SOVIET LIFE

SPECIAL ISSUE
ON THE CITY
ON THE NEVA

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LENINGRAD

Its Past, Present and Future

LENINGRAD

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PORTFOLIO 37 UNITED BY THE RIVER FOR PEACE AND DISARMAMENT

The editors and the staff of SOVIET LIFE magazine wish their readers a very happy new year, filled with peace and good will.

EDITOR'S NOTES

WHEN the American fiction writer Mitchell Wilson visited Leningrad, he said that if you fail to make friends there, you should give some serious thought to your life. Aptly said! I know from personal experience what a treat it is to revisit that wonderful city—even though the climate leaves much to be desired, with its average of 31 sunny days a year. The city's center is a sumptuous necklace of architectural gems; its museums boast masterpieces from every country; and its theaters are known worldwide. Leningrad is a friendly city, full of valor, pride and dignity. You see our country's history here as if through a magnifying glass. Read this issue, the new year's first, and you will gain firsthand knowledge of many striking facts of modern Russian history. Through these facts you will feel the underlying trends.

We dedicate this issue to Leningrad not by chance. We will celebrate the seventieth anniversary of the October Socialist Revolution in 1987, and Leningrad was the cradle of the Revolution. The two previous revolutions started here, and they were crowned by the victorious insurrection of October 1917. Soviet power was proclaimed here, in the revolutionary headquarters on the former premises of the Smolny school for girls of noble birth. The first Soviet legal acts were passed here, beginning with the famous Decree on Peace.

When a baby learns to speak, its first word is "mom." "Peace" was the first word of the newborn Soviet state, its main aspiration and its main idea.

We paid dearly for that noble goal—and Leningrad paid a very special price. Forty-four years ago, in January 1943, the nazi blockade of Leningrad was broken. A year later, also in January, it was finally raised after 900 grim days. Unprecedented even in the tragic chronicle of World War II, the blockade killed almost half of Leningrad's population. Starvation took the lives of 641,803 civilians, and air raids and artillery bombardments also took a heavy toll.

Leningrad holds sacred the memory of its citizens' heroism in the war. As you read this issue, you will meet many Leningraders: Academician Dmitri Likhachev, 80, a world-renowned student of medieval Russian literature; Lyudmila Bystrova, Head of the Material Evidence Investigation Department of the Leningrad militia; Alexei Savelyev, young professor of Leningrad University and Nikolai Danilevsky, university undergraduate, to name but a few. Those who lived through the dire war years and those who were born after the war honor the memory of the dead and are dedicated to promoting peace and understanding among nations, that supreme blessing and supreme right of every human being.

More political talk, you may say. But here hearts speak of their cherished hopes. It is not mere talk.

Something interesting is in store for you in the account of Alexei Savelyev and Nikolai Danilevsky. These young men are descendants of Alexander Pushkin, the greatest of Russian classic poets (1799-1837). It will be interesting for you to learn from their interviews that they have several young relatives in Charleston, South Carolina. Savelyev asked us to publish his open letter to them in this magazine. They are more than blood relations to him: They are Americans, and Americans are the closest to Russians in their psychological makeup and attitudes, "the most Russian of all foreigners," as he put it.

Vladimir Belyakov

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Front Cover: Looking through the arch of the former General Staff headquarters toward Dvortsovy Square. *Photograph by V. Tarasevich.*

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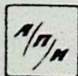

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Leningrad speaks in the language of Pushkin's poetry and Tchaikovsky's music. Its old districts are perfect settings for Dostoyevsky's novels, and its streets are haunted by the spirit of Alexander Blok's poetry. This city was the inspiration for genius. At Leningrad's birthday party all the memories of the past seemed to come alive.

VIVAT LENINGRAD!

Photographs by Rudolf Kucherov

Leningrad, unlike many other cities of the world, knows the exact hour it was founded. Early on May 16, 1703, Czar Peter the Great laid the cornerstones of a city near the Baltic Sea, at the mouth of the Neva River. This city would play a tremendous part in Russia's history. Thousands of Leningraders who attended the first festival celebrating Leningrad's birthday learned more about their city's past.

The Peter and Paul Fortress is considered to be the birthplace of the city. The Bronze Horseman, a monument to Peter the Great, stands in Decembrists Square, named for the revolt that began here in 1825.

Nearly 270 buildings in Leningrad have memorial plaques bearing Lenin's name. Lenin came here from Switzerland to organize the revolution. Many streets and squares bring back memories of the three Russian revolutions, including the October 1917 Revolution, when Soviet power was proclaimed.

The noisy, high-spirited crowd in the square of the Peter and Paul Fortress began to buzz with the rumor that the city's founder, Czar Peter the Great, was about to arrive. As he cut through a rope, a brand-new sailing ship, an exact copy of vessels made in Peter's time, slid quietly into the choppy waves of the Neva, just as it might have 300 years ago. The crowd echoed Peter's words, "Vivat Russia!"

The scene was like a juncture in time: Imperial Guards in eighteenth century uniforms walked side by side with the revolutionary sailors of October 1917. They were followed by the World War II heroes and defenders of Leningrad in the 900-day nazi siege. The wind ruffled the banners of several centuries.

Leningrad has every right to be proud of itself: Of all the European cities ravaged by wars throughout history, it is probably the only one that has never admitted foreign invaders.

And so Leningraders have started another beautiful tradition. If you ever happen to be in Leningrad on the last Sunday of May, do go to the city's birthday celebrations: You won't regret it!

Valeri Matveyev, a young Leningrad actor, plays the role of Peter the Great, founder of the city, in Leningrad's birthday pageant.

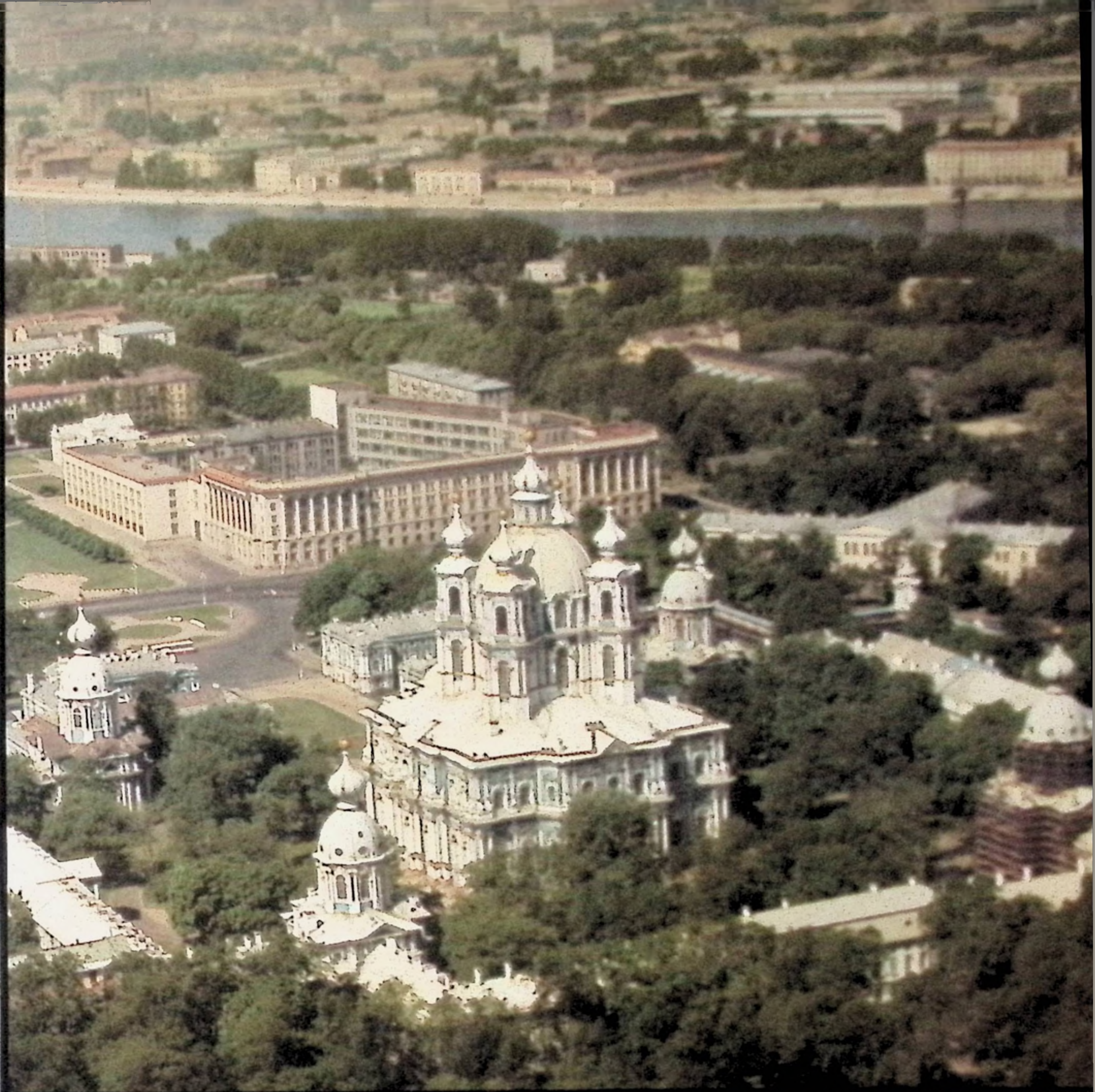
Leningrad's Birthday Celebration

Costumes and banners reminded spectators of the events of more than 250 years. A two-masted sailing ship typical of Peter the Great's time lay at anchor in the Neva. On dry land, entertainment included buffoonery similar to that of the eighteenth century city.

The City on the Neva

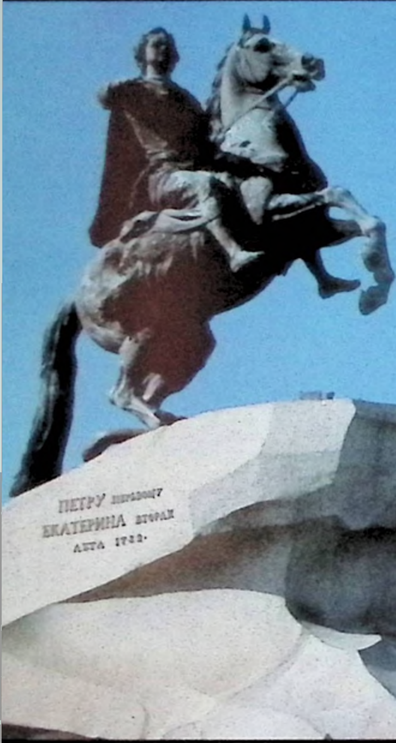
Leningrad awards a medal to each newborn citizen—a rosy medal for a girl and a blue one for a boy—inscribed "Born in Leningrad." The city council presents the parents with the medal, a birth certificate, advice on child care and a message of greetings.

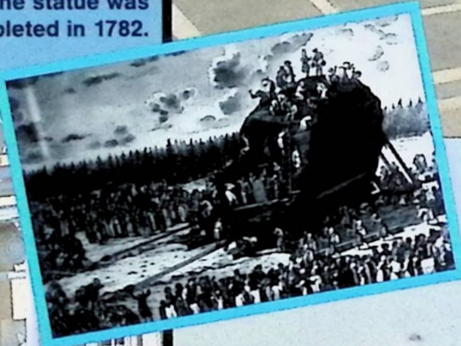
The Smolny complex, begun in 1748 by Bartolomeo Rastrelli, was completed in 1832-1835 by Vasili Stasov. Below: The Kazan Cathedral, built in 1801-1811 by Alexander Voronikhin, has a famous colonnade of 96 limestone pillars of classical height.



Palace Square became a symbol of the revolutionary struggle against autocracy. The events of January 9, 1905, began here, and it was the site of the main events of the October Socialist Revolution of 1917. Victory in the war of 1812 is commemorated by the façade of the General Headquarters, its two parts joined by a triumphal arch, and the Alexander Column, rising 155 feet 6 inches.

The Bronze Horseman, a memorial to Leningrad's founder, Peter the Great, was created by Étienne Falconet. An old engraving depicts the transfer of the statue's granite base to St. Petersburg in 1770. The statue was completed in 1782.





The Neva crashes against one of its embankments.

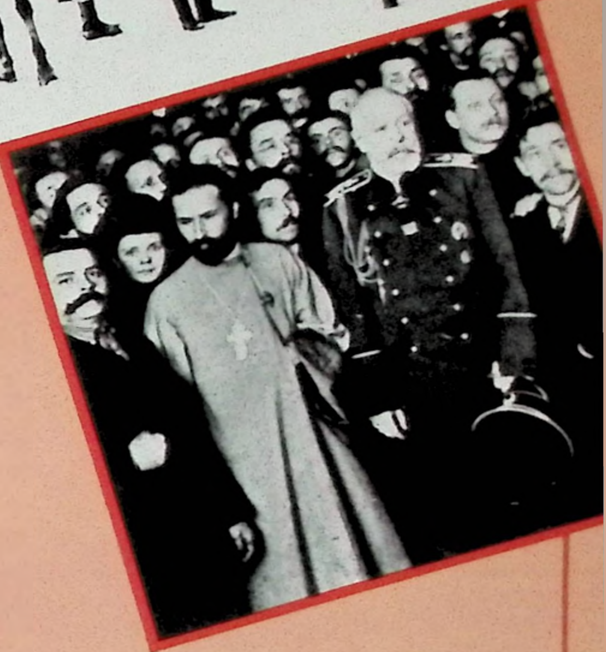
When You Come to Leningrad . . . .

This city has had three names. When Czar Peter the Great decided to build a city here, at the mouth of the Neva, he broke ground for the first building in 1703 and called the place St. Petersburg. In 1914 St. Petersburg was given a Russian name, Petrograd (Peter's city). And in 1924, when Lenin died, the city's residents requested that it be renamed in his honor.

Many land, sea and air routes lead to Leningrad. The Moscow Railroad Terminal (above) has traditionally been considered the main "gate" to the city. When the overnight express trains pull into the station, they are greeted by the solemn "Hymn to the Great City," which Soviet composer Reinhold Glière dedicated to Leningrad.

9th JANUARY, 1905

By Vladimir Belyakov



The czarist police and soldiers were ready to use force against workers who brought a petition for the Czar. Below right: Father Georgi Gapon and the Governor of St. Petersburg with members of the Assembly of Russian Factory Workers. Gapon instigated the procession to the Winter Palace, which resulted in the massacre known as Bloody Sunday.

Without such a "dress rehearsal" as we had in 1905, the revolutions of 1917—both the bourgeois, February Revolution and the proletarian, October Revolution—would have been impossible.
Vladimir Lenin

Morning broke in St. Petersburg on January 9, 1905, with no premonition that the day would go down in Russian history as Bloody Sunday. The weather was exceptionally sunny in the capital of the Russian Empire. Newly fallen snow blanketed the roofs of the houses, the golden domes of churches and cathedrals, Palace Square and the Neva Embankment. The frosty air was light and bracing. The sky was almost cloudless, and the air was unusually clean. Not a single factory chimney was smoking—not because it was a Sunday but because the city's workers were on strike.

At 8 A.M. on Monday, January 3, the Putilov Works' whistle had signaled the beginning of a strike by 12,500 workers protesting the dismissal of four fellow workers.

Clearly, the dismissal of the workers was only a pretext for the strike. The real reason lay deeper, in the destitution of the workers, "whose life differs little from the life of convicts," as even the official press wrote at the time. The economic crisis left thousands unemployed. Those who still worked had to toil 13-14 hours a day for a pittance. The quality of their food dropped sharply. Most of them lived cramped in cellars and barracks on factory grounds.

The strike at the Putilov Works had spread to other enterprises in St. Petersburg by January 7.

Lenin wrote prophetically:

> Even official reports placed the number of strikers at 100-150 thousand. Russia had never yet witnessed such a gigantic outbreak of the class struggle. The whole industrial, business, and public life of the great center with its population of one and a half million was paralyzed. . . . And the general strike bore a clearly defined political character; it was a direct prelude to the revolutionary events.

It was not easy to foresee such a turn of events because many of the workers at that time still stood for purely economic and not political struggle.

"The strike is of a peaceful nature," was what the Secret Political Police Department reported. That was confirmed by the Ministry of Justice, which reported that the workers were peacefully disposed and there was no disorderly conduct.

The majority of the workers believed that the strike would have a peaceful outcome. The idea of organizing a procession to the Czar's residence in the Winter Palace and handing him a petition containing their demands was very popular. Father Georgi Gapon, 35, Master of Theology and the dean of an organization called the Assembly of Russian Factory Workers, was the author of this idea. The assembly was organized a year before with the permission of the Ministry of the Interior (which subsidized the society as well). Literary evenings were arranged for the workers, they were encouraged to join amateur choirs, and they were courted in every way to divert them from political activity.

Gapon enjoyed the confidence and patronage of the Secret Police. The workers believed in him and flocked to hear him speak. He drew up a petition to the Czar on behalf of the workers:

> Sire,
>
> We, the workers and residents of Petersburg, our wives, and children and helpless old parents have come to you in search of the truth and protection. We have grown destitute, we are oppressed, bent by backbreaking labor, humiliated, we are not regarded as human beings but as slaves. There are only two roads open to us, the road of freedom and happiness, or the road to the grave.

Ivan Vladimirov
The Shooting of the Peaceful Demonstration of Workers.

Another volley left the streets covered with corpses and the wounded. The snow was red with blood. The soldiers shot at the people lying wounded.

Gapon's agitators told the people that the priest himself and a delegation of workers would hand the petition to the Czar. They said that Nicholas II would come out into Palace Square to take the petition.

The Bolsheviks disagreed with this approach. They explained the situation in their leaflets: "We should not beseech the Czar, but overthrow him. That is the only way to win freedom."

Gapon warned the workers against reading these leaflets. He said they should burn them, drive away the distributors and not get involved in any political issues.

"On Sunday in front of the Winter Palace, if you are allowed to come near it, you will see that you will get nothing from the Czar," the Bolsheviks told the workers. The workers answered:

> If the Czar does not help us, that will give us a free hand. It will mean he is our enemy, and we will march against him under the Red Banner. If there is any violence, the blood will be on his head.

The petition was adopted at a final meeting at 2:00 P.M. on January 8. It enumerated the workers' demands which, under the influence of the Bolsheviks, included political demands such as amnesty, social freedoms and the convocation of a legislature.

By the evening of January 8, leaflets began to appear in the workers districts of St. Petersburg urging all workers to gather in front of the Winter Palace at 2:00 P.M. on January 9 to deliver a petition to the Czar.

On the night of January 8, the St. Petersburg Committee of the Russian Social Democratic Labor Party (where the Bolsheviks, Lenin's followers, were the leaders) got together at the Russian Academy of Arts. It decided that since it was impossible to prevent the workers from going to the Winter Palace, the Bolsheviks should participate and use the situation for the political enlightenment of the workers. If necessary, they could take over the leadership of the demonstration against autocracy. The committee ordered all party members to be in their districts together with the workers by 6:00 A.M. on January 9.

January 9 began with church services calling for blessings on the Czar. Gapon himself conducted such a service in the chapel of the Putilov Works. After the service, the workers, carrying crucifixes, icons, church banners and portraits of the Czar and Czarina, set out for the palace. They walked with their wives and children, singing "God Save the Czar" and "God Save Thy People."

But there was no Czar waiting for them in Palace Square; he had left for his residence in Tsarskoye Selo the day before. Instead, they walked past infantrymen, guards, dragoons and Cossacks stationed at all the bridges across the Neva and in the main streets leading to the palace. A 10-year-old boy carrying the portrait of Nicholas II walked at the head of the procession. Suddenly, on a signal, there was a rifle volley, and the boy fell, riddled with bullets. Another volley left the streets covered with corpses and the wounded. The snow was red with blood. Pleas, groans, curses and shots rang in the air. The soldiers shot at the people lying wounded. Those who ran helter-skelter were shot in the back, trampled to death by horses, speared by lances or slain with swords. The Cossacks lassoed running people and then spurred their horses to a full gallop, dragging the victims behind.

Maxim Gorky described the day's events:

> The crowd fell back and stopped as though paralyzed. Then a wild wail broke from hundreds of throats. The wail rose and floated in the air, expressing pain, horror, protest, bewilderment—a call for help.

According to official, greatly minimized data, 96 persons were killed and 330 were wounded that day. However, journalists made up a list of 4,600 killed and wounded, which they submitted to the Ministry of the Interior. Lenin commented:

> Of course, even this figure cannot be complete, since it would be impossible even in the daytime (let alone at night) to count all the killed and wounded in the various clashes.

On January 9 a foreign correspondent was recording the developments in St. Petersburg: "It is 1:00 P.M. The crowd was halted by a big detachment of infantrymen, uhlans and Cossacks. The leaders of the strikers are addressing the soldiers and exhorting them not to shoot at their brothers. The infantrymen lower their rifles, but the uhlans and Cossacks follow orders and are pressing the crowd back with swords. There are many wounded. A military band is playing.

"2:38 P.M. The shooting continues. Thirty people have been wounded and crushed by the Cossacks on the Shlisselburg highway.

"2:53 P.M. The crowd in Palace Square has been dispersed, and the troops are pursuing it. One hundred and fifty have been killed or wounded. There are many women and children among the dead.

"3:35 P.M. The people are organizing armed resistance, putting up wire fences in order to hinder cavalry attacks.

"3:40 P.M. The crowd dispersed in Palace Square is retreating. The troops fired three times in its wake. There are 30 killed and many wounded. The crowd is extracting cobbles from the road and throwing them at the officers.

"4:00 P.M. The strikers are building barricades out of the telegraph poles that they have toppled.

"5:30 P.M. The barricades are ready, the crowd refuses to disperse despite repeated volleys from the soldiers.

"8:00 P.M. The evening show at the Alexandrinsky Theater stopped after the first act because, during the interval, somebody in the stalls addressed the audience and told the people of the events of the day, indicated the number of killed and wounded, and voiced the opinion that it was a time of mourning and not amusement.

"11:00 P.M. The firing continues. The workers are burning the telegraph poles.

"1:10 A.M. Shooting was still heard at midnight. The barricades were scattered by the soldiers and 30 workers were killed in the process."

On the night of January 9, Nicholas II entered in his diary:

> It was a hard day. There were serious disturbances in Petersburg on account of the workers' wish to march to the Winter Palace. Troops in different parts of the city were forced to shoot and there were many killed and wounded. My God, how painful it all is.

The closing phrase was undoubtedly designed for future generations. The Czar found other words for the soldiers of the Semyonov regiment who had "distinguished" themselves in the shooting. He said:

> I thank you, my dear Semyonovites, from the bottom of my heart for your service. Rebellion has been put down thanks to your gallantry, staunchness and loyalty.

The next day the workers continued to build barricades out of telegraph poles, lampposts, gates, trees, garden benches, furniture and sledges. Those were the first barricades in the history of St. Petersburg, and red banners flew over some of them. The general strike continued and gained strength.

In only several hours a peaceful crowd became an insurgent mass. The workers who seized a private printing shop in the center of the city issued 10,000 copies of the first revolutionary leaflet:

> To arms, Comrades! Seize the arsenals, ammunitions dumps and weapons shops. Break down the prisons and free the champions of freedom. Destroy the police and secret police stations and all government establishments. Let us overthrow the Czar's government and establish ours. Long live the revolution, long live the Constituent Assembly of the People's Representatives!

The workers began to take up arms.

On January 9 Gorky wrote in a letter: "The workers showed a great deal of heroism, but it is still the heroism of victims." After January 9 the heroism of victims turned into the heroism of revolutionaries because Bloody Sunday triggered the people's revolution, the first in Russia's 1,000-year history. The revolution, whose advent Lenin predicted more than once, became reality. "The Russia of January 10 is no longer the Russia of January 8," he wrote. An armed uprising became the order of the day because it was impossible to overthrow autocracy in any other way.

By Yevgenia Albats
Photographs by Vsevolod Tarasevich

THE VOICE OF HISTORY

"The conscience of Russian intellectuals" is a description Academician Dmitri Likhachev tries to deserve. The very problems he deals with make his works public events.

His popularity is enormous. At least 150 million TV viewers were watching when Soviet television covered Academician Dmitri Likhachev's meeting with his readers and fans. The large TV studio in Moscow where the event took place was packed to capacity. A few days after the program went on the air, the station began to receive bags full of letters from viewers who wanted to see the video tape again. As a result, the program was shown three more times. When Likhachev spoke at the huge Leningrad Youth Center, the event was sold out.

Likhachev, who is 80 years old now, is a scholar, not a public speaker. He talks about serious things in a soft, slightly shy voice.

His specialty is medieval Russian literature, and he is the leading scholar in this field. He is the author of two dozen books and a member of several foreign academies. He has received honorary doctorates from Oxford, Edinburgh, Zurich and Bordeaux universities.

But his fame, to which he is quite indifferent, goes beyond professional recognition. It can be attributed to the public's interest in him as a person, an interest aroused by his acutely polemical rather than academic papers and speeches. The very problems he deals with make his works public events. His range of interests is immense: preservation of old Russian traditions, restoration of architectural sites, the problem of "fathers and sons" in science, respect for the national dignity of all peoples. It is hard to enumerate all the issues Academician Likhachev is interested in. It is just as pointless to wonder why he concerns himself with these issues instead of limiting himself to purely professional matters. Poet Andrei Voznesensky, speaking at the latest Congress of Soviet Writers, called Dmitri Likhachev "the conscience of Russian intellectuals."

"Books and friends are the best things in my life," asserts Likhachev. He has written two dozen books on many subjects, but his specialty is medieval Russian literature.

Considering your age, how do you manage to cope with everything?

I don't, I'm sorry to say. I have to take it easy. When I'm tired of working on my book, I turn to an article for a magazine, and when I'm tired of writing the article, I go back to my book. Exercise and recreation, you say? Yes, I'm a short-distance runner, or sprinter, as they put it. I run from my desk to the phone in the adjoining room and back. Seriously, I think that a person should do plenty of intensive work. Idleness spoils a person. To think, to analyze and to create are not only the privilege but also the duty of Homo sapiens. The "biological" mode of existence is a sign of moral degradation. I'd say it's immoral.

You might find it too old-fashioned, but I'm rather conservative myself: I've worked at the Institute of Russian Literature for nearly 50 years. I married once and for good. I've lived all my life in Leningrad, and I have devoted my entire being to different aspects of medieval Russian literature.

Why did you choose medieval Russian literature? How did you happen to single out philology and history as a career? Was it a tribute to the family tradition?

It wasn't, as a matter of fact. My father, my brothers and even my uncles were electrical engineers. I was the only member of the family who chose philology as a career, which upset my parents very much. Yet when I was a child and later, in my teens, I mixed with artistic people. When we moved to our country house in Kuokkala, near the Gulf of Finland, I saw many renowned writers visiting the Penaty, a villa owned by our great national artist, Ilya Repin. The writer Kornei Chukovsky took us children for sleigh rides. We lived not far from the theater where Vsevolod Meyerhold staged his first performances. I was a little boy then, and I was unaffected by the glamor of those famous names. Those people were just interesting adults as far as I was concerned. The school to which my parents sent me was famed for the standard of its language, history of arts and literature classes.

In short, my choice of the philological faculty at Petrograd [now Leningrad] University was predetermined in a way. At first I decided to specialize in Anglo-Saxon and medieval English literature. I was also enthusiastic about Mr. Claire, who wore a Red Army uniform—it was 1923—and delivered lectures on the English language to us. Once I enrolled in an elective course on old Russian literature, and that determined my life.

As I see it, your interest in medieval literature is not purely academic. I'm sure it's no accident that all your papers, even the most specific ones, have a broad humanitarian message and that all your public speeches are threaded with the theme of historical memory. Your interest is ethical, isn't it?

I'm glad you've mentioned the ethical issues because they have been at the center of everything I've written and spoken about all my life. Medieval Russian literature focuses on personality. It strives to understand it, to share human pain and to raise basic moral issues. From time immemorial it has reminded us of important things that we tend to forget in our intoxication with our own technological progress. Obviously, that explains the growing public interest in medieval Russian literature. Fashion? Probably. Incidentally, if a fashion is sensible, I'm all for it because it proves that humankind's tastes and moods are more or less universal.

People all over the world show a keen interest in their history, in their roots, because they yearn for cultural stability—"inner comfort"—or wish to find their own place in our complex world. Just think of the tremendous public interest in *The Lay of Igor's Host*, a masterpiece of our national literature. In 1985 the whole world, following a UNESCO resolution, celebrated its 800th anniversary. Imagine a book that remains exciting 800 years after it was written! It is remarkable that the worst—in the broadest sense of this word—is never inherited: Devoid of a solid national background, it is easily invented and quickly forgotten. The best traditions are immortal. Art masterpieces embody the people's spirit—that's why they outlive their epoch and feed the culture of many more centuries to come. Like history, they have a lesson to teach the present generation. They help people to tell Good from Evil. This also applies to our ancient literature: It never imposes ready-made solutions on us; it always offers a choice.

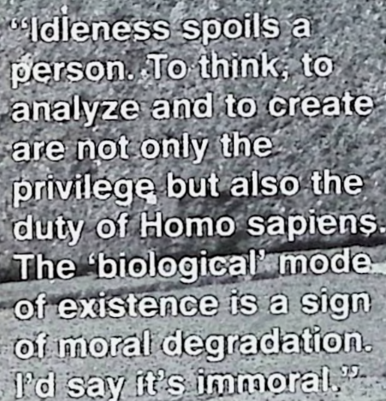
Don't you think that the very concepts of Good and Evil are different at different times? Aren't they subordinated to history's laws?

I don't claim to be the ultimate judge, but I do believe that ethical laws are universal and eternal. The absolute ethical value, or supreme ideal to which a civilized person strives, is constant.

The world around us and the people in it are not ideal, but that's another matter. The absolute, therefore, exists side by side with many relative concepts—for instance, different moral standards in different social systems. However, the class approach cannot deny humanitarian, "eternal" values. People in all eras have despised treachery, betrayal and baseness, and they have respected humaneness, friendship, compassion and eagerness to help. This idea runs through all Russian literature, from the 800-year-old *Lay of Igor's Host* to the best fiction of our times. From the very beginning our national literature has asserted the idea of fraternity and equality of all nations, which create human history all together.

I recall your famous "Notes on the Russian," in which you wrote: "Conscious love of one's own people is incompatible with hatred for others," and "A great nation, a people of great culture and with an authentic tradition of its own, is bound to be kind, especially if its destiny is linked with that of a small nation. The great nation must help the small nation maintain its identity, language and culture." Is that the same eternal value, an element of the absolute principle that you just mentioned?

Certainly. The power of moral conviction is unlimited: I can make this claim because I survived the Leningrad blockade during World War II. I realized that only people strong in spirit, not necessarily the physically fit, survived the siege. The 900-day blockade seemed to divide all people into the staunch and the lacking in spirit: The morally stable did their best to help others, surviving only if they did. As for the morally degraded—they did exist, you know—they kept thinking of themselves and therefore degenerated mentally. That moral degradation turned out to be irreversible: Even if such people did not fall prey to famine or air raids, they continued deteriorating even when the war was over. It is natural, you know: Morality is an ethical category. It is impossible for a person to be nice and good today and do something dishonest tomorrow, no matter how drastically the circumstances change. This simply cannot happen, and it should not happen. Man must always strive to attain the highest of moral standards—the greatest Russian thinkers have written about that. That's what gives us strength, too. It was no coincidence that



the front liners in World War II were so keen on Leo Tolstoy's *War and Peace*.

So it was not a coincidence that in the grim winter of 1941-1942 you wrote and published your book *The Defense of Medieval Russian Towns* and then started another, on medieval Russia's national awareness?

In the autumn of 1942 my book *The Defense of Medieval Russian Towns* was distributed to soldiers at the Leningrad front.

To a certain extent, my writing kept me alive. I was so emaciated that I couldn't walk any more, and my wife had to go and get bread on our ration cards. Another striking circumstance: The book was printed by famished, emaciated people who knew that it would help the front liners. *The Defense of Medieval Russian Towns* was published in a print run of 10,000, an enormous quantity for a besieged city.

People often ask you what you think a well-rounded intellectual should be like. Will you please tell us how you respond?

I can't remember the author of the statement that is so dear to me, but the idea is that a miser can pretend to be generous and a bad man can pretend to be a gentleman, but it is impossible to pretend to be a well-rounded intellectual. One must *be* it. How can a person become an intellectual? Knowledge and education are, of course, essential, but they are not the main thing. The amount of information an individual learns is of secondary importance—I'm sure everyone has encountered educated ignoramuses. One must have the right social mentality, and that's the most significant component of a well-rounded intellectual. By this I also mean the ability to understand people of different cultures and outlooks, to accept the ideas expressed by both associates and opponents, to be capable of appreciating all trends of art and to be intellectually sensitive. A well-rounded intellectual cannot even think of being inconsiderate of another person, no matter what.

I'm sure that your literary interests aren't limited to medieval Russia. Which of the contemporary Soviet authors do you prefer?

I like Fyodor Abramov, Valentin Rasputin, Victor Astafyev and Daniil Granin. I've always been fond of Mikhail Bulgakov. In anticipation of your next question, I'll say that the character Begemot in Bulgakov's book *The Master and Margarita* is my favorite.

What is your favorite theatrical genre?

I am a great admirer of classical ballet.

And what about the movies?

I'm not a fan, though I was fascinated by neorealism some years ago. What attracted me was the unorthodox approach to man and the unexpected human relationships. That's what Italian neorealism has in common with medieval Russian literature—don't be surprised! Actually, I'm interested in the interaction of different arts. Take gardens, for instance. A beautiful garden is an art; landscape gardening reflects a certain period, style and tradition.

Frankly, your readers were somewhat surprised by the title of one of your latest books, *The Poetry of Gardens*.

That's great! They got used to the idea that Likhachev was an expert in medieval Russian literature, and I've taken them by surprise with a book on the history of landscape gardening. You see, a person of my age cannot stand still: I must overcome my conservativeness or I risk becoming just a mouthpiece of my own ideas. If that were to happen, all I'd be able to do is defend my old ideas and maintain my reputation as an expert.

Do you ever feel old?

Only when I'm reminded of my age. ■

LENINGRAD

Chronicle of a Day

During the time it takes for the hands of the clock in the Peter and Paul Fortress to measure out 24 hours, many events, great and small, personal and public, take place in Leningrad. We could take any day at random and record by the minute and the second everything that happened in that 24-hour period. However, we will content ourselves with describing the events of one day in Leningrad by the hour.

A new day is just beginning, and a new Soviet citizen has been born in Maternity Home No. 15. Tatyana Nikolayeva, 25, a music teacher, gave birth to her third child—a son.

About 200 babies are born every day in Leningrad, and the population of the city reached 4,909,000 on July 1, 1986.

1:00 A.M. *The Baltika bakery begins delivering bread to the shops.*

By the time the shops and canteens start to open, Leningrad's 14 bakeries will have delivered about 500 tons of 30 varieties of bread and rolls.

2:00 A.M. *The Dvortsovy (Palace) drawbridge over the Neva is raising its two 25-meter spans, and caravans of river vessels begin sailing down the river, the city's main waterway.*

Leningrad is situated on 42 islands in the delta of the Neva River. It is crisscrossed by 93 rivers and canals whose total length is about 300 kilometers. They are spanned by 312 bridges, 19 of which are drawbridges.

3:00 A.M. *The metalworkers of the Izhorsky Heavy Machine-Building Plant are producing their last rolled stock on the old 4,000 rolling mill.*

This type of mill used to predominate in our national metallurgy. The more powerful 5,000 rolling mill has replaced the older variety.

4:00 A.M. *More than 500 street cleaners drive out into the streets, avenues and embankments.*

The city's 1,800 streets total 2,000 kilometers in length. The longest avenue measures 9.7 kilometers. The vehicles wash and sweep the streets and take away garbage. The city will be sparkling clean when its residents and visitors wake up and come outside.

5:00 A.M. *The first streetcars, trolleys and buses start running, and the Metro opens.*

Urban transport carries more than 11 million passengers every day. Its fleet is huge, consisting of 1,700 streetcars, 800 trolley buses, 2,200 buses and more than 5,000 taxicabs. The fare on all types of urban transport, with the exception of taxis, is five kopecks,* regardless of the distance.

6:00 A.M. *The passengers take their seats in a Pan American Boeing-747 heading for New York from Leningrad's Pulkovo Airport.*

Today this city on the Neva has direct air communication with 200 cities in the Soviet Union and about 30 cities in 20 other countries. Leningrad welcomes up to two million tourists a year, half of them from abroad.

7:00 A.M. *The Electrosila Plant starts shipping a one-million-kilowatt, four-pole generator for the Zaporozhye Hydroelectric Power Station in the Ukraine.*

Electrosila is one of the top five electrical machine-building firms in the world and is the leader in the manufacture of hydroelectric generators. A total of 36,600 kilowatts of generating equipment is produced in Leningrad every day.

7:20-8:00 A.M. *Mothers take their youngsters to day-care centers.*

Leningrad has more than 1,800 day-care centers, which accommodate 273,000 youngsters. Parents who do not have to go to work today can keep their off-

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*One kopeck is equivalent to approximately 1.20 cents (U.S.) at the official rate of exchange. There are 100 kopecks to one ruble.

The new day begins with the birth of a new citizen. Above: The nightly raising of Leningrad's drawbridges is a favorite local attraction. Above left: The rising Sun glints off the statue of a bronze schooner in the square in front of the new Leningrad Hotel.

Glimpses of the City

St. Petersburg's Very First House

Army carpenters built this cottage for Czar Peter the Great late in May 1703, within the first month after the Czar broke ground for the new Russian capital. Peter wanted his new city built all of stone, so the house was painted to imitate brick. Peter used it as a temporary summer residence. The cottage was so small that he had to bend low to enter: The height of its tallest entrance was 182 centimeters, and Peter himself was 204 centimeters tall. Because it was built right on the bank of the Neva and thus often suffered from the river's spring flooding, the building was subsequently protected by a stone facing. Since 1930 it has been a museum.

Terpsichore Street

Rossi Street looks like a stage made up of two white-columned buildings linked by a theater façade that forms the backdrop. The ensemble was designed by the famous Italian architect Carlo Rossi. Although the street was named for its architect, it may well deserve to be called Terpsichore Street, in honor of the Muse of the dance: The 250-year-old Leningrad A. Vaganova State School of Choreography, Russia's first ballet school, occupies one of the buildings. Among the school's graduates are such ballet stars as Anna Pavlova, Galina Ulanova and George Balanchine. The school currently has 500 students—future ballerinas and danseurs from all the constituent republics of the Soviet Union.

The Summer Garden

In 1704, when St. Petersburg was barely a year old, the city's first park was planted on an island at the juncture of four rivers—the Neva, the Fontanka, the Moika and the Lebyazhya Kanavka. The Lebyazhya Kanavka (Swan Stream) was named for the swans that lived there. The park was designed and decorated by the best Russian architects and artists, but it also had 79 statues brought from Italy, which are still in the park. Only one large oak tree remains from Peter's time, but the park has 2,386 other trees.

LENINGRAD ACCELERATION: THE TRADITIONS, QUESTS, AIMS

When Leningraders say, "We know the price of peace," it is not a slogan and not just words. It is the memory, paid for with the sacrifices of each family, of World War II.

Yuri Solovyov has been associated with Leningrad for many years. He graduated from Leningrad's Institute of Railroad Engineers, started out as a shift supervisor for Subway Line Building, and rose to become head of the Leningrad Metro Construction Board. In 1973 Solovyov was elected Deputy Mayor of Leningrad. In 1985 the Communist Party of Leningrad entrusted him with the post of First Secretary of the Leningrad Regional Party Committee. Solovyov is a war veteran and a deputy to the Supreme Soviet of the USSR.

Q: The Soviet press has used the term "Leningrad acceleration." Does this term imply that the region has chosen its own particular route of economic devlopment and the solution of social problems?

A: In all phases of socialist construction Leningrad has been given a conspicuous role in meeting the challenges before our state. In the mid-1920s, for instance, the country embarked on industrialization—a difficult task, whose results would determine the positions of the new social system, its economic independence and might and its prestige on the international scene. The country's wounds, inflicted by internal and external counterrevolution, the Civil War and intervention, were still far from healed. Under these conditions, the distribution of responsibility was unequal, and the greater responsibility fell on Leningrad.

In a comparatively short time Leningrad launched new industries that benefited the whole country—such as the production of hydraulic turbines and tractors—and initiated whole research areas that ensured the swift development of leading branches of manufacturing.

The following figure is eloquent: In the year preceding nazi Germany's attack on the USSR in June 1941, Leningrad factories turned out 50 per cent more goods than the whole of prerevolutionary Russia had produced in 1913.

Everyone knows how badly our city suffered during the war, but as early as 1948 the volume of Leningrad's production had returned to its prewar level.

Each new economic plan not only was for Leningrad a peak to be scaled by an all-out effort—it also provided the impetus for a constant search for promising solutions that helped to fortify the economy of the region and to develop its social infrastructure. Today factories in Leningrad Region account for three per cent of national manufacturing output. Every tenth scientific worker in the country is in our work force, and we provide higher education for about five per cent of the specialists for the entire national economy.

At present Soviet society is at a turning point in its development. The Twenty-seventh Congress of the Communist Party of the Soviet Union has formulated the crucial, historic task: to almost double the national income by the end of the century by doubling the production potential and changing it qualitatively. The goals are large, but quite achievable and realistic. However, in order to turn the energy of plans into an energy of concrete actions, the country needs innovative approaches, a readjustment of the thinking of people at all levels. This is exactly what the Leningrad Party Committee, the Soviets, the trade unions, the entire city are now working on. The traditions remain the same—not only not to fall behind the times, but also to get ahead, to orient ourselves constantly to the requirements of tomorrow.

Q: How can this be achieved? What levers are to be used for such a sharp acceleration of the forward movement?

A: First of all, we have accomplished a timely restructuring of the large scientific, technological and industrial potential of Leningrad and the region by focusing on the specialization and concentration of production. This has laid the economic foundation, which we believe will serve as a reliable basis for further development. More than 170 scientific-production associations currently operate in Leningrad Region, accounting for about 70 per cent of its total output. Such associations help to firmly link the achievements of science with practice, and in a number of instances they more than halve the time required to develop, adopt and master new equipment.

In addition, the region has hundreds of research and development organizations and more than 40 higher educational institutions, which also make a substantial contribution to the development of the main branches of Leningrad's industry: machine building, shipbuilding, instrument making and a number of others. As we got down to the solution of qualitatively new tasks, we clearly realized that we needed to pool the efforts of all these enterprises, associations, organizations and institutions for this purpose. We believed that we would thus ensure more rapid development of the priority areas of science and technology, on which economic growth rates primarily depend.

And such an effective tool for the management of scientific and technological progress has been found: the territorial-sectoral program Intensification-90, called upon to impart dynamism to the region's development. It envisages a considerable increase in automation and computerization, introduction of new generations of equipment and promising technologies, improvements in output quality and more economical use of resources.

The first results are encouraging. Compared with the initial stage of the previous five-year plan period (1981-1985), we have raised the average yearly growth rate of productivity by 50 per cent. The share of top-quality goods has increased, and it has increased primarily in machine building, which is very important. The expenditure of materials on the production of goods has been reduced, and the number of workers engaged in manual labor has decreased.

But, as analysis has shown, the reserves are far from being fully tapped. More effective utilization of the available production capacities and orientation not so much toward new industrial construction as toward the updating and retooling of existing plants can be instrumental. Our proposals on this account have received full support from the government and are now being realized.

At the same time, Intensification-90 is not only an effective tool of technological policy. It upgrades the thinking, commitment and responsibility of workers at all levels. How fast we shall achieve a full-scale turn to production intensification depends on how much enterprise, constructiveness and operational independence each person shows.

Q: Does such an approach to the solution of problems require a further democratization in the factories and in society as a whole?

A: Of course. The purpose of the changes is to develop management not only oriented to the interests of working people, but also increasingly exercised directly through the workers themselves.

Apart from the Soviets of People's Deputies, which have been granted the broadest rights and powers in making managerial decisions, this plan involves the drive to ensure that everywhere, beginning with their own workplaces, ordinary citi-

Yuri Solovyov, Alternate Member of the Politburo of the CPSU Central Committee and First Secretary of the Leningrad Regional Party Committee, is interviewed by SOVIET LIFE magazine.

zens are able to influence the solution of production and social questions and that they play a much greater role in the life of the state.

The example of primary work groups or teams, of which there are more than 100,000 in Leningrad and its region, illustrates this very well. Each team plans and organizes its work. The team independently distributes earnings among its members based on the amount of work each one does. Moreover, without a team's consent the management of a factory, plant or construction site cannot solve personnel or other questions.

Another example is the economic experiment carried out at Leningrad enterprises to perfect work remuneration for design and process engineers. The enterprises were allowed, while keeping the over-all pay fund, to determine independently the optimal number of people to cope with the tasks set. This helped to identify considerable reserves of personnel and production and to optimize personnel quotas. Enterprises were able to offer jobs in other places where there was a shortage of specialists to those who had been released, and to raise the material incentive of each worker.

In the enterprises where the experiment was conducted, not a single engineer or designer has shirked an active part in the program.

This is what we are striving for—to ensure that restructuring should become everyone's concern. Here it is impossible to do without truly democratic changes, without the promotion of socialist self-government, which gives a powerful incentive to the activity of citizens.

Q: How does the Regional Party Committee take account of the views and suggestions of work collectives and individual citizens in its activity? Do people write and come to Smolny, where the committee works?

A: Of course they do. Without such feedback we could not begin to do our work. Each year thousands of Leningraders come and write to us on the most diverse questions, from personal cares to problems of social importance. Their suggestions, requests and complaints are attentively studied and analyzed. They help us to make major decisions.

Leningraders pioneered comprehensive plans of social and economic development at the enterprise level—that is, plans of factory and plant activity that encompass not only production, but also personnel welfare problems. The plans determine not only what employees should do, but also what they have the right to get—meaning, apart from pay, the conditions of work, life and recreation, and health protection. Every enterprise and every district now has such plans, which originate in basic production groups and become part of the factory-wide plan. This ensures the correlation of planning at the most diverse levels, up to regional. The proposals "from below" are thus brought together into a single whole "at the top."

Let me cite the following example. A lot of housing construction is under way in our country. Quite often a home will be ready for occupancy, but social facilities such as kindergartens, shops and health centers have not been erected nearby. Naturally, the relocated people, even when they get a very good apartment at no charge, are dissatisfied. In consideration of citizens' wishes, therefore, we have decided to accept new housing from builders only as part of a town-building project, complete with social facilities.

Responding to the wishes of Leningraders, the Regional Party Committee called upon enterprises to expand their social infrastructures more rapidly. We can already speak of results. For example, the Lenin Optical-Mechanical Plant, which is internationally known, now possesses its own vacation boarding houses for workers, including a Black Sea health resort, as well as county houses and recreational centers near Leningrad. They accommodate up to 10,000 people a year, and the accommodations are normally provided to workers at just 30 per cent of the cost or altogether free. The plant also has its own kindergartens, nursery schools and summer camps for workers' children. It has built a hospital and a health center and it has opened a network of semi-prepared food shops. Many other Leningrad enterprises are taking similar steps for the workers' welfare.

I could cite many such examples, and I repeat that our committee constantly takes into account in its work citizens' proposals and letters. Not a single one of them remains unattended, though of course not all the requests can be satisfied, not all the questions can be solved at once.

Q: The accelerated growth of the economic potential in any large city is bound to entail complex social problems. How are they being solved in Leningrad?

A: The problems are many. But success in carrying out large-scale economic programs depends directly on a flexible and purposeful social policy that takes full account of people's requirements and interests. Only by creating optimal conditions for work and for meaningful recreation, by constantly developing the social infrastructure, can we hope for radical improvements in economic activity.

In drafting basic development guidelines for Leningrad and the region we have treated economic and social problems as a single unit. Moreover, we have attempted to achieve a complete harmony of economic plans and town-building projects. I think that the new master plan for Leningrad and the region for 1986 to 2005 meets these requirements. On the one hand, it helps to ensure the solution of key tasks in creating and mastering new equipment, in raising the quality and competitiveness of our products, in building up capacities in the giant associations and in liquidating a number of small enterprises. On the other hand, it views these objectives from the perspective of balanced and dynamic growth of the region as a whole and of required social transformations.

For example, the plan envisages a significant increase—up to 80 per cent—in capital investments to retool and update existing production capacities. We have to update and retool 35 factories and plants, 76 facilities and 108 shops and sectors before 1990. Does this imply a solely economic focus? By no means! The aim of such renovation is not just to raise productivity and to improve output quality, but also to improve the conditions in which people work.

The plan also recognizes the ecological problems of a large city. The master plan calls for the complete purification of all effluents discharged into bodies of water in the next 10 years. Consequently, a portion of the funds for plant reconstruction is earmarked for the establishment of environmental protection systems.

Implementing the building program will enable us to augment our production capacities and harmoniously develop the social infrastructure. This will better satisfy the growing material and spiritual requirements of citizens and ensure higher standards of medical, trade and transport services to the public. Briefly, the social promise of the master plan is that in the near future our beautiful Leningrad will become still more attractive for its residents and will contain the best conditions for personal self-fulfillment.

This is how it must be. The October Socialist Revolution was accomplished for the sake of the people, for their full and happy life. We are preparing to mark the seventieth anniversary of the Revolution in 1987. To Leningrad and its residents this national holiday is especially dear: Our city was the cradle of the Revolution. The Revolution was prepared here, its main events took place here, Soviet government was proclaimed here, and the first act of our state—the Decree on Peace—was promulgated here.

When Leningraders say, "We know the price of peace," it is not a slogan and not just words. It is the memory, paid for with the sacrifices of each family, of World War II, of the 900 days of siege when more than 600,000 civilian residents of our city died of hunger and constant bombing and shelling. The memory and conscience of each of us demand that everything must be done to avoid a thermonuclear catastrophe. Conscience and memory induce us by our deeds to support the peaceful foreign policy course of the Communist Party and the Soviet Government. The nations of the world should know that preparation for war is not our policy, banking on an arms race is not our choice.

Today, extending an imaginary bridge of time from the past to the present, we see in the life of Leningrad the sources of the best traditions that were begun by the October 1917 Revolution. The most important of them is the striving for a peaceful, creative life worthy of human beings. ■

Smolny was both home and office for Lenin for 124 days in 1917-1918. Its buildings, designed by architects Bartolomeo Rastrelli, Giacomo Quarenghi and Vasili Stasov, were in the nineteenth century a high school for girls. On October 25, 1917 (November 7 New Style), Lenin arrived at Smolny. On that day Soviet power was proclaimed in Smolny's assembly hall.

LENIN AT SMOLNY

By Daniil Granin

Lenin in October 1917. Mikhail Sokolov.

Leo Tolstoy began but did not finish a piece entitled "Story of a Day Gone By," in which he was going to describe a single day in the life of a man. But the task proved too difficult even for Tolstoy. He had to give up his plan, realizing that he would not have the strength to write about everything a person experiences in a single day, and the world would run short of paper. I remembered that when I looked through the chronicle of Lenin's life at Smolny. It consists of hundreds of pages of closely written text enumerating what Lenin did in the 124 days he lived there. I was amazed at how packed his schedule had been.

I made a random choice and selected November 30, 1917. On that day Lenin wrote the afterword to the first edition of the book *The State and Revolution*. He chaired a session of the Council of People's Commissars (the first Soviet Government), which discussed the draft of an unemployment insurance policy, a report on the Military and Revolutionary Committee and other questions. He received a delegation of Petrograd workers from the metalworks and told them that the council would provide whatever was necessary for the enterprise to shift from wartime to peacetime production. That was followed by other work—writing articles, talks, meetings and more council sessions.

That was an ordinary day, and in it we find recorded only what historians managed to put together from documents, minutes of meetings and reminiscences. Besides that, Lenin must have had quite a number of impromptu encounters, talks and consultations; he must have made appointments, resolved issues on the spot and signed papers on the run.

Certainly every leader has a wide range of duties, but Lenin's duties were of a special nature. For the first time in history, a state of workers and peasants had been established, and Lenin was the first leader of the state. Everything had to start anew, as on the first day of creation. A new way of running the state had to be found, and the structure of the state had to be developed along new lines. No one had had any previous experience of this sort—neither had Lenin. The experience had to be gained along the way, during the first sessions of the Council of People's Commissars, in the hustle and bustle of Smolny's corridors, and instant decisions had to be made over the telegraph. Lenin's type of genius was best suited to this new system of state thought. A philosopher, politician and lawyer, he combined all the qualities necessary for a leader of the Great Revolution.

The first decrees (laws) of the socialist state began to appear—the Decree on Peace, the Decree on Land, decrees on the workers' control over production, on combating famine, on the new nationalities policy. The foundations of a new system were being laid at Smolny. To this day the structure of our state is based on Lenin's decrees. Our peace policy, our Soviet republics, our land policy all proceeded from Smolny, all began to take shape on ordinary pages torn out of copybooks and covered with Lenin's writing.

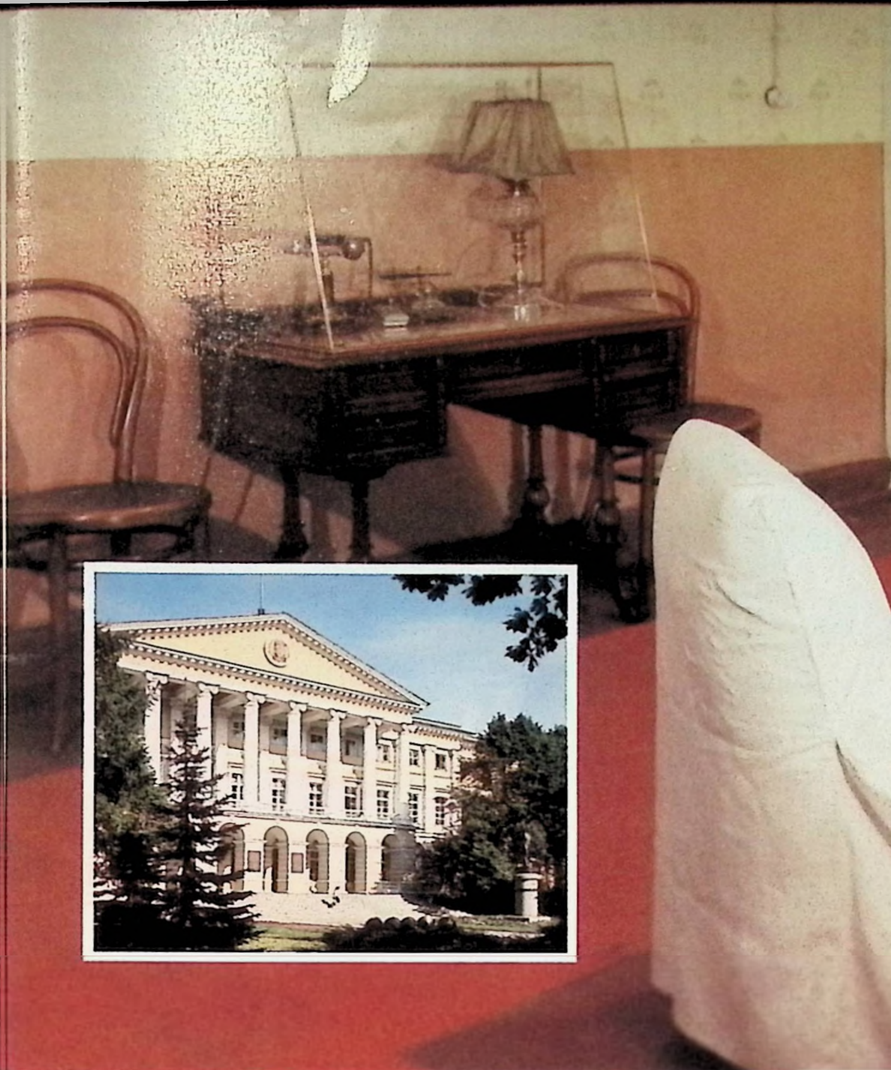
Lenin wrote about 200 articles and brochures and hundreds of documents in those 124 days. It is hard to imagine just the volume of this work. Even from a journalist's point of view it is vast indeed. Add to this his appearances at factories, reception of visitors, numerous meetings, reading of papers and reports, and it is impossible to imagine how he managed so much in 124 days.

Meeting Lenin changed people's views and lives. Hundreds upon hundreds of simple folk came on foot from all parts of Russia to see and to talk to Lenin at Smolny. Members of Western socialist parties, journalists, diplomats, scientists, generals, and workers and peasants delegations came too. Albert Rhys Williams, the American writer, who on one occasion had to wait in Lenin's reception room for several hours, called it "the greatest reception room in the world." The stream of visitors was unending. Some came to ask for advice, others for help; still others came with protests or petitions; some wanted their doubts dispelled; and some, the defenders of the Revolution, wanted to know how to serve it.

A lucky stroke of fate made Smolny the headquarters of the Revolution. The architectural beauty of the Smolny group is associated in my mind with the historic significance of the events that took place there. I can just imagine Lenin driving or walking up to Smolny and the tall and graceful cathedral appearing before him. The cathedral does not come into view gradually; it appears suddenly, and with it the stern façade of Smolny. The whole world watched Smolny, and out of its windows Lenin saw the whole of Europe, the whole world, shaken by the October Revolution.

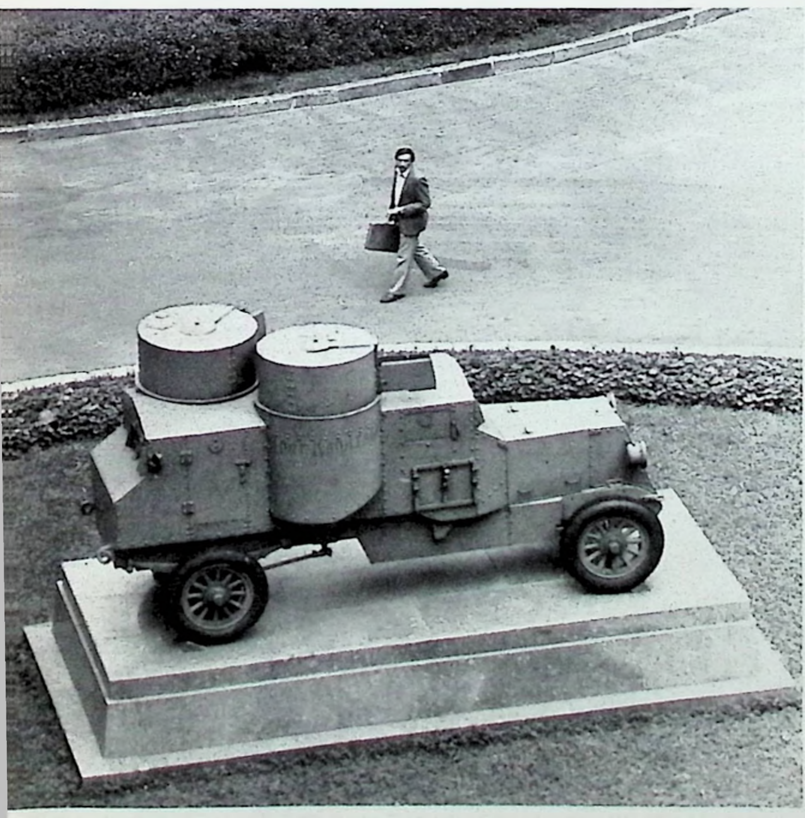
The 124 days that Lenin lived at Smolny were a special period in his life. The power of the Soviets and Lenin's program of action were triumphant. Looking through the chronicle of those days, I caught myself thinking how remarkable and how boundless was man's potential. How much lay behind the customary notion of genius; what a full life, what a staggering capacity for work. Lenin put so much resoluteness, kindness and foresight into everything he did!

The 124 days at Smolny were a natural and inevitable continuation of Lenin's entire struggle; they themselves signaled the beginning of a new era. Today had its beginnings yesterday, and tomorrow begins today, but we will always return to these first days of the new state. ■



Smolny was Lenin's home and office for 124 days after the Revolution. The rooms he occupied are now a museum, containing the original furnishings. A display in another room tells about Lenin's activities during the first months after the Soviet Government came to power. The remainder of the building houses the Leningrad Regional and City Committees of the Communist Party of the Soviet Union.

"Long live the Socialist Revolution!" Standing on the turret of an armored car, Lenin addressed these words to the crowd that met him at the Finland railroad station when he returned to Russia from Switzerland in the spring of 1917. The armored car was found and restored in the 1930s, and it has stood since then at the entrance to the Marble Palace, which is now the home of the Leningrad branch of the national Lenin Museum.



Aurora means "dawn." The ship that signaled the beginning of the October Revolution could hardly have been named more appropriately. On the night of October 25, 1917, the cruiser *Aurora* fired a blank shot from its six-inch cannon to signal the beginning of the assault on the Winter Palace, the seat of the provisional government. The *Aurora* was commissioned into the Russian fleet in 1903 and fought in the Russo-Japanese War. Anchored where the Bolshaya Nevka branches off from the Neva, it is now a Leningrad museum.

From the Finland station this steam locomotive, driven by engineer Gugo Yalava, took Lenin to Finland in August 1917, where he found temporary respite from persecution by the provisional government. In 1924 the Soviet Government gave this and other locomotives of the Finnish series to Finland. In 1967, on the fiftieth anniversary of the October Socialist Revolution, the Finnish Government returned this historical relic to Leningrad as a gift to the Soviet people. It is carefully preserved in a glass case at Leningrad's Finland railroad station.

Despite its impressive size, the Kirovets is highly maneuverable and can be used as a cross-country vehicle. Its rubber tires are soft enough not to damage the road, and its 16 forward and 8 reverse gears make it a versatile machine.

By Yuri Kirillov
Photographs by Vsevolod Tarasevich

KIROV PLANT YESTERDAY AND TOMORROW

A 1924 newspaper photograph shows the first tractor built by Krasny Putilovets.

Victor Fenochkin, a team leader at the Kirov Plant, and Mikhail Gorbachev, General Secretary of the Central Committee of the Communist Party of the Soviet Union, drove a new K-701-M tractor together. This happened in May 1985 when Gorbachev visited industrial enterprises in Leningrad. At the Kirov Plant he was told about a new tractor that had just been tested. The state commission unanimously concluded that the new machine was up to the highest international standards, even surpassing them in some respects.

The plant workers invited Gorbachev to a workshop where the first models of the new tractor were being assembled. Quite unexpectedly, Gorbachev climbed into the cab of a tractor, shook the driver's hand and took the seat next to him, saying: "Brakes in order?"

"Of course," replied Fenochkin.

"What's the matter then? Start the motor!"

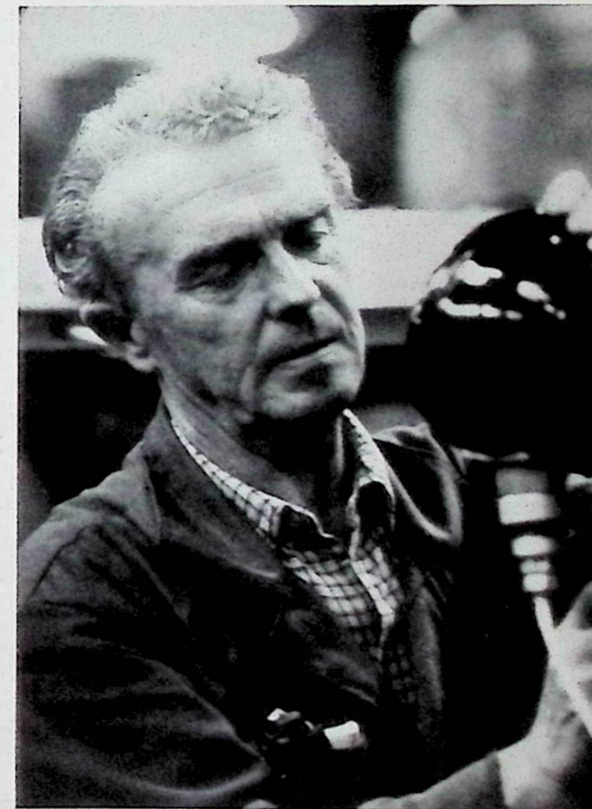
The powerful machine started smoothly, rolled out into the workshop yard, went around the yard and stopped.

"How is it?" asked Gorbachev.

"It's an excellent machine, but frankly, it can still be perfected."

"Well, think it over and make it really perfect. That's what we expect from our plant."

Continued on page 21



Left: Alexander Savin (right), the Kirov Plant's chief tractor production designer and a winner of the USSR State Prize, confers with colleagues about the new model tractor, the K-701-M. Above left: Vladimir Fedotov trained in the plant's vocational school as a fitter. Above: Vitali Melnikov, a team leader on the main assembly line, is the father of one of the plant's dynasties: His wife, his two sons and his two daughters-in-law work at the Kirov Plant.

Mikhail Gorbachev meets Leningrad workers.

"WE COUNT ON THE LENINGRADERS' EXAMPLE"

From the speech by Mikhail Gorbachev, General Secretary of the CPSU Central Committee, to the activists of the Leningrad Party Organization on May 17, 1985

This is my first official journey since my new duties were conferred on me by the decision of the Central Committee. I have not made an official journey to your city by chance: The political, socioeconomic and cultural role of the city and the region of Leningrad in the life of our multinational socialist state predetermined its selection.

I have had many important meetings and conversations with Leningraders during this visit—conversations with workers, scientists, experts, plant managers, organization and office heads, and meetings in factories, at construction sites, in research laboratories and in educational centers.

I have been greatly impressed as I've seen that the party cadres, managers, and research and engineering personnel so enthusiastically favored faster scientific and technological progress and economic growth and a shift to new lines—the lines of intensification. Particularly important is the fact that the staffs of factories, economic agencies and research units are now giving top priority in their endeavors to these trends.

A feature of the new stage for the city's industry is that young people have become actively involved in scientific and technological progress. In the sector of flexible production systems at the Kirov Plant, I had a conversation with a young worker. Even though it meant less in pay for him, he had gone over from another sector to one where the plant is installing robots and numerically controlled machining centers. Nonetheless, he did come here, anxious from the outset to be a participant in opening up this virgin land of science and technology, a noteworthy fact in itself.

I have found my meetings and conversations in Leningrad very useful. They have enabled me once more, through the example of the city and region, to check the approaches that are being taken by the Central Committee and the Soviet Government as a principle for our long-range economic strategy. I have found here new, strong arguments in favor of the correctness of our line. Many people in Leningrad think as we do. We have met these people not only among the leaders or those who participate in scheduled conversations, but also during many unplanned meetings.

I must say that the numerous meetings and conversations in Leningrad have a great political value for the Central Committee of the party. I could cite the many remarks, wishes and counsels Leningraders have offered the party Central Committee and the Soviet Government during these days: I take them as no less than a political mandate. When I asked, "What do you want the Central Committee to do?" a worker replied, "Keep up what you have begun."

But, Comrades, it is already obvious that the core of this policy will be the need for our swifter advancement, for more intelligent, more responsible, more disciplined work. More order, scientific quest and important decisions will be required, and so will an all-out marshaling of creative energies, an ability to do the job in a new way. This applies not only to the economic area but also to the social, cultural and ideological fields —in fact, to every sphere.

I think that Leningraders have been the most prompt to initiate such work in the best way. And they have done it without pretentiousness, but with real action. I want to wish you success in carrying it through, and we shall support you.

A great deal, Comrades, is being done in Leningrad, since it is a large center of high-quality engineering, power-machine construction, shipbuilding, radio-technical, instrument-making and other industries. Three hundred research, design, technological and planning organizations are concentrated here, and every tenth member of the country's work force in this category works in Leningrad.

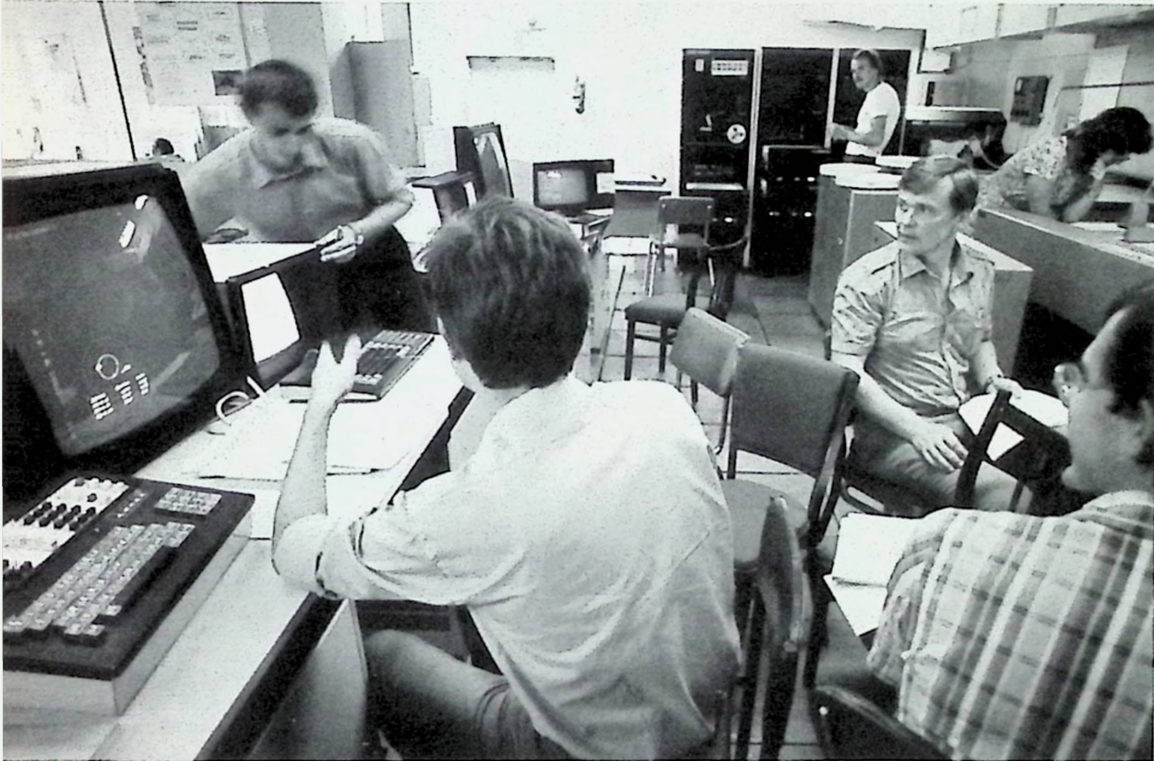
The characteristics of many of the ships, power plants, ferrous and nonferrous metal factories and chemical and petrochemical complexes being built in the country depend on the level of the plans emanating from the institutes and design bureaus. Conscious of this, the party organizations and personnel of your city and region do much to live up to their responsibility.

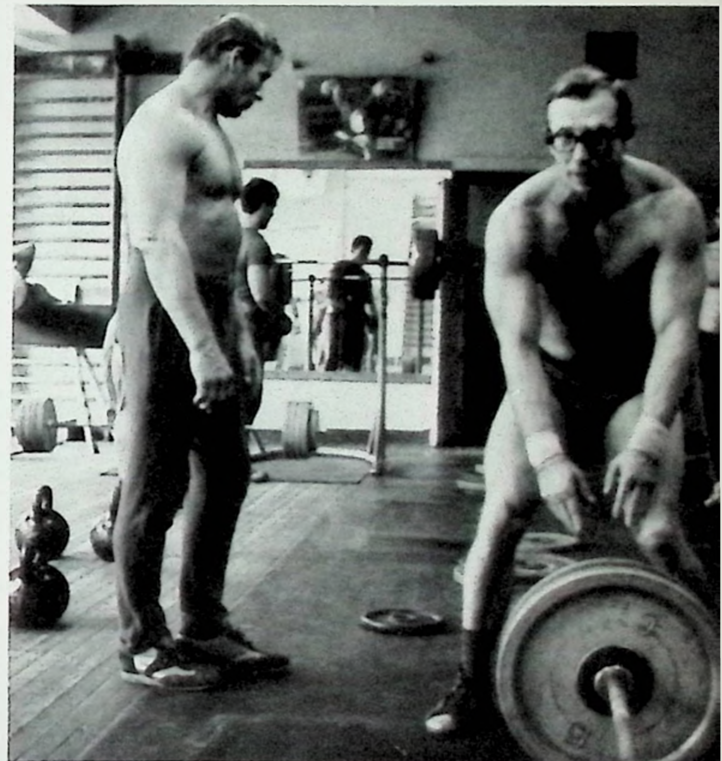
Our people value highly the Soviet country's achievements in all spheres of life. They raise the problems emerging in the course of our movement forward, and they are ready to participate actively in overcoming the difficulties, in solving the questions of economic and social development. At the same time, they are growing ever more intolerant—and I see this in my trips and in my communication with people—intolerant of abuse, of violations of law, of red tape, of parasitism, of drinking, of inefficiency, of overspending and of other negative phenomena.

An important current issue, Comrades, is the observance of moral standards, and rightly so. We must have one discipline for all, one law for all, the same demands on all and, most important, one yardstick of well-being for all, based on labor input—on the amount and the quality of work.

Soviet citizens strongly condemn manifestations of immodesty, ostentation, glorification. All this the party activists and cadres have to consider in their work. Be closer to the people; trust them more.

By the strength of our party, which is enormous, we must now galvanize the entire country to accomplish the new tasks set by the times. And in this regard, we count on the Leningraders' example. ■





KIROV PLANT *Continued from page 19*

It all took about 10 minutes, but the driver is not likely to forget it.

Established in 1801, the plant was bought by Nikolai Putilov in 1868 and named the Putilov Works. By the turn of the century, it had become one of Russia's largest machine-building plants, specializing in rolled metal, railroad cars, engines and ships. In 1905 a strike by the plant's workers set in motion the series of revolts against the autocracy that began with Bloody Sunday (January 9, 1905) and continued through 1907.

On the night of October 24, 1917, Red Guard detachments including the Putilov workers stormed the Winter Palace, where the Provisional Government was hiding. To defend Soviet power, they manufactured guns and armored trains.

Lenin wrote about the Putilov workers:

> Petrograd is not Russia. The Petrograd workers are only a small part of the workers of Russia. But they are one of the best, the advanced, most class-conscious, most revolutionary, most stead- ▶

Top: Nikolai Kurochkin, a driller, works in the press tool and jig shop. Above left: The young engineers in the design bureau's computer department are developing an automated design system. Above right: Oleg Ivanov (right), a milling machine operator, is an expert weightlifter. Right: Leonid Melnikov, like his father, works on the main assembly line at the plant.

Top: Nikolai Lebedev is a fitters team leader. Center left: Vladimir Yermakov puts the final "O.K." on the tractors—he test drives the K-701s. Center right: Ivan Timofeyev starts a tractor down the assembly line. Left: Konstantin Govorushkin (center) has worked at the plant for 53 years and has headed the Council of Young Workers' Mentors for the past 25 years.

fast detachments of the working class and of all the working people of Russia, and one of the least liable to succumb to empty phrases, to spineless despair and to the intimidation of the bourgeoisie.

After the October 1917 Revolution, the plant was known as Krasny Putilovets. In 1934 it was renamed for Sergei Kirov (1886-1934), leader of the Leningrad party organization, after his assassination. The local working class, including workers from the plant that now bears his name, helped him accomplish tremendous political, social and economic transformations during the eight years he led the city.

In 1925 Krasny Putilovets manufactured equipment for the Volkhov Hydroelectric Power Station, which played an important part in the country's industrialization. In the 1960s the plant produced the Penguin cross-country vehicle for exploring Antarctica.

Krasny Putilovets also was the first producer of tractors in the country—tractors were the workers' contribution to the reorganization of the country's agriculture—and they opened a new era in the plant's life.

In 1919 Lenin wrote:

> If tomorrow we could supply one hundred thousand first-class tractors, provide them with fuel, provide them with drivers—you know very well that this at present is sheer fantasy—the middle peasant would say: "I am for the communia" (i.e., for communism).

In the early 1920s several Fordson tractors bought for gold were delivered to Krasny Putilovets from the United States "to study their production forms and records for future design," as the official papers said.

Imagine a plant that had never manufactured tractors before with no engineers specializing in tractor production. In fact, they had to start from scratch.

Yet, in the spring of 1924, the first two hand-assembled tractors took part in the May Day procession in Leningrad. An old issue of *Leningradskaya pravda* described that event:

> Thousands of Krasny Putilovets workers and their families were ready to take part in the May Day celebration. The Sun was reflected in the shining instruments of the brass band.
>
> All of a sudden a clanging sound drowned out the marchers' singing and the music of the brass ▶

In the short term the plant will increase its production potential 1.5 times.

When the shift is over, workers leave the neat rows of tractors behind and head for home. Some, like the Melnikovs, have plots of land in the country. The plant has its own vacation sites for the workers near Leningrad and on the Black Sea.

band. Two tractors, their wheels grating on the cobblestones, emerged from the wide-open factory gates. The first machine was driven by the excited Konstantin Yakovlev. It was a moment of triumph.

The festive crowd accompanied the two tractors along the streets: No one had ever seen such machines before.

At last the new machines reached the center of Leningrad, Palace Square, which was the destination of the festive procession. Two workers carrying the slogan "Plow, Make Way for the Tractor!" walked ahead of the machines. That was, of course, a joke, but it had a serious implication, as Lenin's idea of producing 100,000 first-class tractors was to drastically change the peasant's mentality and outlook.

Lenin's foresight can be confirmed by an interesting document now kept at the plant archives. A group of peasants wrote to the workers about the importance of the first national machinery: "The board of the Krasny Khutor co-op thanks the workers of Krasny Putilovets for their Tractor No. 1, which is of great help to local farming. Thousands of peasants who gathered to watch the machine in action took it as proof of the workers' and peasants' union." Such a union was then understood as the two classes' cooperation and mutual aid.

Actually, the Putilovets workers helped boost agriculture not by tractors alone: Many of them went to the countryside to lead the first agricultural co-ops. For instance, one of the heroes of Mikhail Sholokhov's novel *Virgin Soil Upturned* was also a Putilovets worker. The novel is set in those times and focuses on transformations occurring in the peasants' life.

Fifty years later, in 1974, the Kirov workers were demonstrating their latest model tractor during the May Day parade. It was a new wheeled machine, a model K-701, and an impressive sight indeed. The 300-horsepower Kirovets, to be used on the steppes, had an engine 20 times more powerful than the engine of a Fordson. It crossed Palace Square, confidently driven by Yuri Antonov. Next to him sat the plant's veteran worker, Konstantin Yakovlev, this time a passenger.

Actually, the idea of continuity keeps coming back to one here in Leningrad.

In 1929 the manager of Krasny Putilovets issued a circular announcing that an engineer and two adjusters were to be sent to Ford plants for training. That was how Yakovlev found himself in Detroit.

One of today's bulletins at the Kirov Plant announces that testdriver Antonov will go to Italy to demonstrate the design and operation capacity of the K-700 tractor to Antonio Farina Co.

"I've been to Italy twice," said Antonov. "I went there for the first time when Antonio Farina Co. bought several tractors from us, mainly to find out the Soviet model's potential. When our machines demonstrated that they were equally good on smooth and on rough terrain, the company's agents placed big orders with us right then and there."

Antonov sounds affectionate each time he mentions his tractor. He knows its main parameters, and he willingly enumerates its advantages. The tractor weighs 13.5 tons and is 7.5 meters long, about 3 meters wide and nearly 4 meters high. Despite its impressive size, the Kirovets is highly maneuverable and can be used as a cross-country vehicle. Its rubber tires are soft enough not to damage the road, and its 16 forward and 8 reverse gears make it a versatile machine.

Thousands of Soviet tractors are used in the socialist countries in the Middle East and in India. Great Britain, Canada, Spain and France eagerly buy them, too. In short, the Kirov Plant has gained a solid international reputation.

The progress the plant has made from the Fordson-Putilovets model to the 300-horsepower tractor of the latest design symbolizes several stages in the country's technical and economic revolution. However, that revolution could have been much more rapid had it not been for the war, which left a deep trace in the Soviet people's memory.

Retired workers keep up their ties with the plant where they spent most of their lives. Usman Karimov (center), the 78-year-old head of the Kirov Plant Veterans Council, comes to see the new machines.

The Third Soviet Five-Year Plan (1938-1942), which provided for an increment of 192 per cent in the production of manufactured goods as compared to the year 1937, was the only one that Leningraders failed to fulfill. The rest of the country also failed to fulfill the plan's goals—it hadn't the time. On June 22, 1941, nazi Germany unleashed war against the Soviet Union.

The Kirov Plant workers added another heroic page to the chronicle of the 900-day Leningrad blockade. In those hard days the plant was in the vanguard as usual. This is no exaggeration—the front line was three kilometers from the plant's gate.

Day and night the Nazis shelled and bombed its workshops, but the plant went on working. It repaired tanks and manufactured artillery shells. Its workers, engineers and other employees kept vigil on the roof. Emaciated by hunger, they returned to their machines every day. Every workshop had a shelter and trenches of its own, and its walls gaped with gun ports. The gate would open, letting out freshly repaired tanks with the welded seams still hot. Those three kilometers turned out to be unattainable for the enemy.

For many months the Nazis, at the gates of Leningrad, would watch the smoking chimneys of the Kirov Plant through their field glasses, refusing to believe the obvious: The plant was functioning! The Nazis could not put it out of action no matter how hard they tried.

Grinder Vitali Aleshnikov, who is not yet 40, is a deputy of the Supreme Soviet of the Russian Federation. He represented the Kirov Plant at the Twenty-seventh CPSU Congress held in February-March 1986. One could say he grew up at the plant: He graduated from its vocational school and became a team leader. For his achievements he was decorated with the Order of Labor Glory (of all three classes).

When asked what place the plant occupied in his life, Aleshnikov answered without hesitation: "The main place. Mind you, that refers not only to my work—I'm not a machine-operating robot, you know—but to my private life as well. I met my wife Lilia at the plant—she is an engineer here. The plant gave us a nice apartment. Our two daughters first attended the plant child-care center. Now they go to school and play sports at our cultural center. The plant is not just my place of work—it has made me what I am. Here I've learned to work well, be a responsible and, I dare say, worthy man. The plant shapes its workers, develops traditions and creates history."

As a party committee member, Aleshnikov has to deal with industrial matters and many social issues. That was the subject of his speech at the Twenty-seventh Congress of the CPSU.

"In the past few years a great deal has changed in the lives of the workers at the Kirov Plant," said Aleshnikov. "For instance, we've opened our own holiday center, "Beliye Nochi" [White Nights], on the Black Sea coast and a preventive-treatment facility near Leningrad. The plant also has a fully equipped hospital of its own. All those establishments were built with the plant's own money. Besides, we have a water sports center and a summer camp for 700 on the Black Sea coast, where the children of our personnel spend their vacations. In the new five-year plan period we intend to do even more. We have compiled a program for the plant's economic and social development for the period ending in 1990, plus a long-term program covering the years up to 2000. At present we are dissatisfied with our everyday services. We believe that new sports, health and cultural facilities should be created. Besides, our production plans grow more complex every year. What I mean is that we have our hands full, but that's natural."

Stanislav Chernov, general director of the Kirov Plant, talked about the industrial plans.

"In the immediate future we expect to increase our production potential 1.5 times," he said."But the main thing is to update our entire structure."

The Intensification-90 Project (which covers Leningrad's entire economy) envisages the installation of several automatic production bays at the plant's workshops, introduction of computer-aided design and technological support systems. All that will provide for a steady increment in labor efficiency of at least five per cent a year. In essence, that means an integral, over-all computerization of the research and manufacturing cycle instead of the present automation of only a few work places.

A new workshop equipped with the latest processing-center machine modules has already been put into operation, and 20-odd robots and 45 manipulators have been introduced in various sections. As a result, more than 300 workers have been taken off hard manual jobs in the space of a year. None of them was fired, though: Each got a job to his liking. Of course, under the circumstances, the personnel have to upgrade their skills or even learn a new trade. Advanced training is subsidized by the state, and the workers are trained during their work hours. The Kirov Plant has a whole advanced system, including a vocational school, several junior technical colleges, a branch of the local polytechnic institute and even a postgraduate course. Anyone has the opportunity to progress from skilled worker to research engineer or scientist.

"Now we are just about to mass-produce a new model tractor," said Chernov in conclusion. "The tests have demonstrated that the machine is much better than its predecessors and that it even has a chance of being one of the world's best." ■

"No one is forgotten. Nothing is forgotten." Poet Olga Bergolts (1910-1975) wrote these words, etched on the granite of the Piskaryovskoye Memorial Cemetery, where the victims of World War II lie buried.

MEMORY

Olga Bergolts, a Soviet poet called "the Leningrad Madonna" during the 900-day siege of the city, was herself a legend in the legendary defense of the city from the invading nazi armies. Her poetry, which she recited in the cold factory shops, in the front-line trenches and over the radio, warmed Leningraders and helped them to survive.

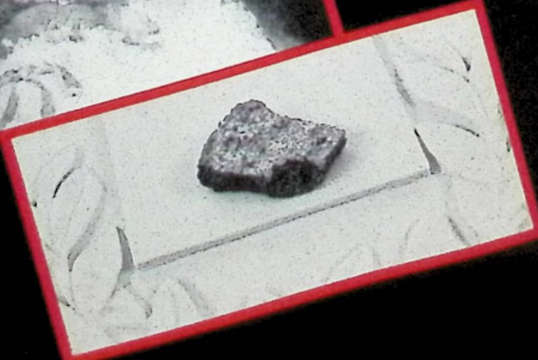
She gave her last interview to SOVIET LIFE correspondent Ivetta Knyazeva.

We all have a sketchy knowledge of the siege of Numantia, which sounds more like a myth than a reality today. The residents of the ancient Spanish town all died of hunger, thirst and epidemics rather than surrender to the enemy. When the invaders finally burst into the dead city, the only survivor, a boy, threw himself down from a high tower. Numantia had not given up the fight.

Many centuries ago, at the Great Siege of Pskov—the heroic five-month resistance of the Pskovites to the troops of Polish King Stefan Batoria during the Livonian Wars of 1558-1583—our forebears, the Russian warriors, withstood the conquerors at great sacrifice.

The staunchness of Leningraders during the nazi blockade, the cruelest blockade in history, surpassed that shown at Numantia, at the Great Siege of Pskov and in many other heroic instances of resistance to invasion. We stood our ground not because our city was well fortified and not because we poured molten lead and burning tar over the ferocious enemy. We knew that Hitler was determined to wipe our city off the face of the Earth, counting on Leningrad "to devour itself" as it starved. That was what Hitler said in 1941 when the blockade had a strangle hold on Leningrad, and in 1942 and even in 1943 when Soviet troops broke through the death grip. He kept shouting these mad words until we crushed his cutthroats on the approaches to the city.

I say "we" because every Leningrader shared the hardships and suffering. Not only the soldiers resisted the enemy, but every old man, woman and child. Every minute of life was in itself defiance of the enemy. In the grim blockade winter of 1941-1942, when the huge city was in darkness—there was no electricity—when all means of transport had frozen in the snow on the city streets, when the water mains went out of order



War spares no family. In a 1942 photograph from the Karpushkin family album, Lydia and Valentina Karpushkina mourn their sister Lera, who died of starvation. She was too weak to eat her last ration, and her sisters kept this tiny lump of bread as a memory. Top: Survivors Lydia and Valentina with Valentina's daughter.

and people walked out onto the ice of the Neva River to get water in small buckets and pans—they had no strength to carry anything larger—when they died waiting in the queues for bread—a specimen of the brown bread is on display in one of our museums—even then we knew that a happy, natural and intelligent human existence, called peacetime, was sure to return.

By torturing Leningrad with hunger and fire, Hitler counted on arousing in us the basest animal instincts. The enemy thought that the starving, freezing and thirsting people would fly at each other's throats, revolt and stop working and finally surrender the city. In short, Hitler thought that "Leningrad would devour itself."

But we remained human. Many photographs taken during the blockade show a woman pulling a man, weakened by hunger, in a sleigh, but not a single photograph shows, say, a riot or disorderly crowds breaking into bakeries. You won't see such pictures—not because we are concealing them: There simply were no riots in Leningrad; there was only a great general resistance.

At that time, everyone who could work did so. The workers did not go home, but stayed in the factories and slept beside their machines. Women came to take the place of their husbands who went to fight. Teenagers came to join the women and worked like adults.

The great poet Anna Akhmatova, no longer a young woman at the time, was among the defenders of the city. She dug trenches and sewed sacks that would be filled with sand and stacked around the priceless historical monuments of Leningrad. She also continued to write poetry.

Dmitri Shostakovich, the composer of the century and the pride of Russia, volunteered for the home front at the very beginning of the war. He said: "I know that fascism and the end to culture and civilization are synonymous. Historically, the victory of fascism is absurd and impossible. But I also know that only resistance can save humankind from perdition."

Shostakovich was as good as his word. He stood watch on the roofs of houses and put out incendiary bombs; he worked on his Symphony No. 7 *(Leningrad)* in his apartment, even though it was as cold as a cave. The Leningrad Radio Orchestra was depleted and hungry. Lines from the orchestra's roll book record conditions: "The leading violinist is dying. The drummer died on his way to work. The French horn player is on his deathbed." Nevertheless, reinforced by army and navy musicians, the orchestra played Shostakovich's symphony in besieged Leningrad.

The whole world sympathized with and admired the heroism and staunchness of the city, while the enemy wondered where the people got their strength. The Nazis were incapable of understanding that the Russian people had grown strong in the Soviet period, accumulating vast experience in collectivism, and that had had an ennobling effect on them. In Leningrad, tortured by unimaginable suffering, the people did not lose their community feeling and the habit of helping each other. On the contrary, these features grew even stronger; they were, in fact, predominant.

The staunchness of Leningrad is not only an example of the unbending Russian spirit—it is an example of the spirit of Soviet times as well. This was no ordinary city, but the city of Lenin, the city where the Socialist Revolution was born, that was resisting the Nazis. Not for an instant did we forget the significance of the city we were defending, the importance of the city that Hitler wanted to destroy.

The ring of the blockade around Leningrad clamped shut on September 8, 1941. Thanks to the colossal effort and will of the city's residents and the Soviet troops, the blockade was broken on January 18, 1943, and lifted completely a year later. During that period the city suffered hunger and death, and its citizens put forth superhuman efforts in inhuman conditions. The city was open to fire, and the enemy was blasting away at it pointblank.

Late in the night of January 18, 1943, when long-awaited news of the breakthrough arrived, I spoke over the radio. This is what I said to my fellow citizens and to all Soviet people:

"The blockade has been broken. Every cell in our bodies has been waiting for this moment. We believed it would happen. We believed even in the darkest months of the blockade—in January and February of last year. Our relatives and friends who died during those winter months, all those who are not with us today, believed in victory to their dying breath. They gave their lives for the life and honor of Leningrad. We the survivors, unable to relieve our sorrow with tears, wrote the words 'The blockade will be broken. We will win' on their tombstones after we buried them in the frozen soil. The words were a promise."

We grew black and bloated with hunger. We collapsed from weakness in the streets churned up by the shelling, and only the faith that liberation was sure to come kept us going. And everyone, looking death in the face, did his bit for the defense of Leningrad.

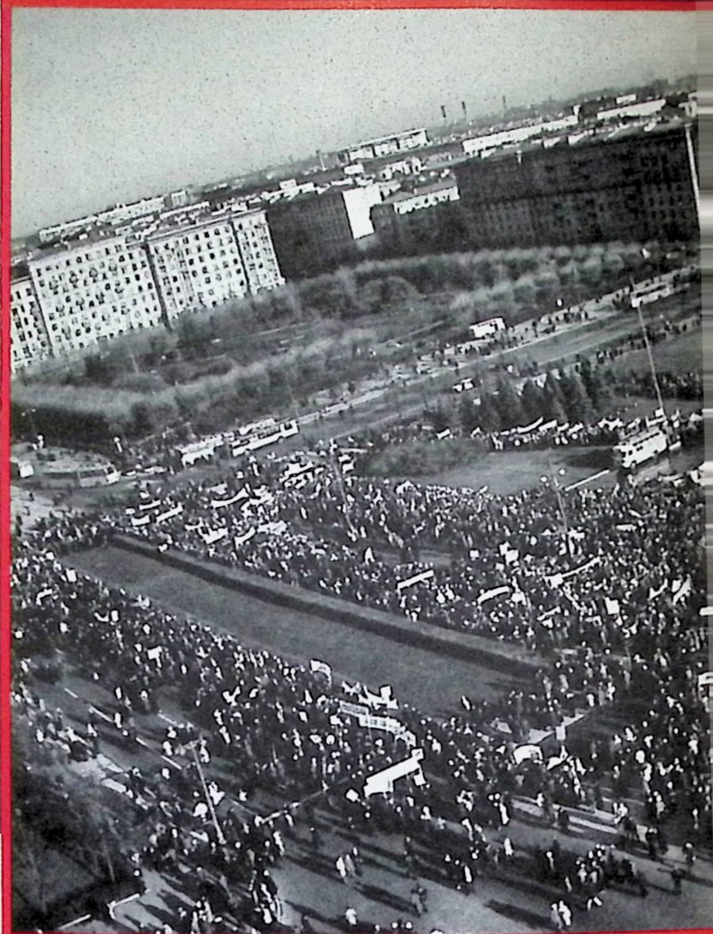
Leningrad's great spirit of resistance, its staunchness and loyalty, was later called a miracle. Now, many years later, I bow before that miracle and, despite all the suffering, I shall always be grateful to fate for making me a witness to and a participant in that miracle.

After the victory I came to the Piskaryovskoye Memorial Cemetery again. In this place almost half a million of Leningrad's defenders lie buried in common graves. Probably my husband, Nikolai Molchanov, who starved to death in the blockade, lies buried here, too. I say "probably" because in the hospital where he died someone told me he would be buried in a common grave either in the Okhtinskoye or in the Piskaryovskoye cemetery. "If you wish to bury him separately, we will help you find him. He is lying in the chapel at the very bottom. He died in the evening and during the night we piled a lot of corpses on top. The chapel is full." I answered: "He died like a soldier, and he will be buried in a common grave like a soldier of Leningrad."

I was entrusted with the honorable and sor- ▶

The Piskaryovskoye Memorial Cemetery is the world's only unknown soldiers' memorial that is the tomb of half a million war victims.

A peace rally in Moscow Square in Leningrad draws huge crowds of people. Below: The same square was full of antitank "teeth" during World War II.



Their experiences have prompted the Karpushkin sisters to join the peace movement. Lydia Karpushkina wants her grandchildren to live in a safe world.

rowful task of writing the inscription for the Piskaryovskoye Memorial. I went to the cemetery and, though I had lived through the blockade, I was utterly shaken by the sight of the burial mounds with little concrete slabs inscribed "1941," "1942," "1943"—the years of the interments—stretching for almost one kilometer. They stood for half a million anonymous heroes. The population of a whole city lay buried there! The lines of the inscription came spontaneously to my mind:

> Here lie the Leningraders.
> Men, women, children.
> Next to them the soldiers.
> Leningrad, home of the Revolution,
> They defended you with their lives!
> We cannot list their valiant names,
> There are so many lying under the granite.
> But let all know that
> No one is forgotten. Nothing is forgotten.

I wonder if we are the only ones who remember. I ask myself if it is possible for people anywhere on this Earth not to know or to have forgotten the price that Leningrad and our whole country paid for the right to live in peace. I simply cannot believe that, because it cannot be that we lived, and suffered, and struggled in vain. ■

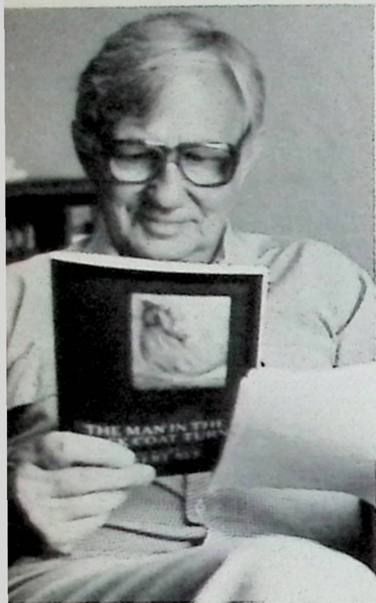
we are the only ones who remember. I ask myself if it is possible people anywhere on this Earth not to know the price that Leningrad and whole country paid for the right to live in peace. I simply cannot believe because it cannot be that we lived, and suffered, and struggled in vain.

A memorial in the shape of a broken ring, symbolizing the noose of the nazi siege, was designed by sculptor Mikhail Anikushin.

I rely on the power of my poetry. It comes straight from my heart, so I hope it will appeal to the hearts of individuals and whole nations.

"FIVE RUBLES AND A POEM"

By Nelli Yulina
Photographs by Alexei Varfolomeyev



The famous poet Mikhail Dudin, a World War II veteran, is chairman of the Leningrad Regional Peace Committee.

Central Leningrad has no functioning cemeteries—most of them are on the city's outskirts. Vera Pushikhina, now retired, has difficulty making the long trip too often, but twice a year, on December 6 and May 4, she goes to the Serafimovsky Cemetery. She stands at the tomb over the common grave for a long time. The man for whom she has wept for more than 40 years is not buried there; only a handful of earth from the place where he died is in the grave. He was 18 when he died. On June 21, 1941, he had no idea that the next day nazi Germany would invade the Soviet Union. He happily went to the barber's and had his hair cut in the style that was fashionable. The next day the war broke out.

In the days after the war, many army hospitals for wounded members of the armed services were still housed in Leningrad school buildings. Like many other Leningraders, Pushikhina made the rounds of all the hospitals, hoping to find her brother.

From the cemetery Pushikhina usually goes to a post office and sends a 10-ruble money order to the following address: "Leningrad, Bank Account No. 34000700602." This account at the Leningrad Branch of the USSR State Bank belongs to the Soviet Peace Fund. Once she sent a letter with the money order. "21 Fontanka Street, Leningrad. On the first and last day of my brother's life I always send money to the Peace Fund to help prevent war for good."

Twenty-one Fontanka Street is the address of a magnificent mansion built in the late eighteenth century. The Venetian mirrors, satin upholstery and marble statuary inside it invariably arouse the admiration of the visitors who pour in every day. Last year about 3,000 people visited from 45 countries. The building accommodates the House of Peace and Friendship with Peoples of Foreign Countries, the Leningrad Peace Committee and the local branch of the Soviet Peace Fund.

The world began to be concerned about peace almost as soon as World War II was over, when memories of the disaster were still fresh. The first World Congress of Peace Champions was held in Paris in 1949.

The Soviet Peace Committee was set up in the same year, 1949, and soon its branches sprang up in all parts of the country. As soon as the Leningrad branch was founded, people started mailing modest sums of money there. The donors wanted their money to be used to promote peace. The number of such messages increased daily. Their authors were writers and workers, war veterans and students, priests and children, farmers and actors, single persons and work teams. This was how another antiwar organization, the Peace Fund, came into existence spontaneously. Its raison d'être was to raise funds and to make the best possible use of voluntary donations.

The activity of the Peace Fund and committee deserves great applause. The chairman of the Leningrad Regional Peace Committee is poet Mikhail Dudin. He is not a native Leningrader; he came here from somewhere in the interior shortly before nazi Germany unleashed war against the USSR. He did not even have enough time to stroll along Nevsky Prospekt because he had to change into an army uniform right away. Not until the winter of 1942 did he see his dream city at last.

Seeing Leningrad that year was a sad experience, however. In those days people had to blow up frozen earth to make graves for the city residents who fell victim to famine and disease. Up to 50,000 dead were buried every day. At the front Dudin saw a friend of his killed by a bullet: His friend was also about 19 years old.

That is why Dudin often says to visitors: "I know war damn well through my own experience." That is why his latest poetry collection is entitled *Lilies of the Valley on the Minefield*.

I asked him what should be done today to ensure peace.

"People of different countries must look for things in common rather than differences," he replied.

To promote peace, he said, "I write and translate poetry. Not long ago I visited the United States, where I met with American authors. I was impressed with their sincerity and friendliness."

"Do you rely on the power of your poetry?" I asked.

"I do. It comes straight from my heart, so I hope it will appeal to the hearts of individuals and whole nations. Poetry's great message is that the world is beautiful. And it's impossible to shoot at the beautiful. I mean, no sane person would. That's why poetry and art in general are stronger than weapons."

All sorts of people have a similar outlook. Andrei Popov, an eight-year-old second grader at Leningrad School No. 59, wrote to the Peace Committee:

At the Peace Fund's Leningrad headquarters, the branch's deputy chairman Anna Tsimberova (center) talks to Grigori Grossman, head of the Leningrad Jewish community.

Top: The Leningrad branch has received the Soviet Peace Fund's gold medal. Above: Lyudmila Kuzmina sorts the mail that came in a single day. Letters come from all over the world.

I'm afraid of war, and I don't want it ever to break out again. That's why I am enclosing five rubles and a poem for the Peace Fund."

Actually, the fund's mail, especially when it is spread out on the desk, makes up a precise portrait of the world today. The main features of this portrait are concern and hope.

"I want the curious eyes of my children and my students, so full of hope and confidence in humankind, to see peaceful and friendly relations among nations."

Maria Kokovkina, a teacher from Leningrad.

"I am a teacher and a mother, and I fear for the future of humankind if we do not find a way to stop the escalation of the nuclear arms race. I send a message of friendship and peace. I hope we can work together for the future of the world."

Diana Smith, Lincoln Center, Massachusetts, USA.

"I am an engineer, and I have a good family. I don't want them to starve to death the way Leningraders did during the last war, or be killed by a nuclear bomb, which is more likely today. Let's meet each other, make friends and join forces against war."

Victor Dokolov, Leningrad.

"My name is Rose Maria (my friends call me Romi). I have lived in England for about 30 years. I am a schoolteacher and I am married to a farmworker. His name is Trevor. We have two children. Adrian, our son, is 12 years old, and our daughter, Danielle-Nadine, is six.

"Please do write to me. We know so little and must learn so much. I am sure that we can begin the friendship here."

Romi and family, Kent, U.K.

The concerns and hopes of all these people, as well as their confidence that "it's impossible to shoot at the beautiful," have determined the main trends in the activity of the Leningrad Peace Committee. It arranges meetings between professionals of different countries; discussions of issues of mutual interest; visits to industrial enterprises, schools, day-care centers; debates and consultations.

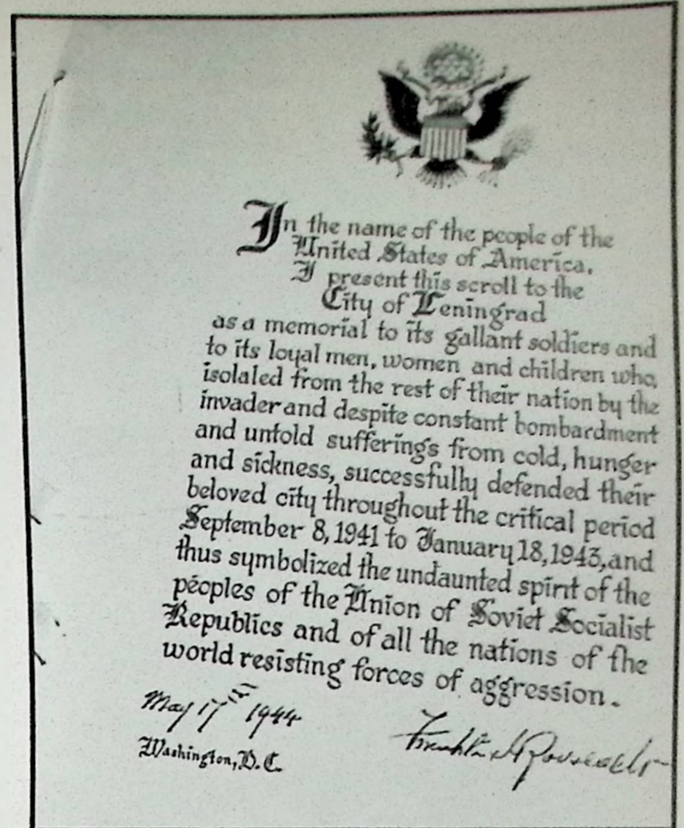
For instance, American women representing the Center for U.S.-USSR Initiatives, whose visit was sponsored by the Leningrad Peace Committee, were invited to a school, a hospital, a Russian Orthodox cathedral and an artist's studio.

"Foreign visitors in any country are terribly short of time. Naturally, they want to see as much as they can: city architecture, museums and cultural centers," said Dudin. "We do our best to acquaint them also with Soviet people. Visitors have an opportunity to learn more about us, come to our homes, meet our families and take a look at our problems and accomplishments. We want them to see with their own eyes that we reject war and couldn't want one. Every stone in our city proves it, and every family is still mourning its dead."

Dudin believes that cooperation with foreign peace campaigners is the Peace Committee's main task. The Leningrad branch of the committee maintains contacts with peace organizations all over the world—27 in the United States, 20 in the United Kingdom, 10 in the Federal Republic of Germany and many others—111 in all.

The Leningrad branch of the Peace Fund receives numerous money orders every day, totaling about five million rubles a year. A retiree sends 10 rubles. Medical school student Yelena Glazunova sends 12 rubles. Young engineer Victor Tkachuk mailed 150 rubles (his first paycheck) and asked that it be donated to a hospital for World War II invalids. The employees of Electrosila contributed 300,000 rubles out of their wages. Sixty Leningrad poets transferred their royalties from the poetry collection *Peace Square* to the fund's account. Students of Leningrad School No. 336 raised 25 rubles by selling candies and pies they had made themselves. The Russian Orthodox Cathedral of St. Nicholas and the Epiphany contributed 100,000 rubles. Its rector, Archpriest Vladimir Sorokin, said on that occasion: "Our funds are made up of the congregation's donations, and we contribute part of them to the Peace Fund. In the Soviet Union the church is separated from the state, but from the point of view of our citizenship we are an integral part of the nation, and we share its peace ideals."

For many years the Leningrad Jewish community has contributed 10 per cent of its members' annual donations to the Peace Fund. Its chairman, Grigori Grossman, said: "Many members of the community participated in the war against nazi Germany. Some of them lost their families, many were wounded and many were honored with state distinctions. The Jews who suffered so terribly at the hands of the Nazis hold peace and their present life dear. It is our duty to contribute to the Peace Fund. We know that this money will be used for the benefit of believers and atheists—of all the people of the world." ■



In the name of the people of the United States of America, I present this scroll to the City of Leningrad as a memorial to its gallant soldiers and to its loyal men, women and children who, isolated from the rest of their nation by the invader and despite constant bombardment and untold sufferings from cold, hunger and sickness, successfully defended their beloved city throughout the critical period September 8, 1941 to January 18, 1943, and thus symbolized the undaunted spirit of the peoples of the Union of Soviet Socialist Republics and of all the nations of the world resisting forces of aggression.

May 17th 1944

Washington, D.C.

During World War II, nazi troops encircled Leningrad for 900 days, attempting to cut the city off completely from the rest of the country. With indomitable spirit, Leningraders maintained a supply route over the ice across Lake Ladoga and endured months of bombardment and privation. American President Franklin D. Roosevelt presented this scroll to the city on May 17, 1944, in recognition of its heroic defense.

Leningrad's main thoroughfare, Nevsky Prospekt, is now peaceful and businesslike. A sign on the wall of an apartment building reminds passers-by of an earlier time, when peace seemed remote. The sign reads: "Bombardment is particularly dangerous on this side of the street." Nazi planes and guns dropped 100,000 bombs and fired 150,000 shells on the city.

LENINGRAD
Chronicle of a Day

Continued from page 12

spring at home, while parents who work late can have their children stay at the nursery or kindergarten until 8:00 P.M. or even overnight.

8:00 A.M. *The new department store opens its doors to its first customers.*

Leningrad's 3,500 shops take in an average of 22.2 million rubles every day. The most popular department store is Gostinny Dvor, situated on Nevsky Prospekt. As many as 120,000 residents and visitors make purchases there daily.

9:00 A.M. *The school bell rings, and classes begin for more than half a million pupils in 586 schools.*

Studies also begin at Leningrad University and 40 other higher schools in the city whose total student body numbers 273,000. They are trained for 300 professions.

10:00 A.M. *Activities begin at Leningrad's 43 stadiums, 465 soccer fields, 114 tennis courts, 44 swimming pools, 105 figure-skating rinks, and some 400 hockey fields and other sports facilities.*

Those who work or study in the evenings usually use these facilities in the morning. Sports are very popular in Leningrad, and more than 1.5 million people are involved in them.

11:00 A.M. *The Hermitage State Museum opens its doors.*

One of the largest art museums in the world, its collections comprise more than 2.6 million works of art from different epochs and from different countries.

Leningrad has 46 museums—almost 150, including their branches and permanent exhibitions—offering about 14 million exhibits.

12:00 noon. *The cannon in the Peter and Paul Fortress heralds midday.*

This tradition is more than two centuries old. Today the noonday shot is fired from the historical 152-millimeter howitzer that took part in the storming of the Reichstag in May 1945.

1:00 P.M. *Mendelssohn's* Wedding March *is heard in a fine old mansion that is now the Wedding Palace. The newlyweds, college students Yelena and Alexander Bolshakov, receive their marriage certificate.*

More than 150 couples get married in Leningrad every day.

2:00 P.M. *The lunch break is over at the Skorokhod Shoe Factory.*

About 9,000 pairs of shoes come off the conveyer belt every day. The material manufactured daily at the city's textile mills could clothe 10,000 people. Other Leningrad enterprises turn out 1,000 color TVs, more than 700 radio receivers and tape recorders, 2,600 cameras, about 12,000 watches, more than 2,500 vacuum cleaners and many other household appliances every day.

3:00 P.M. *The parents of 11-year-old schoolboy Misha Pavlov are taking him home from the surgical clinic of the Leningrad Institute of Pediatrics after three months of treatment. Surgeons had "sewn on" his hand after it was cut off by the wheels of a train in a railroad accident.*

The Pavlovs paid nothing for the treatment because health services in the USSR are free.

More than 150,000 medical researchers, physicians, nurses and paramedical personnel work in Leningrad. The medical centers take care of up to 300,000 patients every day.

4:00 P.M. *Fyodor Sheremet and his team finish assembling their 100th apartment building.*

One of every five buildings was destroyed and one out of every three damaged in Leningrad during World War II. So many apartment houses have gone up in the postwar years that Leningrad is four times larger now than it was before the October 1917 Revolution. Every day more than 100 families move into new apartments.

5:00 P.M. *The Lomonosov Porcelain Factory is sending a shipment of fine bone china tea and coffee services abroad.*

Leningrad's high-quality porcelain is known in 30 countries. The Lomonosov factory is the only plant that produces such fine china. The factory has received the international "Golden Mercury" award for promoting trade and other gold medals at world commercial exhibitions in Paris and Brussels. Every day it ships 68,000 pieces of china of 400 types to shops.

6:00 P.M. *This is the busiest time of the day at the Saltykov-Shchedrin Public Library.*

The second largest book, magazine and newspaper depository in the Soviet Union, the library has 27 million titles. More than 8,000 books are loaned to readers every day. Leningrad has a total of 2,320 libraries, with 149.1 million books and magazines.

7:00 P.M. *Yekaterina Ivashova-Alexandrova, one of the oldest residents of Leningrad, invites some friends over to celebrate her 110th birthday.*

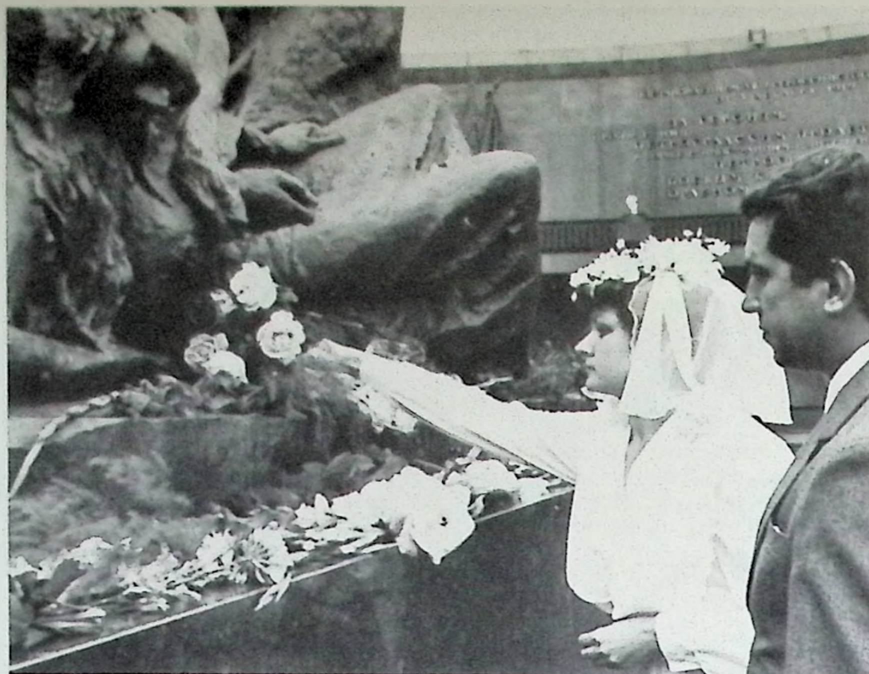
A 1905 graduate of medical school, she worked for 40 years in the municipal children's hospitals and clinics. She was 107 when she was operated on for acute liver trouble for the first time in her life.

Quite a number of scions of old Russian families live in Leningrad, and Ivashova-Alexandrova is one of them. Her great-grandfather was chief of staff of Alexander Suvorov, the great eighteenth century Russian army commander, and her grandfather, Vasili Ivashov, took part in the Decembrist uprising in 1825 and was exiled to Siberia by Czar Nicholas I.

7:30 P.M. *Curtains go up in the city's theaters.*

Leningrad has 16 professional theaters—two ballet and opera theaters, nine drama and comedy theaters, one musical comedy theater and four theaters for children and youth. Halls are packed everywhere. The Kirov Opera and Ballet Theater always has a crowd mill-

Continued on page 47



Newlyweds following a city tradition place flowers at the monument to Leningrad's World War II defenders. Right: War veterans Ilya Kuchinsky (left) and Boris Zinoviev, who fire the traditional noonday shot from the cannon in the Peter and Paul Fortress.

A young visitor to the Hermitage is obviously impressed by the size of the feet of the Atlases that support the museum portico.

Twenty minutes passed, thirty . . . The scientists began to wonder if they had made a mistake. Not until the fortieth minute did an engineer at the panel exclaim, "We've done it!" The instrument readings showed the superconductivity effect in the generator winding. Gathering everyone in the laboratory, Glebov said, "You are the first. Thank you."

ENERGY-

By Sergei Grachyov
Photographs by Valeri Lozovsky

Superconducting turbogenerators will take over in electrical engineering by the beginning of the twenty-first century. The future belongs to cryogenic power," believes Academician Igor Glebov. This forecast is certain to be fulfilled, for it has been made by one of the world's leading designers of heavy electric machines. This thin and slightly stooping man has a highly original mind—for his scientific work he was awarded the State Prize of the USSR and made a Hero of Socialist Labor (the highest distinction of merit). Glebov is also a great organizer: For many years he has been director of the All-Union Research Institute of Electrical Engineering, the industry's leading institute, and chairman of the Presidium of the Leningrad Science Center of the USSR Academy of Sciences, which coordinates the work of hundreds of Leningrad research establishments.

That electricity is vital to us need not be proved. The history of civilization may be likened to a book in which each page is devoted to a new source of energy. As electricity was discovered, humankind climbed another step. If such a book were written, the application of superconductivity for practical purposes, Glebov's current preoccupation, would surely have a special place in it.

Why is this so? The present limit of a conventional standard turbogenerator is 2,500 kilowatts. Further progress is blocked by the inexorable laws of physics: Loads on metal structures are so great that they destroy even the strongest steel. So the operation of more powerful machines should be based on other physical principles, and one of those principles should deal with the superconductivity of materials possible at temperatures close to absolute zero.

This area of research has been called cryogenic power (the Greek word *kryos* means "frost"). A popular explanation may be this: In a cryoturbogenerator the rotor is a rotating refrigerator—a cryostat with winding from a niobium titanium alloy. Liquid helium at a temperature of minus 269 degrees Celsius is used for cooling. In these conditions, electric resistance disappears. Although a very strong current may flow in the winding, the winding remains cool. Because there is no heat loss, there is no electricity loss.

Prospects? The efficiency of the cryogenerator may be as high as 99.4 per cent—unprecedented in world practice—while the capacity of one unit may be raised to 10,000 megawatts.

Glebov's life story is in a way typical of his generation. It bears the imprint of his times, and in this year of the seventieth anniversary of the October 1917 Revolution, one feels especially strongly the link between the scientist's career and the major periods in the country's history.

Born in St. Petersburg in 1914, three years before the Revolution, Glebov went at the age of 10 to live with his aunt, a textile worker. Later he lived with the family of a schoolmate. His career as a scientist began with learning metalwork and the operation of machine tools. He assembled his own radio receivers and on his own, out of curiosity, read through all 10 volumes of a course entitled *Technician at Home*.

Those were the years of Lenin's GOELRO (State Plan for the Electrification of Russia) project—a bold program to remake the then impoverished and half-ruined country. The Volkhov Hydroelectric Power Station was under construction, and the Dnieper hydroelectric plant followed. Everyone wanted to become a power engineer. The Leningrad Polytechnical Department had 67 applicants for each job at the hydroelectric power stations. One of these jobs went to Glebov.

Meanwhile, he graduated with flying colors and enrolled in postgraduate courses, at the same time taking language classes so he could translate complex technical texts. Later he enrolled in the school of mathematics and physics at the university and continued work on his dissertation, which he was scheduled to defend in October 1941.

Probably the country would soon have had another highly trained specialist had it not been for World War II. On the day when he was to have presented his thesis, Junior Lieutenant Glebov, in command of a gun battery, was defending Maloyaroslavets, a small town near Moscow.

Glebov does not like recalling the war years—how, without sleep for days, already chief of artillery intelligence of the First Guards Army, he plodded on and on along front-line roads to produce by morning a detailed map of the terrain and precise firing coordinates. To make the first shot and not to miss meant survival. The four military decorations he received give an idea of his courage.

He did not come home alone—with him was Yekaterina. Glebov's fiancée had taken part in a landing operation in the Crimea. She was a medical orderly and commander of an artillery weather platoon. They met at the end of the war and married on Victory Day, May 9, 1945. When he brought his wife home to his Leningrad apartment, he found on the floor only a few pages of the dissertation he had written before the war—the rest had been burned during the blockade.

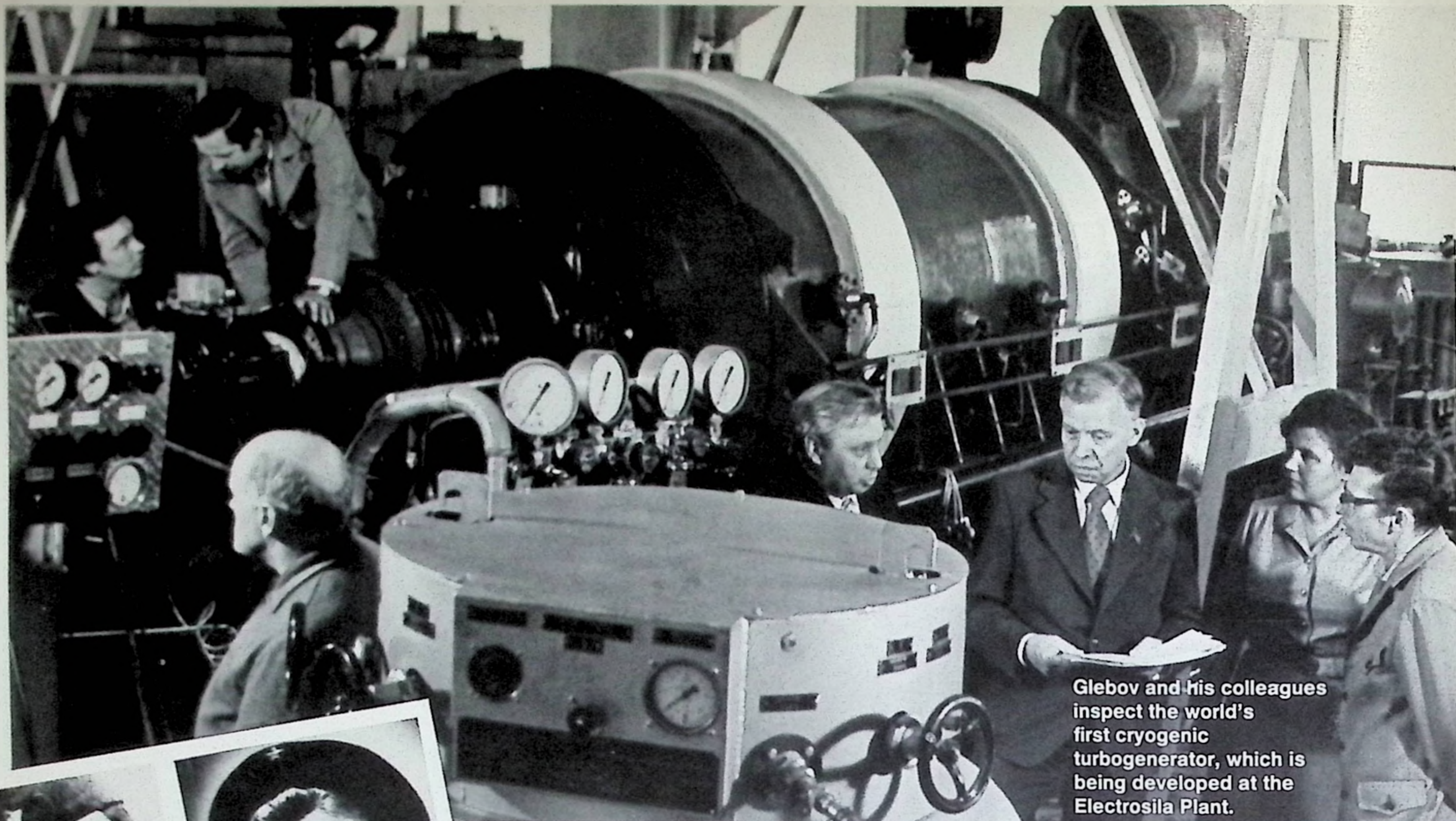
He had difficulty adapting to the new life. He recalls how he appeared again in the corridors of the polytechnic institute—in a military uniform without bars of rank and feeling self-conscious when hailed by former fellow students. He did not remember their names, although quite recently on the front he had amused himself by memorizing a table giving the statistics for adjustment of fire or by learning several hundred German words. He seemed to have forgotten whole parts of physics and electrical engineering. The war (as Glebov understood later) had put such a strain on his mind and heart that everything secondary was pushed back to the remote recesses of his memory.

Glebov's friends jokingly describe his passion for science as "love for electricity." The most complex and topical questions of power attract him. He took up a serious problem—rapid ion excitation systems for hydrogenerators at Volga stations—and successfully coped with it. He worked on ways to increase the capacities of turbogenerators and hydrogenerators.

This is the forefront of the science of electricity today. Making larger machines is one of the trends in technology generally and in electrical engineering in particular. Increasing the output of the generating equipment appreciably reduces the material costs involved not only in making such machines and building the stations, but also ▶

MINDED IGOR GLEBOV

Glebov has a highly original mind—
for his scientific work he was awarded a State Prize of the USSR and made a Hero of Socialist Labor.



Glebov and his colleagues inspect the world's first cryogenic turbogenerator, which is being developed at the Electrosila Plant.

Glebov and his future wife, Yekaterina, met while serving in World War II.

in running them. But here researchers came up against a number of obstacles.

First, there is a limit to the output of a traditional turbogenerator, and it is governed by the strength of materials used. Second, the manufacture of supermachines is limited by the available production capacities of engineering and iron and steel foundries. The solution is to capitalize on the superconductivity that results from deep freezing.

That was how work on the world's first cryogenerator began. The first model had a capacity of 18 kilowatts, the next, one megawatt. Later a pilot-scale generator of 20-megawatt capacity was developed.

The year was 1983. The experiment was in its third day. The temperature in the cryostat had dropped to minus 260 degrees Celsius, but the indicators, short a few steps of the necessary figure, seemed to have encountered an invisible barrier. The researchers' dilemma was whether they should go back to where they began or continue pumping liquid helium into the cryostat. The first solution meant wasted time, the second risked an accident.

Glebov made rapid calculations himself and decided to carry on with the tests. Twenty minutes passed, thirty.... The scientists began to wonder if they had made a mistake. Not until the fortieth minute did an engineer at the panel exclaim, "We've done it!" The instrument readings showed the superconductivity effect in the generator winding. Gathering everyone in the laboratory, Glebov said, "You are the first. Thank you."

Leningrad today has more than 150 enterprises and organizations directly concerned with problems of power. A large research and industrial center of power and electrical power engineering, Leningrad has plants that design one-third of all the power stations built in the country and manufacture most of the generators and two-thirds of the hydroturbines. Cryogenic power has now been added.

Many countries wanted to be the first to develop entirely new superconducting machines. The world's largest firms tried their hand at it: General Electric and Westinghouse, designers in Japan, Great Britain, Italy and the Federal Republic of Germany (FRG). Only Kraftwerk-Union in the FRG partly succeeded, but Glebov was ahead even of it.

The ultimate goal is to develop a cryoturbogenerator with a capacity of 1,000 megawatts in the next eight to ten years, and to develop toward the end of the twentieth and the beginning of the twenty-first century units with capacities of 3,000 and 10,000 megawatts. One such machine would have the output equivalent of all the Soviet power stations built before World War II.

Of the future of cryogenic power, Glebov says: "We are already capable of specifying rather precisely the basic parameters of such machines. What's more, here in Leningrad we have detailed plans and schedules for the next few decades, setting out the stages and the priorities. The research and production association Electrosila has on its drawing boards a cryogenic turbogenerator with a capacity of 300 megawatts. Our institute is conducting research into a superconducting unit with a capacity of a million kilowatts. Soon our first cryogenic turbogenerator with a capacity of 20 megawatts will be switched into the power grid of Leningrad for experimental testing under actual working conditions. From the scientific point of view everything is clear. But the road to the power of the future lies not only through fundamental research, discoveries and experiments. The level of the problems and the sophistication of modern technology make broad international cooperation imperative."

Glebov exercises a kind of triple "guardianship" over cryogenic power—as director of the industry's leading institute, as chairman of the Scientific Council on Superconductivity at the USSR Academy of Sciences, and as chairman of the ad hoc Working Group on Superconducting Generators at one of the most influential international scientific organizations for large power systems (SIGRE). In 1968, supported by all members of its administrative council, Glebov was elected the first Soviet president of the SIGRE research committee on new power machines. He held that post for eight years—six years according to the rules and two extra years at the request of his colleagues. He now heads a new working group at SIGRE. He also works within Interelectro, an international organization of member countries of the Council for Mutual Economic Assistance. He is sure that international cooperation offers short cuts to scientists in every country—it is a sizable reserve at the disposal of science. ■

UNITED BY THE RIVER FOR PEACE AND DISARMAMENT

Photographs by cruise participants

1. The logo of the Mississippi Peace Cruise was a drawing of the Soviet MS *Alexander Pushkin* and the legendary steamship *Delta Queen* joined together, with Soviet and American flags waving. We all are in the same boat, the logo says, and we either sink together or swim together to build a better world.

2. On July 26 the *Delta Queen* set out on a peace cruise down the Mississippi River.

3. A Soviet TV crew was aboard to film a documentary. Svetlana Starodomskaya (center), commentator for the *Vremya* (*Time*) prime-time news program.

4. Larry Long, Peace Cruise troubadour, dancing with Alice Frazier, of Promoting Enduring Peace. Bill McLinn, an actor who plays Mark Twain, rushes up with a fresh issue of a local newspaper featuring the cruise.

5. In Davenport, Iowa, the *Delta Queen* passengers were welcomed by the participants in the Great Peace March.

The Russians are coming, with peace and friendship!" Local people waited for hours, sometimes in pouring rain or blazing heat, to wave to the Soviet and American participants in the Mississippi Peace Cruise. Children called out to them with shouts of "*Mir*" ("Peace" in Russian), and the passengers tossed peace balloons and peace pins to the crowds as the boat passed by.

This happened during this past summer, when 47 Soviet citizens joined 127 Americans on a seven-day peace cruise down the Mississippi River on board the famous paddle wheeler, the *Delta Queen*. The Mississippi Peace Cruise, the first ever in the United States, was organized by Alice and Howard Frazier, codirectors of the organization Promoting Enduring Peace. This organization has arranged for more than one thousand North Americans to participate in seven Volga peace cruises in the Soviet Union since 1982.

The Soviet participants came from eight cities in four Soviet republics. Among them were a cosmonaut, a retired general, a famous actress, a dairy worker who is a deputy to the Supreme Soviet (legislature), a nationally renowned folk singer, workers, teachers, journalists, writers and scientists.

On July 26 the *Delta Queen* set off from St. Paul, Minnesota, on its way to St. Louis, Missouri. As it stopped at 27 locks and 6 towns along the way, each town put on an official ceremony complete with music by high school bands, speeches by elected officials, and performances by folk singers, dancers and choirs. Most significant, perhaps, was the spontaneous outpouring of feeling at numerous locks along the way.

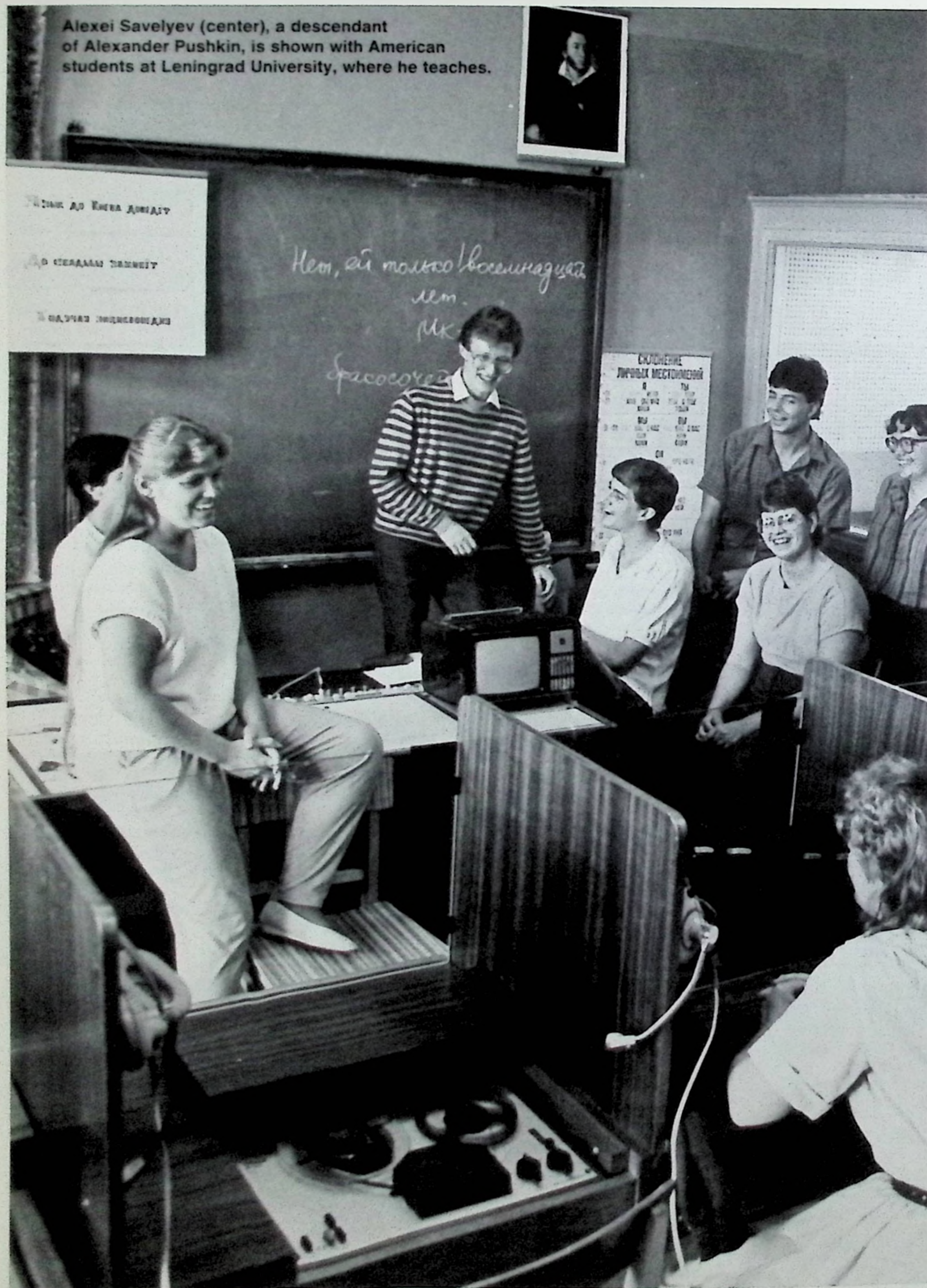
In Davenport (Iowa) the Mississippi Peace Cruise met with the Great Peace Marchers. A delegation from Peace City, the marchers camp, joined the local dignitaries at the dockside landing ceremonies. Mayor Diane Clark presented handmade keys to Peace City to representatives of six Soviet cities. Marchers planted a maple tree on the bank of the Mississippi in honor of the Soviet people, the eighty-seventh "peace tree" they had planted. They also presented the Soviet participants of the cruise with a handcarved plaque with an inscription in Russian.

The Soviet and American citizens on board the *Delta Queen* had no difficulty in finding a common language when they discussed the most urgent issues of our time—peace and nuclear disarmament. They worked out many joint proposals for achieving a more stable relationship between our two countries. One significant example is "A People's Appeal for Peace," which was signed at the United Nations on August 8.

Says Lou Friedman, Mississippi Peace Cruise press coordinator: "The trip was a success beyond all expectations and hopes not only for the 174 Soviet and American peace-mongers but also—and more important—for the thousands of Americans who saw and touched and met their first Soviet citizens, for the hundreds upon hundreds of thousands who read about the journey of Russians through the 'heartland,' and for the many millions who saw parts of the peace mission on local and national television." ■

THE PUSHKIN AMONG US

By Ivetta Knyazeva



Alexei Savelyev (center), a descendant of Alexander Pushkin, is shown with American students at Leningrad University, where he teaches.

For a Russian not to know Pushkin is the same as for an Englishman not to know Shakespeare. So says a British travel guide on Leningrad. I cannot say whether there are people in England who do not know Shakespeare, but I can vouch for the fact that everyone in the Soviet Union knows Pushkin. The interest is not confined to his works alone, though they come regularly in large editions. The latest edition of his collected works had 10 million eager subscribers.

The poet's birthday, June 6, is celebrated like a national holiday, and over the past 20 years thousands of people have visited his family estate, Mikhailovskoye (restored after the damage it suffered during World War II), near the old Russian town of Pskov in northwestern Russia. We learn our ABCs reading Pushkin's tales; we quote his verses when we make a declaration of love. Leningrad itself is a reminder of his poetry:

I love thee, city of Peter's making
I love thy harmonies austere,
The Neva's majestic waters breaking
Along its banks of granite sheer.

I set out to find Pushkin's descendants who are known to live in Leningrad. The Pushkins were an illustrious family. On Alexander's paternal side, the family was related to Prince Alexander Nevsky, the legendary Russian army leader of the thirteenth century. On his maternal side, the family tree had roots in Ethiopia, formerly Abyssinia. The poet's great grandfather, the son of an Abyssinian king, was kidnapped and brought to Russia to be sold to Czar Peter the Great in the eighteenth century. Peter had the boy christened and was himself the godfather. The Abyssinian boy grew up to be a prominent figure in Russian history. For Pushkin, the 600-year-old history of his family was inseparably linked with the history of Russia.

I began my search last summer, when the people working at the Institute of Russian Literature in Leningrad (Pushkin House) and in the poet's memorial museum had all gone on vacation, so an ordinary information bureau was my last resort. The attendant there, tired by the day's work, turned a blank look on me and rattled off: "Name, surname, date and place of birth, please. Without that, we

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Isn't the unselfish thought that your grandchildren will command respect, thanks to the good name you left them, a noble and cherished hope of every human heart?
Alexander Pushkin (1799-1837)

Another Pushkin descendant, Nikolai Danilevsky, lives near the obelisk marking the location of Pushkin's fatal duel.

won't be able to find the people you want in a city with a population of five million." I only knew the names, surnames and ages of the people I wanted. The attendant was about to close the information window when I said: "The point is, the persons I am looking for are the descendants of Pushkin."

That name had the same effect as a password. Immediately, the attendant was interested: "I'll do my very best to find them. Leave your phone number."

When Pushkinskiye Gory, the place where the great poet lies buried, was liberated from the enemy during World War II, the Soviet troops, still heated from the fighting, marched in review past his grave with banners unfurled. The retreating enemy had mined the grave but did not have the time to blow it up.

Russians do not customarily publish the details of the private lives of their great men. But with Pushkin it is another matter. We want to know everything because every detail is dear to us. We want to know all about his marriage to the belle of St. Petersburg, Natalya Goncharova; we want to know everything about the closing days of his life when, defending his and his wife's honor, he challenged an habitué of high-society salons to a duel. Pushkin was mortally wounded in the duel.

Ever since the day of Pushkin's death 150 years ago, people have argued about who is to blame for the fatal duel. Even Marina Tsvetayeva and Anna Akhmatova, those dignified poets who would never stoop to discussing anything out of idle curiosity, have had their say in the matter. To this day, outstanding physicians study the certificates of the doctors who treated Pushkin after the duel. As if to console us, they say there was no chance of saving his life.

People who have absolutely no connection with poetry are interested in Pushkin's life. Victor Rusakov is one such person. He has spent 30 years searching for material on Pushkin's descendants. He gleaned information on seven generations of the famous family, from Pushkin's children to the descendants who are living today—238 names altogether.

I did not have to wait long for the call. The clerk who had first appeared so indifferent to me told me with triumph in her voice: "You can take down the addresses of Pushkin's descendants. I have found them!" ▶

South Caroline, Charlstone

Dear Barbara, margaret, James and Susanne West!

We know just only your names and the fact that you're relatives of Alexander Pushkin but nothing about your life, your interests and so on. Do you know anything about your own attitude to our national honour? It's not only me and my family who wants to get some information about you. It would be interesting for millions of Pushkin's readers and they are all our people since baby's cradle.

If you wold suddenly read this issue of the "Soviet Life"-magazine answer our questions. I believe it's not so difficult for you. You see we are brothers, no matter so distant.

Yours sincerely or in Russian:

От всего сердца желаю встретиться с вами, приглашаю в гости и жду ответа.

До свидания! Всего самого наилучшего

Ваш А. Савельев

Leningrad september, 1986

Nikolai Danilevsky, born in 1965, is No. 223 in Rusakov's table of the 238 descendants of Pushkin that he discovered. I made an appointment to meet Danilevsky. He felt awkward because it was the first time anyone had wanted to interview him.

"You see, I don't think I have lived long enough to have earned a biography," he began. "The only indubitable fact is that I am really a Pushkin, but I still have to prove my worth."

He told me that after graduating from high school, he had many interests: industrial designing, music, biology and medicine. He chose medicine, but he did not pass the competitive exams to the Medical Institute, so he went to work as a fitter at a factory. Now he was just back from serving in the army. He had already enrolled at the Forestry Academy, having decided that forestry was for him. "I'd really love to work in one of the places Pushkin used to live."

When I asked what character trait he would like to have inherited from his great ancestor, he replied it was dignity. "They could kill Pushkin, but they could not humiliate him." When asked what he valued most in people, Danilevsky said: "Decency and loyalty to friendship. Pushkin made a cult of friendship."

Danilevsky knows everything about the family ever since the death of his great-great-great-grandfather. He knows that he is descended from the poet's favorite son, Alexander, a Russian general and hero of the war that liberated Bulgaria from the Turkish yoke (1877-1878). He knows that in the next generation the poet's granddaughter married the nephew of another great Russian writer, Nikolai Gogol—the marriage united two great names in national literature. That makes Danilevsky a descendant of both Pushkin and Gogol.

Danilevsky also knows that Pushkin's daughter, Maria Hartung (who, incidentally, served as the prototype for Anna Karenina, the heroine of Leo Tolstoy's novel), lived to see the Great October Socialist Revolution. In the lean year of 1918 the Soviet Government awarded her a personal pension in memory of her great father. Maria was then 86 years old.

"In our family you will find musicians, scientists, engineers, lawyers, village teachers, librarians and geologists like my parents. My grandfather, Professor Alexander Danilevsky of Leningrad University, was a well-known entomologist," said Danilevsky. "But we didn't have any poets. There were many who wrote poetry, but they never published it. The standard Pushkin set was too high."

Another descendant, No. 225, is Alexei Savelyev. He is 25 years old, and he has come to Leningrad from the Ukrainian town of Poltava. A philology major at Leningrad University, Savelyev stayed on to teach Russian language and literature to foreigners. "Philologist but not poet," he said as he introduced himself. Then he added with a laugh: "Mother nature takes a day off when it comes to the offspring of geniuses."

No. 223 and No. 225 are second cousins, but they don't resemble one another at all. Savelyev makes easy and immediate contact with strangers, never missing the opportunity to share a joke or his erudition. He basks in the rays of his great ancestor's fame.

A café on Nevsky Prospekt is often referred to as Pushkin's because he left from here to go to the duel that ended his life. His descendant Nikolai Danilevsky (standing) is still a patron.

"Pushkin was not only a poet of genius," he said, "he was an unsurpassed master of living. His life, so tragic and so noble, was in itself poetry. That is what we have to learn from him—his talent to be happy and to make others happy."

Naturally, we spoke of the Pushkin family, which has branched out in the past 150 years. Savelyev dwelt in detail on the pages of family history connected with World War II, in which 12 Pushkins took part. Ten of them served in the Red Army, including Savelyev's grandfather, and two fought abroad. An English descendant of the poet, Captain George Michael Alexander Werner, 25, was killed fighting the Nazis in 1942; Georgi Vorontsov-Velyaminov, currently living in Paris, was one of the heroes of the French Resistance.

"We also have a German branch of the family," Savelyev told me. "The poet's youngest daughter, Natalya, was married to Prince Wilhelm of Nassau, Germany—her second marriage. But not a single descendant of Pushkin's fought on Hitler's side. That has been established for certain!"

Savelyev went on to speak about his work, which he does not view as just work but as a mission. He believes that introducing foreign students to Russian literature is introducing them to what we cherish most of all. "Dostoyevsky said of Pushkin's genius that the great poet possessed worldwide responsiveness and he expressed this prevailing capacity of our nationality in his poetry. He also recalled Pushkin's dreaming of the day 'when all nations, forgetting their differences, would join in one great family.'"

Savelyev has a special love for American students. At the time I met him, a group of young Americans was attending lectures at Leningrad University under the sponsorship of the Council for International Educational Exchange.

"It seems to me that of all foreigners, Americans are the closest to Russians. There is a lot in common in our characters."

Savelyev has another reason for being specially interested in the United States. According to the genealogical chart, some Pushkins live there also.

"Some relatives in my generation, the sixth generation, live in Charleston, South Carolina: Barbara, Margaret, James and Susan West. That's all I know, but I would love to get to know them. Could I write to them through your magazine?" he asked me.

Savelyev's letter is at the top of this page. ■

The colors of autumn. "The woods are casting their crimson leaves," wrote Pushkin about fall. The city often evokes lines from the great poet's work.

A spring tradition. *As spring comes and the nights become light, a ship under scarlet sail quietly enters the Neva.* Scarlet Sails *is a famous novella by Alexander Grin in which the scarlet sails symbolize hope and inspiration for the young. The appearance of the ship in the Neva once a year has become a tradition.*

I wonder, if a theater fan stayed with friends in New York, whether his hosts would take him to a Broadway theater or to an off-Broadway theater? Or to an off off-Broadway theater? If our theater-going friend visited Paris, no doubt he would visit the Comédie Française; if Milan, La Scala. Leningraders would take visitors to Tovstonogov's theater, as the Maxim Gorky Drama Theater is known.

TOVSTONOGOV'S THEATER: FULL HOUSES FOR 30 YEARS

By Kira Kiryushina
Photographs by Rudolph Kucherov

"Art wants daring solutions and fears mediocrity."

This is producer Tovstonogov's creed.

Georgi Tovstonogov was the subject of a skit by his theater troupe last year. It poked fun at old and current productions and made jokes at the producer's expense. Instead of being backstage as usual, Tovstonogov, Hero of Socialist Labor and People's Artist of the USSR (the supreme honor for a Soviet performer or producer), was in the audience, and he laughed uproariously: The company was celebrating the thirtieth anniversary of his work as its producer. When the show was over, Tovstonogov mounted the stage to thank the company. Moved to the point of tears, he said: "Though the old saying goes, a friend in need is a friend indeed, I'd like to call you my friends in luck: the truest sort of friends." His unmasked emotion that evening was in striking contrast to his usual polite and aloof self, and so all the more touching.

Many were astonished to learn that Tovstonogov has headed the company since 1956. He came to Leningrad from his native Tbilisi seven years earlier—an obscure producer who had for 20 years worked, through trial and error, in many troupes after completing his training at Moscow's best drama school. Renown eluded him until he was 40 years old, when his production of Vsevolod Vishnevsky's *Optimistic Tragedy* in another Leningrad theater was awarded the Lenin Prize. Tovstonogov was the first producer ever to win the Lenin Prize.

So he awoke one morning to find himself famous, with any topnotch company ready to welcome him. Tovstonogov chose the Maxim Gorky Drama Theater, formerly a first-rate theater going through a prolonged crisis in the 1950s. It performed to empty halls night after night, and critics said the great company was on its deathbed.

Tovstonogov did not believe it for a minute. "Our theater has been lucky all down the line. From the first day of its existence, it has shown just what makes a theater tick and what kind of theater the public wants," he was later to say.

The Gorky theater's history is worth noting. Originally called the Bolshoi Drama Theater, it was the first theater begun after the October Revolution. It was founded in 1919, the second year of Soviet government, when the country was still in the throes of civil war. General Yudenich's White Guards were besieging Petrograd (as Leningrad was then called). Just imag- ▶

A scene from Vladimir Tendryakov's play *Three Sacks of Weed.* Top: A scene from the Maxim Gorky theater's production of Gogol's *The Inspector General.* Center: Scenes from *The Story of a Horse*, inspired by Tolstoy's novella *Yardstick* (left), and *The Price*, by Arthur Miller (right).

Producer Georgi Tovstonogov entertains American producer Joseph Papp and his wife.

ine a major troupe being set up in a hungry, frozen and endangered city. Maxim Gorky, the famous writer whose name the theater adopted in 1932, stood at its cradle together with poet Alexander Blok, who was responsible for its repertoire. Anatoli Lunacharsky, the first Soviet Minister of Culture and Education and Lenin's comrade in arms, the artist Alexander Benois, the composer Boris Asafiev and the famous actress Maria Andreyeva were also active in starting the theater.

Friedrich von Schiller's play *Don Carlos* was the theater's first production. The house was packed with soldiers, sailors and workers, some attending a theatrical performance for the first time in their life. Enthusiastic and unsophisticated, they perceived a tragedy written more than 100 years earlier, with the plot laid in medieval Spain, as a piece of throbbing contemporary life. The despotic Duke of Alba made the greatest impression. A naval regiment sent to the front that same night attacked White Guards with shouts of "Beat Alba and his like!"

That glorious opening was symbolic, says Tovstonogov. "The heart of the matter lies in the stage's harmony with the time, with its drama and its storms. Either the theater appeals to the audience's feelings and reflects its burning concerns, or it's dead as a doornail. The scenic art is not an afterword to events long past. We act to awaken the public's imagination, to make our audiences think whether they live the way they should."

Tovstonogov is loath to quote authorities ("I always speak my mind, and mine alone," he likes to say), yet he makes an exception for Lunacharsky's definition of the theater's mission—words that reflect his own attitude toward the stage. "The Revolution said to the Theater: 'I need you, Brother. Not because I want to recline in a velvet chair and see an entertaining play after fight and toil. No! I want you as helper and adviser. I want the searchlight of your truth. To make my toil bear fruit, to win happiness for people on Earth, I want their intellect to work intensely.' " Sixty years ago, when these words were first uttered, the Soviet theater was in its cradle, and Georgi Tovstonogov was a mere schoolboy. Nowadays they might seem straightforward to the point of naiveté, but essentially they still ring true.

"I have to know what the public expects of my theater and what questions it wants us to answer," the producer says. "I never accept a play for production unless I see that today's audiences want it, and why they want it. Even an old play, whose heroes are dressed the way nobody dresses now and who live in houses nobody lives in today, has to have ideas that appeal to our contemporaries."

Why do theater fans run themselves ragged trying to get tickets not only in Leningrad and all over the Soviet Union but also in Europe, Japan, Latin America—anywhere the company goes on tour? It has been like that for 30 years. "A gripping art." "You leave the theater with an all-pervading sense of happiness," foreign reviewers have written.

Tovstonogov abhors the epithet "utilitarian" when it is applied to the arts. With some reservations, he accepts the definitions "rostrum" and "school."

"The theater is a school to which one goes with delight and learns without noticing. Once the spectator sees he's being taught, catch him coming again! Pageantry, you say? Entertainment? Only enough to make the show gripping. Boring, intellectual theater is no theater at all, and sheer entertainment is the domain of low farce."

Tovstonogov preaches only what he practices in his troupe. He has staged about 150 plays in the 30 years he has been with it. Today's repertoire includes almost 20 of his productions. Every sophisticated spectator is sure to recognize the Tovstonogov trademark from the start, even if he has not seen the name on the playbill. What the producer is after is not to show "exciting stories from many eras," but to involve his audience in analysis of life and of humankind, delightfully free of commonplace moralizing. He never humors his public; he holds up a mirror to it: Look and think—a difficult but necessary effort of intellect and emotion.

Several years ago Tovstonogov staged his interpretation of Gorky's classic *The Philistines.* The lower middle-class Bessemenov family lives a life full of drama—but what petty drama. What are they quarreling over? What is the reason for all this noise, all those tears, all those tempests in a teapot? Gorky defined philistinism as a curse of this world. Like the author, the theater gives a subtle and profound psychological interpretation to the trivia of drab reality. It shows philistinism as a world view and as a way of living that robs life of higher things. Philistinism is not a social characteristic but an all-pervading philosophy, the production argues. The age of computers has made it more sophisticated, leaving its core —animal egotism and utter lack of spirituality— untouched.

And here is quite a different production: *Khanuma*, by Avksenti Tsagareli, the classic Georgian comedist, about a clever matchmaker who was caught in love's sweet net as she busily arranged the affairs of bored maids, dowry-seeking bachelors and hapless lovers. The heroine's wish to do as much good as she can is the vehicle of the delightful, well-built plot. Dynamic and brimming with festive noise and color, the play is full of joie de vivre and sparkles with wit.

Another of Tovstonogov's sensational heroes is a skewbald gelding by the name of Yardstick, the title hero of Leo Tolstoy's novella. The play is titled *The Story of a Horse*, and subtitled *Dramatic Musical.* Theater aficionados gasped with indignation: An equine protagonist? A musical based on Leo Tolstoy? Sacrilege! "It takes daring to work for the theater," Tovstonogov argued, unabashed. "The shoddy and the inane are the only things to avoid."

The production is too spontaneous and drama-laden to be described in words. It is about love and its antagonist, egotism; it is about life and death. We'd see it as an absurd masterpiece were it not for its fearless kindness and its spirit of tormented conscience—all of which makes it a purely Tovstonogov production, providing fresh proof that any plot can make excellent theater if it has a clear-cut message and bears the stamp of talent. The first night was a triumph, and the success has never waned over the years. "This story of a horse helps human beings be human," wrote the periodical *Sovietskaya kultura*.

In their great diversity all Tovstonogov productions work for this end.

Much as he likes to prove his point not by word but by deed, Tovstonogov never avoids discussion. His calmly assured, concise pronouncements have more thrust than fiery tirades. However much his status adds to it, he owes the power of his conviction mainly to views that have developed over the years.

When an argument raged on the rivalry between the theater, cinema and television, Tovstonogov brushed it aside, however heatedly his opponents insisted that Melpomene, the Muse of tragedy, had become senile after 2,500 years and now had to give up her place to younger and more dynamic muses.

"The stage has no rivals," Tovstonogov said. "All the other arts are in the past—events that unfolded in our absence and were only recorded for us to see. But life on the stage unfolds before our very eyes, making the audience partners, not impartial witnesses. Audience participation is what makes the theater eternal."

Tovstonogov hasn't the slightest doubt that the theater—like other arts, and to an even greater extent—is the best of all universal languages. The arts alone can enable nations divided by thousands of miles and by prejudice to see and feel that their people rejoice, grieve and love in the same way. Only the arts can make us feel the heart, spirit and true intentions of another nation. "Now that we see how small and fragile this world is, these spiritual links are no less important than high-level diplomatic contacts."

That is one of the reasons why foreign plays are prominent in the Tovstonogov theater's repertoire. American playwrights Eugene O'Neill and Thornton Wilder are well represented here. Arthur Miller's *The Price*, which Tovstonogov considers a masterpiece, has been a hit for many years. Tovstonogov's productions are running in Hamburg, West Berlin, Warsaw and Helsinki.

The producer has just come home from New Jersey, where the Princeton University drama society invited him to stage a play. He chose Chekhov's *Uncle Vanya* for his American debut.

"I think my encounter with American audiences is a landmark, so I want to speak to them about essential things. Chekhov gives me a chance to do this. This age of the information explosion has standardized not only things but also ideas, so it's a must to stop now and then in the whirl of life and contemplate oneself. The play is about man's moral duty. It says that a person can't afford to give up his ideals under any circumstances. Only in this way can one survive as an individual—a very Russian topic, and yet universal like all great and eternal things."

"You have already staged *Uncle Vanya* in Leningrad. Will the American production be a revival?" I asked him.

The question evidently displeased Tovstonogov, but he remained his usual polite self:

"I don't think it's worthwhile to repeat old productions. Communication of people with other people—a sine qua non in any stage production —is each time as unique as life itself. There's no repeating it the way it was." ■

LENINGRAD
Chronicle of a Day

Continued from page 32

ing around in front in the hope of getting a spare ticket.

8:00 P.M. *An evening of "Bards and Minstrels" is just starting in the popular Meridian Club.*

The playbill outside the Leningrad youth center reads: "If you haven't heard the Aquarium rock group, you are behind the times." Fifty amateur rock groups take part in a contest held here.

9:00 P.M. *The evening continues in 249 palaces and houses of culture throughout the city.*

About 200,000 Leningraders of different professions participate in people's theaters and studios.

10:00 P.M. *The cargo vessel* Sverdlovsk, *built in the German Democratic Republic, is leaving on its first cruise from the Leningrad merchant marine port.*

The Baltic Shipping Line, one of the largest in the country, has more than 200 modern motorships with a total displacement of more than one million tons. The vessels belonging to the line call at 400 ports on all continents. More than 4,000 vessels from 50 countries anchor in Leningrad's harbor every year.

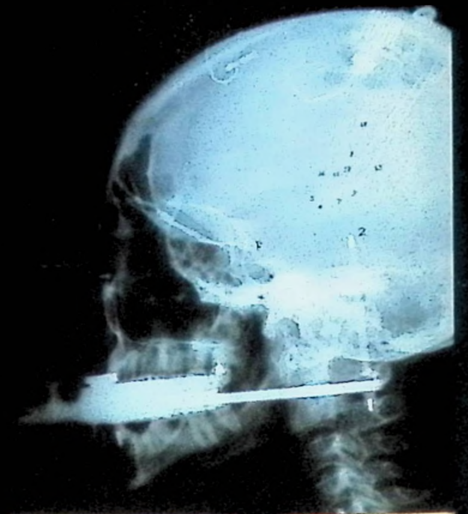
11:00 P.M. *The Lenfilm Studios finishes shooting* The Last Road, *a movie about the great Russian poet Alexander Pushkin.*

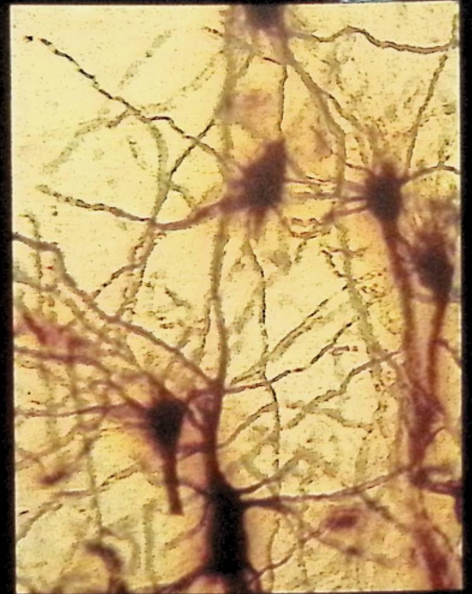
Lenfilm, one of three Leningrad film studios and the oldest in the USSR, makes more than 30 feature films a year. A joint Soviet-American movie, *The Blue Bird*, was filmed here in 1975-1976. One of the leads was Elizabeth Taylor.

Good night. Tomorrow is another day. ■

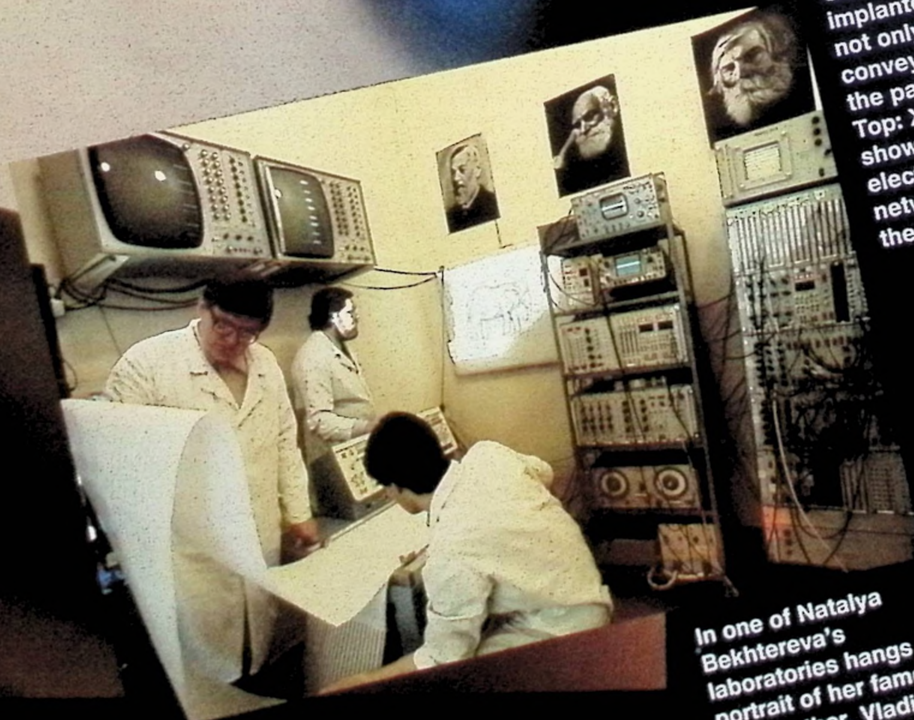
Leningrad's White Nights Festival of the Arts, begun in 1958, is held every year from June 21 to June 29. Theaters and concert halls offer a wide variety of the very best entertainment.

"The human brain is a whole universe inside the skull. It is the only human organ that has practically unlimited possibilities," affirms Academician Natalya Bekhtereva.





Gold electrodes implanted in the brain not only cure but also convey information about the patient's health. Top: X-ray of a skull shows implanted electrodes. Above: The network of neurons in the cerebral cortex.



In one of Natalya Bekhtereva's laboratories hangs a portrait of her famous grandfather, Vladimir Bekhterev (right).

NATALYA BEKHTEREVA'S BRAIN RESEARCH

By Neonila Yampolskaya
Photographs by
Alexei Varfolomeyev

"Only the Creator and the Bekhterevs know all about the brain," joke the researchers at the Institute of Experimental Medicine attached to the USSR Academy of Medical Sciences and directed by Natalya Bekhtereva.

Near a quiet park stands the round building of the institute where the celebrated Russian physiologist Ivan Pavlov worked until his last days. In the center of the park is a bronze Monument to the Dog, which Pavlov had erected as a token of his gratitude to this lab animal. Next to the park is a modern building housing the USSR's first department of human neurophysiology, set up by Bekhtereva.

The research carried out by the department makes it possible to find answers to the questions humankind has been asking from time immemorial—questions about how the brain controls the body and how it functions, about what thinking and memory are, and what emotions can do to the brain.

Bekhtereva's contribution to science is highly esteemed. She was elected a fellow of both the Academy of Sciences and the Academy of Medical Sciences, which is extremely rare in this country.

Yet the joke about the Creator and the Bekhterevs appeared much earlier and referred to her grandfather, the famous psychiatrist Vladimir Bekhterev (1857-1927). The author of more than 500 studies in psychiatry, he set up Russia's first institute of brain research and psychoneurological institute. Leningrad has a street and a museum named for him, and drugstore customers often ask for "Bekhterev's Drops."

Bekhtereva was only three when her grandfather died. It is hard to say whether the great man's granddaughter would have followed in his footsteps had it not been for World War II. Only 17 years old when the war broke out, she stayed in besieged Leningrad and went to work at a hospital. She found it especially distressing when doctors could not help men who were dying of head wounds. Whatever the nature of the injuries, the fatal outcome seemed inevitable.

The scientific world first heard Bekhtereva's name in the 1950s, when she declared that the brain was not a jigsaw puzzle that could be put together step by step and that it would be possible to understand how it works only by developing a comprehensive approach to research. That method, developed under her guidance, enabled scientists to obtain the maximum information on the patient's organism, the mechanisms of diseases and the condition of the brain.

Specialists approved of the new approach. Bekhtereva, summing up their opinion, once said: "We don't think of the method as a discovery or an invention. We just combined different research techniques, and the method began to work on its own. It registers all the existing physiological parameters of the functioning brain—as it sleeps, as it is affected by physiological changes, as it is subjected to pharmacological and functional tests, including psychological and emotion-generating ones, or as it is influenced by electric current. All the responses are closely watched and analyzed by the specialists who control the state of the brain and the entire body."

Bekhtereva set up her department of human neurophysiology at the time different sciences were being integrated. She employed physicists, ▶

"I wouldn't do anything to a patient that I would not do to myself or my family. Not a single dubious experiment should be carried out 'for science's sake.' Everything should benefit the patient—not patients in general, but this one patient."

mathematicians, neurosurgeons, physiologists and psychologists for the new unit, and she organized a technological and mathematical center equipped with the latest technology.

All that enabled her to look upon the existing theories and methods from a different point of view. For instance, when English Dr. G. Walter and American Dr. R. Heath first treated patients by implanting gold electrodes in a diseased brain, Bekhtereva was really indignant. When she found out that this technique was used to study volunteers' brains, she condemned it as barbaric. She even wrote an article about it, but fortunately (as she says now) she never mailed the paper.

Later on, she observed the results of such treatment and even perfected the method. The original technique involved inserting an electrode into a particular zone of the brain following calculations made on a slide rule. This technique is termed stereotaxis. Bekhtereva developed a more precise, computer-based method that was subtler and less disturbing for the patient. She was the first in the world to use the new method clinically. Soon both the technique and the device were patented in the United States. Today the method of electrode implantation based on computer stereotaxis is successfully used for diagnosis and treatment at many Soviet clinics.

Everything Bekhtereva did then was, in fact, the foundation for her further theoretical studies. One of her major accomplishments was the creation of a new science, stereotaxic neurology, now widely applied in the practice of medicine. In brief, it is a way of finding out, through many different tests, which zone of the brain is responsible for each particular function. Optical nerve atrophy doomed the sufferer to blindness until a group of patients suffering from that disorder had their optical nerves stimulated by a weak current. They saw a flash of light as soon as the current was switched on. They regained their sight and retained it after the session was over.

Bekhtereva feels that zonal stimulation of the brain by a weak current may prove effective in the treatment of central nervous system disorders and spinal cord injuries. It is also important that the same brain zone responds to stimulation in different ways, depending on the condition of the whole brain. Scientists are investigating ways to determine this condition—to find out whether the brain is normal or diseased, tired or rested. That was where Bekhtereva's comprehensive method based on the registration of superslow physiological processes came in handy. As a result, she devised a rapid diagnostic technique, which has already been put to use in the practice of medicine and will, probably, be just as useful in teaching.

But another aspect is even more interesting.

Bekhtereva concluded: "The registration of superslow physiological processes caused by induced or natural emotions has made it possible to discover many important factors for the first time in the history of science. So researchers have established which brain zones are changed by emotions, how long those changes last and how intense they are. Besides, it is also possible to observe the progress of those changes in the brain—the involvement of one zone after another in the processes triggered by emotion. It has become possible to forecast the development of emotion."

Clinicians all over the world have studied emotions for a long time, but most of them use electric stimulation, which, in Bekhtereva's opinion, "changes" the brain. But the recording of superslow physiological processes (with electrodes attached to the scalp) yields more sophisticated and precise results.

This study is equally valuable for clinical medicine, for instance, for the treatment of patients whom anger can make aggressive and whose unpleasant experiences can lead to epileptic seizures. More profound research into emotion has yielded another result, theoretical this time. It offers an opportunity to recognize an as yet unknown protective mechanism of the brain, which is at work when a given person is in full control, reserved and calm.

The most important questions to be answered are: What is going on inside the human brain when its owner is deep in thought and what parts of the brain are involved in the process; what kind of information can the studies of neurophysiological mechanisms of mental processes yield; in what part of the brain are the "responsible" zones situated; and what is the basis for an individual's mental activity?

The comprehensive method developed by Academician Bekhtereva has contributed to the solution of these problems. The functional tests based on her method also included psychological tests. The purpose of these tests was to find out whether an individual's original thinking depended on a particular brain zone. The accumulation of the data made it possible to "map" the brain, enabling Bekhtereva to conclude that the mental process is made up of rigid and flexible elements.

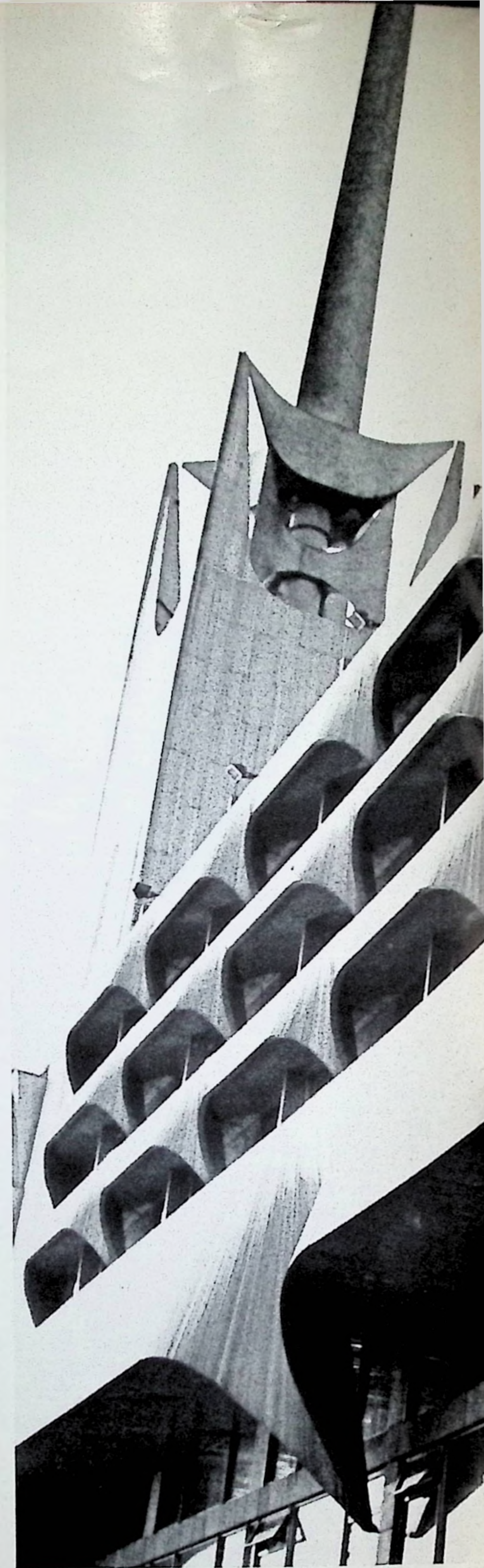
Some time ago many researchers tended to think that the brain was the sum total of specific structures, a kind of "patchwork quilt." Others believed that the brain was homogeneous and its zones equal. Still others assumed that the maintenance of brain functions was systemic. The systemic argument found support in Bekhtereva's study of rigid and flexible brain "links." It follows from her observations that each link's contribution to mental processes is different in quality or in quantity, providing the brain its high degree of reliability and its interaction with the outside world.

Theoretically it should be possible to stimulate the brain in such a way as to turn an ordinary person into a genius. But Bekhtereva says scientists are against that at the moment, and not only out of moral considerations—they don't know yet how dearly man and his brain will pay for it.

By midday Bekhtereva usually takes off her white smock and puts on a thin Russian shawl if it is cool. Then one can discuss just about anything with her—art, for instance. She likes impressionist painting, and she likes cities with beautiful architecture—cities such as Rome, Florence, Leningrad and Paris.

She turns into a tender mother when her son drops in. Vyacheslav is not only her beloved offspring, but also a colleague to whom she turns when she has to solve a problem on the boundary of neurophysiology and mathematics.

Her dedication to her work is absolute. Not long ago she wrote that all her information on the brain could be defined as routine but for the brain's infinite variability and beauty. ■



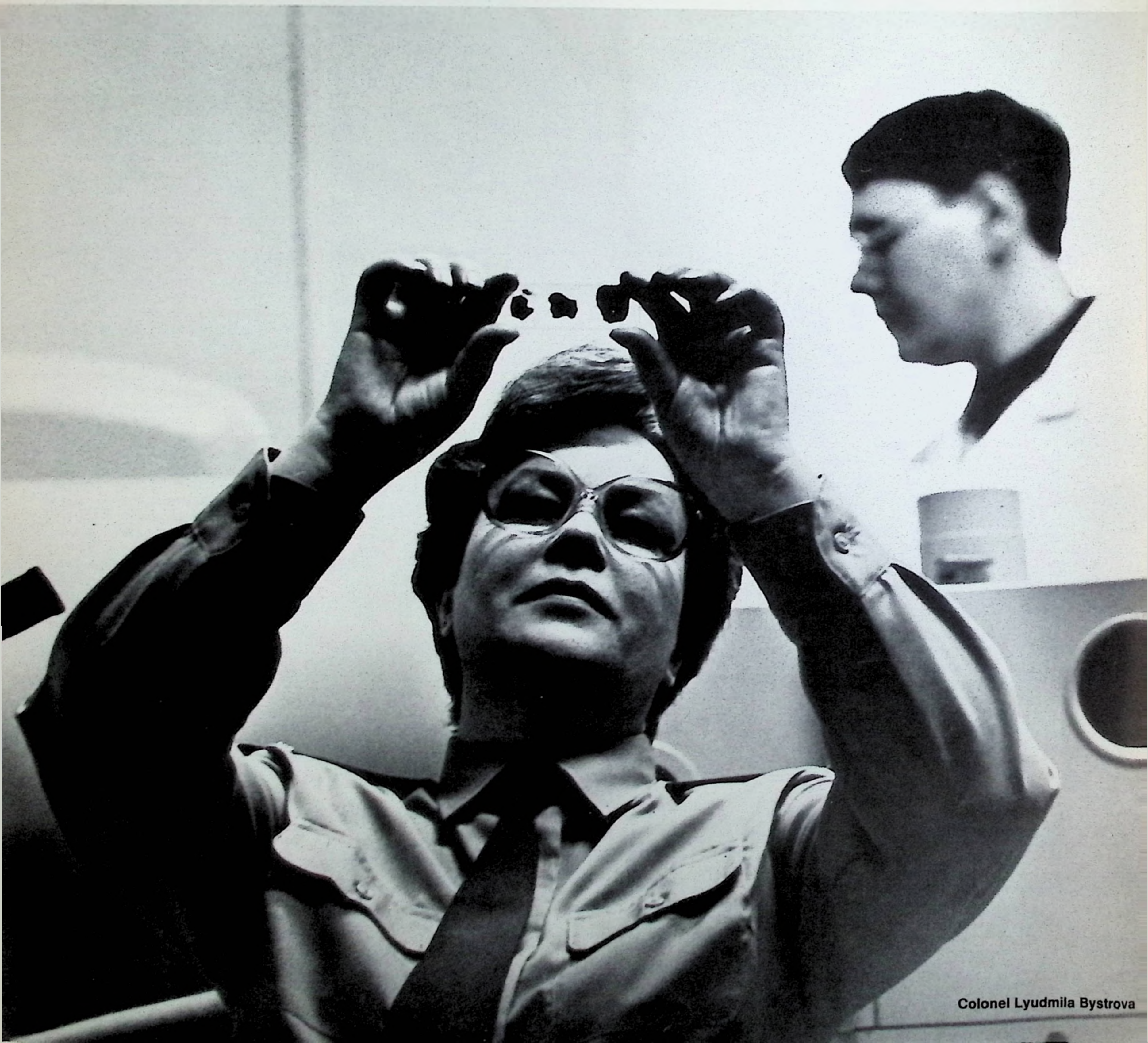
Nearly 3,500 monuments and more than 2,000 buildings have been placed under state protection. Nevertheless, Leningrad is a living city, developing and expanding. Contemporary styles have little to do with the baroque or classical styles, but they suit Leningrad equally well.

Above: Architects discuss Leningrad's development in the near future. Above left: Leningrad has a new sea terminal. Left: New high-rise residential areas have taken the place of small villages.

Colonel Lyudmila Bystrova's job has no fixed hours: She is chief of the Material Evidence Investigation Department of the Leningrad militia. Her free time is late in the evenings.

"ONE OF THE GUYS"

By Yuri Alyansky
Photographs by Mikhail Dmitriyev



Colonel Lyudmila Bystrova

She is "one of the guys." That is what Colonel Lyudmila Bystrova's colleagues call her in the rare moments when there is no pressing work. A national conference of evidence research technicians was held recently in Moscow. Colonel Bystrova led a representative delegation of evidence technicians from Leningrad. The delegation comprised several dozen officers, topnotch professionals who had proved their mettle on the job.

Bystrova works on a par with the men. She says that since she holds a responsible position, she has to live up to it, to do more than the others, to react more quickly in unforeseen circumstances. She must give timely assistance to her colleagues and insist on orders being carried out without offending anyone with her persistence. She is not after the power that comes with the position; she is interested in the results—"because the cause we are serving is too serious."

Finding Her Niche

Bystrova's profession is hardly typical for a woman. If anyone had told her when she was a teenager that she would join the militia and become a colonel, she would have been amazed.

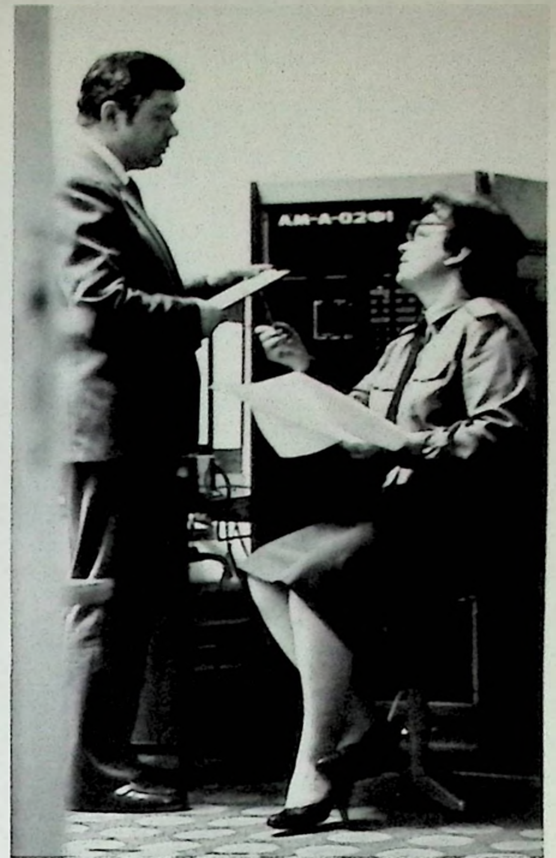
At school she liked physics, chemistry, math and chess. She was also fond of literature, music and especially dancing. She made two attempts to enroll in a dancing school, but she was turned down both times. So she went to work at a factory and enrolled in evening classes at the Institute of Technology. She became a chemical engineer and got a job at a physics and chemistry laboratory. She was even set on writing a thesis, and yet she did not feel she was doing something worthwhile.

An elderly lawyer who often came to her friends' home noticed that the young girl had an agile, analytical mind and keen intuition. He was the first person to interest her in the legal sciences. In 1964 Bystrova went to work at the Material Evidence Investigation Department of the Leningrad militia. The department had people of different professions, and her knowledge of chemistry came in handy.

No "Cops and Robbers"

The notion that a law enforcement officer's job is to chase criminals up and down dark alleys, with dogs panting out in front, and to engage in shoot-outs is a thing of the past for Bystrova, though she did have a taste of that, too, in the beginning.

However, her career developed mostly along intellectual lines. Once again she had to go back to studying—jurisprudence this time. What she had learned previously was also useful because her work called for a knowledge of physics, chemistry, medicine, crystallography and optics. For instance, myriads of fragments from the headlights of a car lie at the scene of an accident or a crime. Evidence investigators have long been interested in headlights. Even though cars of the same brand use identical glass for headlights, the investigators needed to develop a reliable method for proving that glass fragments belonged to a definite car, and the method could not be just placing the fragments together to re-create the whole, like a jigsaw puzzle. The evidence technicians took this problem to scientists at the Institute of Optics.



Bystrova is not after the power that comes with her position. The important thing is to get the job done, and the work she and her colleagues do is too serious to worry about other matters. She confers with her colleagues every day, on the phone and in personal meetings, sharing opinions and planning her course of action in pending cases.

Evidence investigation today relies more and more on the achievements of science. Bystrova had to write papers on such themes as "Low Temperature Spectral Luminescent Analysis," and "The Traces of a Blow on the Skull Bones." In a paper entitled "The Traces of Metallization After a Blow Dealt with a Metallic Object," Bystrova worked with oncologists also interested in this subject.

People of different professions are interested in Bystrova's research—literary experts ask her help in deciphering the obliterated lines written by a great poet of the past, in establishing the identity of people in anonymous portraits—and yet she does not consider pure research to be the most important aspect of her work.

"An evidence technician," says Bystrova, "is above all a defender of the people's rights. Very often a person's good name and evidence of his innocence depend on how well the evidence investigator does the job. Both incrimination and defense are handled by lawyers, but crime also requires defense of the innocent from those who encroach on their peace of mind, on their honor, on their very lives. We are in a position to put up a barrier between good and evil, to separate them though they live side by side in reality, to classify the evil and to determine its extent and its essence. We should do that with more than just X-rays, lasers, microscopes or spectral analysis. We must put our hearts into the work."

Sensitive by nature, it is nevertheless Bystrova's duty to enter the houses of strangers when misfortune or tragedy strikes and to witness tears and sorrow. To the uninitiated, ultraviolet rays are a source of light and vigor; to her, the vivid blue luminescence of articles placed in these rays is a sign of laundered bloodstains, signs of death. How is it possible to get used to such things?

She answered: "Of course it is difficult to get used to, but just as a physician does not die each time a patient dies, so an evidence investigator does not weep over every victim of crime. Still, one should not lose faith in the good. I admit that my line of work carries the risk of becoming hardened, suspicious—of seeing only the negative aspects of human faces. We must not allow that to happen. If you want to know what the saving grace is, I would say it is professional duty, but that sounds stiff and official. I will simply say it is compassion."

Solving a Mystery

Speaking of Colonel Bystrova's work, it is impossible not to tell a mini horror story.

One day while workmen were clearing an old city dump, they found a human skull, which they immediately took to the militia. Investigation began with the reconstruction of the head according to the method of Professor Mikhail Gerasimov, an eminent anthropologist, archeologist and sculptor. By reconstructing the tissues and muscles on the skull, pathologists produced a fair likeness, which they photographed. The photograph was distributed in the hope of identifying the murdered man, ▶

but with no result. Then the skull was turned over to the evidence technicians, and Colonel Bystrova took over.

She decided to analyze the victim's dental fillings and to transcribe the results of chemical analysis onto a chemical and mathematical diagram.

Dentists have long served forensic medicine and evidence investigation, providing the key to many mysteries. When a dentist mixes the amalgams, polymers and other substances for fillings, he does not usually weigh the quantity of each ingredient but relies on his own sense of proportion. If a patient has several teeth to be filled at one time, the dentist mixes the filling material for all of them at once. Therefore, if a patient had three teeth filled, the chemical compound would be the same in all three. If it were clear that the dead man had had three teeth filled at one time, two or four the next time and only one the third time, that would produce a mathematical combination sufficiently individual to be deciphered from the records of Leningrad dentists. The case history of the murdered man was bound to have precisely such a record of treatment—that is, if the victim was not from another town, in which case the search would be more complicated.

Bystrova had to do some very precise work to obtain accurate information. She succeeded in establishing the number of fillings done at different times. Checking the case histories was routine, though it took a lot of time and effort. Finally, the name, surname and address of a definite man were discovered, and that helped in capturing his murderer and bringing him to justice.

"The essential thing is to work so that justice triumphs," says Bystrova. "For that I am ready to sacrifice nights of sleep and leave no stone unturned."

Her Own Choice

When Colonel Bystrova comes to work in the morning, she charts the program for the day. She knows exactly what sort of job to entrust to each subordinate. For instance, one man is capable of doing a lot of work in one day; another is good at establishing contacts with people and enterprises; a third may be very slow in getting the job done, but he will be sure to get to the bottom of the most complicated problem.

After a busy day she still has the strength and the desire to do the cooking, which she actually enjoys, to see her friends or to go with her husband for a walk around the most beautiful city in the world (she insists it is). At work Bystrova has to wear a uniform, but in the evenings she loves to dress up. In the evening a person must relax after the psychological and nervous stress of the day. "I wonder if there is a switch in the brain that could turn off the memory of the day's worries," she says jokingly. ■

In her leisure time Bystrova likes to go for walks, with her husband or by herself, through the beautiful city in which she lives. Above: On the Fontanka embankment she chats with two young girls, who probably have no idea they are talking to the chief of the Material Evidence Investigation Department of the Leningrad militia.

The Lenin Prize, the highest award in the country, was presented in 1986 to a group of Leningrad restorers who brought life back to the suburban museum palaces that were destroyed in World War II.

Lenin Prize winners, left to right: Alexei Kochuyev, woodcarver; Anatoli Kuchumov, art scholar; Yakov Kazakov, painter; Nadezhda Ode, sculptor; Pyotr Ushakov, gilder; and Alexander Kedrinsky, architect. The award was for work in restoring the museum palaces.

BEAUTY REBORN

By Alla Belyakova

Photographs by Vsevolod Tarasevich and Rudolf Kucherov

An eighteenth century French traveler declared that "Versailles pales before the magnificence of Peterhof." Peterhof, now called Petrodvorets, is one of five palaces near Leningrad that were residences of the czars. Petrodvorets, Pushkin (formerly Tsarskoye Selo), Pavlovsk, Gatchina and Lomonosov (formerly Oranienbaum) are often called Leningrad's "pearl necklace."

For more than two centuries St. Petersburg was the capital of the Russian Empire. The emperors and empresses stinted nothing on the building of their palaces, commissioning the very best foreign architects and artisans to work for them. The genius of Bartolomeo Rastrelli, Giacomo Quarenghi, Charles Cameron, Pietro Gonzaga, Antonio Rinaldi and Carlo Rossi reached its zenith in the splendid architectural groups of the eighteenth and nineteenth centuries. The Russian architects Andrei Zakharov, Alexei Kvasov, Ivan Starov, Vasili Stasov, Vasili and Ilya Neyolov and Savva Chevakinsky contributed their inimitable style to the country's architecture as well. Thousands of anonymous and well-known master masons, molders, smiths, metal chasers and gilders built and decorated the buildings.

After the 1917 Socialist Revolution the ideal "Everything built by the people should be returned to the people" became a reality. On Lenin's initiative, several decrees relevant to this point were signed in 1918: "On the Protection of Relics of History and Culture," "On the Registration and Protection of Monuments of Art and Antiques in the Possession of Private Citizens, Societies and Establishments" and "On the Protection of Relics of Nature, Parks and Gardens." That was when the young republic was beating off the White Guard and the foreign interventionists, who wanted to strangle the socialist revolution in its cradle. The country was suffering from famine and general devastation: Factories stood empty, and homeless youngsters roamed city streets. And still, the people preserved the creations of genius. That was an expression of the great optimism of the Revolution.

In the early 1920s, 136 historical and cultural relics were under state protection in Petrograd, as Leningrad was called in those days. By 1941, on the eve of World War II, the number had risen to 219. Today the number of historical and cultural relics in the Leningrad region exceeds 3,000.

War descended on us early on the morning of June 22, 1941, in the lovely season of silvery white nights in Leningrad. On June 23 Leningrad- ▶

Rastrelli's masterpiece, the Catherine Palace, has regained its former glory.

During World War II, nazi troops ruined the façades and interiors of the Catherine Palace. Restoration began soon after the war. Builders used helicopters to help replace the wooden roof trusses above the Grand Gallery with 11 metal trusses.

ers could already hear the sound of hammering in the Hermitage and the Russian Museum, where museum staff members were preparing to evacuate priceless art treasures deep into the heart of the country.

The Nazis were making their thrust toward Leningrad; their blitzkrieg was scheduled to the day. Hitler had already set August 9 for a gala banquet to be held in Leningrad's Hotel Astoria.

The fate of Leningrad's suburbs, which received the initial blows, was truly tragic. Anna Zelenova, the curator of the Pavlovsk Palace Museum, recalled: "We had made a very thorough inventory of the museum's treasures just before the war. That helped us in assessing our collections, which meant that, in case of evacuation, we would remove the masterpieces first. But how do you determine the value of an inimitable work of art? For a museum worker, that decision is as painful as a mother's decision about which of her children she should save first.

"We evacuated paintings, porcelain and tapestries, trying above all to pick out samples. For instance, we took just one chair from a precious set of furniture in order to preserve at least a sample. The priceless statuary, bronze masks and marble busts that we could not take away, we buried in the ground, marking the locations on secret maps."

A unique collection of antique sculpture in the Pavlovsk Palace could not be removed—the enemy was already on the approaches to Pavlovsk. Zelenova decided to immure the statuary in the far recesses of the palace basement.

When the Nazis entered Pavlovsk, the Gestapo occupied the palace. Who knows what tragedies the antique gods and heroes witnessed from their secret hiding place!

But how were the magnificent palaces, fountains, bridges, wrought-iron grilles and fences to be evacuated? How were the huge old oaks around Petrodvorets' Mon Plaisir Palace to be protected? The place had echoed the footsteps of Peter the Great, the founder of the city on the Neva. How were they to save the age-old limes of Tsarskoye Selo, where the Muse had appeared to Lycée student Alexander Pushkin, the genius of Russian literature and culture?

All that was left to the mercy of the nazi boot. For almost 900 days German troops had control of Leningrad's suburbs. Only Lomonosov remained in the hands of Soviet troops.

The Nazis had prepared the "cultural occupation" of captured territories well in advance. They had drawn up monstrous plans not only for the annihilation of races and nations, but also for the theft and destruction of national treasures.

Architect Alexander Kedrinsky was in the army in the field during the war. "I saw German trophy catalogues that accurately listed all the treasures of the Hermitage and the Russian Museum," he wrote. "For instance, the paintings of [Ilya] Repin and the Peredvizhniki [Wanderers] did not interest the Nazis at all. They were earmarked for destruction. The treasures of the Hermitage that were to be taken away included only originals by the great foreign masters."

When Soviet troops entered Germany, they located the masterpieces and salvaged them from the Dresden Gallery. Risking their lives, Soviet sappers saved Cracow, the gem of Polish architecture, from being blown up—the Nazis had mined the city before they retreated.

During the enemy occupation of Petrodvorets, the Grand Palace, that magnificent early Rastrelli creation, caught fire as a result of the bombing and shelling. The soldiers drove those museum workers who remained out into the park, and under pain of death forbade them to fight the fire.

The invaders turned the halls of the palace into stables. Horses stamped on the magnificent parquet floors patterned in precious woods. One of the halls in the splendid Catherine Palace in Pushkin was turned into a motorcycle repair shop. The seventeenth century tapestries and the paintings of the Italian masters were used as rugs in German dugouts. To make these dugouts "cozier," the German troops dragged in gilded rococo chairs and card tables encrusted with mother-of-pearl. The enemy soldiers took everything they could carry out of the palaces, from candelabra and Swiss clocks of rare workmanship to paintings they tore out of the frames and eighteenth century silks they stripped off the walls.

When cultural experts arrived from Germany, this marauding was replaced by organized plunder. Objects of art were packed neatly into boxes, and precious canvases were rolled into scrolls. In Pushkin they took the parquet floor apart piece by piece and dismantled the unique Amber Room. These objects have not been located to this day.

The famous Samson fountain at Petrodvorets was sawed into pieces and taken to Germany to be melted down. I remember my grandmother crying disconsolately when she heard of the loss over the radio. She had lived her whole life in Petrodvorets. She mourned the loss of Samson as though it were a living person, repeating, "Why, oh why did they kill him?" There was no comforting her. Our only consolation was that the enemy would be made to pay for it.

Finally the blockade, broken on February 18, 1943, was lifted completely on January 27, 1944. Leningrad had been in the death grip of the siege for 900 days. Fleeing before the advance of the Soviet Army, the Nazis destroyed everything in their blind fury. They planted 11 bombs under the Catherine Palace, the trip wire stretched across the bottom of the Great Pond with the Cesma Column looming over it. What still remained of the palace and the monuments was to fly up into the air and turn into a pile of debris. Nothing was to exist after the Nazis left, nothing at all.

The damage done to Leningrad by the Nazis was calculated at more than 20 billion rubles. A ruble can be replaced by another ruble, but the works of human genius cannot be replaced. How were they to be brought back to life?

In 1943, when Leningrad was still encircled and the enemy was a mere 16 kilometers from the Hermitage, the country's first school of architecture and art opened to prepare various experts to restore ruined buildings and monuments in the city and its suburbs.

Who was enrolled at the school? Mostly young people, aged 15 and over, with no less than seven years of school behind them and with an inclination for drawing.

The moment Petrodvorets, Pavlovsk, Pushkin and Gatchina were liberated, the keepers of museums and parks—those that survived the blockade—rushed to these suburbs together with the members of the State Inspection for the Preservation of Monuments.

Art scholar Marina Tikhomirova remembers her first impression of liberated Petrodvorets. It was January 31, 1944, four days after the blockade of Leningrad had been completely lifted. "A truck with Baltic sailors took me to Petrodvorets and stopped near the Upper Garden. The sailors waved to me and drove off. One of them called out: 'Till we meet again at the opening of the Petrodvorets fountains!' You can't imagine what a help those words were to me that terrible day. A horrifying picture of destruction met my eyes. The Grand Palace had not only burned down, it had been blown up in the center. Only one wall, which had miraculously survived, stood over the chasm, swaying in the wind and threatening to collapse. The Lower Park was like a snow-covered desert, with dead trees entangled in wire. And there was Samson's empty pedestal in the half-ruined cascade. All was chaos and silence, and everywhere I saw signs in German: '*Achtung, Minen* [Beware of mines]!'

"The museum workers who had gone to Pavlovsk, Pushkin and Gatchina had the same sad tale to tell."

A conference on the restoration of the palaces ▶

around the city was held in the Leningrad House of Architecture on February 18, 1944. The hall was packed. Nikolai Belekhov, chairman of the State Inspection for the Preservation of Monuments, reported on the state of the architectural groups. (The newspapers and the radio also described the condition of the palaces and parks.) Less than a month after the 900-day blockade, the Leningraders, still suffering from hunger and cold, voted for restoration.

To be frank, some people opposed the idea. Polemics regarding restoration as such have been going on since the beginning of the century. Some people see restoration as the only way to preserve monuments, while others compare the results of restoration to stage props and suggest instead preserving the ruins and turning them into museums. They argue that a difference between the original and the restored version is inevitable.

Still others said that apartment houses should be built on the sites of the former palaces because many people were living in dugouts at the time. "The war is not over yet, everything is in ruins, and people have no place to live."

Incidentally, even now some foreign journalists and visitors are full of wonder as they stroll about the magnificent halls of the restored Pushkin and Petrodvorets palaces. "Why do you want all this beauty when even now you are short of housing?" they ask.

Despite the austerity of the postwar years, starting in 1945, the Soviet Government allocated large sums for the restoration of cultural relics. But it took more than money to raise them from the ashes.

The reason was that practically all the suburban parks were mined, and it was impossible to set foot anywhere. In Petrodvorets alone, 15 persons were killed and 20 gravely wounded after the enemy was driven out. The sappers defused up to 35,000 mines, shells and bombs—more than 56,858 explosives.

The sappers were followed by the residents of Leningrad, who came to clear the parks of fallen trees, to fill in the trenches and antitank ravines and dugouts. Up to 2,000 people would come on weekends to clear away the debris.

They searched for tree stumps, which would help them to trace the lanes of the park. The Nazis had destroyed more than 30,000 age-old trees—more than one-third of the entire park—in Petrodvorets alone. The famous Marlinsky Lane of 1,050 lime trees leading up to the charming palace of Czar Peter's time had disappeared completely.

In the ruins, open to the wind and the rain, art scholars and museum personnel dug like archeologists to find bits of original molding, fragments of décor and statues in the piles of brick and garbage. A fragments storehouse was set up where the precious little pieces were collected.

The Gatchina Palace seemed quite hopeless. It had been completely destroyed by fire except for the front doors, which had miraculously survived. You could open the doors and step into the emptiness beyond.

In the summer of 1945 the Lower Park at Petrodvorets was first opened to visitors. It was still in ruins, and there were no fountains. It was strange not to hear them spouting and not to see the 20-meter-high pillar of water rising from Samson. It is as impossible to imagine Petrodvorets without Samson as it is to imagine Athens without the Acropolis.

Samson got a new lease on life in 1946, when sculptor Vasili Simonov, a veteran monument-maker, was commissioned to re-create the famous fountain. Before him lay a whole pile of prewar photographs of Samson, from which he chose 18 to serve as models. Simonov had to familiarize himself with the style of Mikhail Kozlovsky, the creator of the original, and to adopt that style as his own in order to breathe some life into his creation. Simonov drew Sam- ▶

Alexander Kedrinsky, architect

If souls were reincarnated, the great architect Bartolomeo Rastrelli would certainly have liked his soul to be resettled in Alexander Kedrinsky. A Leningrad architect who has devoted 40 years of his life to the restoration of Rastrelli's masterpiece, Kedrinsky has been in charge of the general design for the palace's restoration since 1957. Kedrinsky knows every volute of the intricate décor, every fragment of the parquet floor.

As Kedrinsky talked about the problems of restoration, the ashtray gradually filled with butts. I remarked that smoking was not good for him, remembering that he had recently suffered a heart attack.

"There is only one thing that is not good for me, and that is idleness," Kedrinsky answered. "Even with the heart attack I was in luck, in a way. During my stay in the hospital and later in the sanatorium, I wrote a book. Usually I do not have a minute to spare. I dream of generalizing the unique experience of Soviet restorers accumulated in the 40 postwar years. It has no analogies in the world."

"We were the first to use the method of reconstitution. Before the war restoration was confined to two types of work: conservation or, in other words, the prevention of further destruction, and the restoration of small fragments that were obviously ruined.

"In Leningrad the theory and practice of reconstitution have been developed because the destruction during the war was so great that only ruins remained of architectural monuments.

"There were two solutions: either to raze everything with bulldozers and build something new—and this was proposed for Petrodvorets, by the way—or to restore the monuments. Restoration got the upper hand for the following reasons.

"There was one more thing. The articles that were part of a whole interior designed by the architects were evacuated from all the suburban palaces. Removed from the place to which they belong, they become just separate objects of applied art. They would be kept somewhere in the reserves and displayed now and then. The return of these objects enhances the authenticity of the interior. Thus, we restore the artistic image of the epoch.

"In the process of restoration work, we revived a number of forgotten technologies and enriched modern applied art with techniques that were being gradually forgotten.

"The first thing we did, in 1943, was to create a school for training young restorers. First, we encouraged them to study the technique of old artisans—not to copy their works blindly, but to learn the very essence of their methods and even their way of thinking. The students studied the secrets of the crafts and the methods, most of which had been lost. It was the most difficult part of the work.

"The art school is the foundation of the restorers' current accomplishments. Its graduates are first-class artisans who have won gold medals for their outstanding achievements in the sphere of restoration. They restored masterpieces of artists of the past. But they are not the coauthors of their illustrious predecessors. They restore the works of art in the same way as the old artisans would have done it themselves if they had been destroyed during their lifetime.

"A unique Soviet school of restorers has been created, and I have every reason to say this. Modern science helps us in our work. Earlier, the technique for gilding was based on joiner's glue. It dried with time and cracked, and a network of cracks covered the gold layer. Today when we gild something anew, we add a special substance to the primer. Besides, we use a new emulsion during the gilding, which ensures a long life to gilded articles. Physics and chemistry came to our aid, although the techniques of old artisans continue to serve us as well. For instance, specialists in gilding continue to make their brushes from squirrels' tails.

"We introduced some novelties in construction methods too. We were the first to use helicopters in construction. They were used when we were changing the trusses in the roof of the Catherine Palace. The operation took two of Leningrad's white nights. There is usually no wind on such nights, so the accuracy of the installation was guaranteed. This accelerated the work. What is most important, not a single drop of rain fell on the hall, which was finished by that time. Today helicopters help to install supports in the North, in Siberia—everywhere. If you want to know whether our ties with other countries help us in our work, I must say Yes, of course, they do. Pushkin [Tsarskoye Selo] has always been considered the Russian Versailles. To be more exact, it is a Russian version. Many first-class artisans who worked in Russia came from Western countries. We closely studied their style and the style of their contemporaries from their native countries. For example, Giuseppi Valeriani painted the largest decorated ceilings together with Rastrelli. With his brother, Valeriani also painted numerous chapels and palaces in his native Italy. Photographs of those paintings helped us a great deal.

"When the chief curator of the Louvre Museum in Paris came to Pushkin, she told me: 'At one time Russia invited artisans from Europe. Now it is time for us to invite artisans from Russia because we have no artisans like them.'"

Speaking about his plans for the future, Kedrinsky suggested: "The most important thing is to finish the Amber Room, our lost miracle—or, to be more exact, the stolen miracle. I dream of restoring Fyodorov Town in Pushkin and turning it into a children's park. I would like to restore the China Palace for young people. Pushkin has no theater of its own, and the town needs one badly. I am absolutely positive that all the architectural monuments should serve the people, should feel their warmth. Otherwise they will die."

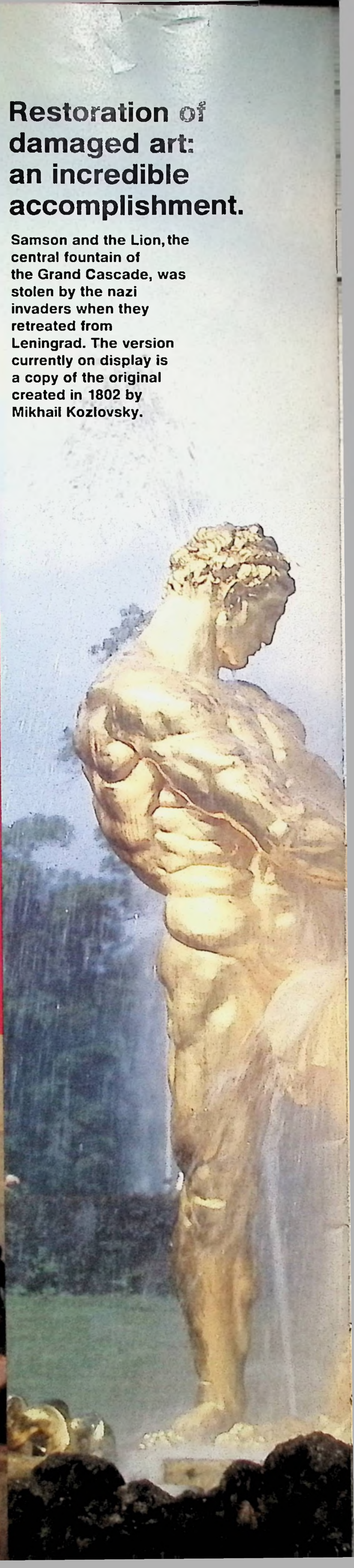
Petrodvorets: architectural treasure.

The palace ensemble at Petrodvorets, once a residence of the Russian royal family, was begun in 1714 and redesigned by Rastrelli in 1747-1752. The slope facing the Baltic Sea is adorned with the famous Grand Cascade of fountains, left in ruins (inset) after World War II.

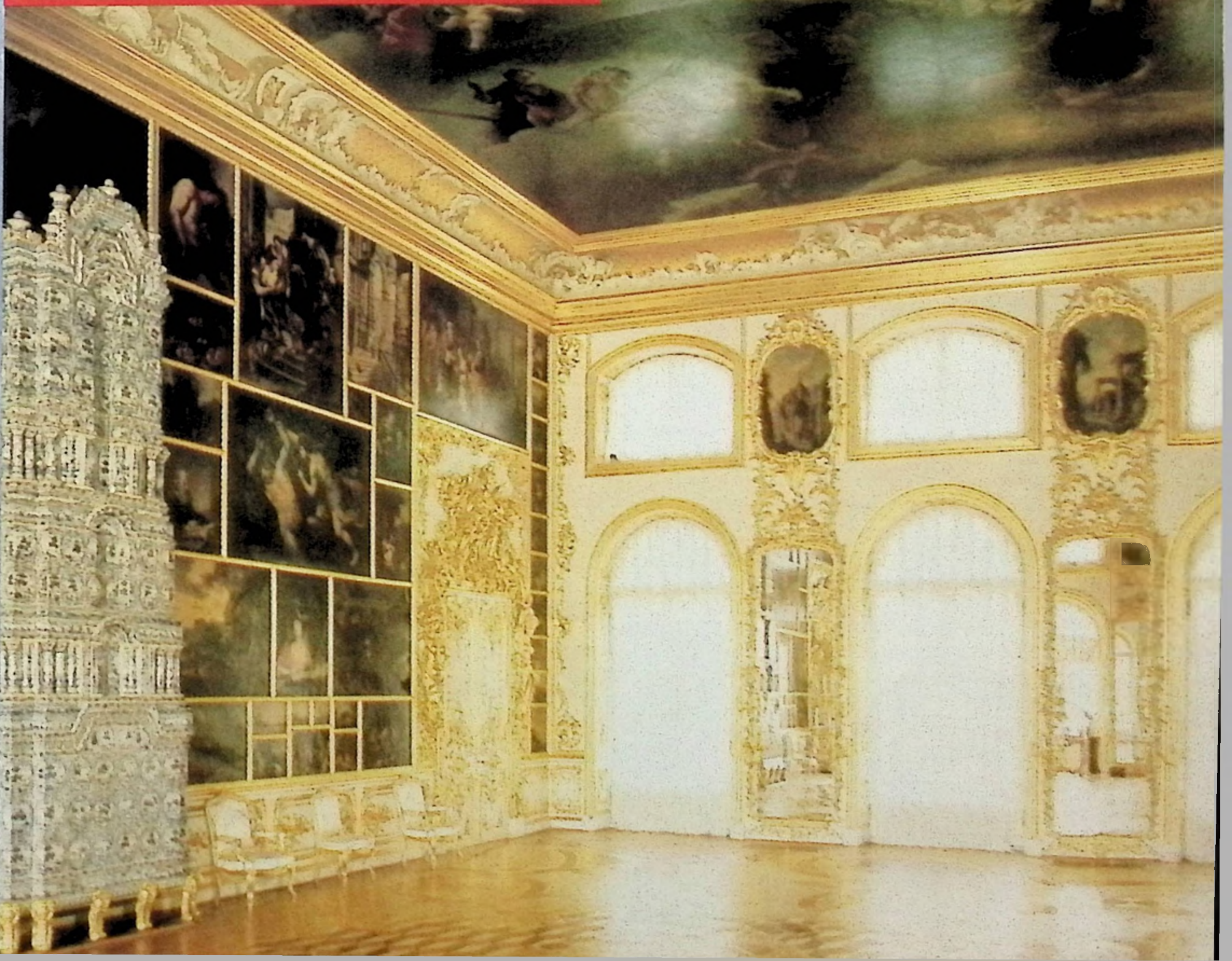
Restoration of damaged art: an incredible accomplishment.

Samson and the Lion, the central fountain of the Grand Cascade, was stolen by the nazi invaders when they retreated from Leningrad. The version currently on display is a copy of the original created in 1802 by Mikhail Kozlovsky.

The Grand Cascade at Petrodvorets is graced with many gilded statues and varied fountains. Below: The Catherine Palace in Pushkin: Little of it remained after the nazi plundering and pillaging.



The Catherine Palace's Grand Gallery, the main hall. Below: In the palace's Picture Hall, 130 pieces of seventeenth and eighteenth century European painting are on display. Inset: Restorers faced an almost insurmountable task.



Pavlovsk

The garden, restored to beauty, has many pavilions, fancy bridges and statues. Inset: Calliope, one such statue, is a bronze copy of a statue in the Vatican Museum. Below: Empress Maria's library.

son's silhouettes on tracing paper, then projected them onto a screen, comparing a one-tenth scale model with the contours from all angles. The work continued for two years. Simonov knew how much the people of Leningrad loved Samson—every family album had photographs taken with the fountain in the background.

When the new Samson was finally cast in bronze and taken down Nevsky Prospekt, Leningrad's main street, on a special platform, people applauded and waved their hands, windows opened and happy faces looked out, and the military saluted it as they would a general. Many Leningraders cried openly, their tears expressing the bitterness of loss and the happiness of returning to a peaceful life again. That was only two years after the war ended—on August 31, 1947.

In 1986 for the first time, the prestigious Lenin Prize was conferred on a group of restorers. Until recently restoration was regarded not as artistic endeavor, but merely as a repetition of what had been done before—something like repair work. But the members of the Committee on Lenin Prizes were unanimous in their decision. When the names of the restorers were read out at the committee meeting, the hall resounded with stormy applause. The award was in recognition of 40 years of selfless and creative labor. All but one of the restorers are past retirement age, but they continue to do the work to which they have devoted their whole life.

A large scientific and production firm, The Restorer, operates in Leningrad with a staff of some 2,000 first-class specialists in various fields, ranging from stonemasons to watchmakers.

In 1984 Leningrad was awarded the European Gold Medal for Achievements in the Preservation of Monuments of the Past. ■

Nadezhda Ode, sculptor

Nadezhda Ode is a sculptor who specializes in plaster work. Once she was watching a film in a movie theater. The scene was taking place in the palace halls. Suddenly she screamed desperately: "Stop! That's the one!" She had recognized a plastered cartouche from the Front Staircase of the Grand Palace at Petrodvorets.

Rastrelli, a man of boundless imagination, decorated the front halls of his palaces with intricate gilded carving. Not a single volute was completely identical to another. Baroque is a joyful and festive style. The ornamentation, resembling golden lace, was carved from wood by skillful carvers of the eighteenth century. During the war it was destroyed instantly. You can well imagine how quickly wood that had dried out over the centuries caught fire. The restoration of the ornaments presented an almost insurmountable problem. However, this is exactly what Ode is busy with.

She graduated from the art school that had been founded in war-torn Leningrad.

"A few artisans remained in besieged Leningrad to pass on their experience to us, and professors from the Academy of Arts delivered lectures about art. The students were mostly teenagers at that time.

"I remember our trip to Pavlovsk in the summer of 1944. Mines were everywhere, and the walls of the palace were about to collapse. And still, teenage boys climbed those seven-meter walls with ropes to the very top to remove the remains of plaster work. Today I am afraid even to look up so high," Ode said.

Ode took part in the restoration of 30 buildings, including the masterpieces such as the Yelagin Palace and the Shuvalov Palace. "However, the Grand Palace at Petrodvorets is my favorite," she said. "There were only poor-quality prewar photographs to give some idea of its magnificent décor. They did not convey the texture well enough because gilded articles usually show up on black-and-white photographs in a somewhat distorted fashion. We scrutinized every volute on the photographs till our eyes began to ache in order to be able to model it in plasticine, to guess all the intricacies of the ornament."

Do you know what a girandole is? I saw one of these beautiful objects for the first time in Ode's studio. It looked like a gilded, spreading tree, with each branch ending in a chandelier. A splendid gold girandole will be cast of bronze from a sculptured model. It took six months to make a model in plasticine.

The accuracy of the work is checked with photographs. After the gilding, a black-and-white photograph of the article is taken. The old and new photographs are compared, and if they coincide, then the work has been done properly.

Ode has also founded a school for sculptors specializing in plaster work. For the young sculptors she is a teacher, a friend and, of course, an example to follow.

Anatoli Kuchumov, art scholar

Anatoli Kuchumov is an art critic and scholar. After suffering a stroke, he was confined to bed for several years and is still not well. His right hand is paralyzed. His doctors even feared that he would lose his speech. However, Kuchumov overcame his difficulties and learned to write with his left hand.

Kuchumov is a remarkable connoisseur of the applied arts. He has been working as a research fellow at the palaces in Pushkin since 1935. As early as the 1930s, people used to say that Kuchumov knew everything about the suburban palace museums. He could simply look at a fragment of plaster work or a chair leg and immediately identify the palace to which it belonged and its creator.

Kuchumov knows the inventory of the treasures of Pushkin, Pavlovsk, Petrodvorets and Gatchina by memory as if it were a multiplication table.

"I knew that the Nazis had committed atrocities with the monuments of Russian culture, but the horror of what I saw surpassed all my expectations," Kuchumov said. He searched for the remaining fragments of palace furniture and décor in the mined parks without paying any attention to the warnings "*Achtung! Minen!*"

The Nazis took all they could (and all they had time to take) to Germany. From Petrodvorets alone, for example, they stole more than half of the 30,000 precious articles in the palaces. Of all the articles stolen from Petrodvorets, only 250 have been found and returned.

Kuchumov was assigned the task of retrieving the stolen treasures. He and architect Veselovsky followed the retreating nazi troops. Kuchumov worked as a regular scout, putting to full use his unique gifts, remarkable memory and fantastic intuition. The Nazis dumped their loot along the sides of the road. With the keen eye of an expert, Kuchumov now and then spotted a piece of a painting, a china vase or a piece of furniture belonging to the palaces.

Soviet troops liberated the city of Tartu, in Estonia. Kuchumov arrived three days later with a unique mandate—the right to search any apartment. In a window he saw the gilded back of a chair. He was not mistaken: It was an armchair from the Crimson Drawing Room of the Gatchina Palace. A card table was also from there. He continued searching in Konigsberg and, finally, in Berlin. There, in the warehouses of the Eastern wharf, the Nazis stored their loot from Russia, the Ukraine and Poland. When Kuchumov was searching a grain elevator, he suddenly saw a fragment of a familiar painting under the grain. It turned out to be the portrait of Catherine II from the Hall of Mirrors in the Pushkin Palace. Kuchumov recovered dozens of wagon loads of museum items that are now on display in Leningrad, Kiev, Odessa and Kharkov.

Restorers can do nothing without photographs and dimensions. Kuchumov found several thousand negatives in Germany stolen from the suburban palaces. The pictures, taken in the early twentieth century, were a real windfall for the restorers.

Kuchumov showed me a letter from a British duchess. She admitted after seeing the Pavlovsk Palace that the restoration seemed like a miracle because it was so difficult to believe. She complained that in her country she could not get a penny for the restoration of old castles.

Alexei Kochuyev, woodcarver

Woodcarving is Alexei Kochuyev's art. The studio where he works with his 12 colleagues is located in the Evening Hall of the park at Pushkin. Many years ago, during Catherine's reign, dancing parties for a select few were held there. Kochuyev's main work is the restoration of the Grand Palace at Petrodvorets. Kochuyev carves the ornaments from wood first modeled in plasticine and then cast in gypsum. He keeps a pile of ordinary linden and pine boards in his studio. It is difficult to believe that they will be turned into lace-like luxuriant frames, Cupids and intricate garlands of leaves and flowers.

A woodcarver has more than 300 tools, ranging from a circular saw to a tiny chisel that fits into a manicure set. With the help of these tools, the skilled hands of the artisan turn wood into lace.

In 30 years Kochuyev has learned the style and manner of his predecessors as well as if he knew them personally. He guesses where each volute should be placed. In the Grand Hall of the palace, which is richly decorated with gilded carving, even art connoisseurs cannot distinguish the old parts of the carving from the new because they are so much alike in style and manner.

Pyotr Ushakov, gilder

Gold looks so ordinary in the studio, like foil for wrapping candy. The difference is that the gold foil in this studio is only 0.12 microns thick. Pyotr Ushakov, head of the team of specialists in gold plating, explained: "To us it is not exactly gold, just material to work with."

Being no specialist in gold plating, I thought earlier that there was nothing difficult in it—just put a layer of gold on the surface and see to it that it glitters. However, it turns out that gold has various shades—from pink and green to nearly black. In the hands of the artisans, gilded things become gold paintings. Without an artistic approach, the things they create would be only like glittering samovars.

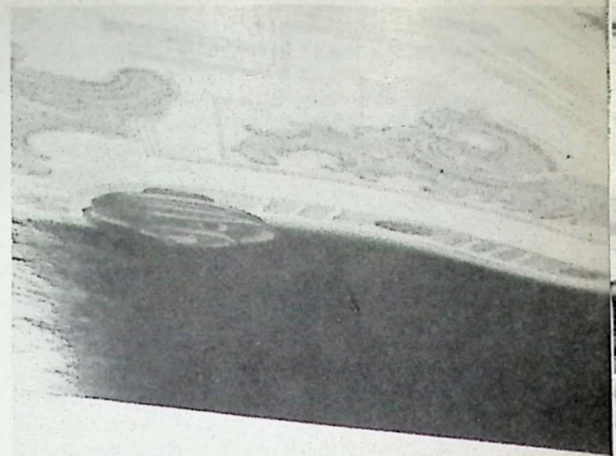
Ushakov was taught by the old artisans who in their time had gilded the dome of St. Isaac's Cathedral and had worked in the royal palaces. To the teenaged Ushakov they revealed the secrets of their craft.

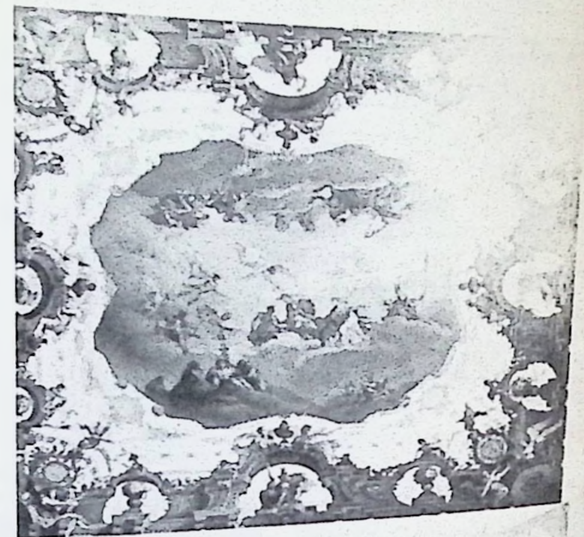
Once Ushakov was asked what was the most important trait for a specialist in gold plating. He said it was patience. Another question was: What does gold plating not withstand? Ushakov said that it could not endure uncultured people. Some excessively curious tourists scratch gold plating with coins to see how thick it is.

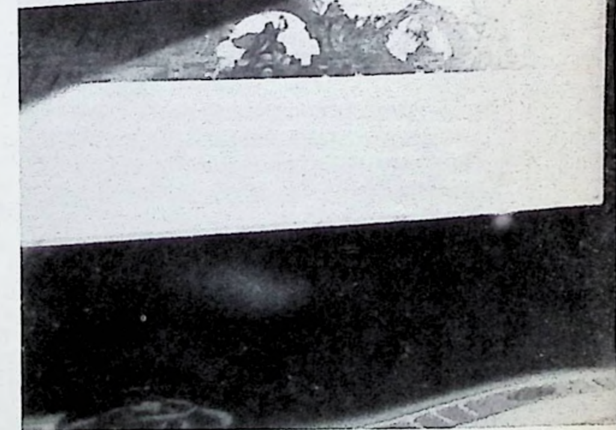
When gilding part of the wooden décor, the artisan should feel every shade of color, should remove the excessive glitter where it is necessary to make the ornament dull or should add more gold to emphasize the depth of its noble yellow color.

The elegant Front Staircase of the Grand Palace at Petrodvorets resembles a precious box. Four statues represent the four seasons of the year. All of them were gilded by Ushakov. Only one of them was made in the eighteenth century. Visitors are often asked to guess which of the four is the original. The answers are seldom correct. The point is, all four statues were created by true artists.

Cupids were a favorite attribute of the baroque style. One cannot help smiling when looking at these joyful little boys with wings. Ushakov carefully took a gilded Cupid in his hands as if it were his own baby. "Look at his glittering toenails," he said. "I even gave him a pedicure because he is such a lovely boy."







The ceiling of the Grand Hall of the Catherine Palace is actually one huge painting. To see it all, you have to stand for a long time with your head tipped back, until your neck begins to ache. Yakov Kazakov and his team worked in this position every day for 10 years. Standing on the scaffolding, they restored the destroyed painting of old artists. Almost nothing was left of the decorated ceilings of the palace after the fire. True, the restorers had at their disposal black-and-white photographs, some of them amateur photographs, but they were not enough to determine the colors and the composition of the painting. The restorers began to search for analogies—works of the same painters—to study their style of painting and their favorite details. They ordered reproductions and color slides from the collections of the Hermitage and of the Russian museum and sometimes from Italian

Yakov Kazakov, painter

and French museums. A restorer should learn to feel the style and manner of the painter who lived two centuries ago just as an actor immerses himself in a role.

The work of monumental painters has always been collaborative: A painter cannot decorate large cathedrals and palaces by himself. The same is true for Kazakov. His team consists of four painters. They complement each other well and have stood up to all the trials.

The work of a painter-restorer requires treading gently, avoiding infringing on the creator's original and preserving as much genuine painting as possible. In other words, the restorer must play down his own artistic personality for the sake of the personality of the original painter.

"When I was in Italy with a group of restorers," Kazakov said, "we saw in what a barbarian manner their restorers had touched up even the works of great painters such as Tintoretto. They did it only to please the public, to make tourists admire the paintings. Business interests seemed to be setting the terms of restoration.

"It is very difficult to paint ceilings because they are seen by people from below. To check our work, we put mirrors on the floor to see how the painting looks from the usual vantage point."

Kazakov is restoring the decorated ceiling "Triumph of Peace." As I was scrutinizing the ceiling's fragments, it occurred to me that the allegory was very appropriate: The geniuses of the world are throwing weapons into the fire. The painting was created 200 years ago, but the subject is as topical today as ever.

NEXT ISSUE

COAL: STAGING A COMEBACK

New Interest in "Outdated" Fuel

The power industries in many countries are taking another look at coal. Why such renewed interest? Coal reserves are extensive and relatively easy to reach. In an interview, Mikhail Shchadov, USSR Minister of the Coal Industry, discusses the role the fuel will play in meeting the energy needs of the USSR, a world leader in coal production.

A VISIT TO DONETSK

Coal Mining and Rose Bushes

Donetsk, in the USSR's oldest coal basin, is a major industrial coal-mining center. Yet its cityscape looks more like a vacation resort's with its many rose bushes and green shrubs. There are more than a million of them—one for each city resident.

SAVING THE KARA-DAG

Pearl of the Crimea

The Kara-Dag Mountain Range, on the Crimean coast of the Black Sea, is small but very picturesque. For years it was a popular site among tourists and vacationers. With time, however, the area began showing the signs of over-use. Eight years ago the Supreme Soviet of the Ukraine ended all economic activity in the area and declared it a nature preserve. The results are encouraging.

COMING SOON

Women and Society

The Anichkov Bridge on Nevsky Prospekt, Leningrad

Photograph by Vsevolod Tarasevich