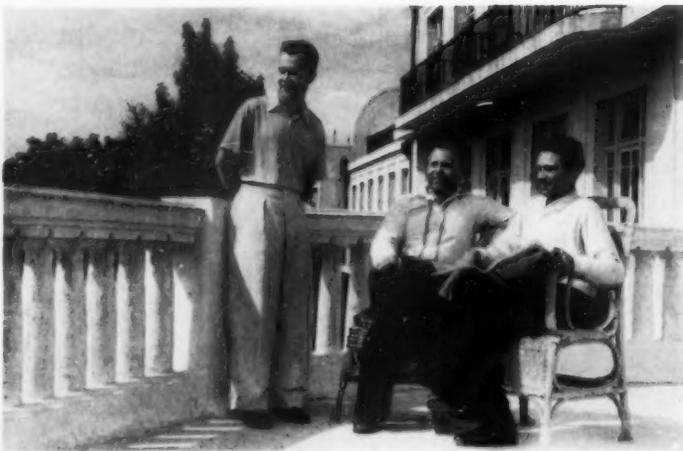


This social and recreational center in a Ukrainian village offers many activities and a variety of entertainment characteristic of the modern culture that has become an integral part of farm life. Schools and libraries, stadiums and movies, amateur art and hobby groups, all cultural facilities are now readily available to the rural population.

Soviet Union
1917—1957



More than a new industrial power was created in these years. A new worker was born who was no longer mercilessly exploited for the enrichment of a few. He worked knowing the fruits of his efforts benefited himself and his country. His old fear and insecurity were gone, replaced by the nation's guarantee of full employment and constantly rising wages. The eight-hour working day long ago replaced the twelve to fourteen hours of czarist times and is now gradually being reduced to seven, and in some trades to six, without any cut in income.



Under a national law vacations with full pay are provided every employee, with the period ranging from two weeks to two months. Every year millions receive resort accommodations free of charge or at a 70 per cent discount. These vacationers at a seaside resort are workers of a metal plant.

An extensive housing program has been carried out since the Revolution to eliminate the slums and accommodate the growing population.

Apartment rentals, fixed by law, range from three to six per cent of a worker's income. Here a family arranges their apartment in a new house.





These heavy veils, which were mandatory in the Central Asian and Caucasian areas of czarist Russia, symbolize women's inferior position before the Revolution. Even in more advanced parts of the country women played no part in public life. Their wages were far below those of men, and only in rare cases were they admitted to colleges.



This photo taken recently at a Central Asian medical center shows a group of Uzbek scientific workers. Throughout the country women now enjoy the same opportunities as men in every field of endeavor. They get equal pay and have full equal political rights. Of the 1,347 members of the Soviet Parliament, 348 are women.

Special care for mothers and children has been a watchword of the Soviet Union from its inception. Expectant mothers receive complete medical care and hospitalization free of charge. The law provides for 112 days' maternity leave with full pay. Mothers with large families are paid monthly allowances. All citizens have the opportunity to send their children to nurseries, kindergartens and summer camps. The cost is covered mainly from state funds, while parents pay only a small fraction.



The Revolution ended colonial oppression and brought freedom and equality to all the country's nationalities. In 1922 they formed the Soviet Union on a basis of fraternal alliance to preserve their newly won independence and to jointly develop their economy and culture. Every nationality, no matter how small, enjoys equal rights in political life and is helped to develop its industry and agriculture, its educational system, theatrical and musical art, its language and literature. Shown in the photo is a group of Central Asian and Caucasian deputies to the USSR Supreme Soviet, the country's parliament.

Soviet Union

1917—1957

Only one out of four citizens was able to read and write in old Russia. Education was made available to all in Soviet times and illiteracy has been eliminated. Tuition is free from elementary school through college and postgraduate work. The country has almost 2,000,000 college students and maintenance stipends are granted by the state to everyone with satisfactory grades.

The Revolution's end found the workers and peasants with a great thirst for culture they had so long been denied. The photo shows an early post-revolution classroom where adults were first taught to read, write and count.



Seven-year schooling is compulsory throughout the Soviet Union. Recently ten years became the rule in cities, and rural regions are gradually moving toward ten-year schooling. Compared with the pre-revolutionary period, more than four times as many children attend school today, with the total reaching thirty million.

All medical and dental services are free to every Soviet citizen at state expense. Wage and salaried workers receive sick benefits until complete recovery, ranging from 50 to 90 per cent of their earnings. Before the Revolution whole regions lacked not only hospitals, but even doctors and nurses. Today the country has ten times as many physicians as it had in 1913, and professional help is available in every town and village.



Before 1917 all Russia was served by 14,000 libraries with 9.5 million books. Today the country has 400,000 libraries with a book volume of 1.5 billion. The photo shows a reading room in the Lenin State Library in Moscow, which holds 19 million volumes in 160 languages and conducts a book exchange with libraries in sixty foreign countries.



A part of the cultural progress is the great advance of amateur art. Workers, farmers and their families are given an opportunity to develop their talents or enjoy their hobbies in 350,000 groups supervised by experienced teachers. Coincident with this growth has been the rapid development of the legitimate theater, ballet, fine arts and music.



Soviet Union

1917-1957



On June 22, 1941, the Nazi armies viciously attacked the Soviet Union, bringing havoc and destruction in their wake. Seven million Soviet citizens, among them women, children and old people, were killed during the war. The enemy burned and wrecked 70,000 villages and 1,710 cities. The photo shows one of the tragic scenes after the terror bombing of Vyazma in August of 1941.



Stalingrad's heroic defense stands out as a major turning point of World War II. After long months of street fighting, Soviet troops took the offensive, encircled and routed Hitler's crack army of 330,000 men.

Women, teenagers and old people took the places of the men called to arms and toiled ceaselessly to provide weapons and supplies for the country's fighting forces.



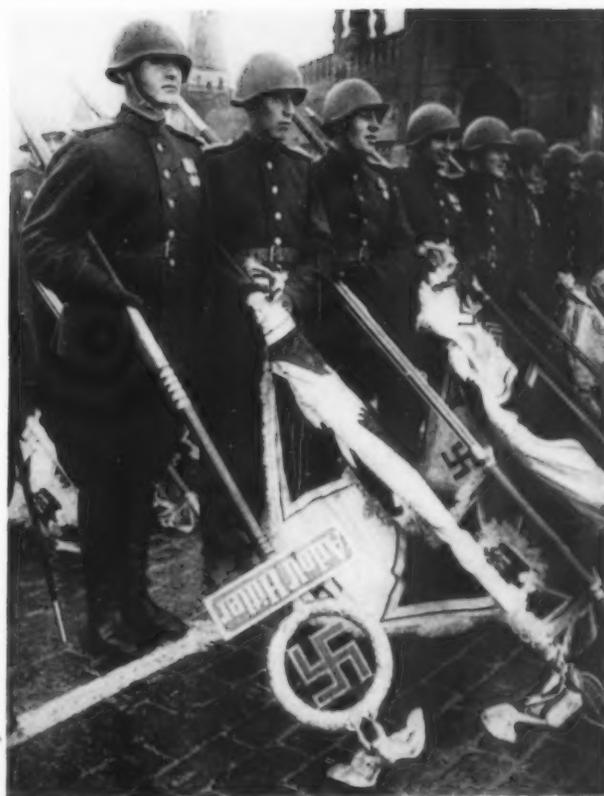
Guerrilla detachments never ceased their struggle behind the enemy's lines. Pictured here are guerrillas signing the oath to fight on to victory or to the last man.

A happy and grateful population greets the Soviet army as it liberates the city of Vitebsk from fascist occupation. In each of the liberated areas the whole country responded to the mighty effort to rebuild houses and plants, unite families, feed and clothe the people. The war left 25 million homeless and devastated many of the country's richest areas. Almost 32,000 industrial plants, 40,000 hospitals and 82,000 school buildings lay in ruins, and some 100,000 farms were looted by the enemy.



The common struggle created a strong bond of friendship between the Soviet and American people and wrote their comradeship in blood. When Soviet and American forces met at the Elbe River in Germany on April 25, 1945, the world knew that peace was at last near.

The mighty forces of the anti-Hitler coalition smashed the aggressors. In May 1945 Soviet troops raised the Banner of Victory over the Reichstag building in Berlin. Pictured here are Soviet soldiers grounding the flags of the defeated Nazi armies during the Victory Parade in Moscow.



Soviet Union

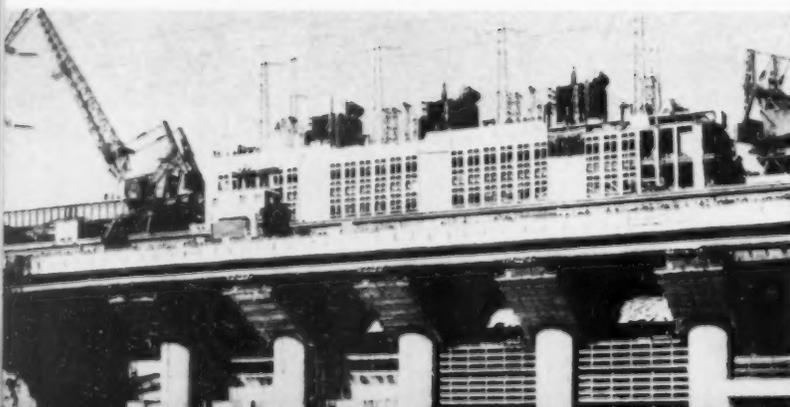
1917—1957

The war's toll in material damage equalled 170 billion dollars and reconstruction required the untold energy of the entire nation. At the same time resources were found to carry out an extensive program of new industrial construction. Pictured here is a recently completed nickel plant in the Siberian city of Norilsk, typical of the postwar expansion of the economy.



The war and postwar restoration greatly hindered the country's progress. But as early as 1948 industrial output had reached the prewar level, and the national economy resumed its upward curve. At the beginning of 1957 industrial production was four times higher than in 1940 and thirty times that of 1913. One of the characteristic features of recent years has been the rapidly increasing automation in both heavy and light industries. This is a view of a postwar automated production line.

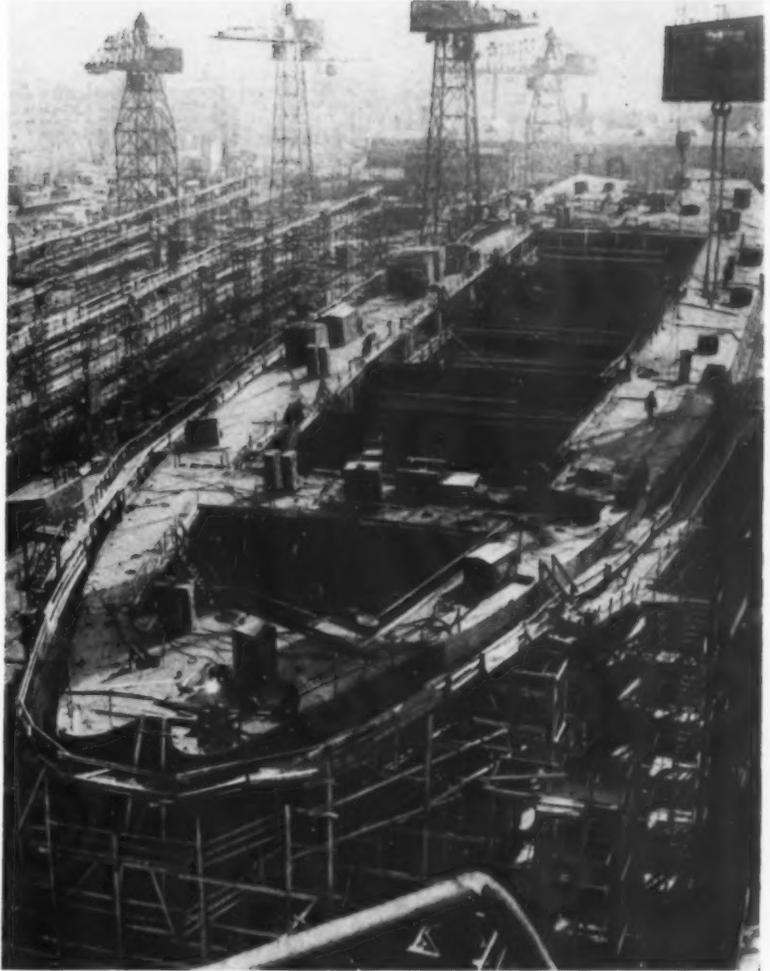
This photo shows the construction of the 600-mile Kara Kum Canal in Central Asia, one of the country's largest irrigation projects. Many modern irrigation systems were completed in the prewar period, but since then the program has been considerably stepped up.



The country's power output today matches the annual production of czarist Russia in just four days. There are some 400 large hydroelectric and steam power stations now under construction, with several of the new plants as large as any in the world. Cheap electricity for industry and agriculture will contribute to an ever increasing supply of consumer goods.



The TU-104A jet airliner carries seventy passengers and has a cruising speed of 550 miles per hour. It is one of several new types manufactured by Soviet industry for civil airlines. Among the new turbo-prop planes is an airliner that carries 200 passengers and cruises at 600 miles per hour.



The atomic icebreaker pictured here will soon be launched at a Leningrad shipyard. Since science unleashed the potent energy of the atom for man's use, the Soviet Union has led the way in its application for peaceful and humanitarian purposes. The country has the world's first commercial power plant running on atomic energy which has been in successful operation since 1954. Several new and larger atomic power plants are now under construction.



The passenger automobile industry, entirely new to the country since the revolution, has almost doubled its production in the past five years, but it is still unable to meet the demand for cars. Here are new machines at the Gorky plant ready to drive.

Soviet Union

1917—1957

To increase the country's grain production a nation-wide drive was initiated in 1954 to cultivate virgin lands in the east. During the past three years well over 86 million acres were opened in that area.



The pioneering work in the new lands was done principally by 350,000 young volunteers from every part of the country. Since the earliest period of the Soviet Union its youth has been found in the forefront at every call of the nation.



An extensive program is in full swing to greatly increase the supply of all farm products. To stimulate the production of meat, milk and butter, the nation set out to match U. S. per capita production of these essential foodstuffs within a few years. Although retail prices remain stable, Soviet farmers now receive more for their produce than ever before.



Sales of all consumer goods have been growing constantly in the postwar period, and the volume of retail trade is now double that of 1940. Through a planned program of price reductions, the purchasing power of the ruble has been mounting year after year, while the growth of industry and agriculture has brought higher earnings to the population. Taxes have remained unchanged or cut, with the farmers being especially benefited.



There is an expanding market for TV and radio sets, refrigerators, washing machines, vacuum cleaners, building materials for private house construction and other durable goods. Soviet industry is rapidly stepping up production of these items to meet the demand.

Out of every five books published in the world today, one is printed in the Soviet Union. All over the country books are quickly sold out although they are issued in editions amounting to hundreds of thousands. In the past 40 years more than 1.5 million titles were published with an aggregate of 20 billion copies.



Soviet Union

1917—1957

The new housing project pictured below may well symbolize the peaceful construction going on everywhere in the Soviet Union. These modern apartments may also serve as a contrast to the slums in which millions had to live before the Revolution. The entire life of the nation has changed beyond recognition during these forty years filled with ceaseless labor. The 200 millions of Soviet people have built a secure present and have laid a strong foundation for a more prosperous future.



More than anything else, the Soviet Union wants to live in peace so that every effort can be concentrated on improving the life of the people. In the past two years alone two million soldiers have been demobilized and returned to civilian work. Here a young miner arrives in his home town in the Ukraine after receiving his discharge.





A group of deputies to the USSR Supreme Soviet, the country's parliament, during a recent session. Nominated and elected by the people and responsible to them, the deputies have the final word in approving the government's decisions. The most important bills are discussed by the whole nation through public meetings at factories and farms and through the press before they reach Parliament, and many amendments suggested by citizens are embodied in the final law.



A member of a visiting farmers' delegation from the United States shakes hands with a Russian farmer. The Soviet Union has long fostered cultural, scientific and tourist exchange, believing that universal accord can be promoted if the peoples of the world get to know each other better. To further mutual understanding, the Soviet people are ready to extend their relations with every nation.





I MEET LENIN

By Maxim Gorky

I had never met Lenin before this, nor had I read as much of his work as I should have. But what I had managed to read, and above all, the enthusiastic account of those who knew him personally, had attracted me toward him strongly. When we were introduced, he shook my hand heartily, scrutinized me with his penetrating eyes, and in the tone of an old acquaintance, said jocularly, "So glad you've come. I believe you're fond of a scrap. There's going to be a fine old scuffle here."

I did not expect Lenin to be like that. There was something lacking. He rolled his "r's" gutturally and had a jaunty way of standing with his hands somehow poked up under his armpits. He was somehow too ordinary, did not give the impression of being a leader.

But now Vladimir Ilyitch hurries to the platform and says, "Comrades!" in his guttural way. He seemed to me to speak poorly but after

a minute, I and everybody else was absorbed in his speech. It was the first time I had heard complicated political questions treated so simply. With him there was no striving for eloquent phrases. Every word was uttered distinctly, its meaning marvelously clear. It is very difficult to pass on to the reader the impression he made.

His arm was extended with hand slightly elevated and he seemed to weigh every word with it, to sift out the comments of the opposition, replacing them with cogent arguments to prove the right and the duty of the working class to go its own way, and not along with the liberal bourgeoisie or trailing behind it.

All this was unusual and Lenin seemed to be saying it not of his own will, but by the will of history. The unity, completeness, directness and strength of his speech, his whole demeanor on the platform—it was a veritable work of classic art. Everything was there and yet there was nothing superfluous. If there were any embellishments, they were not noticed as such, but seemed as natural and inevitable as two eyes in a face or five fingers on a hand.

He made a shorter speech than those who spoke before him, but he made much the stronger impression. I was not the only one to feel this. There was a vehement whispering around me, "Now he really has something to say."

Maxim Gorky's essay on Vladimir Ilyitch Lenin, written in the late 20's, has a special place in literature for its personal portrait of the founder of the Soviet state. Gorky first met Lenin at the London Congress of the Russian Social-Democratic Labor Party in 1907. In these excerpts the writer gives his impressions of that first and later meetings with Lenin.

He had. His conclusions were not reached artificially, they developed by themselves, inevitably.



There was a kind of magnetic quality he had which drew the hearts and sympathies of working people. He did not speak Italian, but the Capri fishermen, who had seen Chaliapin and other notable Russians, by a sort of instinct put Lenin in a special place at once. His laugh was infectious—the hearty laughter of a man who, because of too familiar an acquaintance with the clumsy stupidity of human beings and the acrobatic trickery of the sharp-witted, found pleasure in the childlike artlessness of the “simple in heart.”

One old fisherman, Giovanni Spadaro, said of him, “Only an honest man could laugh like that.”

We would go rowing sometimes, on water as blue and transparent as the sky. Lenin learned how to catch fish “with his finger”—using the line alone, without a rod. The fishermen explained to him that the fish must be hooked when the finger feels the line vibrating. “*Così: drin, drin. Capisce?*”

A minute later he hooked a fish, pulled it in and yelled out with childlike pleasure and an angler’s excitement, “*Drin, drin.*”

The fishermen roared with laughter, delighted as children, and nicknamed him Signor Drin-Drin.

Long after he had gone away, they kept asking, “How is Drin-Drin getting along? The Czar won’t catch him?”



In my opinion, Lenin was an exceptionally great man because of this feeling he had of unquenchable, uncompromising hatred of human suffering, his burning faith that suffering is not an essential and unavoidable part of living but an abomination which people ought and are able to sweep away. I would call this basic element of his character the militant optimism of a materialist. It was precisely what attracted me to this man—Man with a capital M.

It was his clearly expressed will to live which attracted me to him. I loved the youthful eagerness with which he threw himself into whatever he did. I was astonished at his super-human capacity for work.

His movements were light and agile and his infrequent but strong gestures harmonized with his speech, sparing as it was in words, and in thought abounding. On his face, with its slight Mongolian cast, gleamed and sparkled the keen eyes of a tireless fighter against the lies and sorrows of life—now glowing and burning, now screwed up, now blinking, now smiling ironically, now flashing with anger. The fire in his eyes made his words glow. Sometimes it seemed as though the indomitable energy of his soul flew out in sparks from his eyes, and his words, shot through and through with it, hung shining in the air. His speech always gave one the feeling of the physical pressure of an irresistible truth.



He was venturesome by nature, but his was not the mercenary recklessness of the gambler. In Lenin it was the expression of that rare moral courage which could belong only to the man with an unshakable belief in his calling, to a man with a profound and thorough understanding of his role in a chaotic world, the role of enemy of the chaos.

With equal enthusiasm he would play chess; look through *A History of Dress*; argue for hours with comrades; go fishing; walk along the stony paths of Capri scorched by the southern sun, feasting his eyes on the golden color of the gorse and the swarthy-faced children of the fishermen. In the evening, listening to stories about Russia, he would sigh with envy and say, “I know very little of Russia—Simbirsk, Kasan, Petersburg, exile in Siberia and that’s nearly all.”

He loved fun and when he laughed it was with his whole body: he was altogether deluged in laughter and would sometimes laugh until he cried. He could give his short, characteristic exclamation “H’m, h’m,” an infinite number of variations, from biting sarcasm to non-committal doubt; and often in his “H’m, h’m,” one caught the keen humor of the sharp-sighted man who sees through the stupidities of life.

Stocky and thick-set, with his Socratic head and quick eyes, he would often adopt a strange and rather comical posture—he would throw his head back, inclining it somehow on to his shoulder, thrust his fingers under his armpits, in the armpits of his vest. There was

something deliciously funny in this pose, something of the triumphant fighting cock; and at such a moment he beamed all over with joy, a grown-up child in this accursed world, a splendid human being, who had to give himself as a sacrifice to hostility and hatred, so that love might at last be realized.



A man of astonishing strength of will, Lenin embodied the finest qualities of the revolutionary intelligentsia, an asceticism which in its most extreme form frequently amounted to self-torture and self-mutilation, to a renunciation of art. It followed the logic of one of Andreyev’s heroes: “Other people are living hard lives; I must therefore live a hard life.”

In the famine year of 1919 Lenin was ashamed to eat the food which was sent him by comrades, soldiers and peasants from the provinces. When parcels came to his bleak flat he would frown, grow embarrassed, and hurry to give the flour, sugar and butter to sick comrades or to those weak from lack of food.

Once when he invited me to dine with him, he said, “I shall give you some smoked fish—it was sent to me from Astrakhan.” And with a frown on his Socratic forehead, and his glance turned away from me, he added, “They send me things as though I were a lord. How can I stop them from doing it? If you refuse and don’t accept it, they are hurt. And everyone around me is hungry.”

Altogether without any personal fads, a stranger to tobacco and wine, taken up from morning to night with complicated and difficult work, he had no thought of looking after himself, but kept a vigilant eye to the well-being of his comrades. He would sit at the desk in his study writing and talk without lifting his pen from the paper: “Good morning. How are you? I’m just finishing. There is a comrade in the village feeling lonely—evidently tired. He must be cheered up. Frame of mind is not the least important thing.”



He was too little concerned with himself to talk about himself to others. He, more than anyone, kept his inner disquiet secret. Once, however, in the village of Gorki, when he was fondling some children, he said, “These will have happier lives than we did. They will be spared much that we are living through. There will not be so much cruelty in their lives.” Then, looking off into the distance, to the hills where the village nestled, he added thoughtfully, “And yet, I don’t envy them. Our generation achieved something of stupendous significance for history.”



Once I came to see him and saw *War and Peace* lying on the desk.

“Yes, Tolstoy. I wanted to reread the hunting scene, then I remembered that I had to write to a comrade. Absolutely no time for reading. Only last night I got around to reading your book on Tolstoy.”

Smiling and screwing up his eyes, he leaned back and stretched himself indulgently in his armchair. “What a colossus, eh?” he said quietly. “What a marvelously developed brain. Here’s an artist for you, sir. And do you know something even more amazing? You won’t find a genuine peasant in our literature before this count came on the scene.”

Then squinting again and looking at me, he asked, “Is there anyone in Europe who can stand beside him?” And answered his own question, “No one!” laughing contentedly and rubbing his hands together, pleased.

One evening in E. P. Pyeshkova’s apartment in Moscow, when Lenin was listening to a Beethoven sonata played by Isaiah Dobrowein, he said, “I know nothing which is greater than the *Apassionata*. I would like to listen to it every day. It is marvelous superhuman music. I always think with pride—perhaps it is naive of me—what marvelous things human beings can do!”



He was a Russian who lived for a long time away from his native land . . . From afar it must have seemed brighter and more beautiful. But he estimated its potential forces accurately and perceived the extraordinary talents of its people which, feebly expressed as yet, unawakened by a somnolent and oppressive history, still gleamed everywhere against the somber background of the fantastic life of Russia.

Vladimir Lenin is profoundly and greatly the man of our time. ■

FOUR GENERATIONS OF ULYANOVS

By Yuri Grafsky

MARIA ULYANOVA is mother, grandmother and great grandmother—matriarch of a four generation family. The story of her eighty years is the story in personal human terms of the old Russia and the new.

It begins at the turn of the century in 1899, when Maria was married to Dmitri Ulyanov, a worker at the Arsenal Factory in Kiev. Maria was young and her bright smile and bustling gaiety warmed even the dank room the couple called home. They found nothing out of the way in their sunless basement. Many of the people they knew lived like they did.

The family grew from year to year—eight children. Dmitri worked at the factory twelve hours a day while Maria tried to stretch a diminishing wage to feed and clothe a family of ten. Dmitri's wages did not rise, but the cost of living did. Maria took in washing and scrubbed other people's floors to make ends meet. They never did.

Maria, herself untaught, had dreams of giving her children an education. There was nothing more important, she said. The Ulyanovs scraped pennies and managed somehow to send Andrei, their first born, to school. It was a memorable day, that one when Andrei first put on his school uniform.

Then came the summer of 1914 and the war. Dmitri Ulyanov was conscripted and sent to the front. The little world of phantom security they had built with such infinite pains crumbled abruptly. Andrei had to leave school and take his father's place at the Arsenal Factory.

He was no more than a child but there was no other way to keep the family alive. His



THE ULYANOVS AS THEY WERE FORTY YEARS AGO AND SOME OF THE FAMILY NOW.



earnings together with the few rubles Maria earned were barely enough to keep the children fed. There was nothing left over for such luxuries as schooling.

They were the long years of despair and of bitterness. They were the years when Maria and so many other Marias began asking questions that no one, it seemed, had an answer for.

Why must my husband, she asked, live like an animal underground in a trench in Austria? Why does my child have to stand at a lathe making shell cases instead of sitting at a school desk where he ought to be? Was this what they called defending the country?

The war was not over when Dmitri returned home an invalid, unable to work. Maria asked other questions—about justice and humanity and why it was that the poor were thrown on the trash heap when they were no longer useful.

Maria herself, and countless other Marias, answered their questions in October 1917 when the people's government headed by Vladimir Lenin was set up.

In Kiev the Arsenal Factory workers were the first to join the uprising. Sixteen-year-old Andrei fought on the barricades. Maria, timidly at first, then more and more resolutely, helped the revolutionaries. She brought them milk and bread at night and during the day made the rounds of her neighbors to bring cheer and comfort.

Then Andrei volunteered in the people's army that was mustered after the Revolution to fight the counter-revolutionary forces and

Continued on page 26



"YOU'LL LEARN, DON'T LOOK SO UNHAPPY," ANATOLI, AN APPRENTICE, IS CHEERED BY HIS UNCLE PAVEL.

MARIA'S FOUR DAUGHTERS HAVE EACH ACHIEVED HER HIGHEST ASPIRATIONS FOR THEM. THIS IS YEFROSINIA, THE YOUNGEST, SHOP SUPERINTENDENT OF A KIEV FACTORY.



FOUR GENERATIONS OF ULYANOVS

Continued

the foreign invading armies that held the young Soviet state besieged on all sides. For Maria these were anguished days of waiting. Andrei came back one autumn night, his worn face flushed with fever, desperately ill of typhus. She nursed him back to health and he returned to the front.

Then Dmitri, her husband, died. Had she been the old Maria, she might well have broken under the load of illness and death and hunger. But this was a different, a stronger Maria whose concern was not for her family alone but embraced those millions like herself who were fighting for a better future. Maria went to work at the factory.

When the Civil War which followed the Revolution ended, it was as though Russia had awakened out of the torpid sleep of centuries and the country became one gigantic construction site. New mills and factories had to be rebuilt out of the ruins. At the Arsenal Factory in Kiev big changes also took place. Within a few years, this little factory, built

in the eighteenth century, had been transformed into a large plant with modern equipment.

The Ulyanov family was swept along with this great current of construction that was moving the factory, the city, the whole country. When Andrei returned from the army, he went back to his job at the factory. Maria worked as a helper since she had no skilled trade. But her own difficult life and the upsurge of events had by this time turned this once retiring woman into an independent person determined to work out her own destiny and that of her children.

The country, Maria knew, needed people with background and skill in every field of work. The dream she had of educating her children was now a simple reality. But what about her own education?

Although Maria had now passed forty, she enrolled in a class for adults and learned to read and write. Not too long afterward, she took the job of factory librarian. People came to her for books and reference information, they came again for her warm interest, for her sympathetic advice and her sound common sense. When the plant's first women's committee was organized, she was elected chairman.

The old days had left behind their heritage of juvenile delinquency and prostitution.

Maria Ulyanova played an active part in organizing the first children's homes. She combed the backyards and slums of Kiev and helped destitute women to get jobs. Her efforts to find a place for adolescents in schools or factories saved them from the life of crime they were doomed to by poverty in a country ravaged by war.

About this time she met the Olyushin family. The father had been killed in the First World War and the mother was incurably ill. There were three young children left without anyone to care for them. Maria placed the two smaller ones in a children's home and brought Grigori, the eldest, to her own house and raised him with her own children. He subsequently became a lathe operator. To this day he talks of Maria as his second mother.

Maria's energy and example, together with the opportunities open for education and advancement, changed the lives of her own children. While working as a fitter, Andrei, the eldest, completed his secondary school course and was then graduated from the Machine Building Institute of Kiev as a mechanical engineer. His brother Pavel first came to the factory as an apprentice lathe operator. Later he completed the course of study at the factory branch of a machine building school to become a senior foreman.



VIL, MARIA'S GRANDSON, IS DOING GRADUATE WORK AT KIEV UNIVERSITY.



VITALI, ANOTHER OF MARIA'S GRANDSONS, IS A STUDENT AT A MILITARY ACADEMY.

THIS IS LENOCHKA, GREAT GRANDDAUGHTER, FOURTH ULYANOV GENERATION.

ULYANOV GET-TOGETHER. VALENTINA, AT PIANO, IS MARIA'S GRANDDAUGHTER.



Maria's daughters achieved what their mother had aspired to only in her wildest dreams. Anna works as an economist in a factory. Antonina is a technological engineer. Yelizaveta, the third daughter, studied nursing while she worked as charwoman at the Arsenal Factory. Then she was helped by the trade union to enter medical school and to complete the required years of study. Now she is considered one of the best physicians in Kiev. Yefrosinia, the youngest daughter, graduated from the Chemical Institute and is a shop superintendent at the Krasny Rezinshchik Rubber Factory.

As for the third Ulyanov generation, theirs was an entirely different life from the very outset. They all started school when they were eight. The years passed and the cousins Vil and Vitali used to spend long hours at their grandmother's trading plans for the future, with Maria, old in years, but still spry and energetic, beaming at her grandsons, happy that they could make such ambitious plans with so much confidence.

But it was not easy going for this third

generation either. Vil had just graduated from high school and Vitali was in his senior year when the future was halted. On June 22, 1941, Hitler's armies invaded the Soviet Union. Vitali and Vil worked at the Arsenal Factory during the early days of the war. When the Nazi army approached Kiev, the factory was evacuated to the East. Vil was eighteen and Vitali seventeen. They were determined to get to the front.

The young workers at the factory organized their own artillery unit and the boys joined. In October 1942 they were in the front lines. Later, Vitali received the country's highest award—Hero of the Soviet Union—for his participation in the heroic crossing of the Dnieper River, the youngest to merit this honor. Vil also was cited for valor.

Andrei Ulyanov went to the front in the beginning of the war. He was killed in the battle of Stalingrad. And in the battles for Kiev, Maria's son Alexander and three of her sons-in-law lost their lives. Maria is right when she says that the blood of the Ulyanovs together with the blood of the people of other

nations brought victory and saved the world from the barbarism of fascist domination.

The Ulyanovs returned to their own futures after the war. Vil entered Kiev University and majored in economics. He completed his undergraduate work and was appointed teacher at the Kiev Institute of Economics and Finance. He is now completing his thesis for his master's degree. Vitali chose to remain in the army. He is now a student at a military academy.

Other Ulyanovs stayed in Kiev. Maria's son Pavel is a senior foreman at the Arsenal Factory. Anatoli, her grandson, is an apprentice fitter. Another grandchild, Nikolai, is an instrument adjuster. Granddaughter Irina is a laboratory assistant.

Fifteen of the Ulyanov family have received a college education; two are high school graduates; four are college and university students; the grandchildren and great-grandchildren are at school. There are thirty-four Ulyanovs now and they typify the opportunity which Soviet society offers for education and growth to a worker's family. ■

ALEXANDER DEINEKA belongs to the older generation of Soviet artists. He was born in 1899 and studied at the Kharkov Art School. He served with the revolutionary forces in 1918-19 and after the civil war period resumed his studies at Moscow, where he graduated from the Higher Art and Theatrical Studios. His earlier work was done in posters and in black and white. In 1928 he painted his first important picture *The Defense of Petrograd*.

This and his subsequent paintings of the pre-war period — *Interrogation*, *Lunch Hour in the Donets Coal Basin*, *Future Flyers* — all show the artist searching for his own individual manner and medium. The search continued in his frescoes and murals done for the Soviet Pavilion at the International Exhibition in Paris, some stations of the Moscow subway and the new buildings of Moscow University.

In 1939 Deineka began to work in sculpture, ceramics, majolica and porcelain. He has accompanied several Soviet art exhibitions abroad. He visited the United States in 1935. Deineka now heads the chairs of painting and drawing at the Moscow Architectural and Building Institute. He is a member of the USSR Academy of Fine Arts.

Below we give his reflections and reminiscences of forty years of Soviet painting, the coming of age of realism.



Mother
by Alexander Deineka



REFLECTIONS ON

By Alexander Deineka

NINETEEN NINETEEN was a year of civil war and hunger. The wagons that rumbled through the streets were stacked high with typhus dead. But art was alive, and the people alive to it. On the bullet-ridden squares revolutionary paintings were hung and statues erected to workers, soldiers and scientists, tributes to freedom and labor, to the courage of people struggling desperately for their rights and their lives.

That winter the studios of Moscow were icy and cold and artists lived on millet and dried herring. But young people talked of tomorrow's art and took on faith the most farfetched "isms." In art classes they poured sawdust and sand over colors on canvas painted in squares and circles, bent rusted iron into every sort of shape without meaning or function.

Was this a contradiction? Hardly. I should think the contradiction of the time was the artist who was still painting idyllic landscapes and rich men's villas or portraits of well-fed ladies formally gowned.

But there were artists who drew the revolutionary posters, who designed the sets for the new theaters and for mass festivals and drew illustrations for the new books. This was art searching to express the Revolution, groping for forms that would give the feeling of the rush of contemporary events, of the austere individuality they felt the times required.

Theme and form had found a new and equal balance. The people were fighting for a new life. That was why, during those dark days when I dreamed of the future, I painted pictures flooded with sunlight. There was such a lack of it!

We learned to know very early that real art was not only pleasurable, it was a necessity of life. For me the recollections of those distant years

confirm the tie that exists between art and history, for there is no art outside of time, even though it treats of things ancient. Large and significant canvases were born out of the history of the country, out of Soviet reality and they cannot be understood if one does not comprehend that reality.

Realism is social painting by its very nature. It needs no special thinking to see where Ilya Repin's sympathies lay when he painted his *Zaporozh'ye Cossacks Writing a Letter to the Turkish Sultan*, or with whom Boris Ioganson sympathized when he was working on his *Old Urals Factory*. Realism demands an active approach both to art and to society.

The struggle for social justice is a theme that infuses Soviet painting. During the Second World War, the brush in the hands of our artists and the bayonet in the hands of our soldiers were both weapons.

In the early years after the war, a trend in Soviet painting appeared which was anything but a continuation of the development of socialist realism. This was the tendency toward ostentation and pomposity, without either monumental grandeur or the virtues of simplicity. It was rejected by the public. Nor were there many noteworthy genre paintings.

Realistic painting has traveled no straight or simple path in its development. In the 20's, Kazimir Malevich soon exhausted the possibilities of his "suprematist" method, coming to a dead end when he painted a black square, and nothing else, on his canvas.

Suprematism was hardly anything new in the history of art. Geometric decor is to be found in the art of many nations at various stages of their development. Corbusier may well have been influenced by these in his search for simplicity of architectural forms. I notice that some current western sculpture reveals an affinity with the ancient sculpture of the Polynesians.



Death of a Commissar by Kozma Petrov-Vodkin

Father and Son by Pavel Korin



SOVIET PAINTING

The events of our epoch are too dynamic and contemporary art cannot rest on the archaic or find its values in eclectic aesthetics. The artists of the 20's searched for new forms of plastic expression of the new revolutionary society.

That is why the militant posters of the 20's were so topical—those of Dmitri Moor, Mikhail Chermnikh, Vladimir Mayakovsky. That was when the first sculptures singing labor and freedom began to appear. In those days too, Mitrofan Grekov revealed the stark truth of civil war in a number of his paintings, and Kozma Petrov-Vodkin achieved great heights of expressiveness in his *Death of a Commissar*.

Thus painting was gradually taking its rightful place in the life of the new state. New landscapes were painted, new both from the viewpoint of technique and composition and in their interpretation of themes. An example is Georgi Nissky's *Rybinskoye Sea*, where this great artificial body of water is shown as the product of man's labor. In her *Grain* Tatyana Yablonskaya also gave artistic form to the theme of labor.

The artists developed a simplicity and compositional expressiveness in their portraits as well—witness Georgi Ryazhsky's *Women's Delegate*, Mikhail Nesterov's *Academician Pavlov* or Pavel Korin's *Father and Son*. In each of these portraits there is manifest an individual probing that digs deep for artistic truth, and a peculiarly individual reaction toward complex social collisions.

Soviet painting treats of contemporary social problems in various forms. It depicts the new and progressive in everyday life. There is great freedom of manner in Sergei Gerasimov's *Collective Farm Festival*, Yuri Pimenov's *Women Working*, Pyotr Konchalovsky's lovely still lifes and

Continued on page 30



Winter Palace Is Taken by Valentin Serov

REFLECTIONS ON SOVIET PAINTING

flowers. My own painting *Mother* was also a result of this free approach to composition.

Today's Soviet painting is exhibited not only in galleries. Everywhere the new public buildings, schools, community centers are embellished with frescoes and mosaics. Many artists who work in the medium have decorated theaters, subway and railroad stations.

Each of us has constantly to look for new and fresh solutions to artistic problems we encounter. There were failures, but there were successes too, successes stemming from real art and not from the passing

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Old Urals Factory by Boris Ioganson

Collective Farm Festival by Sergei Gerasimov





Rybinskoye Sea by Georgi Nissky

REFLECTIONS ON SOVIET PAINTING

Continued

Grain by Tatyana Yablonskaya





Lilacs by Pyotr Konchalovsky

Women's Delegate by Georgi Ryazhsky



vogues of the times. For no matter how different the individual approach of each of our artists and how diverse his background, all have one thing in common—a single artistic approach to life's phenomena that we call the method of socialist realism.

Soviet artists wish to serve their people in the building of the new society. Their canvases show their aversion to everything that holds back progress. It is the new people our artists paint, their struggle and labor, their thoughts and feelings. In what is new and characteristic of today they search for traits which shall distinguish our future.

Man, growing, discovers ever new qualities in this world of his. At every stage of discovery art strides alongside knowledge, for it is art which reflects man's yearning for the beautiful. The closer that beauty is brought to people, the greater value will both art and knowledge have for them.

Art has the wonderful quality of resurrecting the past and anticipating the future. Pictures that are created by real and vital imagination give a new meaning to existence, engender new impulses, thoughts and ideas, which in turn engender activity and create utility.

Social uselessness is the worst fate that can befall an artist, or any man. The tragedy of abstract art is the fact that it has removed itself from the framework of human utility. In one of the museums of contemporary art I witnessed the speechless incredulity with which ordinary visitors reacted to surrealist paintings.

Art without theme or topic cannot make contact even with those few people who are close to the artist. It is my belief that abstract art set apart from human psychology can neither be felt nor understood. It denies all meaning and therefore has no human utility.

Man is a social being and this determines his collective feeling for art. Big art stems from big feelings. The sense of color and form is democratic in nature. That is why man loves art in many forms, art which helps develop his better qualities. One can live without art, but it will be a sightless life! ■



Nikolai Kuznetsov, a Moscow factory worker, is shown with his family in a park overlooking the Moscow River, with the city's largest sports stadium in the background. His wife, Olga, is a dressmaker and instructs a student group. Alla, their daughter, is a tenth-grade student.

Photo by Georgi Petrusov



Konstantin Tsiolkovsky, great Russian scientist and inventor, whose experiments remained almost unknown until after the Socialist Revolution.

TSIOLKOVSKY CENTENARY

Rocket Designer

Foresaw Interplanetary Travel

THE 100th anniversary of the birth of Konstantin Tsiolkovsky was widely celebrated in the Soviet Union in recognition of his contributions to the theory of the flight of rockets and of man's flight into cosmic space.

Konstantin Tsiolkovsky, son of a Russian forester, was born September 17, 1857. He lost much of his hearing after a severe childhood illness and was obliged to leave school at the age of ten. But the boy continued his studies at home and later taught arithmetic and geometry at the district school.

Although teaching took most of his time, Tsiolkovsky devoted every spare moment to scientific research and to his inventions. In 1885 he decided to work out the design for a guided airship to be made of metal. The scientist felt that the balloons of his day made of rubber-impregnated silk were not strong enough and that they lost their hydrogen gas too rapidly. His design for an all-metal craft was completed ten years before the design for a hard-shelled dirigible was published by the German inventor Count Zeppelin.

Unfortunately, neither this invention, nor Tsiolkovsky's subsequent discoveries were recognized in old Russia. This was characteristic of czarist times when many talented people remained obscure and their inventions and discoveries never saw the light of day. The great scientific and practical work done by Tsiolkovsky received recognition only

after the October Revolution of 1917, when he was already over sixty.

Tsiolkovsky's great contribution to aviation was his plan to build a streamlined airplane with a metal body. He made all the calculations and blueprints for a monoplane with a free supporting wing. In appearance and aerodynamic composition, this machine was a forerunner of the type of plane that first flew fifteen years afterward.

Tsiolkovsky also occupies a leading place in the field of modern rocket dynamics. As years passed, he continued to work on the theory of the flight of rockets and made many important discoveries. In his youth he had examined from the qualitative standpoint the principle of imparting or changing motion by means of thrusting back particles. And twenty years later he worked out a theory of jet propulsion.

As early as 1895 Tsiolkovsky put forward the idea of constructing artificial satellites of the earth. The imminent launching of such satellites plus their possible use as intermediary stations for interplanetary flights lends new emphasis to the work of the Russian scientist.

The idea of creating a multistage rocket, which has now been produced in the Soviet Union, also belongs to Tsiolkovsky. A glance at the large-scale program worked out by Tsiolkovsky for the development and use of rockets shows that many of his proposals are currently being adopted.

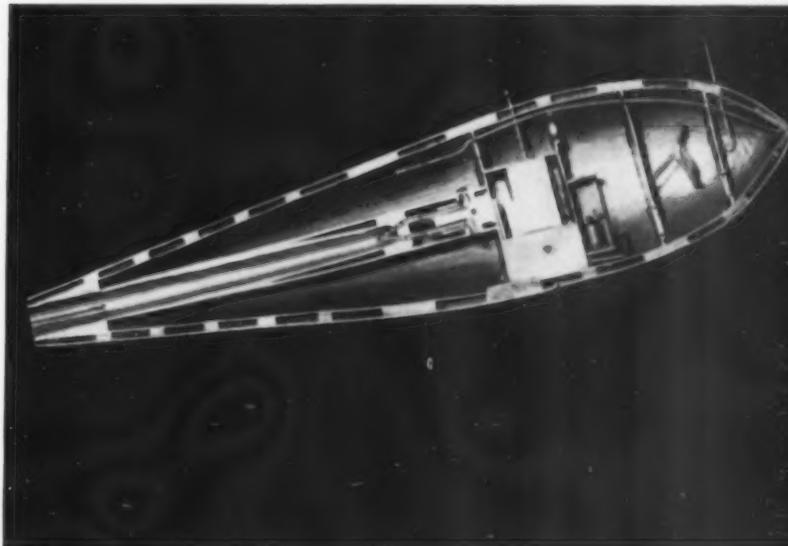
Here are the principal items in his program: experiments in laboratories; the testing of the jet appliance at an airfield; flights at a low altitude and gliding descent; penetration into the stratosphere; flight beyond the limits of the atmosphere and gliding descent; establishment of artificial satellites of the earth. This program also envisaged the use of solar energy for breathing, nutrition, transport and industry; journeys to the smallest bodies of the solar system and the populating of the entire solar system by the human race.

"I have worked out some aspects of the problem of rising into space by means of a jet appliance reminiscent of a rocket," he wrote. "Mathematical conclusions based on scientific data and verified many times indicate the possibility of rising into space by means of these appliances and possibly even of founding human settlements far beyond the limits of the terrestrial atmosphere."

Realization of many of his projects has become possible only in our time. Much still remains to be done and then his most cherished dream will come true that "mankind should not remain eternally on earth." He foresaw that "in the quest for light and space man will first timidly penetrate beyond the atmosphere, and then gain for himself all the space around the sun." Tsiolkovsky understood that to make this dream a reality the efforts of all mankind, of all peoples were necessary.

"How remarkable will be that accomplishment," he wrote. "The conquest of the solar system will yield not only energy and life . . . but also space, even more vast. Man of earth possesses, so to say, only two dimensions, the third is limited. . . . Then, however, man will gain three dimensions." ■

A model of Tsiolkovsky's rocket built in 1903. This scientist foresaw the day when man would penetrate beyond the atmosphere into cosmic space.





By Georgi Yermakov,
*Chief Engineer, Department of
Atomic Power Plant Construction,
USSR Ministry of Electric Stations*

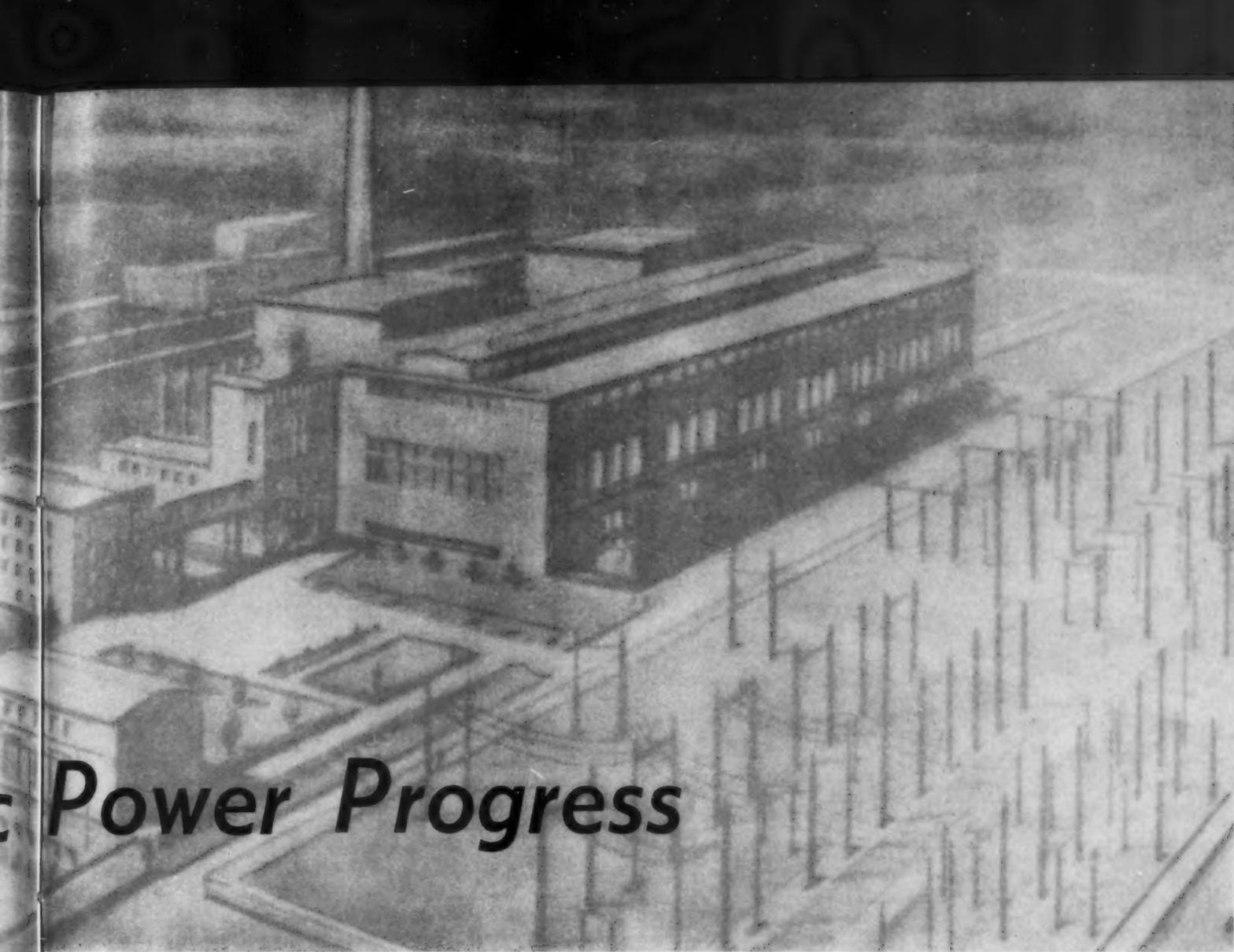
SCIENTIFIC lessons learned through three years of successful operation of the world's first atomic power plant are being applied to a general program of expanding the peaceful use of the mighty new energy in the Soviet Union.

Having conquered numerous technical problems since the historic plant was opened in 1954 at Obninsk, southwest of Moscow, Soviet scientists, technicians and engineers are now supervising construction of much larger atomic power plants.

The Soviet Union contemplates the building of several new plants with a combined capacity of 2 to 2½ million kilowatts by the end of 1960. The first of these large new atomic power plants for peaceful use is now under construction. It will generate 420,000 kilowatts. This is about 84 times as much power as the Obninsk plant produces.

The plan of expansion is based entirely on

◀ Atomic reactor on display at the Industrial Exhibition in Moscow. As is shown, the water provides a safety shield for the operators.



Power Progress

the needs of the population. The planners hope to make this great discovery into a means of improving the well-being of every citizen in the country.

Power will be supplied to industries in areas where it is not available now. It will be supplied to the collective and state farms. Householders in many parts of the country will be able to use it.

Eventually atomic power will be a significant factor in science's "magic" that will result in the manufacture of more goods, increase the productivity of farms, shorten the working day and provide millions of workers with more time for study and recreation.

Planners of the program will encounter no opposition from other sources of power. The Soviet Union can find ample use for all the coal and oil and hydroelectric power that is produced in addition to the new source of energy.

The large plant now under construction will be a little more expensive to build than would a coal-burning plant with the same power capacity. Production cost per unit of power, however, will be about the same. When the cost of transporting coal over long distances to areas now in need of power is considered, the cost per unit will be lower.

Cost per unit of power is one of the factors in which progress has been made through operation of the Obninsk plant. It has been gradually reduced toward the level of coal burning plants.

However, in the USSR the long term investment is the deciding factor. If building a new atomic power plant will increase the well-being of the people in any given area through many years to come, that fact becomes decisive.

Engineers planning the expansion program have no great trouble from the question of disposal of atomic waste. There are great areas, particularly in the Arctic, where disposal will not injure any living thing.

Among the technical advances made since the Obninsk plant was opened is a unique method of removing used up atomic fuel and supplying new fuel while the plant is in operation. The change-over is made behind a protective wall of 16 feet of water. Technical advances make it possible to take precautions throughout the entire process to guarantee the safety of workers.

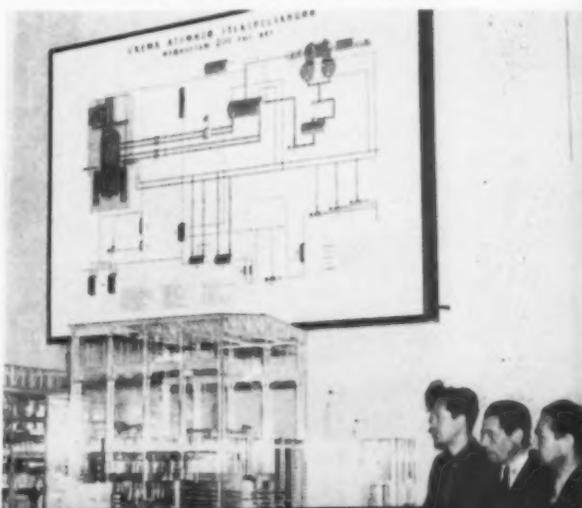
The use of atomic energy for peaceful purposes is still in its infancy. However, there is more than enough evidence to point to great progress in the future.

Soviet scientists look forward to the time when all atomic resources will be used for the benefit of man. To help bring this day closer the Soviet Union will continue to make known to the world the advances it has achieved and to offer assistance to other nations in constructing plants which will apply man's great atomic discoveries to making the lives of all peoples more comfortable and more rewarding. ■



University students at the control panel of the first atomic station. Foreign scientists are also often invited to see the station function.

Permanent exhibits, such as this one, of future atomic plants are part of the program to build public awareness of their peaceful development.





Palaces for Children

By Elena Doroshinskaya

SCHOOL is out and homework done. This is an important time of day for every child. It can be used for activity that will stimulate natural curiosity and bring out latent talents, or, if the proper facilities are lacking, it can be wasted in the mischief that invariably results from misdirected energy. How do our youngsters spend these hours?

Of course there are the sports stadiums, parks, playgrounds, libraries, reading rooms and children's theaters. School clubs—nature, model-making, mechanics, art, dramatics, sports, chess—attract many of our teenagers. But a very important part in all the activities of children is played by the recreation centers called palaces or houses of Young Pioneers. They supplement the school club program and in many ways give it direction.

There are 2,400 palaces for children situated all over the country. They are very popular with the youngsters because of the tremendous variety of activities they offer, and all boys and girls, whatever their talents or inclinations, will find something of interest here. Some come to attend the dance classes. Others are interested in the dramatic groups. Young artists often paint their first canvases here, future engineers design and build their first models. These centers are especially attractive to the bright child. The level of the groups is high, and the challenge to his inventiveness and creativity is irresistible.

Helpful advice and facilities for everything that could interest a child are available free of charge. No money is spared to maintain these centers. The municipal and trade union budgets provide ample funds to make them attractive and to man them with experienced instructors.

The pictures here show one of several centers of this kind in Leningrad, the City Palace of Young Pioneers. The palace—and it is a real one with its park, 400 halls, lobbies and rooms—once belonged to the royal family. It now belongs to the children of Leningrad. When school is over for the day, hundreds of youngsters mount the marble staircase and scatter to various groups where innumerable activities await them.





When the lights go out and the program begins, most children have a hard time remembering that they are in the planetarium, and not in a spaceship sailing among the planets and fiery meteors on a trip to the moon. The lecturer tells his audience about new discoveries in astronomy and about the earth's artificial satellite. Science in the planetarium is so fascinating that learning becomes an involuntary process.



The photo above was taken twenty years ago, when Mark Taimanov (at the right) competed with children his age in a chess game at the palace. The photo below shows Taimanov, now an international grandmaster, playing against his son in the chess club at the palace.



Continued on page 40

Hobby circles are not the only attraction. Many children come to play games, and they are always sure of finding a partner. Table hockey is one of the most popular pastimes. Six players move wooden figures over the field with their clubs. The game is very lively and attracts many spectators.





The class in toymaking seems to draw the girls mainly, but occasionally a boy can be found there. Volodya Artamonov—a curious lad interested in everything—is demonstrating how the elephant got its trunk.

Palaces for Children

Continued



The palace's machine shop has a variety of tools and materials. The engineers who teach the children encourage them to work independently, but they are always ready with clear explanations and timely advice.

Every child can find something to do at the palace. While one works on a wireless set, another plans a model for a cotton-reaping machine, and a third tools some part at the lathe or cuts with the fret saw. Four hundred attend the airplane-modeling circles. Their shop has an aerodynamic tunnel which enables them to carry out experiments on their models. Experts in the field often help the youngsters. This photo shows Ivan Kozhedub, famous airman who was three times awarded the country's highest honorable title, the Hero of the Soviet Union.





Leningrad's best dancers. Well maybe not the best in *all* Leningrad, but Yura Batov and Grisha Kozhevnikov did win first prize at the dance festival for their gay rendition of the whirling folk dance "Kazachok."



Twice a year the children give a concert for their parents and friends. The program includes music played by the symphonic, string and folk orchestras, as well as presentations by the dance and dramatic groups.

There is scarcely an interest that does not find expression in one of the palace groups. This studio for the young sculptors is never unoccupied.





Aman Mamytov, shown here with his little son, was born in Kirghizia to illiterate nomad shepherds thirty-two years ago. He graduated from a new local college and is today one of the country's promising soil scientists.

From Shepherd Tent To University

By Hussein Aliev

THE KIRGHIZ people have been shepherds and horse breeders from time immemorial. In old Russia as many as 100,000 of these nomad families drove their flocks from one pastureland to another year in and year out. After the 1917 Socialist Revolution many of the Kirghiz nomads felt drawn to a settled life. The young republic encouraged them by giving them fertile plots of land in valleys and on the shores of Lake Issyk-Kul and by granting them long-term loans to build houses.

There are two generations in the modern Kirghiz village. The first—the generation which lived out its earlier life in a nomad tent and never knew the meaning of education until they had grown to late adulthood. The second—the generation for whom the Socialist Revolution opened the door to a world of knowledge.

The career of Aman Mamytov, Kirghiz scientist, spans both generations. He was born thirty-two years ago, the twelfth child of a family of shepherds living on the shore of Lake Issyk-Kul or the Kirghiz Sea, as the inhabitants of this distant Central Asian land, bordering on West China, call it.

In the spring his father Mamyt Mamytov used to herd sheep that belonged to the wealthy cattle drovers to the highland pasture; in the

fall he would herd them back to the shores of the lake. Like all nomad women, Mariat, the shepherd's wife, almost always gave birth to her children on the way from one pasture to another.

Although Aman was the twelfth child, there were no other children's voices to be heard in the tent where he was born. The others had died, some at birth, all before they were one year old.

No doctor ever appeared in the Mamytov tent in those days. There was no one to help Mariat through the trials of childbirth or to teach her how to keep her children healthy. As a matter of fact, there were no doctors at all in the great plains around Lake Issyk-Kul, let alone the highland pastures where the Kirghiz roamed with their families for two-thirds of the year. Child mortality was tragically high among these people, with whole regions doomed to slow extinction.

Fortune had it that when Aman was born, a fair-haired woman, as Mariat tells it, appeared in the highland pastures. She was a Russian midwife sent out from distant Pishpek, now Frunze, capital of Kirghizia. At first the nomad women distrusted her, but she gradually won them over. It may have helped that the Russian woman was a crack rider. The Kirghiz themselves are great horsemen.

"I was lucky," says Mariat today as she holds her grandchild, Aman's youngest son in her arms. "My twelfth survived and lived to become a strong man."

Mariat gave birth to two more children after Aman—a son and a daughter. Their birth and childhood coincided with a radical change in the lives of the nomad Kirghiz.

In 1929, the Mamytavs, together with other Kirghiz families, moved from their dark and smoke-filled tents to new wooden houses in the village of Bosteri which sprang up on the shores of Lake Issyk-Kul.

After the houses, the school was the first building to go up. It was a very modest school, designed to accommodate classes for a four-year elementary course, but to little Aman it seemed nothing short of a palace. And then an unprecedented arrival for these parts—two Kirghiz teachers, a man and his wife, came. They had been sent out from Frunze.

They still teach in the school, but it is vastly altered now, a secondary school with a new large building and a large staff of Kirghiz teachers.

Aman was eight years old when he first sat at a school desk. That was in 1933. By that time his father was a member of the collective farm which had been formed by the shepherds. At the base of the mountain, where the village of Bosteri had been built, there now stretched cornfields and orchards.

Aman recalls the excitement when the first tractor came to his native village. Choking from the exhaust fumes, he and his friends raced after it across the fields, trying to make friends with the tractor driver, the most popular man in the village.

"Nowadays children don't run after tractors any more," Aman says with a smile. "We have more than 11,000 of them working the fields of Kirghizia. There is no corner of the republic now where the tractor, combine and automobile are not perfectly commonplace things."

Aman completed the seven-year school on the eve of the Second World War. When war broke out, the men left the village to join the fighting forces. Everyone else worked—the women, the old people, the young ones.

Though Aman had dreamed of going on with his studies—at that time the secondary school was in a central district—he had to stay home and make himself useful. He took a three-month course given to train collective farm bookkeepers, worked as an assistant, and then when the farm bookkeeper was called to the army, took his place.

It was only toward the close of the war, in 1944, that he was able to go to Frunze for a preparatory course to enter the Agricultural Institute. He decided to major in agronomy.

"There were only three colleges in Frunze to choose from," Aman explains—"a medical school, a teacher training institute and an agricultural institute. A polytechnical institute was opened after the war ended, and the Kirghiz State University in 1952."

Bosteri village today is permanent home for 350 Kirghiz families. The farm they own collectively grows richer each year. It produces wheat, corn, vegetables, herbs and fruit.

Aman's father is highly regarded in the village as one of the collective farm founders. The one thing he regrets is that he never did manage to learn to read and write, but he takes comfort in the fact that his children are well educated. There is Aman, graduate of an agricultural institute; his younger son Beshenbei who graduated from the Frunze Medical College; and his daughter Gulia who won her diploma at the Kirghiz State University this year.



The Kirghiz Republic's swift advance is marked by many things. This building in the capital city of Frunze housing its Academy of Sciences is one example. There are 32 other scientific research institutes in Kirghizia today.

But perhaps the Mamytov family is merely lucky, unusual. What about the other families who live in Bosteri village? Ask Sabir Shaimbetov, the village mayor.

He is thirty-six and a war veteran. After the war, he studied at an agricultural school and then came back to Bosteri where he worked as an agronomist. Three years ago he was elected mayor.

"In the past twelve years," Sabir says, "112 boys and girls left the village to study in cities like Frunze, Tashkent and Moscow. Seventy-three of my neighbors have graduated from colleges and universities. And keep in mind that ours is only one of many Kirghiz villages."

Sabir has a map—one he drew himself—of Bosteri village. It shows Bosteri's one big street on the highway that leads to the city of Przhevalsk. Marked on the map are homes and community buildings—the village recreation center, the farm offices, schools, medical buildings, nursery and kindergarten, the power station, shops.

He points to a group of the small rectangles indicating private houses. "This is Alman Irkebayev's house. His son graduated from the teacher training institute. And this one is Adjanbei Bakturov's, a shepherd. His son graduated from Kirghiz University this spring with honors. There are no students in the next house. But this is where Abdyld Alchiev lives. His son Tarldy is a scientist. He graduated from Tashkent University five years ago, took graduate work, wrote his thesis and now has a master's degree in philosophy."

Sabir will go on pointing to house after house lived in by young people only a generation removed from primitive nomad life who have studied or are studying to become doctors, agronomists, teachers,

Aman Mamytov is a Shakespearean enthusiast. He enjoys reading the works of the great bard, and never misses a performance of his plays. Here he chats with Yuri Yurovsky, playing King Lear at a theater in Frunze.



Mamyt Mamytov never learned to read and write, but the fact that his children received a good education consoles him. Besides Aman there is Beshenbei, a doctor, and Gulia, who recently graduated from the state university.

engineers. The Mamytov family is not the exception, it is the rule.

Aman Mamytov's career is by no means the unusual one for a Kirghiz today. In 1950 he was graduated from the Frunze Agricultural Institute. He made an impressive record in his studies and was persuaded by the Institute director to take advanced graduate work. The next three years he spent working for his graduate degree under the wing of the eminent Russian scientist Dmitri Mikhailov.

His thesis on perennial grasses and soil structure gave him frequent opportunity to visit his native village and the farms of the surrounding mountain region.

In 1953 he was awarded his degree and soon after he began to be referred to in farm journals and in newspapers as a talented and searching scientist. When the Kirghiz Academy of Sciences was founded in 1955, Aman was elected a corresponding member and received the appointment as head of the Academy's soil research department.

There were only a handful of soil scientists working under him then. But now this youngest of the Soviet republican academies of sciences has thirty soil scientists—Kirghiz, Russian and Ukrainian—doing extensive research on soil improvement. Their work is vitally important to all Kirghizia, which is dependent upon fodder crops for livestock breeding.

One of the many congratulatory telegrams that Aman received was a particularly warm message from the people of his native Bosteri. It spoke of the old nomad days and of the new day of wide horizons which Aman's career represents for all of Kirghizia. ■

Aman was appointed head of the soil research department of the Kirghiz Academy of Sciences in 1955. Soil improvement is a key project for this republic whose economy depends on fodder crops for livestock breeding.





A view of the assembly shop as machines are made ready for shipment. In rebuilding the plant, priority was given to workers' safety and comfort.

Pensioner Konstantin Sarafonov, 80, worked 65 years as a lathe operator. He was awarded the title Hero of Socialist Labor by a grateful nation.



The workers in the original Bromley Machine Plant labored in cold and dirty shops at very low wages—from 6 A.M. to

"FIRST 60 YEARS TH

Say Old-Timers as Biggest Tool Pla

By Yakov Mikhailov

HAD you been present in Moscow recently when the Krasny Proletary Machine-Tool Plant celebrated its 100th anniversary and had you been able to understand Russian, you could have heard a remark strangely reminding you of an old American saying, "The first hundred years are the hardest."

The Moscow version of this saying was repeated dozens of times by old-timers at the observance. Only they cut forty years from the U.S. version and repeated with knowing shakes of their heads, "The first 60 years were the hardest."

Listen, for instance, to Vasili Agafonov, a lathe operator, and one of the oldest living workers at the plant. He is on a pension now, but wild horses couldn't keep him away from the 100th birthday party for the plant which played such an important part in his life.

From his own memories and from accounts given him by earlier old-timers when he went to work in the plant, Vasili can tell one of the most vivid "before-and-after" tales of modern times.

In the beginning of the plant's operations, he recalls, the workers had to appear in the shops at six in the morning. Each day they had to stay on the job until after nightfall. Hours in the foundry were even longer. The shops were always dark and dirty and bitterly cold in the winter. The workers lived in hovels. There was no sanitation in the homes and no safety precautions in the shops. When a worker became ill, was injured, or in desperation became dissatisfied, he could join the ever huge army of the unemployed. If he died, his widow and children could continue work in the shops.

"I came to the plant when I was a boy of 15, in 1901," Vasili recalls. "I went through it all: hunger and tears and very hard work in smoke-filled sooty buildings. I took part in the first strikes as well as in the revolutionary events of 1905 and 1917. And it was here that I lived to see the joyous day in 1918 when, together with all the workers, I became master of the plant."

As Vasili speaks, his eyes wander along the airy buildings that now make up the plant. They pause on the recreation center and restaurant, on the row after row of comfortable homes for workers surrounding the plant in every direction, and on the playgrounds and parks that have transformed the area.



7 P.M. before the Socialist Revolution of 1917. There were no safety precautions, and even light was a luxury.

S THE HARDEST"

Plant Observes 100th Birthday

"Quite a change," he says and one catches the pride of possession in his eyes.

How It Began

Two Russianized descendants of settlers from Scotland, the Bromley brothers, started this largest of all machine-tool plants in Russia in 1857. They opened a little machine shop in the outskirts of Moscow and hung up their names over the door.

By the 1890's the shop had more than 1,000 workers. The Bromleys employed Russian designers and engineers who later became famous, such as Vasili Ignatiev, Vasili Sidorov and Mikhail Prokofiev.

The fame of the Bromley works spread throughout Russia, and the items designed by its engineers and produced by the workers became favorites. They began winning gold medals and high citations at both Russian and international expositions. Ignatiev's steam engine, for instance, won the highest prize at the Paris Exposition of 1900.

But it is through the memories of the old workers that one obtains a glimpse of what this big plant really represents.

These veterans recall that at the turn of the century from thirty to thirty-five single workers, and very often several families, were forced to live in one crowded room. Children of the workers grew up as best they could without education of any kind and at 11 or 12 were sent to work to add the pittance they could earn to the family's starvation income.

Workers Become Managers

Such conditions bred a strong workers' movement, and the militancy of those who labored at the Bromley plant has become a tradition. They were known as the revolutionary bell of Zamoskvorechiye, a district of Moscow marked by the czarist police for its revolutionary activity. In the 1917 May Day parade the workers carried banners demanding "8 hours work, 8 hours play, 8 hours rest."

There is a common grave in Red Square in Moscow. It contains the

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The lathes that come off this assembly line are among the country's best. They are used throughout the Soviet Union and in many foreign countries.

The plant has a large main restaurant and several buffets and snack bars in the shops. There are special menus for workers on restrictive diets.





TODAY'S YOUNG GENERATION OF KRASNY PROLETARY WORKERS, GAY IN THEIR LEISURE AND EFFICIENT AT THEIR JOBS, ARE ADDING NEW VIGOR TO THE CENTURY-OLD PLANT.

"FIRST 60 YEARS THE HARDEST" *Continued*

honored remains of those who fought and lost their lives forty years ago during the birth of the Soviet state. One of those buried there is Vasili Morozov, leader of the workers at the Bromley plant. He met his death fighting for the happiness of his fellow workers in November 1917.

Hundreds like him from the plant, machinists and office employees alike, fought by his side. During the critical years 1918-1920 there

Toolmaker Nikolai Kuzmin (left) confers with a co-worker. Kuzmin is also a member of the Supreme Soviet (Parliament) of the Russian Federation.



wasn't a single front on which some member of the Bromley staff was not fighting to preserve his newly won rights.

It was on the demand of the workers themselves that the plant was nationalized in November 1918. Vasili Agafonov explains what happened then.

"The Government," he says, "appointed a board of managers. It was composed of the best engineers and workers. Its first director was Joseph Bogdanovich, a rank-and-file worker."

The workers joined together to combat the huge problems that confronted them. They rebuilt wartime destruction. Workers returned from the war fronts or the villages to which they had fled. By 1921 full production was being resumed. At first the staff totaled only 549, but the work went on.

Soon new models of lathes and drilling machines appeared and shipments of the new machine tools were made to all parts of the country. The plant began to accumulate funds for replacing old equipment, for repairs in the shops and for housing construction.

Although 7,500,000 rubles had been invested in these programs by 1928, the main outline of the old plant remained much the same as it had been under the Bromley brothers. But the demand of Soviet industry for new machine tools was growing, and it was decided that a new, completely rehabilitated plant was needed to meet it.

The Plant's Second Birth

There was no pause in the production of machine tools while reconstruction of the plant was going on. As a matter of fact, the management, engineers, designers and workmen decided on a vast new project. Meetings were called of the best workers in each department. They all realized that to meet the country's great need for new tools it would be necessary to design and build a machine tool that would be as good as any in the world and would be capable of being produced on a mass scale.

While building proceeded throughout the plant, the designers went to work and finally came up with what was needed. It was named "DIP," initials of the Russian words that mean "to overtake and surpass." Representatives of every shop, every department in the plant got together and solved the problem. DIP was soon in mass production and could be found in operation throughout the Soviet Union.

As the 100th anniversary of the Krasny Proletary Machine-Tool

Plant was celebrated, a survey showed that 98 per cent of the entire plant is "new," that is, designed and constructed since 1917.

The records show that in 1927 the plant produced 443 lathes. In the thirties the output increased to that number each month. And new models were being added constantly. In 1938, for instance, eight new models were introduced.

The plant's progress was delayed by World War II. Its most valuable equipment was moved to the eastern part of the country. Thousands of workers were diverted to army duty. But as early as 1942 production was resumed at the old stand. Now the plant turns out fourteen of every hundred lathes produced in the country. Its engineers and workers in 1956 produced a universal screw-cutting lathe which is one of the world's best models.

The Krasny Proletary Plant is the biggest machine-tool plant in the Soviet Union. Its products speed industry throughout half the world.

More Than a Factory

But as old-timer Vasili Agafonov points out, his plant is not just a factory.

Workers no longer carry a skimpy lunch from home to eat as they work. The first plant restaurant was opened in 1922 and has mushroomed into what the workers call "the feed shop." It has skilled dietitians and cooks. Its branch buffets throughout the plant provide every kind of repast the workers can think of.

Since 1917 the eight-hour day has been the practice at the plant and soon it will be reduced to seven hours.

The sons and grandsons of workers who in the old days had to teach themselves now have easy access to a two-year technical school in the plant. At this school young workers free of charge and with full state subsistence learn different trades. There are dozens of courses to help workers advance their skills and a three-year course for training foremen. The plant has its own schools for training technicians and engineers for the machine-building trade. Every third worker at the plant is studying at one of these free classes.

Not far from the site of the original dingy and dreary plant is a recreation center. More than 1,500 persons can be accommodated in its various rooms and meeting halls at one time. The present modern building was put up in 1947 to replace the old one erected in 1921.

In an atmosphere of ease and comfort workers may listen to a lecture, watch the latest movie, take in a drama, play chess or billiards, join a choral or dance group, hear a concert. The club's library has thousands of works of fiction and political and scientific literature. The plant even publishes its own newspaper.

Where the ramshackle hovels of forty years ago once made the scene ugly, broad streets have been laid out. They are lined with modern apartment buildings for workers. There is a big polyclinic for plant



Vasili Agafonov worked in the plant for 55 years. Now he is a frequent visitor and always ready to share his experience with young workers.

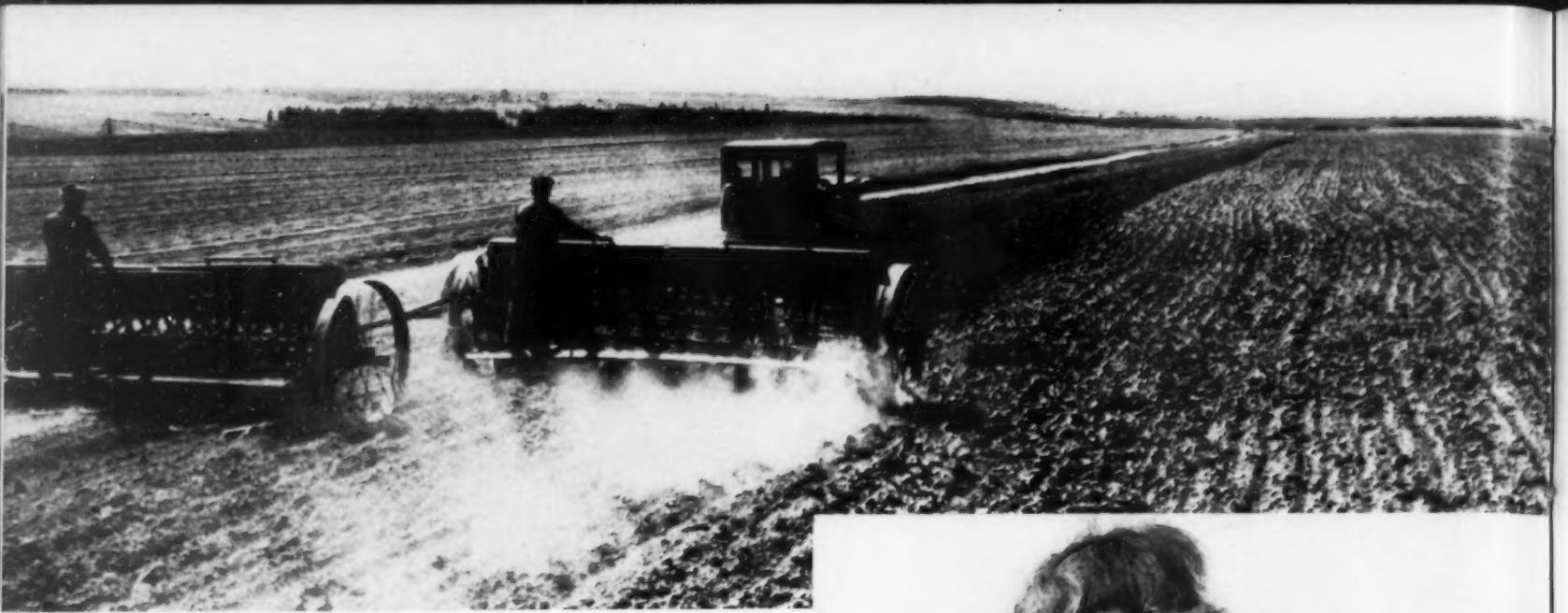
employees, and kindergartens and nurseries for their children. The plant has its own tract of land in the suburbs where 200 workers and engineers have their country homes and gardens.

The trade union at the plant embraces 99 per cent of the workers, and every year when a new contract is signed with the management, it provides for not only wages and hours, but new housing, cultural services, safety measures, work norms, in fact, all items of major importance to the workers.

As Vasili Agafonov, at the anniversary celebration of the plant, looked around the place which had once been the scene of his hunger, drudgery and privation, he repeated: "Yes, things have changed." And it was easy to see that he was one of the proudest men in the country. ■

NEW STREETS HAVE BEEN LAID OUT AROUND THE PLANT, LINED WITH MODERN APARTMENT HOUSES IN WHICH THOUSANDS OF ITS WORKERS AND THEIR FAMILIES LIVE.





With large unbroken land tracts, the farm makes the best use of its modern machines. Plowing, sowing, harvesting are almost completely mechanized.

Some People Call It a Miracle

THE STORY OF A COLLECTIVE FARM

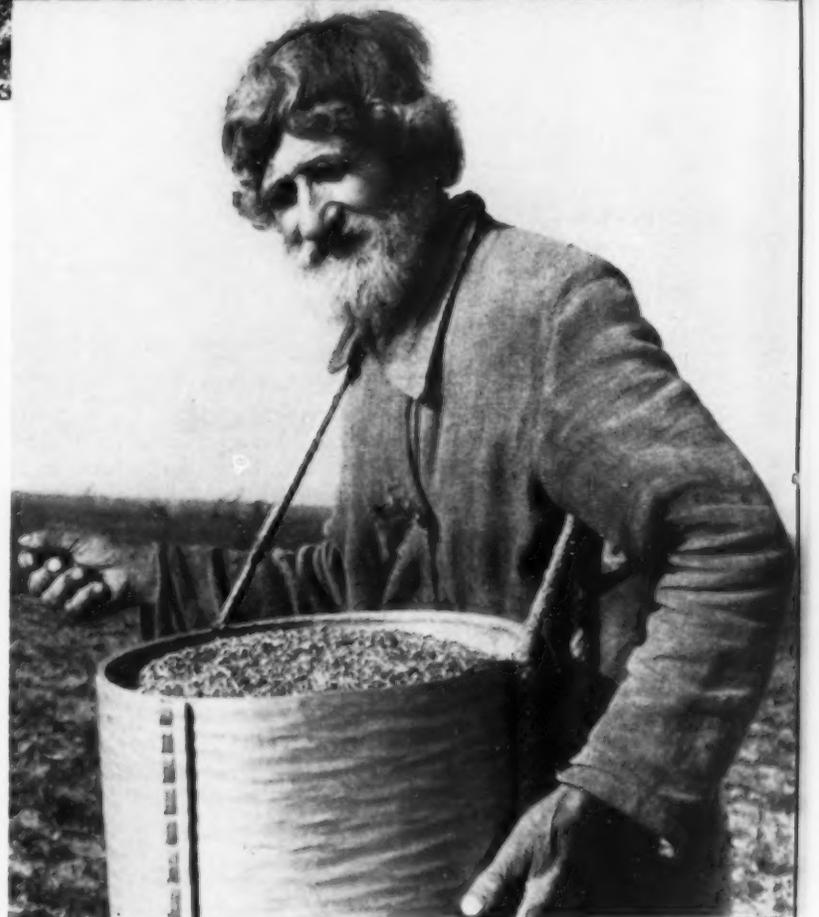
By Yakov Usherenko

LAND, the harsh stepmother, indifferent to the plight of her children—that was a song the peasants of Chekoty village used to sing as they left their native village for Siberia and the Far East in a search for land and a better living.

There was land in plenty surrounding this forsaken village lost in the dense forests of the Vyatka region—35 million acres of it—but only half, and the poorer, less fertile half, belonged to the peasants who traded their hard labors for a thin and meager crop. The rest was the property of the landlords, the nobility and the church monasteries. Five per cent of the villagers owned no land at all. About fifty per cent had holdings no greater than ten to fifteen acres. Eighteen per cent of the families owned no horses and another twenty per cent no cattle.

On the day after the 1917 October Revolution, all this great tract of land was nationalized and turned over to those who work it.

The story of the Krasny Oktyabr Collective Farm really begins that day, even though the farm itself was not founded until seven years afterward. The story, briefly, is told in a letter which Farm Chairman Pyotr Prozorov received a while ago from a man who had left Chekoty thirty-five years ago.



Forty years ago, the peasants in the Vyatka region were using wooden plows and primitive seed boxes. The power of collective work has changed this.

"I know the Chekoty lands well," this eighty-year-old man writes. "I spent a good part of my life trying to tear a living out of it. When I farmed it, the land was worked out, it never gave more than 580 pounds of grain per acre. Now I read in the paper that you harvest a ton to a ton and a half per acre. I'm too old to go and look for myself, but I would like to know what you put in the ground to make this miracle."

How a Collective Grows

It was in 1924 that nine Chekoty farm families decided to pool their acreage, tools, stock and efforts. The organizers were Pyotr Prozorov, still hale and active today; the Korobeinikov brothers, Pyotr and Fyodor; and Dmitri Prozorov—all of them had been either farm hands or poor peasants and all the livestock the group had to start with was eighteen cows, bulls and calves, four hogs, thirty-eight sheep and fourteen horses.

The remaining seventeen farm families in the village continued to carry on individually, but they kept an eye on the collective farm to see whether it looked as though it were prospering. Three years

later fifteen more of the families joined. By 1927 the collective was working almost 500 acres and had bought a tractor—the first one in this heavily wooded district.

In neighboring villages other collectives sprang up. By 1929 they had all merged into the Krasny Oktyabr Farm. By 1950 the farm had a membership of 207 families. It had grown into a large mechanized agricultural enterprise of 6,713 acres with 3,743 acres of it plowland. It is worthy of note that the largest manorial farm in the Vyatka region under the old regime did not exceed 1,500 acres worked by the equivalent of serf labor.

In 1955, three additional small neighboring cooperatives joined the Krasny Oktyabr Collective, to make the present total of 577 farm households. The collective has for its use a 25,000-acre tract, deeded by the state without cost and in perpetuity, that includes 14,000 acres of plowland, 2,200 acres of hayfields, 3,500 acres of pasture and 3,200 acres of woodland.

The farm owns 800 head of cattle, 1,700 pigs, 380 horses, with nearly all of pedigreed stock. It raises sheep, breeds silver foxes and, as of this year, has set up a poultry division for some 5,000 fowl. On the village outskirts are hothouses and cold frames, grain elevators, a sawmill, a new flour mill, a garage and a variety of workshops. Nearby is a 75-acre orchard.

Thirty years of scientific farming have reclaimed once barren and exhausted lands. Fertility has been enormously increased and large harvests are gathered even in bad weather years. Plowing in depth, proper cultivation, rotation of crops, drainage of swamp areas, extensive fertilizing with manure, peat, mineral and bacterial dressing, all have contributed to produce bumper crops of wheat, corn, flax, tomatoes, fruit and even melons in the rigorous climate of this northern region, where the daily average temperature 194 days out of the year is below freezing point.

From Wooden Plows to Mechanized Farming

When the first nine families agreed to form a collective, all they had in the way of farm tools were eleven single-share plows, eight harrows, and a few wooden plows and other such primitive implements. The total "horsepower" at their disposal was 14 horses. There were no power tools at all. Today 94 per cent of all field work is mechanized.

The local state machine and tractor station services the farm, its machines plow, sow and harvest. The farm itself owns several power units, nineteen trucks, four tractors, besides 380 horses.

Electric power is used to thrash, sort and dry grain, to stack hay, prepare fodder, and to water and feed livestock. Electricity is used in the flour mills, the brick kilns, the dairy and in the starch and syrup buildings; to water the vegetables and to shear the sheep, and, of course, to light the houses and farm buildings.

Seasonal work, which was general for the region before the collective farm was founded, has been done away with altogether. Every farmer is guaranteed a full year's work with an annual two weeks' paid

Continued on page 50



The farmers live in houses like these. For recreation they have a moving picture theater, library and community center with an auditorium and gym.



Pyotr Prozorov, a farm hand thirty years ago and one of the collective's founders, is now farm chairman and a representative to the legislature.

ON A SUNNY SUNDAY, USUALLY WHEN EARS OF CORN ARE BEGINNING TO FORM, IT IS A LONG HONORED TRADITION FOR COLLECTIVE FARMERS TO WALK THROUGH THE FIELDS.





The farm has 3,500 acres of pastureland for its 800 head of cattle, which are now almost all pedigreed stock. Milk production is on the upgrade.

THE STORY OF A COLLECTIVE FARM

Continued from page 49

vacation. Many of the farm people spend their vacations at the resort built by the collective in a pine grove set on the shore of a small lake not far from the village.

The collective farmers work in permanent production teams, called brigades; each team is responsible for a specific job and is headed by a brigade leader appointed by the farm board who assigns the work. Both he and a bookkeeper record the labor and earnings of his brigade members. Every farmer receives his share of the collective's income based on the labor he has invested, each farm operation paying a specific rate.

Every farmer can choose the job he enjoys most. He may work with field crops, grow vegetables, do horticulture, breed livestock, become an electrician, tractor driver, mechanic, blacksmith, builder, miller, beekeeper. There are more than a hundred such specialties on the big farm.

Farm affairs are managed by a board of fifteen, elected for a one-year term by the general membership of the collective. The membership approves production plans, authorizes major purchases and expenditures, sets the general line of development for the farm and decides

Many of the young people, like this electrician, go to vocational schools in the city but want to return to the farm to practice their professions.



on distribution of income. The board acts between general meetings and is required to render an account of its activities to the general body at least once yearly.

The Income Tells the Story

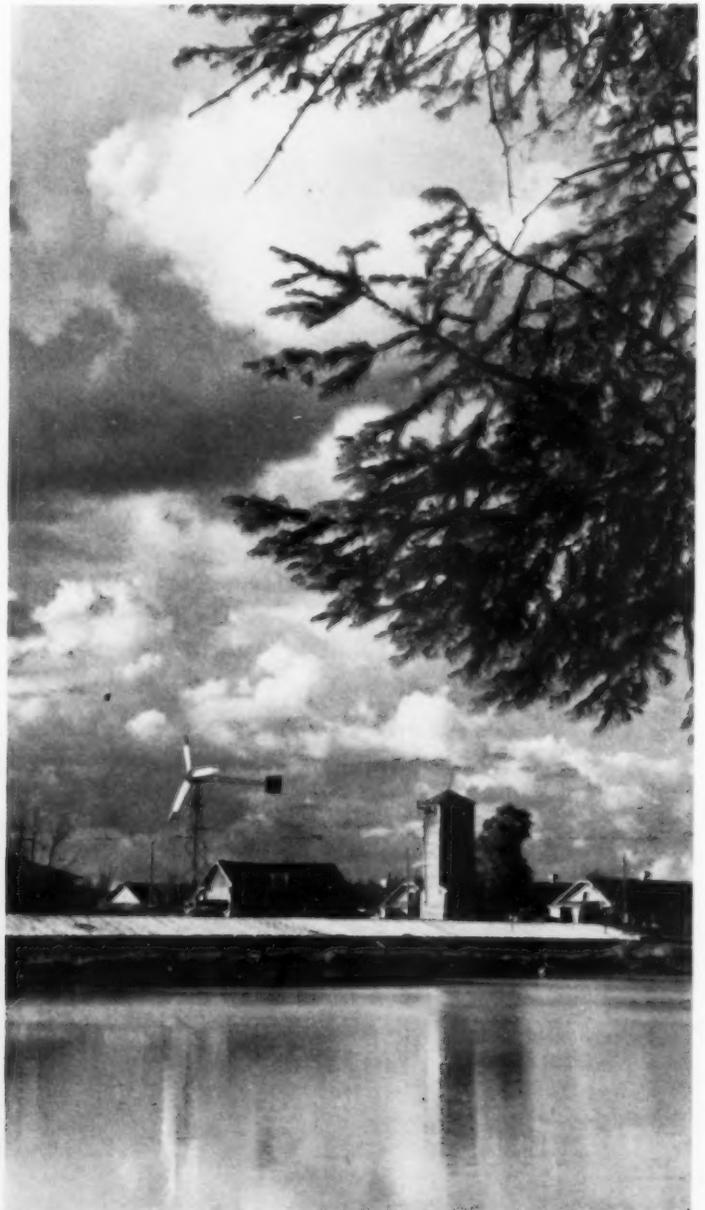
The cash income of the farm comes from the sale of its produce both to the state and at the collective farm markets in the neighboring city of Kirov. From 15 to 18 per cent of cash income goes back into the common fund. This common fund, which includes the properties, equipment and livestock commonly owned, has grown from 2,029 rubles in 1924 to 13,360,000 rubles in 1956, 23,000 rubles per family.

From 13 to 23 per cent of the farm income goes for current production needs, maintenance and repairs, purchase of fertilizers, fuel and similar needs.

The net income of the collective in cash and in kind, after services of the machine and tractor station are paid for and the seed, fodder and reserve funds are put aside, is distributed among the farmers.

What does the income of the average family on the Krasny Oktyabr farm come to? The question is best answered by the farm records for 1956, a typical year, and the earnings of Anna Antonova, a more or less typical member. She works in the dairy section as a milkmaid.

Anna Antonova is a widow with four children. Two of her children are grown and work on the farm, the younger two are at school.



Well-stocked ponds provide the farmers with fresh fish. In the background is a wind motor, an auxiliary source of electric power for farm machines.

The family last year earned 4,041 rubles in cash, and 7,730 pounds of grain, 3,091 pounds of vegetables, 1,770 quarts of milk, 270 pounds of meat and 30 pounds of honey. The earnings of the Antonova family in kind, a large part of which they sold, amounted to 14,532 rubles at prices current in the Kirov city markets. The total net income of the family for 1956, therefore, came to 18,573 rubles.

To this sum should be added the income from the family's own kitchen garden over and above what they consumed and similar income from two porkers and chicken eggs. The excess sold at market brought in an additional 5,100 rubles.

Or consider the family of one of the farm electricians, Nikolai Malyugin. The Malyugins have three small children. Husband and wife last year earned 3,284 rubles in cash and produce in kind to the value of 8,400 rubles. The surplus of their kitchen garden added to the family income.

A Better and Richer Life

The figures given are net income. This is what the farmer and his family have for their personal use. Nothing has to be set aside for seed, machinery or upkeep since all expenses have already been deducted from the total farm revenue before the distribution of money and produce to the members.

The prosperity of the farm is reflected in the appearance of the

collective-farm village. There was a time when the village was a cluster of thatched huts, without school, clinic, library or community club.

Today it is a pleasant village of single and two story houses, many of them new. A large building with glassed-in sun porches is the village nursery and kindergarten. The two-story brick building is a school. The 90 per cent illiteracy of old Vyatka region peasants is a figure from the dim past. All children of school age attend the seven-year school, most of them go on to complete the ten year course. The boys and girls attend colleges and universities in Moscow, Leningrad, Kiev, Kirov and other cities. There are many families like that of farmer Andrei Kalashnikov, four of whose children are college graduates.

In the village square stands the community club, the House of Culture, with auditorium, gymnasium, moving picture theater, radio station and library. The farm expects shortly to publish its own newspaper.

One wing of the spacious building houses the farm offices, the agronomy laboratory, a lecture hall for classes in scientific farming and animal husbandry and a public restaurant. The village has its own hospital and maternity rest home.

The Krasny Oktyabr Collective farmers do not call it a miracle—this big and prospering farm they have built almost with their bare hands. They prefer to explain it with a simpler, more meaningful phrase—the infinitely multiplied power of collective work. ■

IVAN TRUKHIN IS A TRACTOR DRIVER AND LARISSA PROZOROVA, A ZOOTECHNICIAN. IT IS RUMORED THAT THERE MAY BE A WEDDING CELEBRATED AT THE FARM VERY SOON.



FREE MEDICAL CARE

By Ilya Korabelnikov

THE Pervomaisky District Polyclinic in Moscow is a typical city hospital clinic. With its staff of 80 doctors and 110 nurses, it takes care of more than 50,000 people who live in this outlying district of the capital.

The polyclinic comprises only a part of the over-all medical service available to residents of the district. Children of school age are treated in a special polyclinic staffed by pediatricians. The district also has a center providing care for infants and children of preschool age. Another center takes care of pregnant women and new mothers.

General hospitals, clinics and maternity homes serve the whole city. Special clinics and hospitals for the treatment of tuberculosis, cancer or eye diseases are also usually central institutions serving a wide area, and each is ready to accept patients referred from a district polyclinic. And finally, there are clinics or medical departments in every large industrial enterprise and office to serve their employees.

All medical services, from treatment of a cold to complicated surgery, is available to every citizen free of charge, entirely at state expense.



The whole network of medical services is under the jurisdiction of the Ministry of Public Health. It is financed entirely from the state budget and is available to every citizen free of charge. The range of service extends from the most elementary treatment to the most complicated surgery. There is no charge whatever for laboratory tests, X-ray examinations or treatment with radium, electricity and medicinal muds. All of these services are available to every citizen either in the hospitals and clinics or, when necessary, at home.

Polyclinic in Operation

The Pervomaisky Polyclinic has fifteen offices for preliminary examinations and general checkups. Whenever necessary, patients are referred to the special division of the clinic indicated by the doctor's diagnosis—ear, nose and throat, X-ray, surgery, neurology, cancer, gynecology, dentistry or physiotherapy.

Most of the polyclinic's doctors are specialists in one or another field of medicine. Fifty per cent have been in practice for at least ten years, with a varied background of medical experience. But whenever there is a need for it they have the assistance of the specialized institutions and may summon their staff physicians for consultation either at the clinic or at the bedside of the patient stricken at home.

When a patient first visits a polyclinic, his medical history is taken and indexed. A permanent record is kept for every patient, even if he has visited the clinic only once, to be referred to at each subsequent visit, even if it is years later.

When the health of a patient requires that he stay away from work, the examining doctor will fill out a form stating his diagnosis and the time needed for recovery. During this period the patient receives sick benefits from the state-financed social insurance fund. If hospital care is needed, there is no charge whatever for the service.

The young patient Nadezhda Karpova came to the clinic complaining of pain in her leg. The examining physician found a suspicious redness on her foot and heel and a temperature above normal. The girl was hospitalized and laboratory tests were made that showed symptoms of acute pernicious leukemia. A consultation diagnosed the symptoms as internal hemorrhage characteristic of the disease.

A few days later, however, the girl seemed to have recovered completely. She walked about the small hospital garden without discomfort, slept well and ate with normal appetite. It appeared at first glance that there was no reason to worry further about leukemia. But the laboratory chief continued to take blood tests every third day. And these tests indicated that the girl's condition was critical.

Professor Yekaterina Kost, a specialist in diseases of the blood, was called in as consultant. She diagnosed a rare type of leukemia and recommended a special—and expensive—course of treatment which involved several thousand rubles. The patient was not required to contribute a single kopeck. The polyclinic director authorized the special expenditure as a matter of course and signed the check.

The Home Visiting Service

In the event that a patient cannot come to the clinic, the doctor calls on him at home.

The district which the clinic serves is divided into fifteen medical precincts, each one supervised by two doctors and two nurses. The doctors receive patients at the polyclinic on four-hour shifts and spend the rest of the day making home visits. With this schedule each doctor can keep his patients under systematic medical observation and, what is just as important, get to know the people for whom he is responsible.

Anastasia Mirandova is one of the clinic physicians. One day she received an urgent call from the family of Ludmila Shcherbina—the family lives in her medical precinct.

Dr. Mirandova has been the precinct doctor more than ten years. She knows the people well, has seen many of the younger ones grow up, marry and raise families. When she saw the name of Ludmila Shcherbina on her list of calls, she knew at once what it was likely to be. The girl had suffered from bronchial asthma since childhood, with acute attacks in the spring and fall. The doctor kept a special eye on her during these seasons.

This was it, Dr. Mirandova found when she made her visit. She prescribed ultra-violet treatment, not a new method, but one which brought quick relief in this case. The doctor immediately called the clinic and within an hour nurse and equipment had arrived to administer treatment.

Dr. Mirandova went on to another call. The patient, Vladimir Benyuk, had been to see her before. He suffered from frequent attacks of tonsilitis. But when she examined him, she found that in addition to a sore throat, Benyuk had a cough and a high temperature. Dr. Mirandova diagnosed pneumonia and phoned the clinic for a consulting physician and nurse before she left for her next call.

Doctors in the polyclinic believe that treatment given in the patient's home must be as good and as complete as that given in the hospital. Therefore, in accordance with the prescription of the visiting doctor, nurses come to the patient's home to give injections several times a day if necessary, to take electric cardiograms, to give massage, to teach corrective exercise and to lead the first steps of a patient bedridden over a long period. Sollux, quartz lamps, paraffin, ozocerite and medicinal muds are brought to the patient's home. And all without charge.

Follow-Up

Consultations at the clinic are frequent and diagnostic conferences the rule. Every morning Dr. Nikolai Orlov, the head physician, chairs a conference attended by precinct and hospital doctors. The attending physicians report on the hospitalized patients and the precinct physicians on difficult home cases. If a doctor is unsure about a diagnosis or course of treatment, it is worked out in conference. Consulting specialists are called in whenever necessary.

Where rest is indicated, the polyclinic will send a patient to a sanatorium free of charge or will ask the patient's trade union to provide accommodations at a health resort without cost or at a discount. The case of Pavel Antipov is one in point.

Dr. Mirandova was called by Antipov's wife. Antipov had fainted in the street and the neighbors had carried him home. The doctor hurried over and found the middle-aged man conscious but gasping for breath and unable to talk.

The precinct doctor put through an urgent call to the clinic for a nerve specialist and meanwhile took the necessary steps to get the patient out of shock. When Dr. Zoya Soboleva, the specialist, arrived, she diagnosed a cerebral disorder which had affected the speech control centers.

It was vital to get the patient to the hospital, but dangerous to move him. The physicians decided to bring the hospital to the patient. Nurses were sent for. Consultants assembled at the Antipov home and treatment worked out.

The battle for Antipov's life was a long one, with nurses on duty day and night during the period of crisis. Dr. Mirandova and Dr. Soboleva called every morning and evening. When, a fortnight later, it was possible to move Antipov to the hospital, he was on the road to a slow recovery.

The convalescence was a long one. When Antipov was discharged from the hospital, he was sent to a sanatorium maintained by the City Council in the country near Moscow. There is no charge for



Home treatment is instantly available when a patient is unable to visit the clinic. Here an electric cardiogram is being made with portable equipment.

patients who are sent here. When he had almost won his way back to health, he spent a final month at a holiday resort with his accommodations paid for by his trade union. When he went back to work, he was transferred to a lighter job without any cut in pay.

Antipov, although recovered, is still visited from time to time by the two physicians and comes to the polyclinic for periodic examination.

Preventive Examinations

Preventive medicine is an important part of the clinic's work. It maintains a check on patients who have suffered at one time or another from heart and vascular, pulmonary, cerebral or nerve disorders, with all the clinic specialists cooperating. The eye specialist, for example, will keep under constant observation patients in the district who have suffered from glaucoma. A few recurrences are inevitable; most recurrences, the doctors believe, can be prevented.

But the clinic's work is not limited to follow-up of patients who already have a medical history. People who consider themselves healthy undergo preventive examinations with the purpose of bringing to light early forms of disease. During these examinations doctors make wide use of laboratory, X-ray and fluoroscopic tests. Preventive examinations make it possible to discover diseases in their earliest stages and to cure them completely or arrest their development.

Every year, tens of millions of people throughout the country undergo these preventive examinations. The polyclinic's function, as the staff conceives it, is not only to treat, but to prevent illness. ■

Dr. Sofia Karagodina, head of the therapeutic department, begins her day by reading a cardiogram.



Daily conferences of the precinct and hospital doctors are conducted by Dr. Nikolai Orlov, head physician. In this way the experience of the whole staff is pooled for the benefit of each patient.









THE SILENT DON

THE EPIC SHOLOKHOV NOVEL IS SCREENED



By Sergei Lvov

The *Silent Don*, Mikhail Sholokhov's epic novel, filmed in color, is now touring Soviet theaters. The motion picture transfers to the screen all the sweep and power of this panoramic novel of Don Cossack life.

The Cossacks, under the czars, enjoyed unique privileges in return for which they were pledged to special military service. They were a caste set apart. The Revolution threatened their privileges, as it did that of all favored groups and classes. The poorer Cossacks joined the revolutionary workers and peasants; the wealthier fought against them. Many wavered between the two poles.

Grigori Melekhov, whose life the motion picture portrays, is the son of a Cossack family in modest circumstances. He is daring, ardent, the unbridled Cossack. He falls deeply in love with Aksinia who has been forced into a loveless marriage.

The First World War comes and then the Revolution followed by fratricidal conflict. Grigori passionately seeks for the truth but is bound by his background and traditional prejudices. He follows a tortured course, wavering between revolution and counter-revolution. Without conscious awareness, he

commits grave crimes against the people and becomes the unwitting and tragic cause of Aksinia's death.

The end of the book—and of the motion picture—is symbolic of the fate and the future of Cossackdom. After his flight from a band of deserters and Aksinia's death, Grigori returns

Continued on page 56

A Cossack general tells his troops that although the czar has been deposed, the war must go on. He says: "Let the politicians decide the fate of the country. Politics is not the army's business."



◀ Elina Bistritskaya as Aksinia and Pyotr Glebov as Grigori in the screen version of epic novel.

THE SILENT DON *Continued*



to his father's farm to give himself up. He flings his gun and cartridges into the Don. Then he looks up and sees his young son sitting on the high bank where, ten years before, he had first told Aksinia of his love.

"At last it had come true—that little which Grigori had dreamed of on sleepless nights," Sholokhov writes. "He was standing on the doorstep of his father's house holding his son in his arms. That was all that was left him in life, all that still made him kin with the earth and the vast world glittering in the pale sunshine."

In the preface to an English translation of his Cossack trilogy, Sholokhov writes of the "colossal changes in the conditions of life and

mentality of a people that have taken place since the war and the Revolution."

He early achieved an honored place in world literature with his extraordinary portrayal of this people. His novel has been translated into some twenty languages and has won a large and discriminating reading public on both sides of the Atlantic.

This is the second time the book has been screened. A film based on the novel was made by directors Olga Preobrazhenskaya and Ivan Pravov in 1930. Sholokhov had only finished the first four sections of the long book at that time, those dealing with the beginning of the First World War and Grigori's return from the front wounded, so that the picture, to all in-

tents and purposes, was reduced to the love story of Grigori and Aksinia.

This second, and far more significant screen play, directed by Sergei Gerasimov, was completed at the end of last year. "Writing the scenario was an extraordinarily difficult job," says Gerasimov. "We had to squeeze an 1,800-page novel into a scenario of 180 pages. We could not do the job mechanically by cutting sections of the book. We had to retain the main thread of the story and the Sholokhov style and dialogue, as well as provide the background which is so organic a part of the narrative and is bound up so closely with the mood and feeling of the characters. Sholokhov's novel, after all, is a national epic, a

AKSINIA, WHO HAS ENDURED EVERY INDIGNITY OF A LOVELESS MARRIAGE, BEGS: "GRIGORI, MY DARLING, WE MUST GO AWAY TOGETHER. I'LL LEAVE EVERYTHING FOR YOU."





THOUGH POSSESSION OF A REVOLUTIONARY LEAFLET MIGHT MEAN REPRISALS AND DEATH, THE COSSACK SOLDIERS READ THEM AVIDLY AND PASS THEM ON FOR OTHERS TO SEE.

unique dictionary of the Russian spoken by the Cossacks, an encyclopedia of human character."

The author helped to make the film. He suggested changes in the screen play, helped

to choose locale, checked the sets and interviewed the leading characters.

Most of the important roles went to people who were new to screen work. Grigori is played by Pyotr Glebov, an actor at the

Stanislavsky Theater in Moscow. At first Glebov was auditioned for a small part, but his excellent reading and his resemblance to Sholokhov's description of Grigori won him the leading part.

Glebov says of his role, "In order to find the right interpretation of Grigori, I went to live in a Cossack village. There I talked with people who were young when Grigori was young. That helped me greatly to understand the character and to pick up the gestures and speech peculiarities that he would have used. I lived with Grigori so long that sometimes I'm not sure where he ends and I begin."

Twenty actresses were auditioned for the part of Aksinia. Elina Bistritskaya, the young actress who starred in *Unfinished Story*, was finally chosen.

"When I first met Sholokhov," says Elina. "I asked him whether it was true that Aksinia was still alive. He laughed and told me there never had been such a person. I suppose my question was naive, but Aksinia seems to me so true-to-life, so real and tangible, that it is hard to think of that proud, beautiful, strong-minded Cossack woman as a literary invention."

Many of the Don Cossack villagers, including some of the older people who participated directly in the events described in the novel, appear in the film.

The Silent Don will undoubtedly win a place as a Soviet motion picture classic. ■

MANY REVOLUTIONARY COSSACKS WERE EXECUTED, BUT ENEMY TERROR ONLY INCREASED THEIR FORCES.





FRIENDS OF MIKHAIL PUSTOSHKIN, A RETIRED WORKER, CALL THIS BENCH IN HIS ORCHARD "THE DISCUSSION CLUB." THEY SETTLE THE WORLD'S AFFAIRS HERE ON SUNNY DAYS.

No Scrap Heap For Aging Workers

By Arkadi Erivansky

MYTISHCHI is one of the country's many industrial towns. Its major works is a big engineering plant founded sixty years ago. The plant has been enlarged and modernized in postwar years. Now it makes dump trucks and cars for the Moscow and Leningrad subways.

We go through the Mytishchi Engineering Plant shops and stop to talk to an elderly toolmaker, Taras Patseiko. We learn that he has passed his sixtieth birthday and could long since have retired. When we ask him why he is still on the job, he replies, "I can't see myself sitting at home twiddling my thumbs."

The worker at the next bench calls over, "He thinks the plant can't get along without him."

Patseiko pushes his grease-stained cap to the back of his head, looks over the top of his spectacles and says, "It's not that the plant can't get along without me, I can't get along without the plant. I've worked here practically all my life and I'm used to it. Besides, I like to work with people around me—even young snips like that one who think they know it all."

The young snip—he must be well in his late thirties—chuckles. He is probably one of the many younger men who learned their trade as apprentices to the old toolmaker. Many of the young men Patseiko helped train are now graduate engineers, but they still come to him when there is a new and complicated tool to be designed to draw

on his knowledge of the properties of metals amassed over his forty years of work.

It is almost closing time and we wait for Patseiko as he cleans up and changes out of his overalls. We walk through the plant grounds with him as he recalls the old days before the First World War when work in the shop was no better than prison labor, when the employer would squeeze everything he could out of a worker and throw him out of the factory when he grew old. A pension for workers? It was unheard of in old Russia.

We ask him whether there are many men at the plant who go on working after they are eligible for retirement.

"Quite a few," he tells us, "and even those who retire drop in every once in a while to see if the plant is running all right without them. I saw Fyodor Butrin around this morning. He's a friend of mine, retired on pension. Let's walk over this way. We'll see if he's still around."

Butrin is there. Patseiko introduces him and smiles, "You can't keep away, Fyodor, can you?"

Apparently this is a standing joke. Butrin looks a little sheepish and explains, "I just happened to be going this way and I saw these boys getting ready to open the underground mains." He points to a group of men digging a trench. "They couldn't locate the mains and

they were checking the blueprints. I laid these water mains and I don't need blueprints to tell me where they are, so I gave them a hand."

Patseiko grinned, "I don't suppose they could have gotten along without you."

Fyodor Butrin has worked at the Mytishchi plant for forty-three years. He is retired and now draws a pension of 798 rubles a month, 80 per cent of his average earnings during the last years before his retirement.

Patseiko chose to continue working after he had reached retirement age, a right reserved to him by law. He receives 50 per cent of his pension in addition to his full wages.

Many of the elderly workers choose to retire on pension when they reach the qualified age. Others, like Patseiko, prefer to continue on their jobs.

A group of the retired veterans have formed a sort of advisory council which meets whenever the plant has a particularly knotty production problem which they can help solve. The council's advice is frequently sought by the plant director, the chief engineer and department heads. And, of course, the young men come to old-timers like Butrin and Patseiko for technical advice freely given.

Young people between the ages of 17 and 23 make up 40 per cent of the plant's personnel. Eighteen and a half per cent are people forty-five years old and more with from twenty-five to thirty-five years of work behind them. The relation between these two groups is close by virtue of the fact that so many of the older workers have taught anywhere from ten to twenty of the young people their jobs.

It is something of an occasion when one of the old-timers retires. He is given a warm send-off by the management, his fellow workers and particularly by his old apprentices. Nikolai Martynovsky, a fitter, retired not too long ago after fifty years of work at the plant. All the generations of his apprentices—56-year-old Kuzma Tisovsky, 46-year-old Yuri Shershavykh, 32-year-old Vladimir Kashanov and the very young Fyodor Smirnov—were represented at the festivities.

Those who do not wish to retire but find their old work too taxing are given lighter jobs. Nikolai Neugodov, a 62-year-old pensioned worker, was placed in charge of filing at the plant office; 65-year-old Mikhail Dementyev was given the job of labor inspector; and 64-year-old Ivan Kozyrev is a teacher of carpentry.

Age is no bar to promotion. Competence and experience are the factors that count. Elderly Dmitri Pankratov, a carpenter, was promoted to shop superintendent; Vladimir Sharapov, a fitter, is now an assistant shop superintendent; and Ivan Krestyaninov, another older man, was recently made foreman.

The older men who enjoy the confidence of their fellow workers are elected to public office and to leading posts in the trade union. Vasili Kazantsev, a 57-year-old foundry worker, was elected as deputy to the Mytishchi City Council in recognition of his years of work and the affection and respect he has won at the plant. Fifty-five-year-old Alexei Filippov has been re-elected any number of times to the plant trade union committee.

Advancing years present no threat of insecurity to Mytishchi workers, nor do they to workers anywhere in the Soviet Union. ■

Taras Patseiko has trained several generations of toolmakers. Here he is checking a job with Gleb Popov, technical inspection department head.



"What would I do if I retired, stay home and twiddle my thumbs?" Taras Patseiko chose to continue working and draws full pay plus half his pension.

Vasili Kazantsev is a veteran worker at the factory. His little grandson Vova is usually the first one to meet him when he arrives home from work.





"We walked five hundred versts, hungry, cold, barefoot," said Kozhukh, beginning his speech. "The cossacks came after us like maniacs. We had no supplies, neither bread nor forage. People died, rolled down the slopes, fell by enemy bullets, there were no cartridges, we were barehanded. . . ."

The Iron Flood

By Alexander Serafimovich

We print here an excerpt from the last chapter of the epic novel by the Russian writer Alexander Serafimovich, "The Iron Flood." This is a story about the initial steps taken by the people who had carried out the revolution in November 1917, the struggle waged by the ordinary people in one of Russia's southern areas against the counter-revolutionary forces, it shows how in the gravest trials these people united and organized themselves into a disciplined revolutionary army, into an invincible iron flood. Shabby and hungry, having broken out of enemy encirclement, they celebrate their victory, paying tribute to their commander Kozhukh, who had risen from their midst, led them through all the trials and instilled in them faith in victory.

THE CAUCASIAN SUN, although it was autumn, was hot. But the steppe was translucent, the steppe was blue. Spiderwebs glittered delicately. Poplars with thinning leaves stood in meditation. The orchards were slightly tinted with yellow. The steeples gleamed white.

And in the steppe beyond the orchard was a human sea, like that at the opening of the campaign. But there was something new over it. The innumerable carts of the refugees were the same, but why was the light of inextinguishable assurance shining as a reflection in all their faces?

Here was the same horde of bedraggled, ragged, naked, barefoot soldiers—but why had they silently arrayed themselves in endless files as straight as a taut thread, why did their emaciated faces look as if they had been forged from black iron, and why did the dark bayonets sway as to the rhythm of music?

And why, facing these, did the long ranks of the clothed and shod soldiers stand loosely in irregular disorder, with bayonets askew; why was both confusion and expectancy stamped on their faces?

As before, there abounded illimitable dust, but it settled under the autumn heaviness, the steppe was clear and translucent, the features of every face could be seen.

In the center of that first surging human sea there had been an untenanted green mound set with black windmills; but now in the midst of this sea of faces, there was an empty space in which stood a dark cart.

The sea of humans then had surged over the steppe, whereas now it was calm and silent, as if bounded by an iron coast.

They were waiting. A soundless, wordless sense as of triumphant music pulsed in the blue sky, over the blue steppe and through the golden heat above the vast crowd.

A small group of men appeared. Those who stood in ordered ranks with dark faces recognized in the advancing group their commanders, all as emaciated and as black as themselves. And those who stood in irregular ranks facing these others, also recognized their commanders, well-clothed and with healthy, weathered faces, like their own.

And in front of the first walked Kozhukh, low of stature, black to the bone, emaciated to the bone, ragged as a gamin, and on his feet broken gaping boots which showed his splayed black toes. On his head slouched the ragged dirty brim of what had been his straw hat.

They came up and gathered around the cart. Kozhukh climbed into the cart, pulled from his head the relic of plaited straw and ran his eyes over his iron ranks, over the numberless carts that trailed off into the steppe, over the multitude of sorrowful, horseless refugees, and then he looked at the ranks of the main forces. There was something wabbly in these last. He felt stirred with deep, concealed satisfaction, which he would not confess to himself.

"Decaying—"

All had their eyes upon him.

"Comrades. . . ." he began.

They all knew what he was going to say, nevertheless an instantaneous spark lit in them.

"Comrades . . . we walked five hundred versts, hungry, cold, barefoot. The cossacks came after us like maniacs. There were no supplies, neither bread nor forage. People died, rolled down the slopes, fell by enemy bullets, there were no cartridges, we were barehanded. . . ."

And although they knew it all—had experienced it, and although the others knew it from a thousand tales—Kozhukh's words shone with a revealing novelty.

"Children were left in the precipices."

And over all heads, over all this vast human sea a moan passed and sank into the heart, sank and quivered:

"Our children. . . . Oh, woe to us!"

From end to end the sea of humans was stirred.

"Our children . . . our children!"

He looked stonily at them, paused, and resumed:

"And how many of our people lie slain by bullets in the steppe, the forests and mountains, lie for ever, and ever . . . ?"

All heads were bared, and over the vast crowd to its fringe descended a graveyard silence, and in this silence the low sobbing of the women was like a memorial chant, like graveyard flowers.

Kozhukh stood for a while with bowed head; then he raised his head and glancing over this great gathering, asked:

"For whose sake did thousands, tens of thousands of our people suffer torture? For whose sake?"

He again glanced at them and suddenly said unexpectedly:

"For one thing—for the sake of the Soviet power, because it is the power of the peasants and workers. They have nothing besides that."

A sigh escaped from countless breasts, it was more than they could bear; solitary tears crept down iron faces, slowly crept down the weathered faces of the welcomers, down old faces, and the eyes of the young girls became bright with tears.

"Long live the peasants and workers!"

"That's what it is! For that we struggled, fell, perished, lost our children!"

It was as if the eyes of all were opened wide, as if they were hearing a mystery for the first time.

"Good people, let me speak," Granny Gorpino cried bitterly, blowing her nose and elbowing her way to the cart, claspings at the wheels: "Let me speak!"

"Wait a bit, Granny Gorpino, let him finish, let him say what he's got to say. You'll speak after him!"

"Don't you touch me," said the old woman, fighting with her elbows and pushing on obstinately—nothing could stop her now.

And she cried out, her kerchief awry and disheveled wisps of grey hair tumbling in disorder:

"Listen, good people, listen! We abandoned our samovar in our house. When the time came for me to get married, my mother gave it to me as my dowry. She said: 'Mind it as the apple of your eye.' But we lost it. . . . well, let it be lost! Long live our power and our country! All our lives we bent our backs and knew no joy. And my sons, my sons. . . ."

The old woman began to sob and gasp, shedding long suppressed tears over her unforgettable grief or, maybe, crying with vague joy, unintelligible to her, as yet.

Again the human sea gave a deep-drawn and joyous sigh, which rippled to the very verge of the steppe. Gloomily, silently, Gorpino's old man climbed up into the cart. And they could not very well drag this old man down, this sturdy ancient; tar and the blackness of the earth had eaten into the core of him, and his hands were like hooves.

He climbed up and was astonished to find himself so high, but at once forgot about it; his rough loud voice creaked like an ungreased cart.

"Our horse was old, but it drew the loads well. The gypsies, you know that, understand horses, they looked into his mouth and under his tail and said he was ten years old but he was twenty-three! His teeth were so sound!"

The old man laughed, laughed for the first time, gathered around his eyes a multitude of radiating wrinkles and burst into a cunning childish, mischievous laugh that ill befitted his cloddy, earthy figure.

And Granny Gorpino clapped her thighs in bewilderment.

"Dear Lord! Look you, good people, what has happened. He kept silent, silent all his life, silently he married me, silently he loved me, silently he beat me, and now he has started talking! What's going to happen? He must be off his chump!"

The old man at once chased away his wrinkles, knit his beetling brows, and again the ungreased cart filled the steppes with its creaking.

"The horse was killed, it perished! I lost all that was in the cart, it was thrown away. We went on foot, I cut off the harness and had to throw that away also. The wife's samovar and all the household rubbish has been abandoned, and I, true to God," he roared in a stentorian voice, "don't regret it. Let it be so, I don't regret it! Because now it is our peasant power. Without it we are dead carcasses and stink like that dead thing under the fence." Then he began to cry, dropping scanty tears like a dog.

A swell rose, a tempest swept over them all:

"Ha! It is our own power! Long live the Soviet power!"

"That's what happiness is!" The feeling was like fire in Kozhukh's breast and his jaw quivered.

"That's what it is!" It flared up with the deep joy of unexpectedness in the iron ranks of the emaciated, ragged people. "It was for the sake of this that we were hungry, cold, exhausted, not merely to save our skins!"

And mothers with broken hearts and undrying tears—yes, they would never forget the hungry, snarling precipices, never! But even those awful places, the terrible memory of them, had been transmuted into meek sorrow, had found a place in that solemn and majestic something which thrilled this human mass there, on the steppe. . . .

Many orators awaited their turn. Each wished to express what

he thought so important and valuable that if he were not allowed to say it everything would fail. And the mass listened. Those who crowded closely around the cart heard it. Those farther off caught only isolated fragments. At the fringe of the mass nothing was heard, but all listened with equal eagerness, craning their necks, straining with their ears. The women tucked their empty breasts into the mouths of their infants, or rocked them quickly, patting them, and craned their necks to listen, holding their faces up sideways.

And strange as it may seem, although they could not hear, or caught only scraps of phrases now and again, they finally grasped the import of what was being said. . . .

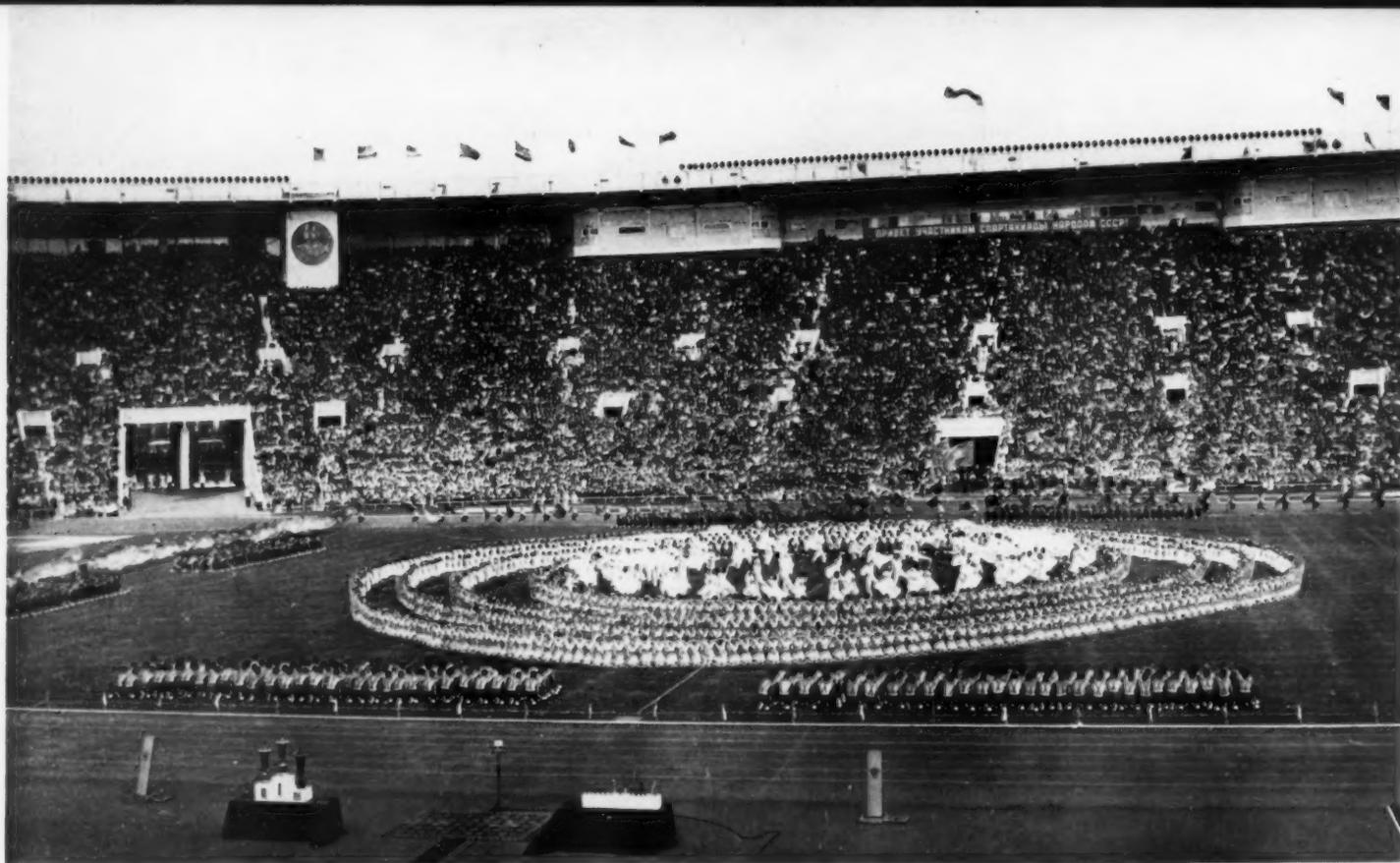
They bandied words, catching fragments from the orators, not knowing how to express themselves but feeling that, cut off though they were by immeasurable steppes, impassable mountains, age-old forests, they, too, were creating upon a smaller scale the same thing that was being created there, in Russia, on a world scale, that starved, naked and barefoot, without political guidance, without material means or any assistance whatsoever, they were creating it here, alone.

They did not understand, they did not know how to express it, but they felt it.

The orators spoke until the evening deepened, one after another. As their narrative unfolded the inexpressibly blissful feeling that they were linked with the hugeness they knew, and did not know, which was called Soviet Russia, kept growing in them. ■

"And how many of our people lie slain by bullets in the steppe, the forests and mountains, lie for ever, and ever . . .?" Over the vast crowd to its fringe descended a graveyard silence, and in this silence the low sobbing of the women was like a memorial chant, like graveyard flowers.





COMPETING FOR NATIONAL HONORS IN GYMNASTICS. THE COUNTRY'S SPORTS GOAL IS TO HAVE 10 TO 20 MILLION ATHLETES PARTICIPATING IN EACH OF THE MAJOR SPORTS.

SOVIET SPORT

As It Is And As I Would Like It To Be

By Pyotr Sobolev

Editor-in-Chief of the Magazine *Physical Culture and Sport*

WHEN I arrived in Melbourne as the Soviet Olympic attaché early in October last year, local and foreign correspondents quizzed me around the clock about sports in the Soviet Union. They wanted to know how many gold medals we planned to take home from Australia, they asked me to list our outstanding athletes.

As a journalist I understood their curiosity and tried to give them as much information as I could, but as a former athlete I also knew that the disposition of the gold medals would be decided in keen competition. If we could pick the winners in advance there would be no point in holding the Olympic games.

The question levelled at me most frequently was:

"What problems are Soviet sport organizations now tackling?"

"Developing sports on a mass scale," was my answer.

"But what is most typical of Soviet sports at present?"

"Mass participation."

I sensed that one of my questioners was losing patience.

"What has the training of champions to do with mass sports? How do you train your champions?" he persisted.

"We don't train champions," I replied. "They just come up to the fore from our mass sports program."

I could read the doubt on my listener's faces, but that is the whole truth.

Last year in Moscow we held a tournament known as the Spartakiad of the Nations of the USSR. This was not an ordinary tournament, but what you might call a national edition of the Olympic games, with 9,224 athletes taking part in the finals alone—more than double the number entered in the Melbourne Olympics. And prior to those finals we had held a long string of preliminaries—first on the level of the individual athletic clubs, then on a district, city, regional and republic scale. More than 19 million athletes had a try in the preliminaries and the best were seeded for the Olympic squad.

One of the correspondents wanted to know where these 19 million came from since this figure equals the total population of Sweden and Hungary. Personally I believe the figure is low for a country with a population of 200 million. I think that 3.5 million track and field athletes, 2.5 million skiers, 900 thousand gymnasts, 500 thousand swimmers, and so on down the list, are not nearly enough for a country our size. We are aiming at a figure of 10 to 20 million to go in for each of the major sports.

Our relatively poor position in track and field stands out like a sore thumb. Individual champions such as world record holders Vladimir Kutz, Yuri Stepanov, Nina Otkalenko or

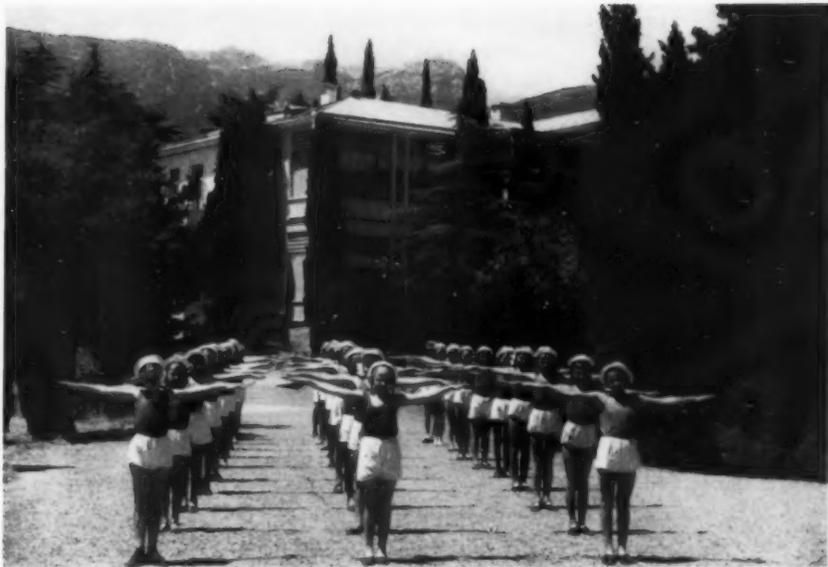
Galina Zybina, grow old as the years pass. They cannot form an all-time reserve. We need more athletes from the ranks of youth with the know-how and will to win. And I maintain that new champions can come only from mass sports when the laurels are sought by from 10 to 20 million athletes.

But the main thing about our mass sports is not that it gives us such a broad field for spotting future championship material. That is just one of the by-products. The principal goal of our sports movement is health building. We want to raise a generation developed both mentally and physically.

In this connection I recall the talk I had with General Secretary Willee of the Australian Physical Education Association. He could not understand why our magazine is named *Physical Culture and Sport*. He took exception to the term physical culture as implying not the all-round physical education of the individual but a one-sided development of the body, something like muscle-building.

We had a long discussion on the subject. I explained that the concept of physical culture in the Soviet Union meant physical education of all the young people, building up public health, inculcating labor habits and developing moral and will-building qualities.

Millions of Soviet people go in for physical culture to improve their health, resist disease and the inroads of advancing years. They do



MORNING EXERCISES BEGIN THE DAY AT CHILDREN'S CAMPS AND TRAINING CONTINUES IN SCHOOL.



HIKING ATTRACTS YOUNG AND OLD. THESE ARE MOSCOW YOUNGSTERS ON A CROSS-COUNTRY TRIP.

not dream of championship cups or Olympic medals, but do their setting-up exercises each morning with vim and vigor. In Russian these exercises are called "zaryadka," which means charging, as for example charging a battery. Radio and TV stations have special morning programs on which trained instructors call the exercises to a background of music. Most industrial establishments and large offices have a special break during working hours for "perk-ing-up" exercises.

Every housing development has its athletic grounds providing space for at least a volleyball or basketball court, and in off hours or on holidays, the residents choose up sides for a friendly game. In larger projects there are soccer fields for our favorite game. During the winter these fields and athletic grounds are flooded to provide for ice skating or hockey. Sunday outings in the country or suburban areas would be incomplete without impromptu competitions in volleyball or swimming during the summer and ice skating or skiing in winter.

Participants in these informal contests are not seeking special prizes for their sports prowess. Ordinary folk, young and old, from every walk of life, they simply enjoy outdoor activity and play the game for the game's sake—or as we say—they merely engage in physical culture. Its aim is not records but the development of skill and stamina to invigorate mind and body. We are trying to make physical culture part and parcel of every person's life.

Competitions between leading athletes and crack teams for championship honors are of significant importance in propagating sports. Among the millions of fans jamming the stands of stadiums one will always find enthusiasts more willing to test their mettle in stiff competition than their immediate neighbors or shop-mates. And it frequently happens that one of these enthusiasts will win recognition and a place on his district, city or republican squad.

Others will join a nearby sports club to play the game of his choice.

Every novice is given regular training and necessary equipment free of charge but continues his studies or job, since we have no body of professional or paid athletes in our sports system. Should the beginner show real promise, he could be developed into a record-holder—and incidentally, this is exactly how many of our leading sports stars were found.

Until quite recently many of our sports officials underestimated the tremendous significance of physical education in the schools. Not every school had its own sports ground and gym. Physical education took no more than two or three hours per week. There were very few sports tournaments for school children.

Now the situation has been rectified. No school is built without its own gymnasium and athletic field. Setting-up exercises are held in every schoolroom before lessons each day. There has been a significant improvement in interscholastic and intra-mural sports for our

students. For example, in the Russian Federation, largest of the USSR's fifteen Union Republics, more than 40 per cent of the pupils in the fifth to tenth grades go in regularly for training in the school sports clubs in addition to regular physical culture training.

From 1954 on, country-wide scholastic sports tournaments have been held annually. The last tournament included contests in track and field, swimming, diving, water polo, gymnastics, marksmanship, cycling, kayak racing, tennis and soccer.

This gives me hope that within the next few years school sports will spread on a truly mass scale and that every schoolboy and schoolgirl will learn to love sports for the rest of his or her life.

Of course this is a rather expensive program but we can count on constant financial support from the state. The Soviet Union has been increasing appropriations for public health and physical culture needs from year to year.

Continued on page 64

WORKERS IN A MOSCOW FACTORY DO THEIR "PERKING-UP" EXERCISES LED BY A FULL-TIME INSTRUCTOR.





A EUROPEAN CHAMPIONSHIP BASKETBALL GAME AT DYNAMO STADIUM IN MOSCOW.

◀ A 100-METER SPRINT IS ABOUT TO BEGIN IN THE KAZAKH CAPITAL OF ALMA-ATA.

SOVIET SPORT *Continued from page 63*

In 1940 the appropriations amounted to 9 billion rubles. In 1954 the figure neared 30 billion and this year it was 38 billion. The allocation of these large sums is additional proof that the prime concern of the physical culture movement in the Soviet Union is to build public health.

We have highly qualified instructors to organize physical education and sports on a scientific basis. These instructors are trained at fifteen physical culture institutes, 42 physical education departments in teachers' colleges and more than 100 secondary physical culture schools.

There are skilled coaches in many fields of sports capable of training athletes of world championship caliber. But I am far from claiming that everything we do is best. In some sports American athletes proved their

Polo is an exciting event for participant and spectator alike. The swimmers develop intricate plays that keep the water churning.

superiority at Melbourne. I have no excuses to offer. I only want to say that these sports are still insufficiently developed in our country and we still have a shortage of top-flight coaches. This holds especially true for track and field, swimming, fencing, diving and sailing.

Soviet athletes and coaches gladly offer pointers to their opposite numbers abroad. At the same time they keep their eyes and ears open for pointers they can pick up. In this connection it is gratifying to recall the meetings of American and Soviet coaches in Helsinki, Italy and Melbourne. These were warm meetings of friends for sincere advice and the mutual exchange of experiences useful to both sides.

In our contests with foreign athletes in numerous international competitions we are pleased by our successes and regret our failures. During the recent past our sports exchanges have been broadened considerably. One of the contributing factors is the increase in the number of our athletes. They are eager to match their skills with those of friends from abroad. A major reason for this has been the broadening of our sports base—the making of our sports program into a truly mass activity throughout the country. Even in those regions where until recently sports were relatively undeveloped, we now find thorough-going sports programs under way.

In the summer of 1940 I happened to be in Central Asia. After the excitement of sport activity in Moscow, Leningrad and Kiev I was astounded by the quiet of the few stadiums. The reason was not only the heat . . . the mercury climbs to about 122 in the shade there. No, it was that sports were still not a part of the Central Asian way of life.

This year I took practically the same route and this time found that the picture was entirely changed. There were a greater number of stadiums and gyms and they were full all the time. During this period a 50,000 seat stadium—the Pakhtakor—had been built. It is the largest in Central Asia.

The Soviet Union now has about 1,500 big stadiums, hundreds of thousands of volleyball, basketball and tennis courts, aquatic stations for various water sports and of course uncounted thousands of soccer and ice hockey fields. Probably a few years ago these could have cared for all of those wishing to take part in a sports program. But today they are far insufficient and many more are being built to cope with the increased demand for facilities.

This constantly growing call for more and more sports fields, equipment, coaches and appropriations springs from the people in all walks of life. It comes from every section and augurs well for the speedy attainment of our goal of 10 to 20 million taking part in each of the major sports. ■

BICYCLING DRAWS THOUSANDS INTO RACES OF ALL TYPES. FIFTY CYCLISTS PEDALED 112 MILES IN THIS EVENT.











