

# SOVIET LIFE

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BALTIC REPUBLICS  
EXPLORING THE PLANETS  
GORKY:  
A PEOPLE-ORIENTED CITY

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# SOVIET LIFE

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## LETTERS TO THE EDITOR

My father has been subscribing to SOVIET LIFE for several years, and our whole family enjoys your magazine very much. It is hard to believe that you can produce this publication every month, which is so beautifully and carefully done. It certainly contributes to producing peace and understanding in our troubled world, and I wish you continued success.

(Dr.) Margaret Schatkin  
Chestnut Hill, Massachusetts

The current April issue of SOVIET LIFE has, on page 50, a feature story about the recent visit to the Soviet Union made by my wife and myself on behalf of the American Theatre Training Institute and the Municipal Theatre Company of New York.

You mentioned in your story that it is my desire and intention to invite to the USA some of the leading Soviet theatre artists to direct Russian and Soviet plays here. It would help greatly were you to clarify that this is not merely my individual view—but that these invitations, when extended, will be on behalf of the American Theatre Training Institute (ATTI). Yuri Zavadski, Georgi Tavstonogov, Oleg Yefremov, Yuri Lyubimov, Galina Volchek, Anatoli Efros, with whom I spoke on behalf of ATTI—all enthusiastically accepted and endorsed this concept. They agreed also with my suggestion that, in exchange, various prominent directors of the USA (not I alone, as your article mentioned) could be invited to the Soviet Union to direct plays of the USA dramatic repertoire.

We in the USA will certainly profit enormously from the direct work contact with our Soviet theatre colleagues as we experience the depth and diversity of their artistic approaches. Hopefully, they can learn from us as well.

Professor Paul Mann  
New York, New York

I am always pleased to receive SOVIET LIFE as a counterbalance to the anti-Soviet distortions presented by the mass media. The colorful illustrations and achievements of the people prove very helpful in my class work.

Professor A. Barsky  
Winona, Minnesota

I am writing you this letter to sincerely thank you and your staff for the tremendous accomplishment of publishing SOVIET LIFE. It is indeed a magnificent illustration of life in the Soviet Union. My wife and I have already visited the Soviet Union and have planned another trip to increase not only our knowledge but also our appreciation of a great nation.

Joseph F. Collins  
Rochester, New York

In our judgment SOVIET LIFE is the most intellectual, fascinating magazine published in the United States.

It acquaints us with clear facts, truths and principles of the Soviet Union.

Dr. and Mrs. Maxim P. Melnik  
Lansing, Michigan



Front Cover: Dance Festival participant Sylvia Aun. Articles on the Baltic republics start on page 2. Photograph by Alexander Makrinov

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## Aircraft Designer's Jubilee

Oleg Antonov, aircraft designer, is 70. The design office he heads has produced more than one generation of passenger and freight aircraft.

The AN-10 plane was awarded the Grand Gold Medal and a certificate at the Brussels world exhibition in 1958. The 50-ton giant AN-12 was the first of its class to land on a drifting ice floe (it also flew from Moscow to Antarctica).

The AN-24 aircraft went into passenger service in 1962. Because of the great distances between the regions of the USSR, a small and maneuverable plane such as this, which can land in a forest clearing, is indispensable on lines serving remote towns and villages.

The designer is a man of many interests—painting, economics and sociology, among others. He is also a good tennis player. Despite a busy work schedule, he always finds time for the game.



## Mirror of the Universe

The USSR recently built the world's largest telescope with a main mirror six meters<sup>1</sup> in diameter. The telescope has already taken photographs of the stellar sky.

To build this 42-ton<sup>2</sup> mirror, it was first necessary to develop a special glass composition. Next, a shop had to be built where the temperature could be maintained with an accuracy of a few hundredths of a degree. Finally, a disc weighing 70 tons had to be cast and then its glass sur-

<sup>1</sup> One meter equals 3.28 feet.  
<sup>2</sup> One metric ton equals 1.1 short tons.

face polished down to several fractions of a micron. Through a specially developed vacuum distillation process, this glass bowl could then be coated with a film of aluminum right in the observatory building.

From the main mirror the light of the universe can be directed to the telescope balconies, which house the numerous spectrographic units. The huge upper platforms of each of these structures could easily accommodate a small house.

The rotating part of the telescope weighs more than 600 tons: Its eyepiece is a latticed steel structure 24 meters long. In its lower end is the main mirror, and in its upper end the cylindrical cabin for observers.

All telescope movements are computer-controlled.

The unique instrument was designed by a team of specialists of the Leningrad Optical-Mechanical Plant led by the gifted Bagrat Ioannisiani.

It is installed in the special astrophysical observatory of the USSR Academy of Sciences headed by Doctor of Physics and Mathematics Ivan Kopylov. Its gigantic dome, located atop Pastukhov Mountain (Northern Caucasus) resembles a knight's helmet with an enormous visor. At night the "visor" is lifted, the main mirror of the telescope is extended, and the world's biggest "eye" turns its gaze into the abyss of the universe.



## Fifth USSR-USA Track Meet

Matches between track and field athletes of the USA and the USSR are always marked by fierce competition, the setting of new records and the birth of new stars.

So went the fifth meet in March of this year in Leningrad, where 2,500 local fans who came to the indoor Winter Stadium saw the dogged contestants battling it out.

Perhaps the most dramatic event was the men's 5,000-meter. Ivan Parlui held a confident lead all the way until 100 meters before the finish. But then came a

powerful spurt by U.S. champion Greg Frederick. He passed Parlui, who tried desperately to catch up in the last 10 meters, but couldn't make it. Frederick was first with 13:52.6.

The victory of the young Soviet runner Lyudmila Storozhkova in the 60-meter race was a complete surprise. She beat U.S. champion L. Hopkins, clocking 0:7.37.

The match was crowned by a world record for the 5-kilometer<sup>3</sup> walking race set by Yevgeni Yevsyukov—20:21.8.

The fifth Soviet-U.S. track and field indoor meet is over, but the tradition goes on: "Till we meet again in Richmond in 1977."

<sup>3</sup> One kilometer equals .621 miles.



Valeri Podluzhny making the winning jump.  
Left: American athletes watching their teammates compete.  
Far left: Alexei Pereverzev jumping.





# ACROSS THE BALTIC REPUBLICS



Photographs by Yan Tikhonov

Since the restoration of the Soviet form of government in Latvia, Lithuania and Estonia in 1940—the Baltic peoples first proclaimed it soon after the Great October Socialist Revolution in 1917—tremendous social, economic and cultural progress has been made. The pictures show life today in these three Soviet Socialist Republics.

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Klaipėda, in Lithuania, on the coast of the Baltic Sea, is primarily a fishing port. Its 8,000 fishermen and their trawlers, refrigerator and floating factory ships work the Atlantic, the Arctic waters and the coasts of Africa. Left: Young Lithuanian workers. Opposite page: The core of the Latvian Government, the Council of Ministers. It meets twice a month to discuss and make recommendations for the republic's economic, social and cultural development.





A view of old-new  
Tallinn,  
Estonia's capital.  
Below: Dance Festival  
in Tallinn's  
Choral Fields.









New housing  
development in  
Vilnius, the capital  
of Lithuania.  
Bottom: Youth café in  
Klaipeda, one of  
the republic's  
fishing ports.





# PAGES OF HISTORY

**LATVIA**



The first Soviet government of Latvia, headed by Peter Stučka, a leading Latvian revolutionary, was formed in December 1917. Internal reaction and the German occupation forces allied to suppress the Latvian people's revolution.

The Latvian Riflemen, armed detachments of Latvian workers, fought in the October Socialist Revolution of 1917 in Russia and in the battles of the Civil War that followed. This 1917 photograph shows Latvian Riflemen guarding Lenin's study in the Smolny Institute in Petrograd, which was the headquarters of the Revolution.



A typical meeting of the "two periods" in the forties. Soviet Latvia started to build a new society. The other republics sent farm equipment and industrial machinery to help.



July 1940. The banner reads: "Long Live Soviet Latvia!" The people of Riga demonstrate to express their support of the unanimous decision of the Sejm, Latvia's parliament, to join the USSR.



A meeting of the cavalry detachments of the Latvian Riflemen at the Civil War front in the area of Uman, the Ukraine, in 1920. "They are the bravest of the brave, the most loyal of the loyal, the most gallant of the gallant," wrote "Izvestia."



A monument is unveiled in Riga in 1971 to honor the Latvian Riflemen. Harold Matson, veteran of the Revolution and former Brigade Chief of Staff of the Latvian Soviet Riflemen's Division, is the speaker.



# PROFILE OF A PORT

By Pavel Antonov  
Novosti Press Agency Special Correspondent

The 1000-year-old port of Riga is a crossroads of international trade routes. Its traffic is growing by leaps and bounds, clear evidence of a change in the world climate.





**A** FEW FIGURES to start with: In 1970 the volume of Soviet foreign trade amounted to 22 billion rubles; in 1975 the figure more than doubled, reaching 51 billion rubles.

### A Brief History

Riga took on its role as a crossroads for the trade routes of different countries a thousand years ago, when the "way from the Varangians (the name for certain Scandinavian tribesmen then) to the Greeks" was formed. An important part of that route was the Daugava River. On its shore a crafts and trading post sprang up, the beginnings of the present-day capital of Soviet Latvia.

Throughout the long history of the port of Riga there have been periods of furious activity and times of utter stagnation.

In October 1944, retreating from the attacks of the Soviet Army, Hitler's troops abandoned Riga after a three-year occupation. Before they left, they laid tons of explosives in the granite embankments and completely destroyed the area. The work of generations of Latvians was reduced to mounds of broken stone, warped girders and railroad track.

The new port that rose in the postwar years from the ruins of the old one became, in time, not only bigger but also more specialized. Among the port cities of the world with which Riga now has business relations, Rostok (the German Democratic Republic), Dunkirk, Le Havre (France) and Liverpool (Great Britain) are most prominently mentioned.

It is to cities like these that the cargoes handled by Riga dockworkers go. The flow of goods is rapidly increasing, as is apparent from foreign trade statistics.

### Better Relations, Better Business

I walked along the docks with Grigori Galperin, deputy superintendent of the port. The straight line of the horizon was broken by towering smokestacks and the tapering bows of ships, flags of sterns and the slanting booms of cranes.

"Seaports," said Galperin, "react very quickly to a thaw in the international climate, the pulse of business quickens immediately. Thus, in 1973 we were scheduled, by plan, to handle 5.5 million metric tons<sup>1</sup> of cargo; in 1974 the target figure shot up by one million tons.

"Of course," he went on, "this flow of cargo would have flooded us if we hadn't at the same time mechanized our loading and unloading operations. I will not bore you with long lists of the equipment we have installed—of both Soviet and foreign manufacture. It's enough to mention just one figure—the number of machines we use has multiplied three and a half times in the past 15 years. Before, we were glad if we could use mechanical equipment on one loading operation in an entire process. By 1975 all operations were nearly 100 per cent mechanized."

### Horizontal Handling

Sure sign of a port's mechanization is the rows of powerful gantry cranes crowding together. But that's the present scene. Tomorrow's picture is a different one. The future can be seen right now in Riga's Sector No. 1.

There isn't a single crane boom or winch lifting cargoes there, just the perfectly square stacks of trailers, 20-meter<sup>2</sup> platforms on wheels. Containers are piled on them and rolled aboard ship. Hundreds and thousands of tons go on board and as many come off. The time spent by a ship in port is reduced 80 to 85 per cent, and that is the critical figure.

This method of handling, called horizontal, requires not only special docks, but also special ships of the roll on, roll off type. The French vessel *Borodin*, named after the Russian composer, has been sailing the Riga-Le Havre-Dunkirk route since 1973. At the beginning of 1975 a similar Soviet ship, *Inzhener Sukhorukov*, joined the *Borodin*. They sail strictly to schedule.

"However," remarked Galperin, "we are still not exploiting all the advantages of this method. The docks of Dunkirk are not equipped to handle trailers. They still use gantry cranes there. But the French port authorities have promised to modernize their docks in the near future."

Meantime, Sector No. 1 of the port of Riga is expanding—

a roll on, roll off route connecting Riga with Liverpool went into operation at the end of 1975.

The local container ships sometimes make very long voyages. An increasing number of round trips between the United States, Canada and Japan, and Great Britain, France and other European countries delivers cargoes via a Trans-Siberian transport "bridge." This is a container route which begins at the port of Nakhodka (the Soviet Far East), crosses the Soviet Union by rail and ends up at Soviet western ports. The use of this "bridge" has cut 14,000 kilometers<sup>3</sup> off the route of container ships which previously had to circumnavigate Africa. Other ships which had used the Panama Canal reduced the distance by 7,000 kilometers.

### A Docker's Cargo

From on board a ship—at the height of a five-story building—I watched the team led by Ivan Shashilkin unload the *Borodin*. The impression was of a huge mechanical toy moving around below—a dozen different-colored machines were crawling in precise rhythm along paths exactly laid out for them.

During a break I had a talk with Shashilkin. I asked him what the advantages were, for the dockers themselves, of this progressive, time-saving method.

"In the first place, in the last two years the heaviest load I've had to lift weighed maybe three pounds, and it was a wrench or a machine part. So the age-old conception of the stevedore, or loader, doesn't apply to us at all. We have entirely different responsibilities: We are machine operators, mostly drivers of fork-lift trucks and electric loaders.

"Our work has become easier in other ways, too. Formerly, we would have to report for work at any time of the night, whenever a ship arrived. No ship wants to hang around in port, so we were always asked to stay and unload the entire cargo! The result was that we were always late knocking off. Now we know when our ship will arrive and when it must leave the port. Now we know precisely when we'll be through, and we are free to plan what we want to do with our leisure time. In other words, our trade has graduated to the twentieth century."

Until recently there were two such teams in the port of Riga—Ivan Shashilkin and Villis Aksucis, the respective leaders. In September 1975, we heard, one more team was organized to service the Liverpool route. And that is only the beginning.

### Prospects

It is only the beginning because the port of Riga is going to expand very considerably when it moves to Kundzin Sala, downstream on the Daugava River. At the new site the docks will stretch away for many kilometers. They will accommodate ocean-going container carriers. The new port will also need a new railroad station, which will connect the island with the mainland by a network of sidings and a special bridge. All that is provided for by the Tenth Five-Year Plan (1976-1980).

The day I was in the port the *Borodin* was delayed an hour and a half by thick fog.

"Getting the ships through," said Grigori Galperin, "is becoming an increasingly serious problem. The areas of intensive maritime shipping are growing, but the Earth, as it always was, is still round. After sailing beyond the horizon, the ship drops out of sight—not only of the eye but also of radar. The antennae of the dispatcher stations have to be lifted higher and higher. There's a limit to the height of a tower, but, unfortunately, not to navigators' demands. They want to control all ocean routes and the whole globe. Now if they could use satellites, each satellite could patrol vast areas and serve up to 150 ships."

Only yesterday those words of Grigori Galperin might have seemed pure fantasy. But Soviet and American space vehicles have already made a rendezvous in orbit around the Earth. In Helsinki, a short distance from Riga, documents have been signed for cooperation among the countries of Europe.

Outer space more and more is being used for peaceful terrestrial purposes, and many tasks, including guidance of seagoing vessels, can be handled from there. The time is not far off when this will become a reality because the world climate is getting warmer and the sea routes livelier. There is no clearer evidence than what is going on in the port of Riga.

<sup>1</sup> A metric ton equals 1.1 short tons.

<sup>2</sup> A meter equals 3.281 feet.

<sup>3</sup> A kilometer equals .621 miles.



# THUMBING THROUGH "SOVIETSKAYA LATVIA"

**T**HE NEWSPAPER *Sovietskaya Latvia*, with a circulation of 100,000, is published six times a week in Riga, capital of the republic. The first issue of this organ of the Central Committee of the Communist Party of Latvia appeared in 1919. The paper, whose editorial board stresses economic matters, has published under its present name since 1944.

In an article headed "A Working Day in the Republic," correspondent Rudolf Nadzins cites information provided by the State Planning Committee of the Latvian Soviet Socialist Republic. The daily gross national product is estimated at some 30 million rubles, and average daily industrial output at 17 million rubles. The food industry produces a daily 520 tons of meat and 95 tons of butter. Each day 55 new apartments are ready for occupancy. In the past five years every fifth citizen in the republic moved to new living quarters. Labor productivity continues to rise, output has increased and quality has improved. Nadzins believes these are critical factors in the rising standard of living. Among the union republics of the USSR, Latvia ranks second (after Estonia) in per capita income.

Even in the articles dealing with economics the paper never forgets the people behind the statistics. Contributors and readers, too, often make comparisons. In a letter to the editor one reader says: "I remember Latvia under bourgeois rule, when there was an acute shortage of basic industrial raw materials and fuel. Factories were closed and production curtailed. In January 1940, eight months before Latvia became part of the Soviet Union, the unemployed ran into the tens of thousands."

## Theater News

Like other papers, *Sovietskaya Latvia* carries advertisements, feature stories and announcements about coming films and plays. The program for a 10-day festival by the Riga Musical Comedy Theater reads like this:

Monday—*Victoria and Her Hussar* (in the Latvian language)  
Tuesday—*Vienna Waltz* (in Russian)  
Wednesday, matinee—*Trina and her Tricks* (in Latvian)  
evening—*Circus Princess* (in Russian)  
Thursday—*Serenade* (in Latvian)  
Friday—concert (in Russian and Latvian)  
Saturday—*Vienna Waltz* (in Latvian)  
Sunday, matinee—*An Impossible Woman* (in Latvian)  
evening—*La Bayadere* (in Latvian)

Programs are also given for the Opera and Ballet, the Drama, and the Young Spectator theaters.

In one of his reviews drama critic Ilma Valins says: "The republic's theaters present about 40 new productions a season. Some 2,500 performances were given last year to a combined audience of about 1.5 million. The playbills list 120 different productions."

These are by Latvian and other Soviet playwrights as well as by foreign dramatists. The best works are awarded prizes.

Valins notes that among the plays enjoying a long run are *The Apostle at Bay* by the Byelorussian playwright Makayonok, *The Caucasian Chalk Circle* by Bertolt Brecht, *The Man from La Mancha* by Joe Darion, *I Played and Danced* by Jan Rainis and *The Good Soldier Schweik* by Jaroslav Hašek.

## Education and Jobs

Another item in the paper reads:

"Enrollment for five-month college preparatory courses to be given evenings is now open at the Latvian State University."

As though commenting on this, the paper carries an article by Professor Viskaris Miller, Doctor of Science (Law), rector of the university, who says: "The Latvian State University is the largest of the 10 schools of higher education in our republic. The student body of the four higher schools in Latvia in 1939 numbered 7,800. The aggregate today is 42,000 students."

No less than 77 per cent of the republic's 2,497,000 population had a secondary or higher education by the end of last year.

The paper comments frequently on education, health and culture. For example, the reader learns that "the plan is to build schools in the near future for 57,000 pupils, 26,000 of them in the countryside." Rural secondary schools will have boarding accommodations for 5,200 children.

An article says that Soviet Latvia ranks high in the Soviet Union, and probably in the world, in number of doctors: 37 per 100,000 of the population.

One final announcement: "People urgently needed by the Riga refrigerator fleet for work at sea. Meals and protective outer garments provided free. Ships have facilities for rest, recreation and study. Those without work experience at sea will be trained."

## Latvia Helps Other Republics

"Latvia will build the community of Taksino on the Baikal-Amur

Railroad, the largest construction project in Siberia," the paper quotes Iosif Geiman, a staff member of the Riga Standard Design Institute. The project foresees the following services and conveniences in the future Siberian rail hub: Modern housing, catering establishments, food shops, vegetable storehouses, clubs, a drugstore, school, nursery, kindergarten, sports grounds, sauna and garages.

"Residents of Taksino will not suffer from the severe Siberian frost: Heated passageways will link housing with the community center and children's institutions," says Geiman. The project has been designed with an eye to the gradual expansion of the community.

The following figure illustrates Latvia's share in the national economy of the USSR. Forty per cent of what the republic produces is shipped to other Soviet republics or to foreign countries. In turn, Latvia imports natural gas, oil products, electric power, equipment for key industries, mineral fertilizers, wool, cotton and other commodities.

## Science

A subject frequently dealt with in *Sovietskaya Latvia* is the work of the Latvian Academy of Sciences. Founded in 1946, it celebrated its thirtieth anniversary recently.

An editorial in the paper points out: "In this brief time, many of the research studies of local scientists, as well as those done by the institutes of history, language and literature, physics, electronics, computing technology and organic synthesis, have won national and world recognition."

The same point is made by Alexander Malmeister, President of the Latvian Academy of Sciences. He adds that the academy has 35 people with doctor's degrees and 765 with candidate's degrees, and that 22 research studies are being made jointly with institutes of the member countries of the Council for Mutual Economic Assistance. The president observes: "In the last year alone some hundred of the research findings of the academy's institutes were applied in industry and agriculture."

A feature item by Valdis Dauskta, *Sovietskaya Latvia* science correspondent, on research being done by Irene Plavine, says: "Though the world still does not have electronic computers furnished with an optical memory and approaches to this problem are only being explored at present, the laboratories headed by Irene Plavine at the Latvian Academy's Institute of Physics have made considerable progress in this field."

## Agriculture

Like all the other union republics, Latvia is developing its farms.

An editorial, devoted to spring field work, notes: "In the near future the farms will be supplied with 21,000 more tractors, 13,000 trucks, a similar number of tractor trailers, 4,200 grain combines, 2,120 excavators and 1,600 bulldozers."

All told, 1.25 billion rubles will be invested in the republic's agriculture between 1976 and 1980.

In the past five-year period large-scale mechanized production has increased the republic's income by 30 per cent. This has led to a considerable rise in living standards.

Latvian agriculture today is specializing in milk production, pig breeding and pedigree cattle farming.

## Rebirth of Amber Room

In what used to be the Palace of Catherine II, not far from Lenin-grad, was the Amber Room, presented to Peter the Great in the eighteenth century.

In 1942 when the Nazi troops overran the palace grounds, they dismantled the room and packed it away in wooden boxes. All traces of it have since vanished. Many people wonder where it is. The question has given rise to all kinds of stories in the press by people trying to figure out the answer.

A different tack, however, has been taken by the Blinov family in Riga. Instead of wondering where the Amber Room is, they are suggesting how to go about restoring it, says *Sovietskaya Latvia*.

Boris Blinov, now on pension, is an engineer who devoted his whole life to applied art. His wife, who shares his hobby, and their son have worked out a project to duplicate the former magnificence of the Amber Room.

But why should this be done by Riga people? Would it not be simpler to borrow the designs from a museum and copy them? Apparently it can't be done. Says Lyudmila Lapina, assistant director of the palace: "We have very little documentary information about the Amber Room. That is why we are so interested in the research being done in Riga."

The museum has examined the sketches done by the Blinovs and is giving them every possible aid and support.

So that we will eventually see the Amber Room, built more than two centuries ago, reborn in Riga.



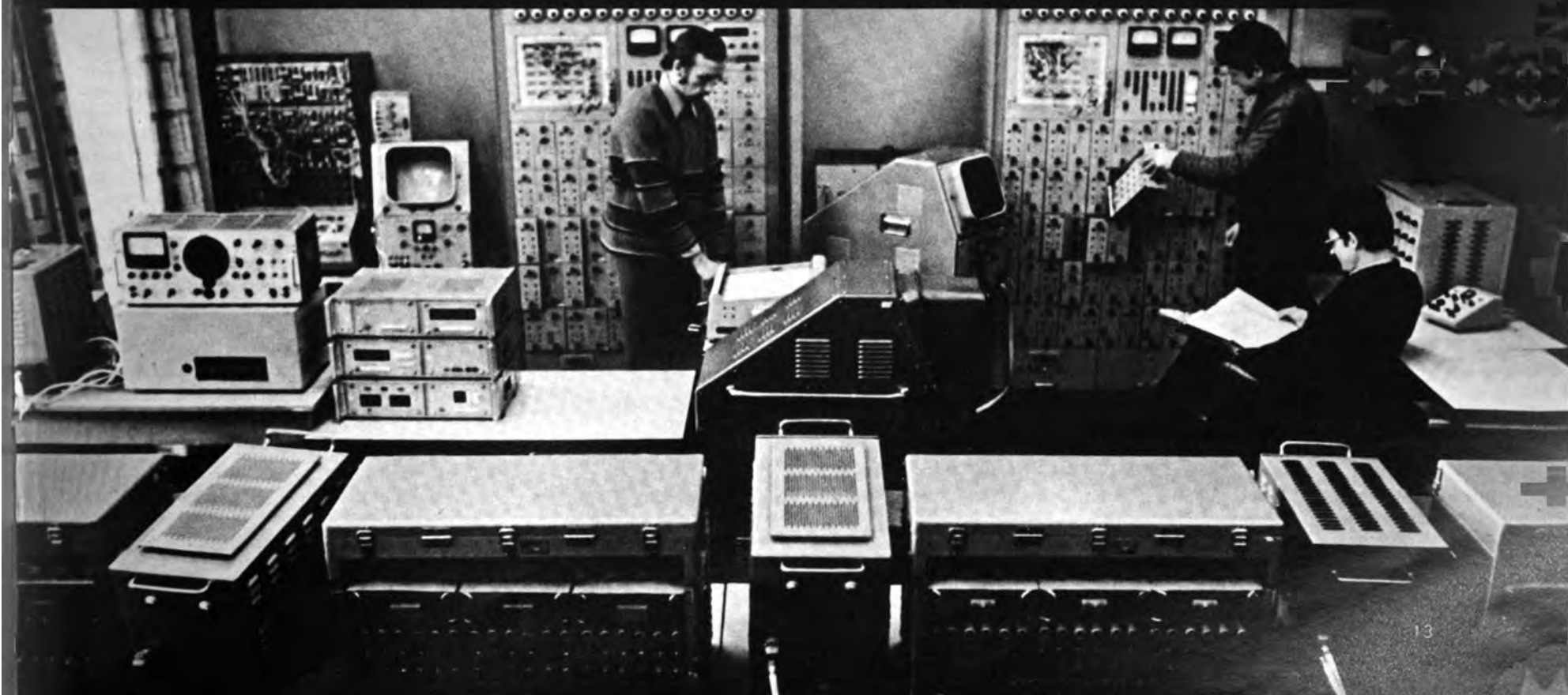


Checking an experiment.

Above: Since two-thirds of the students are Estonians, the teaching is done in that language. But all the teachers speak fluent Russian and lecture in Russian to those who do not speak Estonian.

Below: Electronic engineering laboratory. The department trains automation and telemechanical engineers and computer specialists.

Left: The strangest ideas crop up in student designs. They often prove their value just as unexpectedly.





nationalities. Since two-thirds of the students are from the republic's indigenous nationality, the teaching is in Estonian. However, all the teachers speak fluent Russian, and they lecture in Russian to classes of students who do not speak Estonian.

#### A Research Institution

The institute is more than an educational establishment, it is a school for research. Sixty-five per cent of the teachers are candidates or doctors of science involved in many kinds of research projects. Students also are engaged in solving scientific problems. In the Student Scientific Society they learn the investigative techniques by working under their experienced mentors.

At the technical laboratory, which is headed by Herald Velner, students are working in the area of water resources—their protection and purification. This laboratory coordinates all scientific work on the protection of the Baltic Sea waters, a project conducted jointly with Finland.

Estonia is not rich in natural minerals. Combustible shale is the basic power fuel and the raw material for its chemical industry. Research in shale chemistry and thermal power has been going on for many years here. The institute pioneered in combustible shale chemistry under the leadership of Academician Paul Kogormann, a scientist of international renown. Research in thermal energetics is headed by three professors: Ilmar Öpik, Arvo Ots and Ilmar Mikk. They develop efficient methods of shale combustion—a low-calorie fuel of which only 35 per cent is combustible.

At the request of their Russian colleagues, TPI students and teachers are researching certain types of Siberia's low-calorie fuel.

New scientific trends are emerging. For instance, the study of immobilized ferments, which are used in biological and chemicotechnological processes in which ferments catalyze the processes, is being conducted under Professor Aady Köstner. This area of research has been included in the program for joint Soviet-American research.

#### Extracurricular Activities

The students at TPI are young, so sports are very popular. The institute

is proud of its leading athletes: Priit Tomson, in the Mechanics Department, Merited Master of Sports of the USSR, twice world basketball champion, and Olympic Games champion; Vladimir Dubrovsky, an economics major, and Kaira Kõrm, in the Chemistry Department, both world underwater swimming champions and record holders.

Among the amateur performing groups the institute's Academic Men's Choir is one of the best and known throughout the Soviet Union. At the traditional Tallinn-75 Choir Festival last year it placed first, although many professional choruses, not only from Estonia, but from other union republics and foreign countries, were strong participants. The Kuljus (Bell) Student Folk Dance Ensemble has won any number of prizes at competitions.

Near the end of the last (fifth) year, the students all get together in the assembly hall. The dean and representatives from plants and laboratories with job openings for young specialists are waiting for them.

One after another—with the best students in the lead—they come up to the table for an unhurried talk about where they would like to work. During this frank exchange they find out about wages, working conditions, the available housing, promotion possibilities; in other words, they get all the information to help them come to a decision.

When the future graduate accepts a job, a work contract is concluded right then and there.

There are instances, though rare, of all offers being turned down. In that case, the employment committee itself assigns the student a job. In my opinion, that's right. Having given a young person a college education and training free of charge, society has reason to expect something in return.

Incidentally, it's hard to find an engineer in Estonia who has not graduated from our TPI. The manager and chief engineer of the Shale Mining Department of the USSR Ministry of the Oil Extraction Industry are TPI graduates. Jaan Tepandi, Food Industry Minister of the Estonian Soviet Socialist Republic, Feliks Jürgens, Minister of Local Industry of the Estonian Republic, and Ilmar Nuut, Minister of Higher and Specialized Secondary Education of the Estonian Republic, all went to the Tallinn Polytechnic Institute. The present First Secretary of the Central Committee of the republic's Komsomol, Indrek Toome, is a TPI graduate, and Arvo Valton, a well-known Estonian writer, was also an engineer who studied at the institute.

**Q.** How did you become rector?  
**A.** I'm a graduate of this institute and began my scientific career here, in the department of organic chemistry. I started as a teacher and then defended my doctor's thesis. In January 1960 the Estonian Government appointed me to my present post.

In keeping with our regulations, the teaching staff is elected competitively while rectors are appointed by the government. The rector's term of office is not limited to a specific number of years, so that there is plenty of time to make long-term plans for teaching and research and carry them out.

**Q.** What are your scientific responsibilities?

**A.** I supervise the research lab on shale and chemical synthesis, whose major function is to study the products derived from shale. We have been working on this for many years and have obtained significant results.

I like working with graduate students—I'm proud of the fact that many of them have become either candidates or doctors of science. My very first such student, Endel Lipmaa, is now an academician of the Estonian Academy of Sciences.

I go regularly to the Kohtla-Järve shale-processing complex, where I supervise research and keep an eye on the application of modern methods of processing.



## "STUDENTS ARE MY BEST ADVISERS"

Interview with  
Professor Agu Aarna,  
Rector of Tallinn  
Polytechnic Institute

**Q.** How do you keep in touch with the students?

**A.** First of all, by teaching. More than that, I take advantage of every opportunity for contact. I accept student invitations to various functions. For instance, it has become traditional for the departments to arrange meetings at which I answer all kinds of questions.

But my immediate link with the students is through the Institute Council, which decides all basic problems. It includes student members and, of course, members of the Young Communist League organization.

**Q.** Is student activity limited to the participation of their representatives in the council?

**A.** No, it is not. Their activities are quite varied. For instance, they make the decisions as far as stipends and self-government in their dormitories are concerned. They also have close ties with a number of factories, where they give talks to workers or lead scientific study groups.

The student building team organized several years ago is very popular. During the summer vacation about 2,000 students do construction work on the collective and state farms of the republic. Last year alone, they put to use more than six million rubles' worth of capital investments.

They are also elected to the governing bodies of the republic. For instance, fourth year eco-

nomics student Aime Rong is a deputy to the Estonian Supreme Soviet.

She takes an active part in its work and represents the interests of all Estonian students.

A number of students are deputies to the Tallinn City Soviet and the District Soviets.

**Q.** Besides your research, are you active in the community, too?

**A.** Yes. I am a deputy to the Tallinn City Soviet, chairman of the Estonian Znanie (Knowledge) Society, a member of the editorial board of the popular science journal *Gorizont* and chairman of the panel of judges of the "Memory Contest," a TV show. On Sundays I conduct a radio program. All this keeps me abreast of current problems, and that makes life interesting. Moreover, these seemingly "separate" activities often help me find solutions to institute problems.

**Q.** Could you tell us something about these problems?

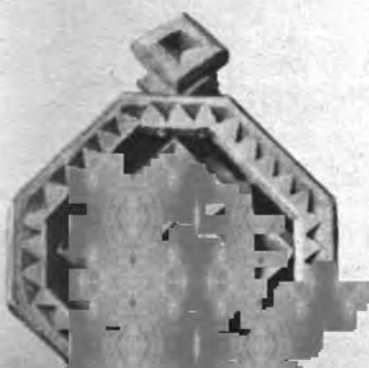
**A.** The first is to concentrate the Tallinn Polytechnic Institute in Mustamäe District, where we have new buildings that include a fine library, auditoriums and new student dorms. There will also be a new stadium. Previously, our auditoriums and laboratories were scattered around the city.

We are also trying to help students cope with the increasing flow of scientific information. We have even scheduled new courses along those lines.





Besides training engineers, the Tallinn Polytechnic Institute is a school for research. It has a reputation for its original contributions in shale chemistry and thermal energetics.



A popular sport in Estonia.



# THE OLD AND THE NEW IN LITHUANIAN FOLK ART

By Vitali Yelistratov

**Y**OU WILL FIND the Palace of Folk Art near the ancient Gediminas tower in the heart of Vilnius. It is the headquarters of the Society of Lithuanian Folk Art, an organization of thousands of painters and graphic artists, weavers, wood-carvers and jewelers.

I asked 43-year-old Aldona Vireilene, of the administrative staff of the society, for a brief description of its work.

"It's our job to preserve folk traditions in art," she said. "We do everything we can toward that end, including giving support to their development."

That means financial help to craftspeople, and we provide them with tools, materials and professional advice if it's needed. We also organize seminars and conferences for them."

The society was founded 10 years ago and has four branches in Lithuania's largest cities—Kaunas, Klaipeda, Siauliai and Panevezys. Each branch also arranges exhibitions.

"Every summer our society organizes meetings to which we invite our members and professionals in other fields," continued Vireilene. "The purpose is to exchange ideas, plans and know-how. Usually at the end of the conference, the participants get together to create a work collectively."

The society has another broad, but related, function—every year it organizes folk festivals in many cities of the republic, with traditional craft displays and all kinds of games, contests, entertainments and song fests. Folk musicians, singers and dancers take part, as well as professional and amateur craftspeople.

## Art Salon

Every branch of the society maintains a shop where the members' work is exhibited and sold. The shop in Vilnius is located on Vitene Street. The huge display windows stand out prominently in contrast to the surrounding traditional houses with their old red brick roofs.

The current window display is an attractive arrangement of wooden sculptures, multicolored rugs and pictures. The shop has a large assortment of paintings and graphics, creations of weavers and potters, and all kinds of articles made of amber.

Roman Navickas, the manager, told me how the shop worked.

"We accept articles made by members of the Folk Art Society and sell them on consignment. A committee of six art specialists meets here regularly to price the articles."

The craftspeople like the arrangement. They don't have to look for a market for their work. As for the raw material they need, the society supplies it. By the way, any craftsperson can become a member by paying the membership fee—purely symbolic!—of one ruble a year.

## Age-Old Traditions

The folk art of Lithuania has an ancient past. For ages the people have expressed their vision of beauty in a great variety of genres and materials: in sculpture, architecture, ceramics; in articles made of metal and amber, and in wood-carving and painting. The wood sculpture and small-scale architecture are perhaps their most inventive folk art expression.

Figures carved of wood were placed in small niches in roadside posts to commemorate great events. The ornaments on the posts, which preserved elements of ancient pagan symbols, were distinguished for their fine taste, ingenuity and imagination. The artists reflected the outlook of the peasants, their social relations and their station in life.

Today, Lithuanian craftspeople are enriching the traditions of folk art with new approaches and themes. It was once the illiterate peasant who was the creator. Now folk art is the hobby and sometimes the profession of city folk and country folk—workers, collective farmers, engineers, students, pensioners. New compositions are born, and a qualitatively new folk art is emerging.

An example is the memorial ensemble in Abling. Lithuania was one of the first Soviet republics to be overrun by the Nazis in 1941. In the village of Abling they shot 42 civilians, including women and children, and burned their homes. In the summer of 1972, 30 craftspeople came to Abling from all over Lithuania; in 30 days they built an impressive monument to the victims of fascism.

Each carved an oak sculpture of a person or a group of people—the residents of the razed village. The Abling memorial is traditional in its material, concept and execution and harmonizes with the surrounding landscape, but the emotional impact is timeless.

Amber has become increasingly popular in recent years. Artisans are trying to bring out its natural beauty and emphasize the variety of its color and form, best displayed in jewelry.

There are large collections of the traditional folk arts in the Ciurlionis State Museum in Kaunas, the Art Museum of the Lithuanian Republic and several ethnographic museums.





*The Song of Life.* Stained-glass panel by Algimantas Stoskus.

*Spring.* Stained-glass panel by Kazimeras Morkunas.







Amber shows up best in jewelry and has become very popular in recent years. Craftspeople work to bring out its natural beauty and variety of shape and color.



**QUESTION:** I wonder if it would be possible for your magazine to do a more detailed report on the Gypsy Theater. (Wilma R. Cockrell, Los Angeles, California)

**ANSWER:** In 1931 several well-known Gypsy actors came to the People's Commissariat of Public Education (commissariat was the word then used for ministry) with a suggestion that a Gypsy national theater be opened in Moscow. A company was put together, and the theater was given the name Romain, which means Gypsy. From the very start the Romain Theater rejected the superficiality and vulgarity Gypsy groups had allowed to invade their art in order to satisfy the tastes of an indiscriminating public. It revived the true Gypsy folk art.

The Romain Theater is the only professional permanent Gypsy theater in the world. It selects the best from the present culture of the Gypsy people and preserves their classics and folk traditions. Even in productions on modern themes this unique theater uses the old Gypsy songs and dances, to express the real spirit of the people. These songs and dances are not interludes, but an integral part of the whole production. They reflect the Gypsies' natural artistry, temperament, ingenuity and rare musical talent.

The Romain Theater repertoire can boast of great variety. There are plays by Soviet dramatists (for instance, *Grushenka* by Isidor Shtok) and foreign authors (plays by Federico García Lorca and a dramatization of *Carmen*, a *nouvelle* by Prosper Mérimée, on which Bizet's opera is based), as well as works by the actors of the theater themselves—Ivan Rom-Lebedev, Ivan Khrustalyov and others.

Khrustalyov and Rom-Lebedev were among the first members of the Romain company. They were joined by Lyalya Chornaya, Vladimir Polyakov and Santina Andreyeva. With actors of that quality there was no danger of a spurious Gypsy style taking hold or of banality of content or performance. They knew genuine Gypsy art and contributed much to shaping the theater's creative image.

At present a new generation of actors and actresses works side by side with these masters. Half of them are not yet 30 years old. It seems only natural that in nearly every city and town the theater tours young Gypsies come to the wings and say: "I can dance and sing. Just listen to me, watch me." They are usually given an audition, and those with real talent are admitted to the company.

Comparatively recently the young singer Valentina Vishnevskaya and her husband Dufunya Vishnevsky, a guitarist, joined the theater. The couple quickly won themselves a public and often play the leads. In *Hello, Pushkin!*, for example, Valentina wins much applause for her portrayal of Tanya, a Gypsy girl whose songs the great poet liked. The Vishnevskys often do concert selections, too. They are so popular that the record company Melodia has issued an album of 14 songs by the two artists for countrywide distribution.

They are also in a new revue, *We Are Gypsies*, filmed for TV and directed by Nikolai Slichenko, another Romain Theater actor. From a poor Gypsy family, Slichenko has great natural gifts. He has developed into a good, very popular actor, and also performs on the variety stage, where he sings Gypsy folk music and songs he himself has composed.

**QUESTION: Suggestion for article: Aeroflot.** (Charles Wills, Louisiana)

**ANSWER:** Over 3,500 cities and towns in our country are connected by air. The combined length of domestic Aeroflot routes is over 800,000 kilometers.\* Every year the number of flights increases. In 1975 alone Aeroflot carried 92 million passengers.

Even in places where trains are available, people prefer to travel by air. Plane tickets cost scarcely more than train fare. Thus, for instance, the train from Moscow to Saratov (a city on the Volga 850 kilometers from Moscow) costs 14 rubles, an Aeroflot ticket is 16—a two-ruble difference, and how much time is saved!

There are also reduced air fares—a saving of 50 per cent, for example, for college students and schoolchildren. Residents of remote districts of Siberia and the North going on vacation get free round-trip air fare once every three years.

Aeroflot has international routes as well, to over 100 countries, among many others Moscow-Washington, Moscow-Montreal and Moscow-New York.

Aeroflot planes are not limited to passenger travel. They are used widely in agriculture and to carry cargo, also as airborne ambulances and to serve the drifting stations of Arctic and Antarctic expeditions.

Dozens of design offices create new models of passenger and cargo planes for Aeroflot. They are headed by such world-famous designers as Alexander Yakovlev and Oleg Antonov. The late Sergei Ilyushin and Andrei Tupolev served in this capacity. (The present head of Tupolev's office is his son Alexei.)

The IL-62 aircraft, designed at Ilyushin's office, is very popular with many airlines. It is an intercontinental liner with large seating capacity and four turbojet motors; cruising speed is over 800 kilometers an hour. Long experience with the navigational system and the use of the automatic pilot system guarantee the safety and reliability of this plane.

A new wide-fuselage airbus, the IL-86, seating 350 passengers and with a cruising speed of 950 kilometers, is another Ilyushin office design. It will shortly begin regular flights. Yakovlev's office has designed a new jetliner, the YAK-42, to seat 120. It is meant for both local and arterial routes and has a speed of 800 kilometers an hour.

The TU-144, from Alexei Tupolev's office, is supersonic. The Moscow-Delhi flight, for instance, takes only two and a half hours.

**QUESTION: Any information about the Tuva Autonomous Soviet Socialist Republic?** (Garry D. Wright, New York, New York)

**ANSWER:** Tuva is the youngest autonomous republic in our country. It is situated in a picturesque part of southern Siberia, on the upper reaches of the Yenisei River, an area of mountain and forest, rocky gorge and big steppe. It has extremely rich natural resources, with great reserves of water power.

This autonomous republic, like all others in the Soviet Union, has its own constitution, legislative bodies (Supreme Soviet and Presidium) and government (Council of Ministers). The territory of

\*A kilometer equals .621 miles.

Tuva cannot be changed without its consent.

In the Soviet of Nationalities, one of the two chambers of this country's parliament, there are 11 deputies from the Tuva ASSR.

A detailed report about this interesting republic would take more space than we have at our disposal. We shall therefore limit ourselves to a few noteworthy items. In the nearly 32 years since Tuva voluntarily joined the USSR (in October 1944) it has been transformed from a backward country into a highly developed area. Before then, the word industry meant nothing to the nomadic cattle breeders; now the republic has industrial enterprises like the Tuvaasbest plant, the Tuvacobalt complex of nonferrous metals and the Kaa-Khemsk coal mine. Volume of industrial production has increased 50-fold with new trades and professions developing at the same time. In the old days the people of Tuva were all cattle breeders and hunters; now there are Tuvinian agronomists, engineers and doctors. Cattle breeding is no longer nomadic, but organized at big mechanized farms.

The Tuvinians are an ancient people, but for ages they were illiterate. Their alphabet was created with the help of Russian scholars in 1930 (long before Tuva joined the USSR).

Today Tuva is completely literate. Statistics illustrate that fact: There are 2,400 schoolchildren and 300 college students for every 10,000 people. A Tuvinian national literature has come to birth and developed around the written language. Now the works of Tuvinian writers and poets have been translated into Russian and other languages of the USSR. Conversely, the works of Russian and world literatures have been translated into Tuvinian.

Tuva has produced professional actors who have won recognition throughout the country and abroad. Nadezhda Krasnaya won first prize at an international competition of vocalists in Toulouse. Maxim Munzuk, actor and director at the Tuva music and drama theater, had the leading role in the film *Dersu Uzala*, a joint Soviet-Japanese production recently awarded an Oscar.

An Artists Union has been organized in Tuva. (There will be an article on the chairman of the union's board, artist Sergei Lanzy, in our August issue.)

In the old days there were neither hospitals nor doctors in Tuva: whole villages died of plague. Now the republic has its own hospitals and Tuvinian medical personnel. Life expectancy in Tuva has increased from 49 to 70 years. The birth rate now exceeds the death rate by six times. Altogether there are 140,000 Tuvinians.

As we said, the landscape of Tuva is very beautiful. Snow-covered mountaintops surround the republic on all sides. Deer and bear wander in the wild taiga of the Todzhinskiy Region in the north. In the south, only an hour's flight from Kyzyl, the capital, there are scorching sands. Fish abound in the numerous rivers and lakes.

The sky is nearly always blue here, and there are about as many sunny days as on the southern coast of the Crimea. The healthy climate and the great number of curative springs favor construction of health resorts and sanatoriums in the republic, as well as the development of tourism.

# QUERIES FROM READERS



Free  
from exploitation,  
from social and  
national oppression,  
from racial  
discrimination

IN OUR MODERN WORLD the contents and forms of state power and the scope and substance of human rights are matters of lively interest to people, because millions of them are beginning to take an active part in political life.

It is common knowledge that the slogan with which the bourgeoisie moved to power was freedom for the individual, which, as it later turned out, meant primarily the freedom of private ownership of the means of production, that is, freedom to exploit the labor of others. When the working class emerged on the political scene, it was with the idea of freedom for the masses, for the working people themselves.

The proletariat also moved to power with the slogan of freedom—freedom from exploitation, from social and national oppression. As for individual freedom, the Socialist Revolution ensured it by winning freedom for the people, for the working masses. It opened the way to the rounded personal development of everyone, not only of the narrow “elite.”

Needless to say, for every revolution, socialist or democratic, freedom is a very, very important slogan. But our program says that if freedom runs counter to the emancipation of labor from the yoke of capital, it is a deception.\*

#### For and with the Majority

Our party's approach to the problems of democracy was defined by Lenin, who developed and enriched the views of Marx and Engels, the founders of scientific communism. The state is governed by the working class—the most advanced class of the present day—Lenin repeatedly declared, in the interests of, and together with, a majority.

The victory of the Socialist Revolution in Russia signified that for the first time in history the broadest sections of the population—the working masses—began to exercise power in practice, not just words.

The young Soviet republic faced gigantic difficulties; it had to battle against the fierce resistance of the counterrevolutionary forces, foreign military intervention, and post-Civil War economic dislocation. To abolish the social system which the people themselves had chosen, its enemies resorted to violence. In response, the workers' and peasants' government was also compelled to use coercion. Yet even in that situation the dictatorship of the proletariat demonstrated, as Lenin put it, its “main essence.” As the democracy of a gigantic majority of the population, its first priorities were still reconstruction of the country's economy and the education of its people.

Expanding and deepening democracy, teaching the masses, involving them in administering the state were essential preconditions for the creation of socialist society. In turn, the strengthening and evolution of socialist social relations made for democracy of a new type.

#### Main Elements of Socialist Democracy

The decades of socialist and communist construction have confirmed the correctness and viability of Lenin's teaching on democracy. As a result of

\* Vladimir Lenin, *Collected Works*, English edition (Moscow: Progress Publishers, 1965), vol. 29, p. 351.

# CONCERNING FREEDOMS, REAL AND IMAGINARY

By I. Alexandrov

the full and final victory of socialism in the USSR, the state of the dictatorship of the proletariat has developed into a state of the entire people, which expresses the interests and will of the whole society.

What are the main characteristics of socialist democracy?

They are: freedom from human exploitation; freedom from social and national oppression and racial discrimination; such basic human rights as the right to work, to education, to maintenance in old age, sickness or disability; the right to free medical care, rest and leisure; a high level of education to make it possible for the working people to run the government with greater competence, efficiency and responsibility; freedom of speech and freedom of the press, freedoms widely enjoyed by Soviet citizens; an efficient system of state agencies and public organizations, coordinated and guided by the generally accepted political vanguard, the Communist Party. This party of the working class expresses the fundamental interests of all classes and groups, of all the nations and nationalities of the country, and ensures that the power of the people will be used for creative and constructive ends for the general good.

It was socialism that, for the first time in human history, not only proclaimed but actually guaranteed that the working people would be free of the threat of poverty and unemployment and that their living standards would rise steadily. The Communist Party of the Soviet Union regards this as the primary goal of the country's economic progress. Economic security is an integral part of the Soviet way of life. Soviet citizens need never fear that they will not have a level of subsistence worthy of human beings.

#### Free and All-round Development of the Individual

But socialism provides people with more than a continuously rising standard of living and financial security. It creates increasingly favorable conditions for spiritual enrichment, for free and unhindered personality development.



The morality of the socialist system strikingly and undeniably manifests its truly free nature. Its ban on violence, brutality, racial superiority, propaganda for war and national prejudice, which has the force of law, is another manifestation of the sovereignty of the people and of the genuine humanism of socialist society. In the USSR, the education of young people, the literature and art, the entire social atmosphere are pervaded by respect for human beings, for their dignity, their right to build their life as they choose within the framework of the social system. For the first time in history this possibility is offered to all working people, to the entire people.

### **Variety of Forms of Democracy**

Socialist democracy—with its prime freedom, freedom from exploitation, guaranteed by public ownership of the means of production—is a ramified mechanism of various kinds of social and political institutions, the most important of which are the Soviets of Working People's Deputies. Elected to these lawmaking bodies are 2.2 million deputies, assisted by more than 31 million volunteers. In each election more than half the membership of the Soviets is changed. The voters have the power to recall a deputy, and they exercise that power when they deem it necessary.

More than 100 million citizens are members of the trade unions, without whose participation no vital matter that affects the working people is decided.

People's Control groups, in which about nine million Soviet people—workers and collective farmers—are active, are becoming an ever more important link of Soviet democracy. They maintain a vigilant eye on the progress of state plans and the proper disbursement of national funds. They fight against bureaucracy and moneygrubbing.

The interests of the various groups of intellectuals are represented by the unions of creative workers—writers, composers, artists, architects, film makers, journalists. They freely discuss and decide matters related to their professional activity.

The Soviet press and other mass media are not only instruments for expressing public opinion and spreading information but also tools for effective and constructive criticism. They guarantee that the people will have the final word about the activities of state agencies and mass organizations. The responsibility of all state agencies and of all leading executives to publicly answer criticism that appears in the press and to report on remedial steps taken is a principle of socialist democracy protected by law.

The system of Soviet democracy is thus distinguished for its great variety of forms and its effectiveness. It far surpasses any bourgeois democratic system in its representation of the interests of the people as a whole and the specific interests of various strata and groups. It is also superior in the degree of public participation in making decisions and carrying them out.

### **False Stereotypes and Reality**

The mass media of the Western countries have started a noisy propaganda campaign, obsessively repeating a number of false stereotypes. They include concoctions about the persecution of people for their opinions in the Soviet Union and other socialist countries; the ban by Soviet authorities on marriage between our citizens and foreigners; the barriers allegedly placed in the way of citizens of Jewish nationality who want to emigrate to Israel to reunite their families; the absence of freedom of religion in the USSR.

What is the real state of affairs? Of course there are individuals in the Soviet Union who express views that contradict communist ideology, as well as people who are frankly anti-Soviet, opponents of socialism. Occasionally they are arrested, not for their views but an act that breaks the law. Among such prisoners are participants in punitive operations organized by the fascists during the war, people like Dubenko and M. Ostrovsky, whom Western propaganda presents as "freedom fighters." Also subject to legal punishment are actions determined by a court of law as aimed at undermining or weakening our sociopolitical system or spreading deliberate lies that discredit the Soviet state and social system, actions that fall under the Criminal Code of the Russian Federation and the relevant articles of the criminal codes of other union republics.

It is unmitigated slander that in the Soviet Union "dissidents" are confined to "special psychiatric hospitals." As everywhere else in the world, it sometimes becomes necessary to hospitalize insane persons whose freedom of movement may be dangerous for society. Persons guilty of a crime can be committed to a psychiatric hospital only by a court, which makes its decision on the basis of the recommendation of a commission of medical experts. Insane criminals are treated medically exactly like other mentally ill people, and they are not kept in the hospital longer than is required by the state of their health.

Soviet medicine makes sure that only those suffering from mental disorders are subject to treatment. It is worth mentioning that a number of people who had been in psychiatric clinics in the USSR and who were made out to be "victims of the Soviet regime" by Western propaganda ended up in the same type of clinics when they went abroad.

### **Freedom of Religion, Marriage and Emigration**

Lately, people trying to carry on antistate activities have put on new masks. They are now described as "fighters for freedom of religion." Actually, nothing threatens the freedom of conscience and religion guaranteed by the Soviet Constitution. Prestigious representatives of all the religions practiced in the country have made statements to that effect time and time again.

Interviewed by journalists in December 1975, Pimen, Patriarch of Moscow and All Russia, said: "I must state with full authority that there has not been a single case in the Soviet Union when a person was brought to trial or imprisoned for his religious beliefs. More than that, there are no penalties for religious beliefs under Soviet law. It is the private business of each Soviet citizen to practice religion or not."

Socialism solved the problem of freedom of conscience for the first time in history. In the Russian Empire the Russian Orthodox Church enjoyed all the privileges, but in the Soviet Union today all religious denominations are equal: Russian Orthodox, Catholic, Islam, Buddhist, Georgian Orthodox, Armenian Gregorian, Jewish, Evangelical Lutheran, Evangelical Christian Baptist and any other.

It stands to reason that groups whose activity, under the guise of religious ritual, actually harms the health of citizens or urges them to shirk their civic duties are forbidden in the USSR.

The West is particularly fond of capitalizing on the question of marriage between Soviet citizens and foreigners and of the Soviet citizens' freedom to go abroad. They describe at length and in detail the obstacles allegedly imposed by Soviet authorities. But that, too, is a malicious fabrication. The 5,500 Soviet citizens who married foreigners in the past few years and are now living in 110 countries are proof of this. As for leaving the Soviet Union, the West produces as illustration of "oppression" the threefold decrease in 1975 (as compared with 1973) in the number of people leaving for Israel in order to be united with their families.

The decrease is the result of the fact that the number of those wishing to leave has dropped. The majority of the Jewish population in the USSR, like Soviet citizens of other nationalities, are dedicated to socialism and the Soviet system. The Soviet Union is their beloved and their only motherland, and they reject with indignation the very thought of leaving it.

Naturally, in considering applications to emigrate, government agencies take account of the need to protect the state. Those in possession of certain information, including military, military-industrial and other state secrets, are not permitted to emigrate for a certain period of time.

The number of such cases, however, is exceedingly small. Over the five years from 1970 to 1975 exit permits were granted to 98.4 per cent of those who applied for them, and only 1.6 per cent of the applications were turned down. These are the facts.

### **Further Perfecting Socialist Democracy**

The Communist Party of the Soviet Union displays constant concern for improving the political structure of Soviet society, of all the institutions of Soviet democracy. It believes this to be one of the most important directions of its activity. The specific ways of further perfecting socialist democracy, as Leonid Brezhnev indicated, are "still more active mass participation of the people in management; fuller implementation by the Soviets of their diverse functions in the administration of social life; a more consistent application of the principle of accountability of executive bodies to representative bodies; further strengthening of socialist legality; improvement in the activities of People's Control bodies."

The entire history of the Soviet Union is proof of the steady expansion and strengthening of democracy.

Courtesy of *Pravda*, Abridged



By Sergei Sokolov  
Designer, Doctor of Science (Technology)

# EXPLORING THE PLANETS

**T**HE EARTH is located between Mars and Venus, two planets that differ sharply from each other in both major and minor features. That is why, for the past 15 years, we have been sending interplanetary probes to explore our nearest neighbors in the solar system.

It all began with Venera 1 (1961) and Mars 1 (1962), which set records for range of radio communication (23 million and 106 million kilometers respectively).

## The Red Planet

In 1971 the automatic interplanetary stations Mars 2 and Mars 3 carried out experiments of worldwide importance. Mars 3 ejected a capsule that became the first artificial object to soft land on the Martian surface and two artificial satellites that were put into orbit around the planet. In 1973-1974 they were followed by four stations of the same design, which simultaneously reached the atmosphere of Mars and completed an important stage in the space experiment.

The flight pattern of the stations Mars 4, Mars 5, Mars 6 and Mars 7 was different from that of Mars 2 and Mars 3. The velocity of a station heading for Mars and, accordingly, the payload put on an interplanetary trajectory depend on the date of the start. The most suitable time for flights to Mars is when the planet is closest to Earth—once every 15 or 17 years or in the years adjoining. That is why the Soviet stations Mars 2 and Mars 3 and the U.S. station Mariner 9 started for Mars in 1971, the year of the great opposition.

Because of the position of the Earth and Mars, the stations launched in 1973 required a higher velocity than those launched in 1971, since the payload was less while the carrier rocket was the same.

Mars 3 had to carry out two tasks simultaneously: the delivery of a descent capsule to the planet and the creation of an artificial Mars satellite. The stations that started in 1973 had to assume a different, so-called two-start pattern of flight. With this pattern, stations of one type were designed to be put into orbit as artificial Mars satellites, and those of the other to deliver a descent capsule.

The combined braking system, consisting of the frontal shield, parachute and engine, which begin operating consecutively, solved all the essential problems of descent and of the world's first soft landing on Mars. The descent took only three minutes.

Another important achievement of space technology was the transmission of the first video information from the planet's surface by the descent module of Mars 3 and of data on the parameters of the atmosphere in the landing area by Mars 6. The information was transmitted to Earth via the artificial satellite of Mars. The relay method used for the first time in space experiments ensured high-quality transmission.

The work of these expeditions to Mars has confirmed the accuracy of the scientific and design solutions.

## The "Morning Star"

The study of Venus by Soviet automatic stations can be divided into four stages. The first stage is purely reconnoitering. In 1965 Venera 2 and Venera 3 made the first investigations of interplanetary space. It is important to note that they were carried out simultaneously by two groups of instruments and were intended to test the on-board systems and distant space communications.

At the next stage the flights to Venus took on qualitatively new features. The descent capsules of Venera 4 (1967), Venera 5 and Venera 6 (1969) were the first to enter the Venusian atmosphere and to take direct measurements of its pressure, temperature and composition during the descent.

Because the atmospheric pressure had never before been defined experimentally and, moreover, even the planetologists had different opinions about its value, this was a particularly difficult task. The difference in the estimated values of this parameter ranged from 1 to 100 atmospheres. The flights determined the basic characteristics and the composition of the Venusian atmosphere and made it possible to work out recommendations for designing descent modules to work on the surface of Venus.

Venera 7 (1970) and Venera 8 (1972) placed new instruments in the hands of scientists. The mechanical and thermal strength of the instruments guaranteed that they would function, not only during the descent, but also on the planet's surface, when they were exposed to a pressure equal to that exerted by an almost one-kilometer-thick layer of water and to temperatures which melt tin and zinc. In the 30 minutes after landing, the Venera 8 transmitted unique scientific information to Earth. In the landing area the station measured the wind force and the density of the Venusian soil and determined the type of its rocks.

The station design was improved from flight to flight. Thus, the area of the parachute canopy of the Venera 7 was almost one-twentieth that of the Venera 4. A faster landing through the hot atmosphere of Venus allowed the descent module, which was not superheated during the descent, to operate for a long time after landing.

The experience of Venera 7 was useful in organizing communication with the Venera 8 descent module. After it landed, the radio signal received on Earth was only about one-hundredth the strength of the signal during the parachute descent. This might have been caused by the rough relief. To increase the reliability of radio communication, the descent module of Venera 8 was equipped with two antennas. One was fixed rigidly to the body of the module, while the other came out after the landing and was linked with the module by a thermoresistant high-frequency cable. The on-board automatic instruments alternated the antennas for transmission at given intervals.

One of the critical studies made by Venera 8 was the measurement of the illumination value, a basic necessity for a photographic experiment, the most important one in the entire range of experiments planned for 1975.

The data obtained by the Veneras made it possible to design a new type of space station with a descent module and an orbital compartment (an artificial satellite of Venus).

With the fourth stage, the study of the planet entered a new phase.

## Expedition-75

The Venera 9 and Venera 10, launched in June 1975, are the first of the second generation of automatic probes created to study Venus. There are any number of elements distinguishing them from those of the first generation, beginning with the takeoff load, which is about three times larger than their predecessors.

Optimal solutions had to be found for a number of complicated, often contradictory, problems. An example is communication with the descent module.

The organization of communication is based on the following considerations. First, the new Veneras must land on the illuminated side of the planet in areas invisible from the Earth. Second, information must be transmitted from the descent module to the Earth both during and after the descent. And, third, all information must be trans-

mitted from the descent module in the shortest possible time since it cannot work for an indefinite period under the existing conditions.

A solution which suggested itself immediately was the radio relay line used successfully by the Mars stations. It would solve the problems of communication with the Venusian areas invisible from the Earth. The most important advantage of the relay was utilized: transmission of the greatest possible volume of information over considerable distances with light-weight on-board equipment dropped by the descent module. This method permitted landing in a predetermined area and made better use of the equipment.

But the relay required that the landing of the descent module be synchronized with an orbiting communications satellite. An interesting ballistic pattern of the flight of the Venera 9 and Venera 10 stations near the planet was worked out. The satellite flew around the planet on the side opposite that from which the descent module arrived and approached the landing area when the descent module began to work. This solution ensured the required synchronization and transmission of all information during one communication session.

## A Look from Orbit and Near the Surface

The probe working on the Venusian surface is surrounded by intense heat. As a result, it stops functioning after a calculated period. It is therefore important to use its lifetime in the most efficient way possible.

Because of the geometric form, weight and high aerodynamic resistance of the previous Venera descent modules, their parachute systems opened at an altitude of over 60 kilometers. They then descended slowly so that the thickness of the clouds surrounding Venus could be determined.

To save time, the module had to pass through the atmosphere already studied as fast as possible. For greater speed, it was decided that the parachute system be discarded after passing through the clouds and the aerodynamic braking device be used for the further descent. This device is a small solid metallic shield. After the parachute is discarded, the speed of the descent module increases, due to the difference in the areas of the parachute and the shield. It decreases only at the planet's surface as the atmospheric density increases.

The shield solved another problem. It eliminated the possibility of the TV system's being covered by the parachute after landing.

One of the complicated tasks solved in designing the 1975 Veneras was working out a qualitatively new pattern for soft landing the descent module on the unknown surface of the planet. To keep the descent module not only intact but also oriented after the landing so the surface could be televised, the spherical apparatus was equipped with a special landing device, a thin-wall coat fixed to the rigid body of the descent module by a truss. In the descent, Venusian "air" gets inside through the coat holes. On landing, the coat absorbs the energy of the hit. The atmospheric gas escapes through the holes and thus reduces the force of the hit.

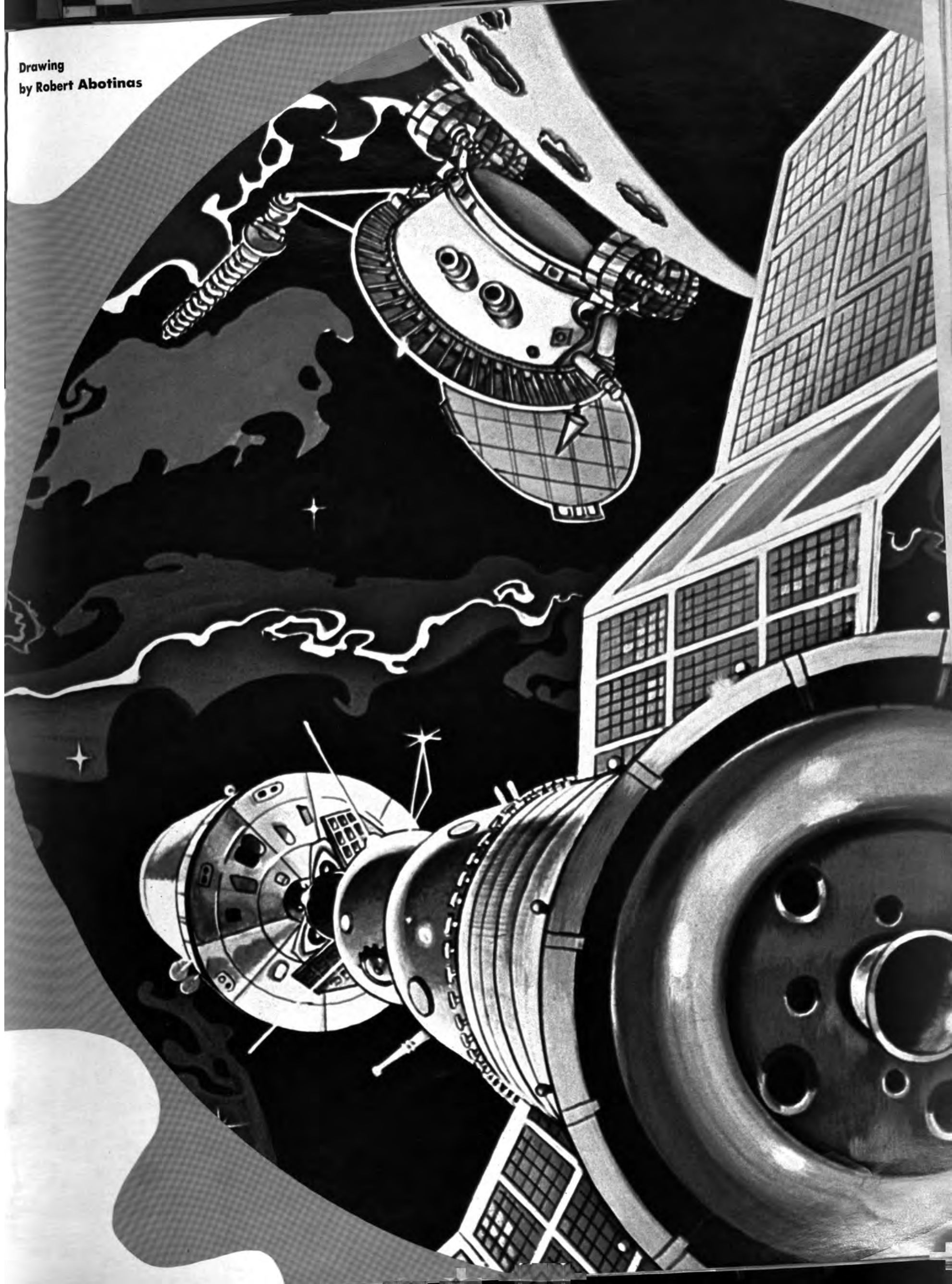
The simple and reliable design of the Venera 9 and Venera 10 landing systems provided the required conditions for the work of the TV system and the antenna of the descent module. The pictures of the Venusian surface, which show formations some tens of centimeters in size, are the best proof of this.

On October 22, 1975, the Venera 9 station became the first artificial satellite of Venus, and its descent module, after investigating the cloud layer, transmitted for the first time in history a high-quality TV panorama from the planet's surface. On October 25 of the same year the Venera 10 station repeated the achievement of its predecessor, providing scientists with new and unique information on the mysterious planet.

Much has been learned about Mars and Venus in recent years. New problems, discoveries and accomplishments still lie ahead. As the design of automatic stations is perfected, the range of space exploration will be extended. But the present Mars and Venera stations made the first contributions to the development of planetology.



Drawing  
by Robert Abotinas





## TOKAMAK-10

**H**YDROGEN will be heated to the temperature of the Sun by the Soviet-made Tokamak-10. The world's largest thermonuclear installation is designed to heat hydrogen to tens of millions of degrees and to contain the heated matter for long periods.

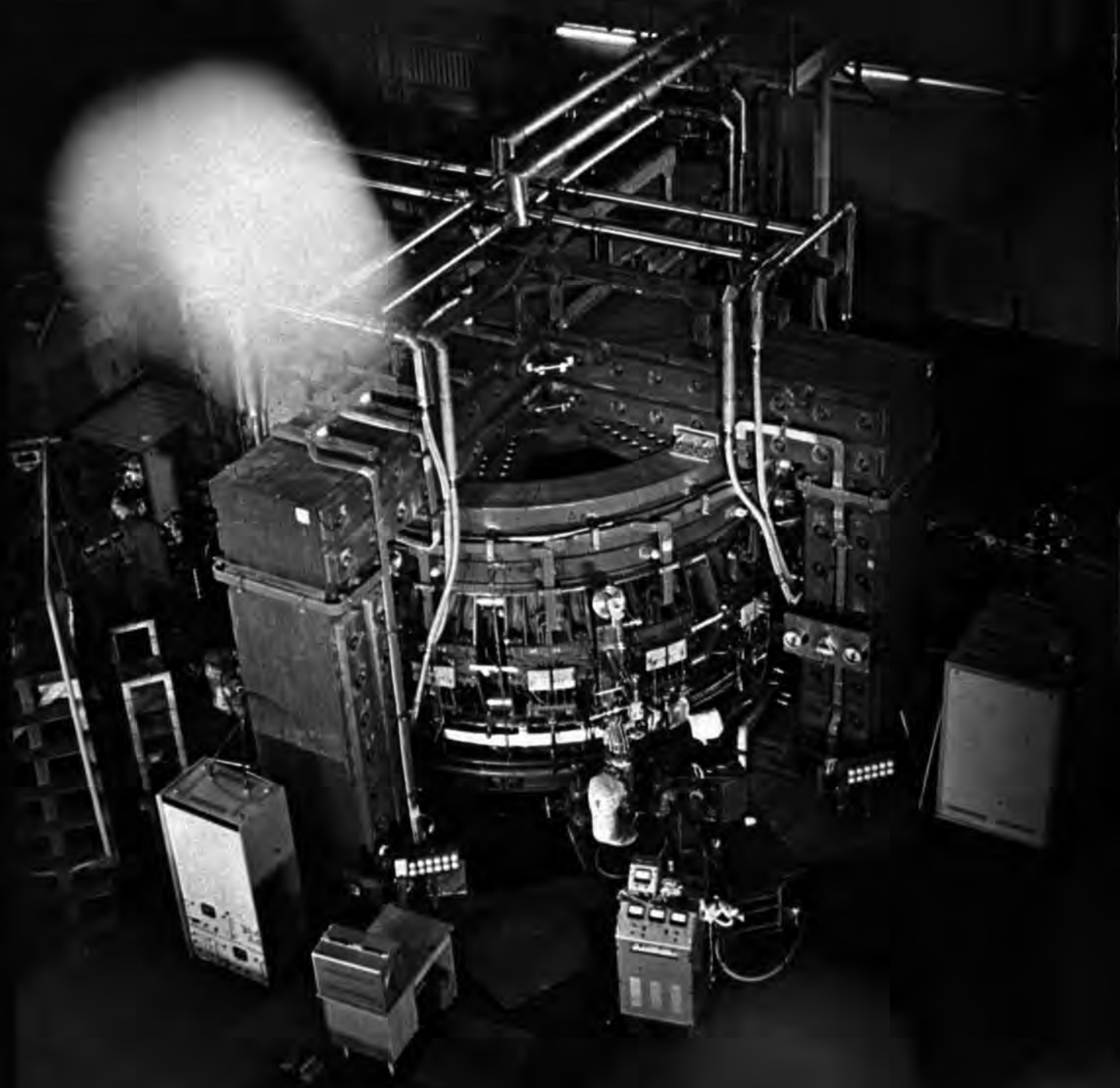
In gas heated to such temperatures and consisting of hydrogen isotopes, a thermonuclear reaction begins, a fusion of the nuclei of hydrogen isotopes to produce the heavier nuclei of helium. The process releases tremendous quantities of energy. Ten million times more energy is released in the nuclear combustion of one kilogram of hydrogen isotopes than in the burning of one kilogram of coal.

The name Tokamak, which originated in the Soviet Union, is an abbreviation of the Russian for toroidal chamber in a magnetic field. Today many countries have made this program one of the main concentrations of their thermonuclear investigations.

A tokamak-type installation is designed as follows. In the toroidal chamber plasma is created at a comparatively low pressure out of the injected gaseous heavy hydrogen (deuterium). This chamber is positioned around the armature of a transformer. A circular current induced in it ionizes the gas, creates plasma and keeps it away from the walls by the action of its own magnetic field. The current passing through the plasma heats it.

Tokamak-10, the latest, purely experimental, thermonuclear installation, is the product of a lengthy research and development program of the Atomic Energy Institute.

In the opinion of Academician Yevgeni Velikhov, deputy director of the institute, the Tokamak-10, together with such installations in other countries as the Princeton Large Torus in the United States, will provide the basis for building a demonstration fusion reactor by the beginning of the 1980s. This will mark the transition from the investigative to the technological stage. A full-scale thermonuclear reaction has not yet been achieved anywhere in the world, but the design of test or demonstration reactors is being worked on in the Soviet Union. When completed, the Tokamak-20 will be the largest installation of its kind.



Photographs  
by Igor Gavrilov  
and Dmitri Chernov

The Soviet Union's most recent experimental installation to obtain energy through controlled thermonuclear reaction.



Joint research on the peaceful uses of atomic energy: nuclear physicists Harold Hamilton (right) and Vladimir Mukhovatov.



Vyacheslav Strelkov, research fellow at the Kurchatov Institute of Atomic Energy. Above: Academician Boris Kadomtsev (far right) with Dr. Harold Hamilton and Dr. Richard Smith.



# PEACEFUL ATOM

The agreement between the USSR and the USA on scientific and technical cooperation in the peaceful uses of atomic energy, signed in June 1973, defines as one of its main areas for joint research the problem of controlled nuclear fusion. Vyacheslav Boikov, a SOVIET LIFE correspondent, went to the Kurchatov Institute of Atomic Energy to meet Academician Boris Kadomtsev, member of the USSR-USA joint committee on cooperation, Vyacheslav Strelkov, Doctor of Science (Physics and Mathematics), a research fellow at the institute, and American scientists Dr. Harold Hamilton and Dr. Richard Smith. He asked them about the work nuclear physicists in both countries are doing and about Soviet-American cooperation in the field.

"Controlled thermonuclear fusion, once mastered, will provide an inexhaustible source of clean and cheap energy," said Vyacheslav Strelkov.

Presently operating atomic power stations with thermal reactors, although they have, in the opinion of the scientists interviewed, several advantages over conventional types, can tap only one to two per cent of the potential energy of the uranium fuel. Their principal drawback is that they use the costly isotope uranium-235. One ton of natural uranium contains approximately seven kilograms of this isotope. The rest of the uranium—with isotope 238—is just ballast. Forecasts indicate that, used this way, the reserves of cheap uranium will be depleted by the end of this century.

Currently in the development stage are breeder reactors of fast neutrons which operate on the "ballast" uranium-238. While generating energy, the breeders also produce plutonium, a nuclear fuel even more valuable than uranium. But the breeders, too, have their shortcomings. They store plutonium, a highly toxic and dangerous material, which raises the problem of safety in operation and transport. An equally difficult problem is the disposal of radioactive waste.

"Thermonuclear energy has fundamental technical and scientific advantages over the conventional and breeder stations," says Strelkov. "Instead of the costly uranium and plutonium, thermonuclear reactors will use the heavy isotopes of hydrogen—deuterium and tritium—whose nuclei release a vast amount of energy upon fusion (synthesis)."

The resources of deuterium are practically unlimited, because it is present in water and is extracted comparatively easily. Tritium is derived from lithium, of which there are adequate resources in nature. Some estimates put the cost of thermonuclear fuel as almost negligible—less than one per cent the cost of nuclear reactor fuel.

Another important point is that thermonuclear reactors are less of an environmental hazard. In the event of a breakdown, thermonuclear fusion merely stops. The insignificant mass of reacting substances involved completely rules out the possibility of a nuclear explosion, even in so highly improbable a contingency as having a meteorite fall on the station. And, finally, thermonuclear reactors are free of materials which might be stolen and used to manufacture nuclear weapons.

Boris Kadomtsev: "But before demonstration thermonuclear reactors are developed, which is the ultimate goal of Soviet-American cooperation, scientists of both countries have to solve a number of scientific and engineering problems. Obtaining energy through controlled thermonuclear synthesis is such a challenging task, both in terms of prospects and of complexity, that it requires the cooperation of many countries, above all of the Soviet Union and the United States, which are well ahead in this sphere.

"We exchange scientific and technical information and research results with our American colleagues and hold seminars, conferences and meetings of joint working groups. Now our cooperation will be carried a stage further. American scientists Harold Hamilton and Richard Smith have been at our institute for several months. This first exchange of scientists under the agreement on cooperation has not only produced scientific results, but has helped us to understand one another and to organize our future work. This form of cooperation is very effective if each side makes preliminary preparations for the joint work and discusses in advance not only the aims, but also practical ways of carrying out the projects planned. On the whole we think this first exchange has been a success."

Harold Hamilton: "We agree with this point of view and are satisfied with our collaboration with Soviet physicists. My work in Livermore involves different types of controlled fusion apparatus. We don't have tokamaks in our laboratory, but we do have a common interest with our Russian colleagues in high-power injectors which can be

used for heating plasma. To obtain high-temperature plasma is one of the fundamental problems facing thermonuclear physicists.

"In Moscow I continued my work with injectors and am satisfied with the results. In the Atomic Energy Institute we examined the Tokamak-10. It is obviously one of the most important controlled fusion experiments today, and the entire world is waiting for results from this thermonuclear apparatus."

Richard Smith: "I would like to add that most of the thermonuclear fusion projects in America are based on Russian tokamaks. In the Princeton laboratory where I work there is a large tokamak similar to the T-10, and we were unhappy when the Russians began operating theirs first. But we will try to catch up. As for my work in the Soviet Union, I am very pleased with the results.

"This is my first visit to the Soviet Union, and I was interested not only in the research being done by Soviet physicists, but also in the life and culture of your people.

"We have visited some cities and have seen many historical sights, museums and theaters. We Americans find that the Soviet Union is a very interesting place to visit. There are many things we can learn here. Some things, of course, are hard for Americans to become accustomed to. Anyhow, I am very pleased with my trip to the USSR."

Harold Hamilton: "As for the cultural program of our stay, I would like to say that our families were with us in Moscow and my daughter had the opportunity to study at the Moscow Conservatory and receive instruction from one of the outstanding violin professors in the Soviet Union, Oleg Kriza. I am very grateful for that. Besides, we have improved our Russian enormously, and I hope when we come here next time—I think expanding Soviet-American cooperation will give us the chance—we'll speak only Russian. It seems to me that Soviet-American cooperation in atomic energy is exceedingly productive. I think that some of our technology is of interest to Soviet physicists, and we will certainly use some of their experience and technology."

Boris Kadomtsev: "We believe that cooperation between Soviet and American scientists concerned with thermonuclear fusion will accelerate the solution of the world energy problem for the benefit and prosperity of the peoples of the Soviet Union, the United States and all other countries."



Soviet researchers Igor Semenov and Sergei Mirnov with Dr. Smith. The American scientist said that most of the thermonuclear fusion projects in America are based on Soviet tokamaks, that in the Princeton lab where he works there is a large tokamak similar to the T-10. "As for my work in the Soviet Union," he said, "I am very pleased with the results."



# A SOCIAL PORTRAIT OF PRESENT-DAY SOCIALIST SOCIETY

"A social portrait of present-day Soviet society should contain three main figures — the industrial worker, the collective farmer and the intellectual — representing the three main social categories of the population: the working class, the collective farmers and the intelligentsia."

I SHOULD LIKE to preface this social portrait of contemporary Soviet society with some thoughts on a medium ordinarily far removed from the work of a sociologist, namely, the genre of portrait painting.

## An Analogy

The drawing of a portrait comes within the realm of the fine arts. Science and art, however, both have the same point of departure: Both are called upon to truthfully reflect social life, to penetrate to the essence of people and, at the same time, to the heart of the social relations of the particular era. But art and science work toward this common goal in different ways. The social type recorded by the painter in a portrait or by the author in the pages of a novel is necessarily woven into the individual characteristics of a personage, and can be seen through these traits. The social types of a historical era that are given definition by a sociologist's study or by an economist's treatise are described in terms of social classes and their relationships.

The analogy, then, like most analogies, has strict limits. For one thing, the social portrait of a society must be a group portrait; moreover, it must show the relations between different social forces. The history of painting shows us that this last requirement is beyond the powers of the artist. In his masterpiece *The Night Watch*, one of the finest group portraits in the history of art, Rembrandt depicted people from the same environment. In a number of paintings by late nineteenth century Russian artists of the Peredvizhniki school, we find something more than this, a clash between people from different social groups.

Documentary photography of the twentieth century has given us portraits in which episodes of tense struggle are recorded. And the advance from the still camera to the motion picture camera made it possible to spread to a visual art the advantage literature has of being able to portray people in motion.

The film maker is capable of presenting a social portrait of society in development, but art, when all is said and done, cannot do what science does. To assemble in a body of thought the entire life of society is the aim of the social sciences as a whole, and primarily of sociology, as a comprehensive science which studies the general laws of the development of human society.

A social portrait of present-day Soviet society should contain three main figures—the industrial worker, the collective farmer and the intellectual—representing the three main social categories of the population: the working class, the collective farmers and the intelligentsia. They should not be viewed in this portrait as static, immobile, but dynamic, in movement. Furthermore, the developmental trends of each class and social group, as well as the relationships between them, should be taken into account.

## The Main Figure

The **industrial worker** stands in the center of a social portrait of contemporary Soviet society. The working class came to power in Russia in October 1917. Although its name has remained unchanged, during the building of a socialist society it has turned into a new class that does not sell its labor to capitalists but owns the means of production and is free from exploitation. In prerevolutionary times the working class of our country comprised 15 per cent of the population. Just before World War II one out of every three persons engaged in the social economy was an industrial worker. The growth of the working class has continued since the war. Today, workers and their families constitute more than 60 per cent of the population.

However, it is not only the numbers of the working class that determine its growing role in society. The principal characteristic of the development of the Soviet working class today is the profound qualitative changes it has undergone that were brought about by the scientific and technological revolution against the background of socialism.

The scientific and technological revolution cannot be understood unless it is seen in its relationship to the social revolution. The growth of our technical power over nature calls for a similar growth in our power over ourselves, over the spontaneous forces of social development. The scientific and technological revolution insists upon a fundamental change in humanity itself as the producer of material benefits and as the bearer of social relations; it demands the fundamental restructuring of social relations based upon public ownership of the means of production. Led by the working class, the working people, who have united and have abolished the exploitation of one individual

by another, are building a new society which, on the one hand, provides full scope for scientific and technological progress and, on the other, uses the fruits of this progress to benefit the worker, to realize the ideals of social equality.

The changes in the working class can be seen most clearly in the changed nature of work.

Scientific and technological progress has already markedly changed the nature of work in Soviet industry. While still largely physical work, it is becoming more and more intellectual, requiring a growing volume of scientific knowledge, a broader technical and economic horizon and the ability to think creatively.

The requirements of scientific and technological progress and completion of the shift to universal secondary education have led to a fundamental change in the educational level. The percentage of workers with a secondary or higher education (complete or incomplete) grew from 8.4 in 1939, to 39.6 in 1959 and 69.7 in 1975. Taken as a whole, the members of the younger generation of the Soviet working class have a complete secondary education.

Under the socialist system the rise in the cultural and technical level of the working class, in its general and specialized educational level, is expressed in its growing participation in scientific and technological creativity. From 1971 to 1974, for example, a total of 14.7 million technical and organizational innovations were applied in production, effecting a saving to the national economy of 14.4 billion rubles. The Soviet Union's Society of Inventors and Amateur Efficiency Experts has 6.5 million members, of whom over one-half—3.5 million—are industrial workers.

Growing sociopolitical activity by the working class is also a characteristic of the socialist society. Examples of this can be found in the most diverse fields. More than 15 million industrial workers, for instance, are active members of various trade union committees at the factory level. Sociological surveys at 16 Soviet factories show that 64 out of 100 workers are involved in production management in one way or another.

## Comrades in a Common Cause

The second main figure in our composite social portrait is the **collective farmer**. Before the Revolu-













With Lenin in Moscow, after a session of the First All-Russia Congress on Extramural Education, May 1919. This unprecedented campaign to make a whole people literate kept her busy "from morning till late at night," she wrote. Above: A gifted speaker, she often took the rostrum.

own print shops, film projectors, libraries and exhibitions of revolutionary posters. And teachers, of course.

On one of these boats Nadezhda Krupskaya sailed down the Volga and the Kama in the summer of 1919. She spoke at meetings, held conferences in the local departments of public education, met village teachers, and helped them open schools, libraries and clubs. She talked to workers, peasants and women about their problems.

Krupskaya was in the very thick of the turbulent renaissance the country was going through. At her insistence, the central government and the local Soviets, despite other pressing needs, allocated funds for adult schooling. Conferences were held on extramural education, method groups of educators were formed, and publication of textbooks and special magazines was begun. Her letters at the time say: "There's a devilish lot of work, and every minute is precious." "I am busy with my enlightenment work from morning till late at night and have no way of extricating myself." "The work keeps piling up."

#### Books on Pedagogy

As the campaign to end adult illiteracy progressed, Krupskaya began paying more attention to problems of education generally, to the theoretical foundations of the new socialist education.

Once, in her girlhood, she had read an account by Leo Tolstoy about a tongue-tied girl who suddenly became talkative after hearing a story told by her teacher. Tolstoy wrote that he had the feeling that a "flower had blossomed" right before his eyes. Nadezhda was deeply impressed by this and later wrote that in her educational work

she was "always most enthused by the way the capacities of the children grew and developed, and their personalities blossomed. The all-round flowering of the child's personality—that was what carried the teacher away."

Therein lies the essence of Nadezhda Krupskaya's concept of pedagogy. It was her conviction that the school had to bring out the child's gifts, inclinations and tastes. People can be happy only if their physical and spiritual powers are developed harmoniously and used properly. The school had to prepare inwardly disciplined people, "who could feel deeply, think clearly and act in an organized way." If the school gave that kind of education to the younger generation, it was doing its job. A school of this kind, Krupskaya maintained, was possible only in the new socialist society.

Her ideas on polytechnical education anticipated the solution of this important problem that is broadly acknowledged today, in our period of an unfolding scientific and technological revolution. Krupskaya wanted the kind of polytechnical training that would permeate the entire process of education and be the pivot around which the basic school subjects would revolve. The school, she said, must train the young to use the newest achievements of science and engineering for the general good. Instruction in the fundamentals of knowledge had to be organically tied up with the development of science, with new discoveries.

The foundations of the younger generation's ethical education, according to Krupskaya, were collectivism, internationalism, the complete social and national (racial) equality of all people. Like Lenin, she always said that genuine ethics lay in whatever made possible communist, i.e., absolutely just, equal, profoundly human, relations among people.

As a tribute to her work in education, in 1931 she was elected an honorary member of the Academy of Sciences of the USSR. In 1936 the degree of Doctor of Science in Pedagogy was conferred upon her. The collection of her works on education runs to nine thick volumes.

Here we have touched on only a small part of Nadezhda Krupskaya's activities. Her work in organizing the women's movement in the Soviet Union and in setting up a library network throughout the country was invaluable. For many years she was an adviser of the Young Communist League and the Young Pioneers. She responded to every letter she received, no matter who wrote it—a peasant in Siberia or a schoolboy in Byelorussia. She traveled all over the country and mingled everywhere with the people.

Her literary legacy is diverse. Some 100 of her writings are devoted to Lenin. Her reminiscences of him have unique historical value.

Nadezhda Krupskaya died after a brief illness on February 27, 1939. She was buried in Moscow's Red Square. The urn with her ashes is immured in the Kremlin wall, close to the Lenin mausoleum.

There could be no better conclusion to this article than Nadezhda Krupskaya's reply to an old friend who lamented the fact that her whole life had passed in hardship and work. "Why do you feel so sorry for me?" she wrote. "I am quite satisfied with my life. In fact, I am very happy that I managed to live through the Revolution, and I love the work I am doing at present. My personal life was a very happy one. And if there are moments that are difficult to bear—well, who has not had such moments? I have lived an active life brimming with events. I have nothing to complain of."





# Around the Country



## MOTHER OF 48

The beginning of this story goes back to the years of the Civil War (1918-1920), when thousands of children were orphaned. Alexandra Derevskaya, a young Ukrainian woman, was so haunted by the plight of these hungry waifs that she adopted three orphans and brought them up.

Later, in 1941, when the war against the Nazis began, Derevskaya often went to meet trains

carrying refugee children in order to bring home the weakest among them.

After the war Derevskaya and her husband Yemelyan, with their 30 children, moved to the town of Romny in the Ukraine. There they adopted another 15.

A family so big managed only because every child helped with the household chores. Derevskaya also knew how to organize their leisure: The family had its own chorus, and the children played musical instruments. The boys were able to muster up a soccer team. Even driving classes were arranged after the Ukraine's Council of Ministers presented the family with a truck.

The state helped out financially; otherwise it would have been impossible to raise so large a family. The regional council contributed a house, a piano and two cows.

Now all of Derevskaya's adopted children live separately and have their own families.

The Presidium of the USSR Su-

preme Soviet conferred the title of Mother Heroine on Derevskaya, and a street in Romny was named in her honor.



## PHOTOGRAPHER OF NATURE

Rockwell Kent, renowned American artist, once wrote to thank a Soviet photographer for giving him a greater understanding, love and feeling for the natural beauty of Russia. That photographer is Ivan Krysov, a native of the village of Spaso-Talitsa near Kirov (northern Russia).

## PEACE FUND

Kropotkinskaya 10, Moscow. This is the address of the Soviet Peace Fund. About 60 million individuals in the USSR have already contributed to it. The fund assists peoples all over the world. Money went to the people of Peruvian towns destroyed by an earthquake. The fund also financed the World Congress of Peace Forces in Moscow.

Contributions come from factory workers, collective farmers, teachers, engineers, scientists, writers. Among those who donated large sums in Soviet and foreign currencies were the late Dmitri Shostakovich, writer Konstantin Simonov and poet Robert Rozhdestvensky.

Recently a village amateur talent festival was held in Krasnoyarsk Territory (Siberia). The receipts from the many concerts arranged during the festival,

10,000 rubles, were donated by the performers to the Peace Fund.



## OLD CRAFT REVIVED

An ancient art of decorative woodcutting, *shebeke*, is being revived in Azerbaijan (a Soviet republic in Transcaucasia).

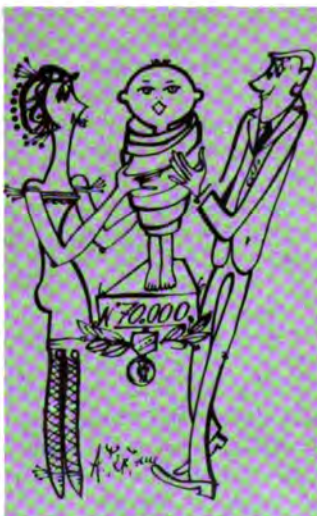
This technique involves piecing together the parts of an intricate design without glue or nails; they interlock like a jigsaw puzzle.

Woodcarver Ashraf Rasulov

helped to restore representative monuments of Azerbaijani architecture of the sixth to twelfth centuries A.D. *Shebeke* is complex but delicate work in which the restorer faithfully reproduces the style and manner of the ancient masters.

## BOOKS, BOOKS AND MORE BOOKS

Zhalin is the Kazakh word for flame. This name was given to a new publishing house in Alma-Ata, the capital of Kazakhstan. It specializes in books in Russian and Kazakh for children and young people. Its 1976 program calls for the publication of some 300 titles in a total printing of four million copies. Besides fiction and poetry, Zhalin publishes books on science and art.



## BE HAPPY, MINDAUGAS!

A son was born to the Urzhenis family, residents of Klaipeda, Lithuania. The boy, named Mindaugas, happened to be the 70,000th citizen born after the

liberation of Klaipeda from the Nazis. At the ceremony honoring the event, the parents were presented with a commemorative medal.

## STRONGEST WRESTLERS

In Uzbekistan (Soviet Central Asia) *kurash* wrestling is a national sport. Its popularity accounts for the success of Uzbek free-style, Greco-Roman and sambo wrestlers at USSR and international matches. There are two types of *kurash*—the Fergana variety is close to Greco-Roman wrestling, while the Bukhara is similar to free-style wrestling.

Tractor driver Karatai Yusupov was the leading *kurash* wrestler for 40 years. A tournament is now dedicated to him. In 1975, 100 of the strongest wrestlers took part in the Yusupov tournament.



## VILLAGE ART MUSEUM

There is a fine arts museum on the Krasnaya Zarya Collective Farm in Kirghizia (Soviet Central Asia). Besides the permanent display by local artists, of whom Subankul Beishebekov is one, paintings from the collections of the largest galleries of the USSR are on exhibit.

## YOUTH PALACE

Architects have completed the design of the youth palace to be built in Moscow with funds



"Your superb volume has just reached me, and I am quite overwhelmed by its beauty. . . . The joy you derive from life and nature is so clear in every one of your pictures that I can perhaps wish you no greater happiness than good health and everlasting peace in mind and heart."

Krysov does masterful photographs of landscapes and of animals and birds in their natural settings. Dozens of his pictures have won prizes at USSR and international exhibitions.

## PEOPLE'S UNIVERSITIES

In the evenings the classrooms of the People's University of Technology and Applied Arts in Riga, the capital of Latvia, are filled with ambitious adults interested in broadening their hori-

zons. They hear lectures by prominent scientists, leading workers and artists. Over 3,000 people have graduated from the university in the 13 years since it was founded. The graduation projects—inventions really—of over 400 students have been used in industry with considerable profit.

Besides people's universities of technology like the one in Latvia, there are others that offer courses in the fine arts, music and literature. Such a school for adult education was recently opened in the town of Naberezhnyye Chelny at one of the biggest construction projects in the Soviet Union, the Kama Automobile Plant. Lectures are given to the more than 2,000 students by art critics, musicians, composers and writers from Moscow and Kazan. The Kazan State Conservatory is the patron of the music department.

There are more than 35,000 people's universities in the Soviet Union, with a total enrollment of more than nine million.



## ARTIFACTS IN A SUITCASE

A man walked into the Museum of Regional Studies in Rostov-on-Don with a suitcase from which he produced glass beads, a whetstone and earthenware pots with trefoil-shaped necks.

These were made almost 2,000 years ago by artisans of the Meot tribe on the lower Don. Teacher Victor Gorodov, the man with the

suitcase, said that he had discovered these unusual articles while vacationing on the Manyh River. He gathered them up from burial mounds the river had uncovered when it washed away the dirt.

Says Gorodov, "I was initiated into archeology quite by chance."

The museum will be putting these ancient artifacts on display in the near future.

## NEW SPARTA

Sparta is a children's sambo and judo school in the town of Yelets (central European USSR) at the house of culture of the electrical plant. It has an enrollment of 500.

Sparta is fussy about who can join. New members take a solemn oath, pledging to "be a model in study and work and to fight against dishonesty and injustice."

## WORKERS HOTEL

Near Sochi on the Black Sea, Leningrad's Kirov Plant has built for its workers a resort hotel accommodating 850. Comfortable rooms, facilities for physical therapy, play areas, an ideal climate and the sea provide everything for a carefree vacation. Holiday vouchers are given to workers free or sold at nominal prices. The cost difference is covered by the factory.

Almost every large Soviet enterprise has its health and holiday hotels.



## 100 STAGE ROLES

Kondrat Gara, chairman of the Druzhba Collective Farm, near the town of Khmelnytsky (the Ukraine), has played his hundredth role on the stage of the house of culture in the village of Krivachintsy.

In the 25 years that Gara has managed the collective farm, he has done an outstanding job in his work and on the stage. More than 100 members of the farm are active in amateur art, music and drama groups at the house of culture.



## VILLAGE FOLK ENSEMBLE

The Lyakhov Collective Farm in Estonia is widely known for its folk singers and dancers. The folk ensemble of this Estonian farm won a prize at a contest in which amateur performers from all over the republic competed. The founder of the group, teacher Johannes Taul, his son Ants, and machine operator Endel Arak, who plays the bagpipes, are just a few of the ensemble members.

## CHILDREN'S TV CENTER

A television center which opened at the Young Pioneer palace in the city of Chita (Transbaikalia) broadcast its first programs prepared by youngsters who took on jobs as announcers, TV producers, and sound and camera technicians. The children's TV center is a gift from the local television and radio commission to the city's young people. Several times a week Chita's adult television center broadcasts these programs produced entirely by the children.

## DEDICATED NURSE

Ljudmila Rodionova of Kiev has been awarded a Florence

Nightingale medal. This is the highest award given by the International Red Cross Committee to



those who "display exceptional dedication in caring for the sick and wounded in time of war or natural disaster."

In 1941 junior nurse Rodionova took part in the fierce fighting near Rostov. It was her eleventh battle. One by one, she carried the wounded to shelter.

"Tanks!" Rodionova recalls someone shouting, as the machines began running over the wounded. Then she heard, "Run!" But the tank was almost upon her. A Nazi was grinning from an open hatch. Rodionova snatched a pistol from a wounded soldier and fired. Then she jumped onto the tank and shot several times into the open hatch.

She was wounded in that battle. After a hospital stay, she returned to the front, where she was wounded five more times. All told, Rodionova carried off the battlefield 179 severely wounded officers and men.

raised during a communist sub-botnik. On April 17, 1971, Soviet people voluntarily worked on their day off at factories, at construction sites and on collective and state farms. The money earned was contributed to build health resorts, stadiums, houses of culture, kindergartens and schools.

The terraces of the youth palace will face a park. The assembly hall will seat 2,000. Another auditorium will be used for dancing, entertainment and exhibitions. The palace will have a museum of the history of the Komsomol, a lecture hall, a creativity club and a library.

## SAVING WILD ANIMALS

Mountain villages in Georgia (the Caucasus) were nearly buried this winter by snowdrifts as high as four meters (one meter equals 3.2 feet). Ravines and can-

yons were piled up with snow, leaving wild animals with neither food nor shelter. Roe deer suffered most. The village people sought to free the helpless animals caught in the drifts. Collective farm engineer Soso Gvaberidze saved six roe and driver Alexei Anauri rescued five.



## HIDDEN TREASURE

Victor Platonov, a young village carpenter in the Minusinsk District (Siberia), was repair-

ing the upper part of the wall in his barn when pieces of silver came falling down on his head—silver rubles, half-rubles and smaller ancient coins. The total weight was 14.420 kilograms (one kilogram equals 2.2 pounds) of pure silver. Platonov brought the treasure to the bank and received a reward of more than 1,000 rubles.

## BROTHERS MEET

The Second World War separated many families. Even today relatives are still attempting to find one another. The brothers Vasili and Nikolai Khomenkov, for instance, met in Pskov (in the northwestern part of Russia) after a 30-year separation.

Nikolai was eight when the war started. He remembered how his

father left for the front while he, his mother, his brother and sister were evacuated to Moscow. His mother died soon after, and the children were placed in a children's home.

When sister Tonya suddenly disappeared from the home, Nikolai set off to look for her, ending his fruitless search in the Ukraine, where he was placed in another children's home.

After the war Nikolai and Tonya found each other, but Vasili's fate remained unknown. The search was made more difficult by the fact that Vasili had acquired another patronymic in the children's home. Recently Nikolai was in Pskov on a business trip. In the hope of finding traces of his brother, he visited the city archives. When she heard the story, archives worker Natalya Kuznetsova remembered that a Vasili Khomenkov was employed with her husband in a garage. The brothers were reunited that same day.



## BUDDING ARTISTS

In the Zvezdochka kindergarten in the city of Kherson (the Ukraine) children draw and sculpture as a part of their regular instruction. They make trips to the city park with their teachers and come back with sketches. Venera Tokayeva is one of the professional painters and sculptors who visit the children to select works by their young friends for shows.



Giant cities with giant problems,  
that is the universal picture.  
The Soviet Union is no exception.  
Although the situation  
is not critical, we have our  
pressing problems. How  
do we tackle them in practice?

By Anatoli Salutsky  
Photographs by Vsevolod Tarasevich

THE USSR IS A COUNTRY of big cities," said American geographer Charles Harris. Indeed, a good half of the Soviet Union's urban population is to be found in large centers. And these cities of highly developed industry, science, education and culture—Moscow, Leningrad, Kiev and other "veterans"—continue to grow. The new arrivals hasten to catch up. Togliatti, for example, an auto workers city on the Volga. In a matter of 15 years its population has grown from 20,000 to almost half a million. Naberezhnyye Chelny on the Kama, where a mammoth truck plant is being built, threatens to break Togliatti's record.

A complexity of urban problems is inevitable. How to solve them? This question stirs up no little debate here. Just because the situation in the Soviet Union is not critical does not mean that we have no pressing urban problems. We do. And the most important of these is how to respect the interests of each individual resident and at the same time give equal consideration to those of society as a whole.

How do we tackle this problem? Let's see how it's done in Gorky, one of the Soviet Union's major cities, situated at the confluence of the Oka and the Volga rivers in Central Russia.

#### The Spirit of the Past

Many readers probably associate the word kremlin only with Moscow. As a matter of fact, all ancient Russian cities began with the construction of a kremlin, a fort. Nizhny Novgorod (Gorky's former name) was no exception. The length of its kremlin walls and towers is 2,045 meters,\* only 196 meters shorter than Moscow's. Built in 1500, this citadel withstood more than 10 enemy sieges and was never captured.

From the Nizhny Novgorod kremlin, which rises over the Volga slope, you have a fine view of a part of Russia's history. At the walls of this krem-

\*A meter equals 3.281 feet.



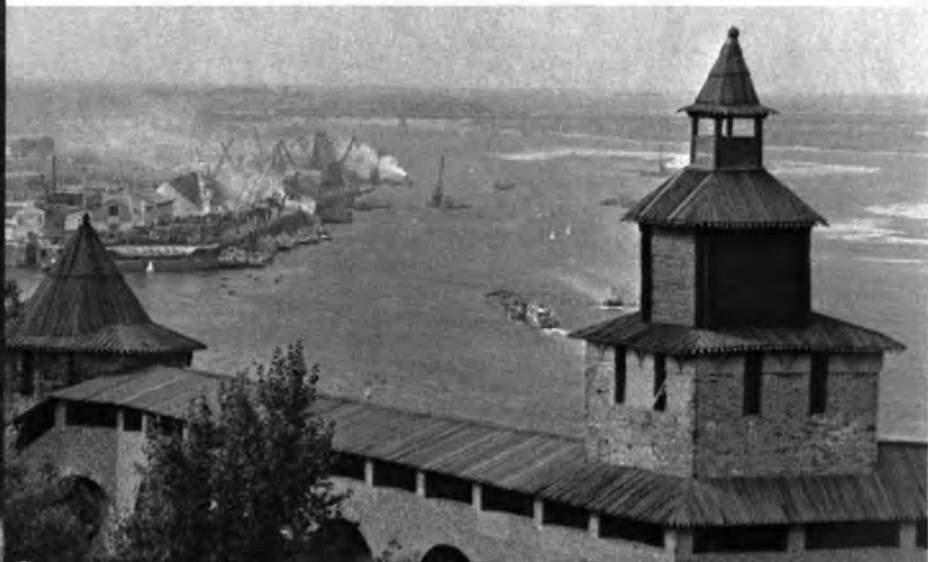
# GORKY: BIG CITY ON THE VOLGA

Coping with Urbanization



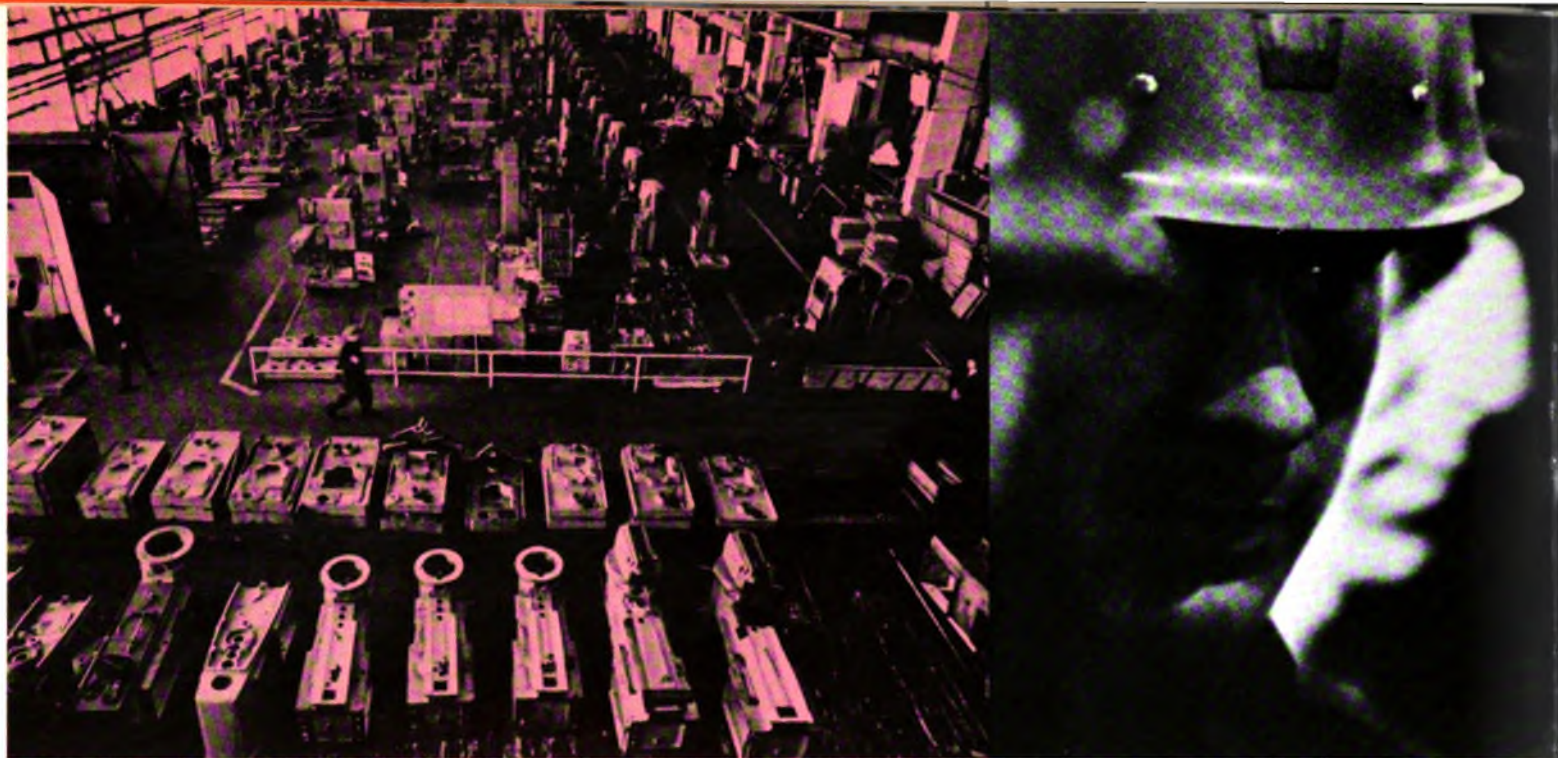


Vladimir Yerekhinsky,  
the mayor of Gorky, and chief architect  
Vadim Voronkov considering new  
directions for the city's growth.  
Below: From the walls  
of the Gorky kremlin, the fort built  
in 1500, you get a beautiful  
view of the Volga. The stag, ancient  
symbol and coat of arms of  
Nizhny Novgorod, the old name for Gorky.  
Bottom: The Volga embankment.





# GORKY



lin, commoner Kuzma Minin and Prince Dmitri Pozharsky in the early seventeenth century formed a people's army, which liberated Moscow from Polish invaders. A monument to these two warriors stands in the capital's Red Square.

The spirit of the past can be felt everywhere in Gorky. Mother Volga herself is part of it—along her shores serfs pulled barges for centuries. You see it in the huge old pavilion where, from 1817 on, the biggest trade fair in Russia opened every July 15. Alexander Popov, the inventor of radiotelegraphy, was chief of the fair's electric station.

Nizhny Novgorod was the birthplace of pilot Pyotr Nesterov, the first aviator to do an inside descending loop, and another famous pilot, the first to fly from the USSR to America via the North Pole—Valeri Chkalov. And here also was born the father of Soviet literature, Maxim Gorky, for whom the city was renamed in 1932.

## It's Up To the City Soviet

"The local Soviets—the City and District Soviets—run Gorky," said Nina Kalachova, deputy chairman of the City Soviet Executive Committee. "For instance, no enterprise in the city can increase or cut production unless the Soviet agrees."

Let's say the big Gorky Auto Plant wants to build a new shop that will employ a thousand people. Examining the plans, the City Soviet Executive Committee says, "You will be able to hire only 400 people from our available reserves. The rest will have to come from other cities. So if you want to build a new shop, you'll have to build housing for 600 newcomers at the same time. Otherwise the answer is No."

A certain USSR ministry plans to locate a new industrial plant in Gorky. The matter is duly considered in the City Soviet: Will this type of plant be good for Gorky? Will it mean more pollution? How will the residential power and water supply be affected? If the answer to these questions suggests problems for the city, the Soviet will not approve construction of the plant.

On the other hand, a situation could develop where there are more women who want to work than local production can employ. The City Soviet then addresses itself to higher government bodies with a request for some production unit in the city, say, a textile mill, where traditionally more women are employed.

Gorky now has over a million residents. This is a big city with diversified industry, machine building primarily. Problems crop up daily, but people are used to them here. Sometimes the wrong decision is made. That's inevitable when you're dealing with the affairs of a city this size. But on the whole, the Gorky Soviet of Working People's Deputies guards the city's interests well, planning carefully its growth and development.

## Finances

"Financial problems? We don't have them," said another Gorky woman—Nina Palkina, head deputy of the city finance department.

Like cities all over the world, Gorky is financed mostly from taxes. But in the Soviet Union the big taxpayers are state enterprises, not the individual citizen. Every enterprise that turns out marketable goods pays the state a turnover tax, 13 per cent of which comes back to the city where the enterprise is located. Since volume of production is constantly increasing here and socialist planned economy has no slumps, this turnover tax keeps rising, and so does the city's income.

In 1975 Gorky's budget revenue amounted to 163.2 million rubles. More than half of it came from taxes paid by industrial enterprises. Add the prof-

its of municipal agencies (public utilities, for example), and you find that 82.2 per cent of Gorky's total revenue comes from the city's enterprises and only 17.8 per cent from individual citizen taxes.

The city's financial base is therefore substantial and stable.

"Keep in mind also," Nina Palkina said, "that we always have a three-million-ruble cash reserve in our treasury. In case of unforeseen expenditures. This is over and above the budget—what we have saved. You probably realize that though our funds are considerable, we are not spendthrifts."

"As you earn, so you spend." This old Russian motto is quite applicable to Gorky's financial operations. In that same 1975 budget, expenditures totaled 162.2 million rubles, of which 55.4 million were invested in housing and municipal construction and for building transport lines, landscaping, city improvement and other necessary projects.

Almost half the budget (to be precise, 79.3 million rubles) was spent on social and cultural undertakings. Now what do we mean by that?

Let's begin with public education, for which 33.9 million rubles were spent last year. This budget item brought the City Soviet only 245,000 rubles in income—the money parents paid for boarding schools (this sum, by the way, covered only nine per cent of the actual cost).

Gorky's 34-million-ruble education budget is used to maintain 88 kindergartens and nurseries for 11,000 children, 157 secondary schools with 136,000 pupils, a sanatorium school in the woods, 35 schools for working youth with 27,000 students, 19 boarding schools with 6,500 pupils, 16 children's music schools, 73 public libraries, 5 children's homes and 17 Young Pioneer centers.

Next comes public health. Last year 43.3 million rubles were spent on this item. Keep in mind that treatment in polyclinics and hospitalization are free of charge. Besides, the city budget allocates funds for free medicine to diabetics and people with TB and certain other diseases. The public health budget covers expenses for running 40 hospitals, 7 maternity homes, 10 dispensaries, 83 polyclinics, 4 children's sanatoriums, 9 epidemiological stations and a first aid station with a staff of 1,250. For food and medicines in hospitals alone the city spends an annual 8.2 million rubles.

Finally, funds for cultural undertakings. The sum is comparatively small—only 2.1 million rubles. But culture in Gorky is not slighted. In addition to the City Soviet's two million, 17.6 million are spent by the trade unions, which are very active in educational work in the city, helping people with arrangements, for example, for spending their leisure time productively and enjoyably. What happens here is that the government and the trade unions have simply divided "spheres of influence."

Trade union funds maintain 42 big clubhouses, 28 libraries, 7 student clubhouses, 1,600 amateur performing groups, 332 amateur technical groups, 11 Young Technician centers and 406 sports facilities. A total of 190,500 children vacationed at suburban camps during the summer of 1975 at the expense of the trade unions.

Administrative expenditures have a place of their own in Gorky's budget. Few of the city council members are paid, but the City Executive Committees and the eight District Soviets, as well as the various municipal boards, have some paid full-time people. The payroll is about a million rubles, or 0.6 per cent of the budget.

## Prices

The people in Gorky, as in other Soviet cities, have become so accustomed to paying the same prices for staple foods and consumer goods—they have not changed for years, except to come down—that they take the situation for granted.





*Vyacheslav Paishchikov holds a full-time job at the Krasnoye Sormovo Plant despite the fact that he is a legislator, a member of the Presidium of the Supreme Soviet of the Russian Federation. Far left: In one of the shops of the Gorky Machine-Tool Plant. This is a big city, with over a million residents and diversified industry, machine building primarily. In 1975 Gorky's budget revenue was 163.2 million rubles. More than half of it came from taxes paid by industrial enterprises.*

As for seasonal vegetable and fruit prices, their ups and downs are regulated by the City Soviet. And it's not always easy to keep them from climbing up to and above the traditional ceiling. That was especially true this past year. It was a bad drought year, and the grain, potato and vegetable crops were poor. State action solved the grain problem countrywide, but part of the vegetable and potato problem was shifted to the local Soviets. With money out of their own budgets they bought these items from suburban residents who had their own kitchen gardens and sold the produce at state shops to city dwellers.

The Soviets in Gorky had to do just that. But the sale of potatoes from your own plot is purely voluntary, and if growers decide to sell, they will ask for the market price. Last year it went up to 20 kopecks per kilogram.\* However, the potatoes bought by the City Soviet were sold over state shop counters at fixed state prices—10 kopecks per kilogram in the summer and 12 kopecks in the winter. Some 7.2 million rubles were allocated to cover this difference, and Gorky's citizens weren't even aware of how much money they had saved.

They "underpaid" another 2.1 million for public transportation, which, because of a sharp increase in the streetcar and trolley bus fleets, began to operate at a loss. But the City Soviet did not raise fares. Instead, it took funds from its own budgets to cover the loss.

#### **Total Working Income**

The budget is just the tip of the financial iceberg. The December session of the Gorky City Soviet of Working People's Deputies examined and approved the budget for the coming year. But then, after it was adopted, the City Planning Committee proposed that the deputies discuss the capital investment estimate, and the two figures didn't seem to jibe.

It had just been announced from that very rostrum that the budget allocated eight million rubles for housing construction in 1976. But the capital investment figure, for some reason, showed 27 million for the same item. And a similar discrepancy appeared for all the other items in the budget.

How to explain this? The fact of the matter is that the budget covers only part of the funds the City Soviet has at its disposal for development purposes.

You will recall I said earlier that the city budget gets 13 per cent of the turnover taxes factories and business enterprises pay the state. The other 87 per cent goes into the republic and Union budgets. And up there, "on top," they also are concerned about city development so that they distribute, for that purpose, what funds and resources are available, taking into account the size of the population. This is not a loan nor a grant, but procedure established by law. So, while the local budget shows a figure of 55.4 million rubles for Gorky to spend on construction, in actual fact construction costing almost 150 million rubles is going on in the city over the course of a year.

Now let's add up the money Gorky had at its disposal in 1975: the local budget—163.2 million, centralized capital investment—about 100 million, and trade union funds—almost 18 million. In round figures a total of about 280 million. And this sum did not include considerable funds from USSR sources that were spent in Gorky on its institutions of higher learning (the university, conservatory and institutes) and on science.

Hospital construction is decreasing. Some cities have up to 20 hospital beds per 1,000 population. Gorky has far to go to reach that figure: It has only 11.7. But the City Soviet is in no hurry to build new hospitals. It's even cutting down on that type of construction.

I was told available hospital accommodations were quite sufficient and that the average Gorkyite was in good health and didn't like to lie around in hospitals, even though it didn't cost a kopeck. By the way, these people owe their good health not so much to their genes as to the district polyclinic large-scale preventive medicine programs.

But the most widespread diseases of our age—cardiovascular ailments and cancer—of course are found in Gorky, too. That is why the City Soviet, while curtailing the building of general hospitals, is stepping up construction of specialized medical facilities—oncological, cardiac and children's hospitals. The emphasis today is not on the number of beds, but on the quality of treatment and the availability of the most modern medical equipment. That is where much of the money allotted for medicine goes to.

Flexibility to shift funds to wherever the city needs them most is a major feature of our local planning. Thanks to this, it became possible, for instance, to quickly erect a new bridge over the Oka. Concentration of funds and resources also enabled the city to create a new, large, 10-million-ruble complex of purification installations. It should be noted that in this instance the main portion of the expenditure was covered, not by the city budget, but by the Gorky Auto Plant, which contributed almost eight million rubles.

A few words of explanation are needed here. The City Planning Committee acts mostly on proposals submitted by the city's enterprises. Also taken into account are the many letters the City Soviet gets from individual citizens. In this case it was the residents of the Avtozavodsky (Auto Plant) District, that is, the people who worked at the plant, who wanted the purification installations. The City Soviet then addressed itself to the plant administration: "It's only fair that you share the expense with us."

By supplying the money the city lacked, the plant responded to the request of its workers.

#### **The Future**

Vladimir Yerekhinsky, Chairman of the Executive Committee of the City Soviet of Working People's Deputies (in other words, Gorky's mayor), said: "Our city still has many unsolved problems. For instance, we badly need a subway because Gorky has spread itself along the Volga and the Oka. It's also high time we started reconstruction of the city center. Up to now we've been busy building new housing on the outskirts of the city. People have been moving from the densely populated central districts to housing nearer the city limits, so the center was taken over by administrative bodies and commercial establishments. It has become rather shabby, and one of our current tasks is to renovate and also restore our ancient architectural monuments."

Yerekhinsky used to be a building engineer. It's interesting that people of that profession are frequently elected mayors in the Soviet Union. That's the case in Moscow, Leningrad and in many other large cities. It makes sense: Soviet cities are growing so fast that their citizens want at the head of local government a person who is familiar with the complexities of construction.

"Every city has its own character" goes an old Russian saying, and it's apropos here. Gorky certainly has preserved its individuality. Its kremlin, the Volga slopes, the arrowlike point of confluence of the Volga and the Oka, its age-old picturesque quality have not been affected by urbanization. And the people of Gorky also comprise a singular tribe—one can even recognize them by their special manner of speech—like true Volga dwellers they retain the unstressed "o." In terms of everyday life, however, the city's financial and social health, and all its amenities, Gorky is much like other large Soviet municipalities.

\*A kilogram equals 2.2046 pounds.



# GORKY

At the Gorky Polytechnic Institute. Nikolai Perov, mathematics professor, tests evening division students. They work in the city's industrial plants. Below: Nina Kalachyova (right) is deputy mayor of Gorky. Her daughter Natalya does research, her son-in-law German is studying architecture. The name of her granddaughter is Masha.



Yefim Rubinchik holds an important managerial job and is a well-known figure in Gorky. During World War II he was the director of the Krasnoye Sormovo Plant. It was turning out tanks at the time.

Tank Force. The elder Rubinchik, despite his years, continues to work—he is head of the Material and Technical Supplies Department of the Volga-Vyatskiy economic area, which covers several regions and autonomous republics of the Russian Federation.

Another family known to most of Gorky (and not to Gorky only) is the Blokhins. Irina Blokhina is the daughter of a former country doctor who practiced in the villages of Nizhegorodskiy guberniya (those of our readers who are familiar with Anton Chekhov's stories may remember his Zemstvo doctors, generous and enthusiastic practitioners who spent their lives in the prerevolutionary countryside). Irina's mother had no medical education, but she helped her husband, dressed wounds and delivered children in the peasant homes.

In 1938 Irina entered the Gorky Medical Institute, but she didn't graduate until 1946—all through the war she was a nurse in an army hospital. When she did get her diploma, she went to work as a research assistant at the Institute of Epidemiology, and in 1955 she was appointed director. Her achievement in research has made her a Corresponding Member of the USSR Academy of Medical Sciences.

Nikolai, her brother, also became a doctor. In the early fifties he moved from Gorky to Moscow, where a brilliant career

## EQUAL

## OPPORTUNITIES

How do you make your way up the proverbial ladder of success? The careers of Gorky residents provide pretty much the same answer to this question. It boils down to one simple truism—everything depends on the person. As to the “springboard”—that's of minor importance.

Ivan Kiselyov, general director of the huge GAZ (Gorky Auto Works) production association, began in 1934 as an ordinary worker. Studying after work hours, he graduated from an institute with an engineer's diploma. With that, he began

making his way up in the world—head of a shop, assistant chief engineer, chief engineer and now—for over 20 years—director of GAZ.

Kiselyov's daughter is still at school. His son already has his diploma and works at GAZ as an engineer. He is on his own, not relying on the record and authority of his father. Whether he'll become a top-level executive is a question time alone will tell. In any event, he gets no special privileges. Should there be trouble of any kind, his father would probably be especially hard on him and hold him more

responsible than any others involved.

Family traditions do play a significant role. Take, for instance, the Rubinchiks, very well known in Gorky. Yefim Rubinchik was director of the large Krasnoye Sormovo plant during World War II. At that time, the plant was making T-34 tanks, and its director held the rank of major general. Rubinchik's son Alexander worked at the same plant as a tank tester. In 1943, he went off to the front in one of his own tanks. Alexander “outranked” his father—he is now a lieutenant general in the





Most of the workers on the conveyor of the Gorky Machine-Tool Plant are young. They take special evening courses to qualify for more skilled operations. Some go on to advanced study and engineering diplomas. Left center: Ivan Kiselyov, general director and chief designer of the Gorky Auto Plant, takes a look at the new model of the Chaika.



*Ivan Kiselyov began his career in 1934 as a worker at the plant he has headed for 20 years now. He got his engineering degree at an evening institute. His advancement is typical of many high-ranking managers of Soviet industry.*

awaited him. Academician Blokhin is a world-famous cancer specialist. He is also the very active president of the Institute of Soviet-American Relations.

Irina Blokhina's husband is rector of Gorky University, and their children are also taking the first successful steps as scholars.

It is to be expected that well-

known people often get elected to legislative bodies. Blokhina, for instance, is a deputy to the USSR Supreme Soviet. However, there are people elected to Soviet lawmaking bodies who are hardly what you would call famous. Take Vyacheslav Paishchikov, a worker at Krasnoye Sormovo, who was not only a deputy to

the last RSFSR Supreme Soviet, but a member of its Presidium. When something important involving Gorky was being discussed in Moscow, Mayor Vladimir Yerehinsky turned for a reliable opinion to worker Paishchikov, who traveled regularly to the capital to attend meetings of the Presidium.



At the Gorky Research Institute of Occupational Hygiene and Occupational Diseases. Physicians Lyudmila Chernova and Lyudmila Zoloto examine worker Nikolai Grinko. Gorky's 43-million-ruble health budget funds 40 hospitals, 7 maternity homes, 10 dispensaries, 83 clinics, 4 children's sanatoriums and various other facilities.



## COMMUNITY INVOLVEMENT

In 1975 Gorky's City Executive Committee received 7,288 letters from residents with suggestions, proposals and requests. The mayor and his deputies had visits from 1,277 citizens. And the District Soviets examined 10,195 requests sent to them.

These were all kinds of requests—for better housing, improved public services, attention to noise levels, for example. The majority of the requests, as well as of the suggestions made at workers meetings with deputies, have this in common—they are all concerned with immediate problems.

At the same time they are taking care of day-to-day matters, the city fathers also pay a good deal of attention to Gorky's long-term development. Here, too, citizens volunteer their services to the City Soviet. Two years ago 200 men and women set up a public forecasting commission. It is made up of sociologists and journalists, economists and architects, teachers, engineers, and doctors and headed up by Boris Osokin, Candidate of Science (Philosophy).

The City Executive Committee was more than pleased with this action and went all out to provide the necessary working facilities and conditions for the volunteer commission. The research took two years, and its conclusions were incorporated by the City Executive Committee and the Gorky Party Committee in a comprehensive plan that covered all aspects of life in Gorky—it took up 240 pages plus three big reference books. The greater majority of the commission's proposals were adopted as a practical program of action.

What are these proposals? There are more than 500 of them—from the construction of pedestrian underpasses to the organization of leisure time. One suggestion, for example, was to cut down the number of schools for working youth because the need has lessened—these days the younger generation prefers general 10-year schools or vocational-technical schools that also offer a complete secondary (now compulsory) education. Another proposal was a single fare for all public transport (a streetcar ticket in Gorky is three kopecks, a trolley bus, five and a bus, six). Most residents are inclined to agree that the fares should be uniform—five kopecks. That's not much more than it is now, and it's simpler and more convenient.

A most interesting proposal was addressed

not so much to the city fathers as to the Gorky public. It has to do with bread. Even though last year the country's harvest was insufficient, due to bad drought, the consumer did not suffer at all—bread was still only a few kopecks, and there was no shortage in the shops. More than that, people buy fresh bread every day, while the slightly dryish leftovers from the day before are thrown out. As a result of this practice, the quantity of bread sold is far more than what the consumer actually uses. What could be done to end this waste? One possibility—it's been done in some Western countries with gasoline—is to raise bread prices a bit. That would force people to be a little more saving and would cut state costs. But we don't like that way out. Instead, Gorky residents decided to accomplish the same result by conducting an educational campaign. Not to urge people to cut down on their bread purchases, but simply to buy more sensibly.

The plan of social measures proposed by the Commission of Two Hundred was discussed throughout the city and studied carefully by the deputies to the local Soviets. One of them, Nastya Privalova, had this comment: "The plan was a great help to us. It gave us a chance to get away from immediate concerns and look at problems from the long-term point of view. It's entirely practicable and, what is most important, is wholly in the interest of our electors."

Privalova is going on 30. As a 16-year-old, she came to Gorky from a village and was taken on as an apprentice at the Krasnoye Sormovo plant. Now she is a skilled lathe operator and has won several medals for her work. Twice she has been elected deputy to the District Soviet. People at the plant know from past experience the kind of person she is—always ready to help.

Privalova is just as earnest and zealous when it comes to the requests and complaints of the people she represents. She helps one to get an apartment, another a pension, a third to settle a dispute with a department head. She herself, like all other deputies, gets no special privileges. She lives at the factory rooming house and doesn't have her own apartment. That's because she's still single, and apartments go first to people with families. When she gets married—soon now—the factory trade union committee will be presenting her with the keys to a new apartment as a wedding present.

Nastya Privalova, a lathe operator at the Krasnoye Sormovo Plant, was elected to the District Soviet for a second term.







Sculptor Pavel Gusev's favorite subject is Gorky fellow-townsmen Valeri Chkalov. In 1937 Chkalov, with Georgi Baidukov and Alexander Belyakov, made a nonstop flight from Moscow to the United States. Left center: Professor Nikolai Morozov is a volunteer member of a city committee to check working conditions at industrial plants.

# GORKY



## TIME TO RETIRE?

Ivan Kalashnikov began working at the Gorky plant in the thirties. He spent several years in Sweden and other countries keeping Soviet-made machine tools in working order.

At first I wasn't bored, what with the grandchildren, the TV, my books and dozens of things to do," said Gavril Yershov, a veteran employee at the Gorky machine-tool plant who retired two years ago when he turned 60. "But I went back to the plant, I just couldn't stand it any longer."

Yershov had worked there for 40 years. A man with the highest possible qualifications, he was welcomed back with open arms.

An old fellow worker of Yershov's, Nikolai Murenov, the same age, did what many other machine-tool makers do who reach retirement age and are offered easier jobs. He took one. The wages were lower, but since he has his pension, he doesn't lose anything. Some even make more than before.

There's no question about it—people really do have trouble making the transition from active worker to old-age pensioner. At 60 (and in some trades retirement age is lower—50 to 55) a man is still full of energy and isn't the least happy to shut himself up at home. That is why there are quite a few older workers in Soviet factories, all getting pensions that permit them to stop working. They return to their jobs not because of the money, but to be back among people again.

Naturally, not all older people can go on working. However, those who retire don't have to lose contact with the plant. There is a council of pensioners with a membership of 600. They all attend meetings and take part in the plant social activities. The trade union committee gives all of them free or discount vouchers (seven rubles for 12 days) to rest homes or sanatoriums, and they continue to use the services of the plant's outpatient clinic. In return the pensioners give the plant a lot of help. They see to



Nikolai Murenov was eligible for retirement on pension several years ago, when he reached 60. But he preferred to go on working. He couldn't see himself idle. He gets both his salary and pension. Right: At the Gorky Auto Plant's Palace of Culture. A contest of the amateur singing ensembles in the various shops.

# GORKY



it that the grounds are taken care of, pass on their vocational expertise to the young people, in other words, make themselves useful.

Since there is no unemployment in the Soviet Union, no one stands waiting outside the factory gates for the old hands to clear out. For the same reason working pensioners are no burden on the management, even if they've slowed down some.

As a matter of fact, they are entitled to special privileges—besides the usual paid vacation, they can take another two months each year at their own expense, and Yershov always does, spending almost the entire summer in the countryside. Murenov plans his time differently—he's an ardent hunter, and since hunting in summer is forbidden, he usually takes his vacation in the autumn and another two or three weeks in spring.

Murenov's wife never held a job—they brought up seven children, so she always had her hands full. But Yershov's wife spent a good 25 years of her life in the machine-tool plant. One daughter graduated from the Mathematics and Mechanics Department of Gorky University and works in science. The younger, while working in the same plant as her parents, went in for amateur circus performing at the Krasnoye Sormovo Club. That led to her becoming a professional, and she was accepted as an aerial acrobat by the Moscow Circus. Her husband is also a circus performer, so they tour the country every year for several months, leaving their children with Grandmother in Gorky.

There is a pensioner at the plant whose life reads like a book. Ivan Kalashnikov has worked since 1932. When he was over 40, he graduated from an evening specialized secondary school. In 1961 this highly qualified worker was sent to Sweden. He spent several years there maintaining Soviet machine tools, then he worked at the same job in England, France, the Netherlands, Norway and Denmark.

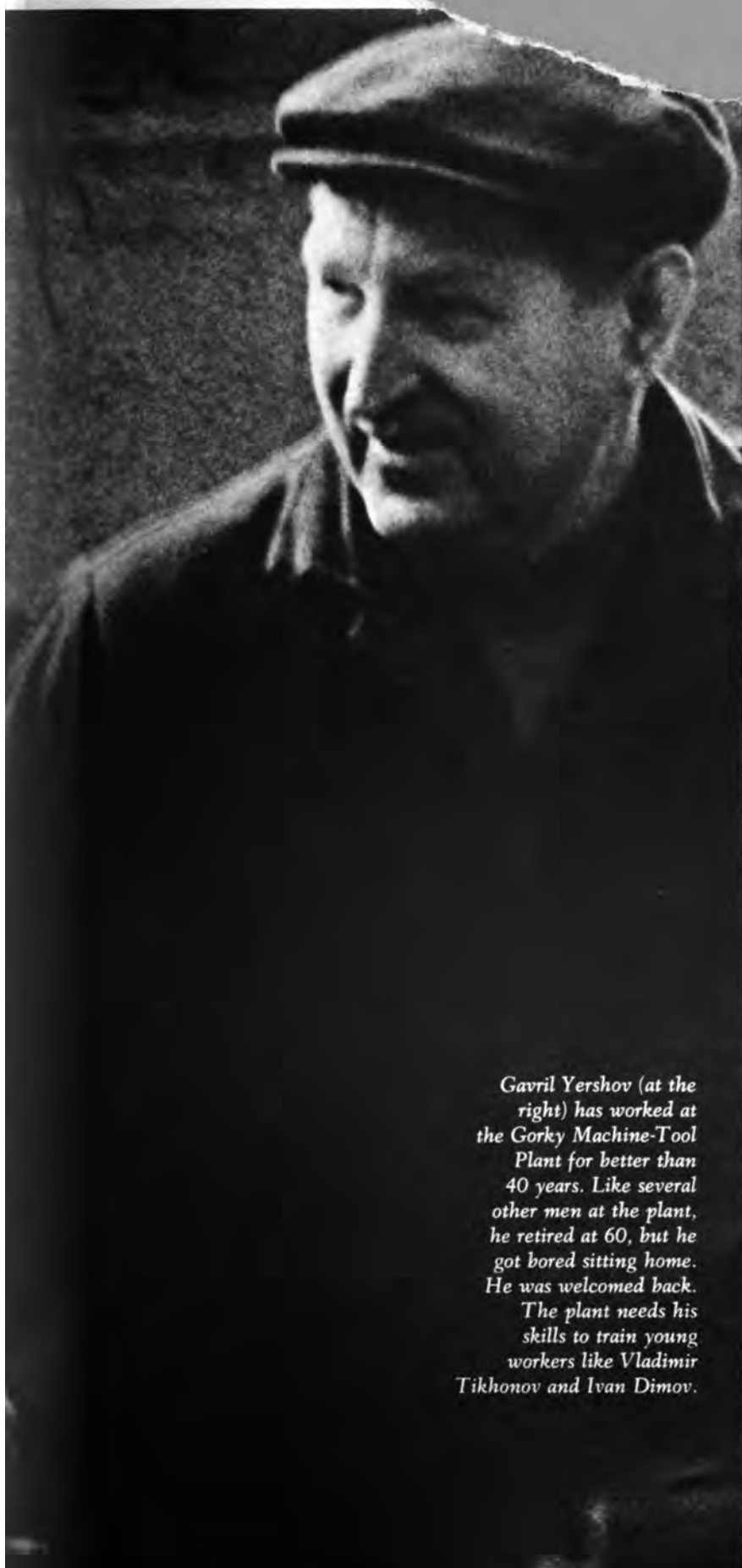
Kalashnikov has reached pensionable age, but he continues to work.







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*Gavril Yershov (at the right) has worked at the Gorky Machine-Tool Plant for better than 40 years. Like several other men at the plant, he retired at 60, but he got bored sitting home. He was welcomed back. The plant needs his skills to train young workers like Vladimir Tikhonov and Ivan Dimov.*



## LEISURE TIME— WHAT YOU WILL

If we consider leisure time to mean only the time spent studying, developing oneself, in community activities, meeting friends, recreation—then, according to Soviet sociologists, an average citizen has 1,500 hours of leisure time a year. Working time totals 1,800 hours. In other words, today almost as much time goes into intellectual and other activities as is spent on the job.

But how to use these leisure hours? The average Gorkyte hasn't quite worked it out to the best advantage yet. Weekly leisure time breaks down as follows: 2.62 hours reading papers or magazines, 8.04 hours watching TV, 3.22 hours reading books. Movies 36 times a year, the theater four to five times, spectator sports six times.

Some people spend almost 30 hours a week in front of their TV sets. So what? Everyone is free to do as he or she likes, isn't that so? But there's this to consider, too—some people would

like to do something more interesting, but either inertia or the folks around them make it difficult. It is, then, society's plain duty to help such people use their leisure more fully, give it more meaning and purpose.

That is why so much attention is being devoted in Gorky to amateur dramatic groups and to countless music, theatrical, art and hobby clubs where people of any profession and any age can take part. The same purpose is served by the people's universities of culture, where lovers of painting, music, literature—rank-and-file workers, engineers, homemakers—attend lectures given by prominent art critics, composers and writers and take an active role in seminars and discussions.

Some of Gorky's numerous palaces of culture are impressive structures—with huge auditoriums and scores of rooms for amateur clubs and studios. As a rule these palaces are on the city



# GORKY

outskirts near large plants. Of some significance is the fact that even theaters or orchestras on tour from the capital (a frequent event in Gorky) begin their engagements in the palaces there, then go on to the city's stages or concert halls.

A park has been laid out on the very bank of the Volga, under a steep slope. One of its attractions is a large, partially roofed, shell-shaped concert stage. The country's best symphony orchestras play there—it's a tradition now. At one time Fyodor Chaliapin, the world-famous bass, sang there, and today works by Dmitri Kabalevsky, Rodion Shchedrin and other well-known composers are premiered in that park before audiences of thousands. Known all over the country is the Gorky Conservatory, opened in 1946. Its fine organ is a great attraction for lovers of classical music.

Gorky is a very musical city, with hundreds of youth ensembles in factory clubs and institutes of higher learning and, among other groups, the extremely popular choir of Sormovo retirees.

The general feeling is that Gorky has already passed the most dangerous stage in the development of forms of leisure. Before, when most people lived in large communal flats (a legacy of the hard war years) and when everyday services were far from satisfactory, they didn't have too much leisure time, and so there was practically no problem of what to do with free time. Later on, when many Gorky residents, because of the huge scale of housing construction, began moving into modern single-family apartments, the natural reaction was to stay at home, in your own house. It was sheer bliss just to spend an evening in an armchair in your own living room, watching TV. Services, too, improved, which helped considerably to take it easy at home. But such seclusion could weaken human contacts, which are traditionally strong in our country, could reduce citizens' community participation and turn them from creators of intellectual life into mere consumers of it. That is why, alongside housing construction, a broad network of cultural and educational institutions was set up at the same time in order to "entice" people away from the ferroconcrete shell of their apartments.

And though this problem cannot be considered solved, making active use of leisure time is getting to be more of a habit in Gorky.

*Behind the scenes with one of Gorky's many amateur theater groups. "Take it easy, darling. You'll do fine."*



There are 8,000 newspapers with a combined circulation of 165 million copies. Every fifth item on domestic affairs criticizes someone or something. Who and what are the targets?

# CRITICISM IN THE SOVIET PRESS: WHAT FORM DOES IT TAKE?

By Lev Bobrov

EVERY FIFTH ITEM on domestic affairs that appears in major Soviet newspapers criticizes someone or something. Just who and what are the specific targets?

The criticism may be of individuals, officials especially, including, of course, leading officials on all levels and of all kinds. It may be directed at party, government, trade union and other bodies. Business enterprises, industrial plants, ministries, the State Planning Committee of the USSR come in for their share, and so does anything inimical to the Soviet way of life.

The USSR has 8,000 newspapers, with a combined circulation of 165 million copies. The three big dailies, *Pravda*, *Izvestia* and *Trud*, account for over 25 million of those.

The most representative of these nationally circulated papers is *Pravda*, the organ of the Central Committee of the Communist Party of the Soviet Union. It speaks not only for the 15.7 million Soviet Communists, but for nonparty people as well. *Izvestia* is published by the Presidium of the USSR Supreme Soviet and is read by many millions of deputies and electors. *Trud* is the trade unions' newspaper.

Why, in this avalanche of information, is so much space given to criticism?

"Many ministries, departments, associations, enterprises and organizations, collective and state farms still do not give proper attention to . . . raising the efficiency of production. . . . Elimination of shortcomings in the organization and methods of planning, supply and financing is rather slow. . . ."

The quotation is from the draft prepared by the CPSU Central Committee for the Twenty-fifth Congress of the CPSU. The document, which was published by all Soviet papers last December, is titled "Guidelines for the Development of the National Economy of the USSR for 1976-1980." Its tenor is clear from the quotation, which is in the first section, summing up the results of the Ninth Five-Year Plan (1971-1975).

Tens of thousands of reactions, proposals and amendments to the draft guidelines have been published in mass circulation and local newspapers. The scale of the discussion shows the tremendous interest of Soviet people in this document.

However, this figure does not reflect the full dimensions of the response since many people sent their comments and proposals directly to the CPSU's Central Committee, the Supreme Soviet of the USSR and the Council of Ministers of the USSR.

The Twenty-fifth Congress noted with gratification that the draft was discussed constructively throughout the country. A total of seven million people took part, submitting more than one million proposals and suggestions. A special commission elected by the congress went over them for possible inclusion in the five-year plan.

Vitali Smirnov, an assembly worker at the Baltiyski shipyard in Leningrad, in his letter to *Trud* summed up the nationwide discussion: "Frank talk about all our reserves, which must be used more efficiently, and about our deficiencies, which we must correct, is, to my mind, characteristic of the current discussion on the prospects for our country's development in the next five-year plan period."

Analysis of readers' letters published in the January issues of *Pravda*, *Izvestia* and *Trud* showed that over half the writers are workers and collective farmers. The rest are party, government and trade union functionaries, scientists

and engineers, students, pensioners and housewives.

Here are three excerpts from letters which show the wide spectrum of problems discussed:

"I suggest," wrote school headmaster V. Chizhov to *Trud*, "that the draft guidelines place special emphasis on the need for the construction of more housing, cultural and public facilities, and schools. I suggest also that managers disregarding this need be called to account."

*Izvestia* reader Alexei Ginzburg from Irkutsk made this point: "The population of the Lake Baikal area is likely to shoot up in the Tenth Five-Year Plan period because of the influx of builders of the Baikal-Amur Railroad. This calls for more health resorts in that area in order to make greater use of natural factors to restore people's health and capacity for work. I suggest that this be included in the draft guidelines."

Oleg Serdiuk from Kirovograd Region (the Ukraine) wrote to *Pravda*: "I think that the draft guidelines should say more about moral motivation, which is becoming the main driving force of our progress toward a communist society."

Social progress is the general theme of people's letters. The explanation for this lies in the content of the draft itself. As in prior five-year plans, the goal is higher living and cultural standards.

All these letters were considered and studied in the process of working out the final version of the plan.

But in soberly assessing their potentials, the Soviet people do not shut their eyes to the difficulties. The best way to evaluate past progress is to concentrate on the problems left to be solved.

The Rules of the Communist Party of the Soviet Union state that it is not only the right but the duty of every Communist to encourage criticism and self-criticism, to expose shortcomings, to fight conceit, complacency and any and all attempts to suppress criticism.

The communist attitude toward work is becoming the standard for nonparty people as well.

"No restrictions are placed on criticism intended to eliminate shortcomings in the party and state leadership, in the theory and practice of socialist and communist construction. Every Soviet citizen has the right to criticize the activity of any party and Soviet organs as well as of any official, whatever post is held."

This right is exercised at party, Komsomol, trade union and workers meetings. Criticism is part and parcel of the daily operation of each collective—in the USSR's 50,000 factories, 45,000 collective and state farms, and the tens of thousands of working collectives in administrative bodies and educational institutions.

It is the press that makes it possible for these collectives to present their problems for the consideration of people generally. Take the December 28, 1975, issue of *Pravda*, where some prominence is given to two incidents of seemingly local importance.

The first had to do with mismanagement at the Samokhvalovich fruit and vegetable processing complex in Byelorussia. I. Gaidukevich, a fitter, brought it up. The director tried to stop this criticism from below although he knew very well what the penalties were for violation of Soviet democracy. He was reminded of them by the People's Control Committee of the Byelorussian SSR, which took up the dispute when it became

public after the worker sent his complaint to the press. The director was both fined and dismissed.

In the other incident the general director of the machine-building trust was reprimanded "for failing to make changes on time after repeated warnings by the People's Control Committee."

You may ask: Why should the central organ of the Soviet Communist Party, with a circulation of 10 million, publicize local incidents? After all, both Samokhvalovich and Leningrad have their own newspapers. The answer is simple: These situations are glaring examples of attitudes and inadequacies which the party is fighting, and it uses the most authoritative rostrum to expose them.

"Resolutely to end cases of suppression of criticism, to correct and, if need be, to punish up to removal from their posts those executives who do not respond to criticism. . . ." This is a must of Soviet democracy, underscored once again in the decision of the CPSU Central Committee in 1975 "On the State of Criticism and Self-Criticism in the Tambov Regional Party Organization." Because it was instructive for all CPSU members and nonparty people, it was made public by the press of all republics although the situation seemed to have only local significance.

As Leonid Brezhnev, General Secretary of the CPSU Central Committee, said in his Report to the Twenty-fifth Congress, ". . . the Central Committee raised a number of questions which are of importance for the whole party. It drew attention above all to the very substance of the method of criticism and self-criticism. What is it? It is that every aspect of the activity of this or that organization, of this or that individual should be given an objective evaluation. It is that the existing shortcomings should be subjected to all-round analysis in order to eliminate them. It is that there should be no liberalism toward shortcomings or to those who allow them. Trust and respect for people should go hand in hand with a high exactingness toward those responsible for assignments. This is a law of party work, and not only of party work but of the whole of our work."

Soviet papers and magazines do not stop at leveling criticism. They check the results of it and regularly inform their leaders as to what steps have been taken to meet the criticism. A whole page, a regular feature several times a month, is devoted to "People's Control," the usual head. Daily articles appear under such headlines as "The Newspaper Had Its Say. What Was Done?", "After Criticism," "We Receive Answers," "Steps Have Been Taken."

*Pravda*, for example, in December ran 28 such reports to its readers. After the criticism, it said, 10 directors were punished; three of these were dismissed, and one was prosecuted, sentenced, imprisoned. Party or administrative penalties were imposed on leading officials of the Ministry of the Meat and Dairy Industry of the USSR, on the chief of the district militia office and other executives. The important thing was not the punishment, of course, but that the particular abuse was corrected.

Letters to *Pravda* are written by people in every trade and profession and of all nationalities and ages. In 1975 the paper received 489,205 letters (almost 2,000 per working day). Obviously not all of them were published. But every letter was answered. In each case the newspaper told the writer what concrete steps it had taken in response to the criticism.



# WHAT CONTACTS DO YOU HAVE W



**Vsevolod Sofinsky**  
Head of Press Department,  
USSR Ministry of Foreign Affairs



**Academician Boris Petrov**  
Chairman of the  
Intercosmos Program



**Orest Vereisky**  
People's Artist of the RSFSR

**This question was put to 10 prominent people in a variety of fields. Each of them has colleagues in the United States. Each of them deals with problems of mutual interest to the two countries. All their answers indicate that cooperation between the peoples of our countries is increasingly fruitful.**

**P**ROMINENT Soviet news correspondents and analysts report on events in the United States. About 30 are usually accredited there.

In 1974, the nationally circulated papers *Pravda* and *Komsomolskaya Pravda* ran a series, lasting nearly half a year, by the well-known Soviet journalists Vasilii Peskov and Boris Strelnikov on their 15,000-kilometer\* automobile trip through over half the United States, 26 states to be exact. The series is now in book form, in an edition of 100,000 copies, under the title *The Land Beyond the Ocean*.

About 30 U.S. correspondents are registered in Moscow. In addition, a considerable number of American journalists make brief tours of the USSR on assignment by their respective papers.

We try to do everything possible to help U.S. press representatives become better acquainted with life in the Soviet Union. Our department annually holds about 100 press conferences on wide-ranging subjects: foreign and domestic policy, agriculture, science, culture, environmental protection and many others. Leading the conferences are ministers, academicians and prominent figures in science and the arts.

We also help U.S. journalists meet with Soviet government leaders, and we arrange visits to industrial plants, research centers, and collective and state farms.

American press people join group tours arranged by our department for members of the foreign press. In 1975, for instance, they participated in 30 such tours, which took them to the Far North, Central Asia, the Baltic republics and the Caucasus. In the course of these tours they visited more than 50 cities in all 15 union republics. They traveled by plane, train, auto, ship and sometimes even on sleighs pulled by reindeer or dogs.

One of our current jobs is to implement the agreements recorded in the Final Act of the Conference on Security and Cooperation in Europe. The matter of issuing multiple entry and exit visas to U.S. journalists and members of their families has already been settled. Better possibilities are now provided for correspondents' tours.

\*A kilometer equals 0.621 miles.

**A**LMOST a year has passed since the unforgettable days in July 1975 when the whole world waited for the exciting news from outer space as the Soyuz and Apollo spaceships circled the Earth.

The Apollo-Soyuz Test Project was the culminating point of Soviet-American cooperation in the exploration of outer space, which got under way in the early seventies.

Very important since are joint studies of the plutonic structures of the Earth's crust, of the reserve of moisture in the soil and of the world's vegetation and oceans. For this research, regions with similar geographical features were chosen on the territory of the USSR and the USA.

The two countries have recently carried out joint research on the mechanism of the ocean's interaction with the atmosphere, for which purpose extensive use was made of research vessels, satellites and aircraft. The Bering expedition, conducted in February and March 1973, yielded some very interesting data. For three weeks the scientists studied the sea surface, the ice cover and the atmosphere.

Scientists in every country are engaged in the study of atmospheric phenomena that affect weather. Every week Soviet and American scientists of the working group on space meteorology exchange operational data obtained by meteorological satellites.

In 1975 the three-volume *Foundation of Space Biology and Medicine*, a collective effort of Soviet and American scientists, was published in both Russian and English.

At the end of November 1975, Soviet and American scientists jointly staged a biological experiment with the help of the Soviet satellite Cosmos-782. The Americans contributed fish eggs and a culture of vegetable cells; some of the on-board instruments were U.S. products.

The USSR Academy of Sciences and NASA are looking into the possibilities for another joint venture in space, supported now by the experience gained in the Apollo-Soyuz Test Project. Soviet-American cooperation will be expanded along all the main lines stipulated by the 1972 USSR-USA space agreement.

**I**N 1960, Leningrad artist Andrei Melnikov and I spent more than two months in the United States. We visited museums and artists workshops in cities and towns in 16 states. Present-day jargon would call it "establishing contacts," but in plain language we were there simply to meet American artists. Many of the acquaintanceships turned into friendships that have stood the test of time.

I must add, however, that I already had a pretty good idea of American art before my first trip across the ocean. Monographs about the more notable artists in the U.S. and critiques on their work are published in the USSR. *The Art of the USA* (1960) by Andrei Chegodayev is probably the most comprehensive. We have translations of works by American authors also. Nevertheless, I discovered many names I had not known before: Ben Shahn, Franklin Watkins, Raphael and Moses Soyer, Andrew Wyeth, William Smith and Anton Refregier.

I remember meeting a group of artists in Sarasota, Florida. It was clear from the questions we had to answer that our American colleagues had only a vague idea of the work of Soviet artists. Later, when they started to look through the reproductions and prints we had brought along and then showed us their work, we all discovered that our tastes and interests were very close.

Since then I have been corresponding with many of them, and we exchange all kinds of reproductions and printed materials on art.

Not only American artists visit my studio, but publishers, collectors, art historians and political figures—Senator William Benton was one. Of the three pictures I gave Senator Benton, one was eventually presented to President Kennedy's widow, the second to Mrs. Lyndon Johnson, the then First Lady. Later, I was happy to learn that one of my pictures was in the White House, another will hang in the John Fitzgerald Kennedy Memorial Library in Cambridge, Massachusetts.

My second trip to the United States in early 1964 was longer than the first. I was there four months with an exhibition of Soviet graphic art. Once again I had the opportunity to see the work of American artists firsthand.



# UNPUBLISHED REPORTS BY RUSSIAN DIPLOMATS ON THE AMERICAN WAR OF INDEPENDENCE

By Nikolai Bolkhovitinov  
Doctor of Science (History)

To the First Member N. I. Panin  
of the Collegium of Foreign Affairs  
from Embassy Counsellor V. G. Lizakevich in London  
August 9 (20), 1776

*This selection of documents\* found by the author of this article in Russian foreign policy archives deals with the rebellion of England's North American colonies and with their Declaration of Independence in 1776. One cannot, of course, expect an exhaustive analysis of those revolutionary events in distant America from czarist Russia's diplomatic representatives, but their evaluations and observations were quite objective and even showed a certain foresight. Thus, for instance, Alexei S. Musin-Pushkin, the Russian Minister to London, back in February 1775 stressed the inevitability of an "internecine" struggle between the colonists and their mother country, which was infringing "their natural and legitimate rights." He also noted that "a spirit of enthusiasm" was evident in all ranks and offices and was to be felt "in Virginia even more than in the rest of New England proper."*

*Of particular interest was the high evaluation given the Declaration of Independence by V. G. Lizakevich, Counsellor of the Russian Embassy in London, in his report dated August 9 (20), 1776. The Russian diplomat not only wrote a fairly detailed exposition of that historic document, but also pointed out that its publication testified to "the courage of the American leaders." Important information was also contained in reports by Prince Ivan S. Baryatinsky, the Russian Minister to Paris. His comment on Benjamin Franklin's visit to France in December 1776 was that it "would certainly bring about some important development." Baryatinsky believed that one of the reasons for Franklin's visit was the desire of "the united provinces of America" to conclude a "treaty of eternal friendship with France if the latter would under present circumstances aid them against the English."*

*Reports by Russian diplomats from London, Paris and other European capitals helped shape a more or less sober and objective view in St. Petersburg of the causes of the rebellion in North America and the course of military operations there. For example, Count Nikita Panin, head of the Russian Foreign Affairs Department, Vice Chancellor Ivan Osterman and the Bakunin brothers, members of a secret department of the Collegium of Foreign Affairs, wrote in a secret report to Catherine II in the summer of 1779 that England's American colonies had turned into "an independent and unlimited region through the fault of the British Government itself."*

To the First Member N. I. Panin  
of the Collegium of Foreign Affairs  
from A. S. Musin-Pushkin,  
the Russian Minister to London,  
October 31 (November 11), 1774

Your Excellency, Dear Sir,

The letters received here yesterday from America confirm most conclusively the determined and almost unanimous intention of the population there to refuse to obey any orders which in the least affirm English rule over them. They officially refused to provide General Gage's troops not only with dire necessities, but even with ordinary workmen for the construction of barracks. The Continental Congress in Philadelphia decided not to send any American goods to England and to accept none from here. It also voted to supply Boston, which has been blocked off on all sides, with all it needs. In addition, sundry cities and provinces are collecting such large voluntary donations for Boston that its people will be able to live without a worry for at least three years running. . . .

To the First Member N. I. Panin  
of the Collegium of Foreign Affairs  
from A. S. Musin-Pushkin,  
the Russian Minister to London,  
May 19 (30), 1775

. . . When I had the honor of reporting to Your Excellency in the last mail on the pliability of Philadelphia's Quakers regarding Lord North's conciliatory proposal, no one could have known in advance that the Royal troops would launch a real attack against American militia near Boston. The former's first volley brought down about 50 men and roused such an alarm in the province that the armed inhabitants who came rushing in from all parts routed the Royalists and drove them to the very battleship under whose guns they hardly managed to secure some safety, losing about 150 men. All this happened, Sir, on April 8 (19) with probably no official plan for civil war. The Americans, however, considering that encounter namely as such, laid siege to Boston with large militia forces and plan to seize it. Such was the situation in America when that ship, which brought us this most unpleasant news, left the country. . . .

. . . Letters received here from indirect sources are filled with exaggerated, of course, details on the steps the people there are taking to increase their naval and land forces, with the latter allegedly numbering up to 75,000 men. Be that as it may, affairs there have indeed reached such a desperate state that they can hardly be remedied by any other means but force of arms.

The Declaration of Independence, which the Continental Congress made public on July 4, repeats all the colonies' former grievances, for the redress of which they had in vain petitioned the King, Parliament and nation, and, seeing there was no hope of remedying the repressions they were suffering, they found themselves forced to solemnly publish and declare the united colonies free and independent states, totally dissolving all connections between them and Great Britain, and that as free and independent states they had the right and power to levy war, conclude peace, contract alliances, establish commerce, etc., and that in order to preserve all the above privileges, they had pledged to each other their lives, fortunes and sacred honor.

The publication of this document and the formal declaration of war against Great Britain testifies to the courage of the American leaders. . . .

To the First Member N. I. Panin  
of the Collegium of Foreign Affairs  
from Embassy Counsellor V. G. Lizakevich in London  
September 16 (27), 1776

. . . However, American public gazettes and private letters that arrived here these days disclosed certain rather important details on events there. It follows from them that on joining up with his brother, Lord Howe had an officer of his take a letter to the American General Washington which the latter, however, refused to accept, despite most insistent assurances that it contained nothing but friendly words and the usual expressions of courtesy, and that Washington had refused to accept it mainly because the envelope was addressed simply to Mr. Washington without the title of General of the American Army; that the Continental Congress had publicly approved this action of Washington's, at the same time advising all the commanders that they accept no letters or notes unless their full rank and title were indicated; that Lord Howe had sent several warships up the river to occupy a favorable position near the New York capital; that the said Lord and his brother General, as commissaries of the King, had issued a manifesto in which, referring to the power a recent Parliamentary act had given them to accept obedience from various American colonies and forgive all who repented, they promised awards to all who would promote the desired cessation of strife and confusion and hasten conciliation between the colonies and Great Britain, and announced their readiness to lend an ear to just complaints and do their utmost to remedy any injuries and re-establish lawful government and general peace in keeping with His Majesty's intentions; that as a result of the above, the Continental Congress had issued an official declaration in which, rejecting the manifesto, it noted that all the cunning admonishments and promises were meant to deceive and break down the firmness of the champions of American freedom, and that this false tenderness should make all the inhabitants even more cautious and show them that the preservation of their privileges no longer depended on a monarch but on their own courage and unity; that the Declaration of Independence had been read out before the entire American Army at New York and was received with general satisfaction and admiration, and that the local people, in their vehemence and enthusiasm, brought down the statue of the King in their city and desecrated it in their violence. . . .

To Vice Chancellor I. A. Osterman  
from I. S. Baryatinsky,  
the Russian Minister in Paris,  
December 4 (15), 1776

Your Excellency, Dear Sir, \*\*

Franklin arrived in Paris yesterday. The public is so occupied with him that no one speaks of anything but the reasons for his arrival, and opinions are so varied, it is hard to decide what to really base oneself on. . . .

. . . The general opinion in our corps is that Franklin's arrival will certainly bring about some important development. As to American circumstances and forces, Franklin allegedly insists that the successes the English report to have scored over the Americans are really of no significance, that General Howe occupied places the Americans did not need, that the American Army was very large, in fine condition and determined to defend itself. . . .

\*\*The report was in code.

\* The extracts from reports of Russian diplomats are published in greater detail in the book *Russia and the U.S. War of Independence, 1775-1783* by N.N. Bolkhovitinov (Moscow: Mysl Publishers, 1976) pp 236-252



Nikolai Zhuzhoma was awarded seven orders and 16 medals for valor in the war against fascism, the most noticeable are the Hero of the Soviet Union decoration and the U.S. Silver Star.

# THE UKRAINIAN WHO WEARS THE SILVER STAR

By Vladimir Kolinko  
Photograph by Max Alpert



Zhuzhoma marched in the historic victory parade in Red Square on June 24, 1945.

**N**IKOLAI ZHUZHOMA, 54, of average height, gray haired, works in a hemp factory in Glukhovo, a small town 500 kilometers\* northeast of Kiev, capital of the Ukraine. He traveled to the United States last year with a delegation of the Ukrainian Society of Friendship and Cultural Relations with Foreign Countries.

I have known Zhuzhoma for a long time and have often been at his home. I know that he was wounded 11 times in World War II, that virtually his whole body is scarred: The last German shell fragment was only recently removed from his skull.

He showed me pictures of the trip.

"Washington, New York, Chicago, San Francisco—they're all handsome cities. It's a beautiful country. We traveled from coast to coast. In my memory each stop is a vivid episode in a flickering travelogue. But there were times when I wanted to stop this flickering, just take a good look around the place and have a long, quiet talk with men my age I fought with against the nazi troops—the fellows I met at the Elbe linkup.

\* A kilometer equals .621 miles.



## THE UNITED STATES OF AMERICA

TO ALL WHO SHALL SEE THESE PRESENTS, GREETING:  
THIS IS TO CERTIFY THAT  
THE PRESIDENT OF THE UNITED STATES OF AMERICA  
AUTHORIZED BY ACT OF CONGRESS, JULY 9, 1918, HAS  
AWARDED

### A SILVER STAR

TO

*Sergeant Nikolai Ivanovich Zhuzhoma, Red Army, U.S.S.R.*

FOR  
GALLANTRY IN ACTION

GIVEN UNDER MY HAND IN THE CITY OF WASHINGTON  
THIS 14<sup>th</sup> DAY OF June 1944

*[Signature]*  
THE SECRETARY OF WAR

*[Signature]*  
THE SECRETARY OF WAR



"Yes, way back in 1945 we met as allies. Those Americans who came to see us, who shook hands and invited us to their homes remembered. I really believe that the Helsinki spirit has more meaning for us veterans than for other people, that we are closer to it."

The war left a grim and indelible imprint on Nikolai Zhuzhoma, one of the few who stayed in the thick of front-line fighting from June 22, 1941, the day Hitler made his sneak attack against the Soviet Union, until VE Day, May 9, 1945.

He was awarded seven orders and 16 medals. Among the military decorations are two that stand out—one is the star that came with the title Hero of the Soviet Union, the other is the U.S. Silver Star.

Nikolai earned the first for bravery in the fight for Kiev in the autumn of 1943. Under heavy enemy fire, he and 20 men crossed the Dnieper and held out on the barest foothold until reinforcements arrived. For hours they kept the Nazi troops from retreating across the river.

A few days later, Lieutenant General Fomin, Commander of Artillery of the Second Ukrainian Front, recommended that the title Hero of the Soviet Union be conferred on Senior Sergeant Nikolai Zhuzhoma. "No one deserves it more," the general wrote.

He marched with the rest of his buddies. He wanted to become an officer in the regular army and enrolled in a tank school. But though he was a young man, he was not able to recover completely from the wounds sustained at the battle front. After two years of study, illness forced him to return to civilian life.

Nikolai was at a loss about his future. He had no trade or profession, and, besides, his wife had given birth to a daughter. The demobilized military man had to think about work to feed his family.

He turned to the chairman of the Glukhovo District Executive Committee for help. The official read all his documents carefully and rose from his chair. "It says here that you didn't lose presence of mind when your commanding officer was killed, that you took over at once, without hesitating. Is that true?"

But the chairman did not wait for an answer. "You have a job, manager of our creamery. The main thing is for you to get along with the staff and give them proper guidance. As for the operations there, you'll learn them as you go along."

Zhuzhoma smiled as he recalled this period in his life. Assignments like that one were given only in the early postwar years, when the country was



**Soviet children must know how their people fought to rid the country of the Nazi scourge. What better way to learn than from someone who was there?**

The award was presented to the 20-year-old artilleryman right after his discharge from an army hospital. The star was pinned on his tunic by the head of state, Mikhail Kalinin, in the Moscow Kremlin. Shortly afterward, Zhuzhoma was assigned to a tank commander training course.

Eventually he landed in a Supreme Command reserve tank formation which, in a shock action, liberated Bucharest, fought on the approaches to Königsberg, hammered and smashed the German forces in Yugoslavia, freed Prague and then took Berlin by assault.

It was during the advance on Berlin that Zhuzhoma's tank battalion helped an American unit get out of a little trouble. The Soviet operation enabled the GIs to occupy a more advantageous position and subsequently go over to the offensive. The men of the two armies met near Zhuzhoma's knocked-out tank.

The U.S. Command awarded him a Silver Star. We reproduce here the accompanying citation, carefully preserved in Zhuzhoma's home in an honored place.

In the historic Victory Parade in Moscow's Red Square, Nikolai Zhuzhoma, wearing all his military decorations, the Silver Star included,

very short of managerial talent and many demobilized front-line soldiers took over jobs they had no experience in. That was the situation in the Glukhovo creamery.

All 30,000 residents of that town knew about Zhuzhoma and his wartime record. War is not faded history for our people. As in thousands of other Soviet urban and rural communities, an Eternal Flame burns in Glukhovo over the graves of the fallen. Every sixth person here fought in the war, and every third lost a next of kin.

Illness hit Zhuzhoma again seven years ago. He retired as manager, but instead of taking things easy on pension, he found a less demanding job at the local hemp factory.

Toward the end of a recent meeting in Glukhovo's principal club, where work achievements and shortcomings had been the main topic, the winners in socialist emulation were given special recognition. They were from the hemp factory. The hall shook with applause when Nikolai Zhuzhoma, in full military regalia, stepped forward to accept for the factory the crimson banner that is the award for meritorious peacetime labor.

It seems that Zhuzhoma is still winning honors.



## MOVIES

**A**MUSING PEOPLE is a difficult business. Fortunately, movie director Leonid Gaidai has a talent for comedy all his own.

*It Cannot Be!*, based on several of the short stories of Mikhail Zoshchenko, is a recent Gaidai production. Filming Zoshchenko's stories is risky: For all the seeming simplicity of his characters, situations and vocabulary, he is a very complex writer. His humor always has a shade of sadness, of compassion for the "sad sack," who is in a perpetual state of confusion and doesn't know why he was born.

For Gaidai, transferring Zoshchenko's stories to the screen meant transforming them into a different art. Did he succeed? The critics differ. Some believe that Gaidai has simply produced a very funny film that happily re-creates the atmosphere of the twenties and thirties; others go further, accepting the obvious virtues, but seeing Gaidai's humor overlaying Zoshchenko's.

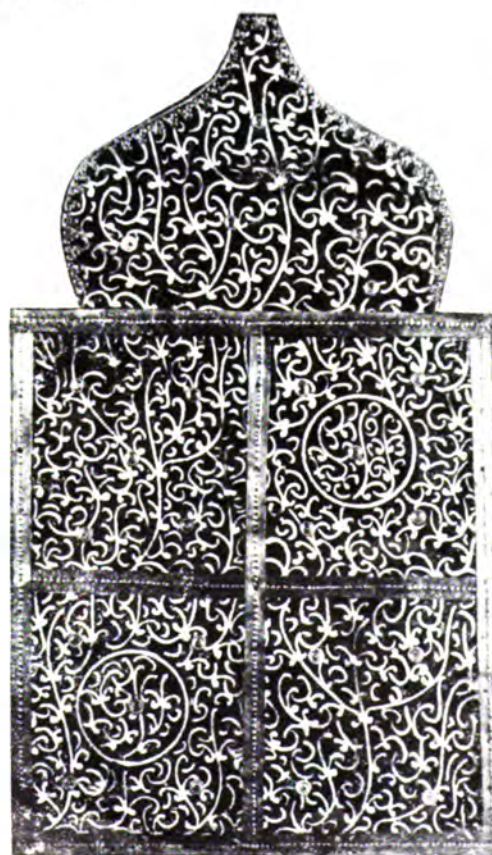


## FOLK ART

**M**IRRORS framed in cast tin with a lacy pattern were very popular throughout Russia three hundred years ago. Although produced in great numbers then, only a few specimens have come down to us since articles made of tin deteriorate fast. Only a handful of museums still have tin mirrors dating back to the seventeenth century. At that time mirror glass was imported from the West and was rather expensive. Still,

mirrors were in demand because tradition required that a bridegroom present one to his bride.

To safeguard the expensive mirror glass, Russian frame makers fashioned frames decorated with expensive tin plates intricately patterned. Most of them were made in Moscow and Yaroslavl. Unfortunately, neither the names of the



creators of these beautiful articles nor of their owners have been preserved, except in the case of one looking glass in the Arkhangelsk museum. It is known to have belonged to Princess Sophia (half-sister of Czar Peter the Great), who presented it to her favorite, Vasilii Golitsyn. Of course the nobler and richer the owner, the more expensive the decoration.

As a rule, mirror frames could fold, moving freely on hinges so as to cover the mirror.

## BOOKS

**A** NEW book, *The Fate of Russian America*, has been issued by the Magadan Publishing House (Far East). It is by Alexander Alexeyev, Doctor of Science (History) and Candidate of Science (Geography). Ten years of work by the author involved the study of documents preserved in various archives, as well as unpublished material he found on the explorations of Vitus Bering, Alexei Chirikov and Grigori Shelikhov.

Included in the book are some interesting drawings, *Kodiak Island* and *The Inhabitants of Ilyuluk Bay*, among others by the amateur artist Ilya Voznesensky, whose chief interest was collecting botanical and zoological specimens. He traveled all through Southern California and made two visits to Carmel Island. The Russian naturalist collected 360 specimens of 113 species of plants. He also made collections of fish, birds, and sea and land animals. In 1850 an orographic and geognostic survey of the northwest coast of America was published based on Voznesensky's collection.

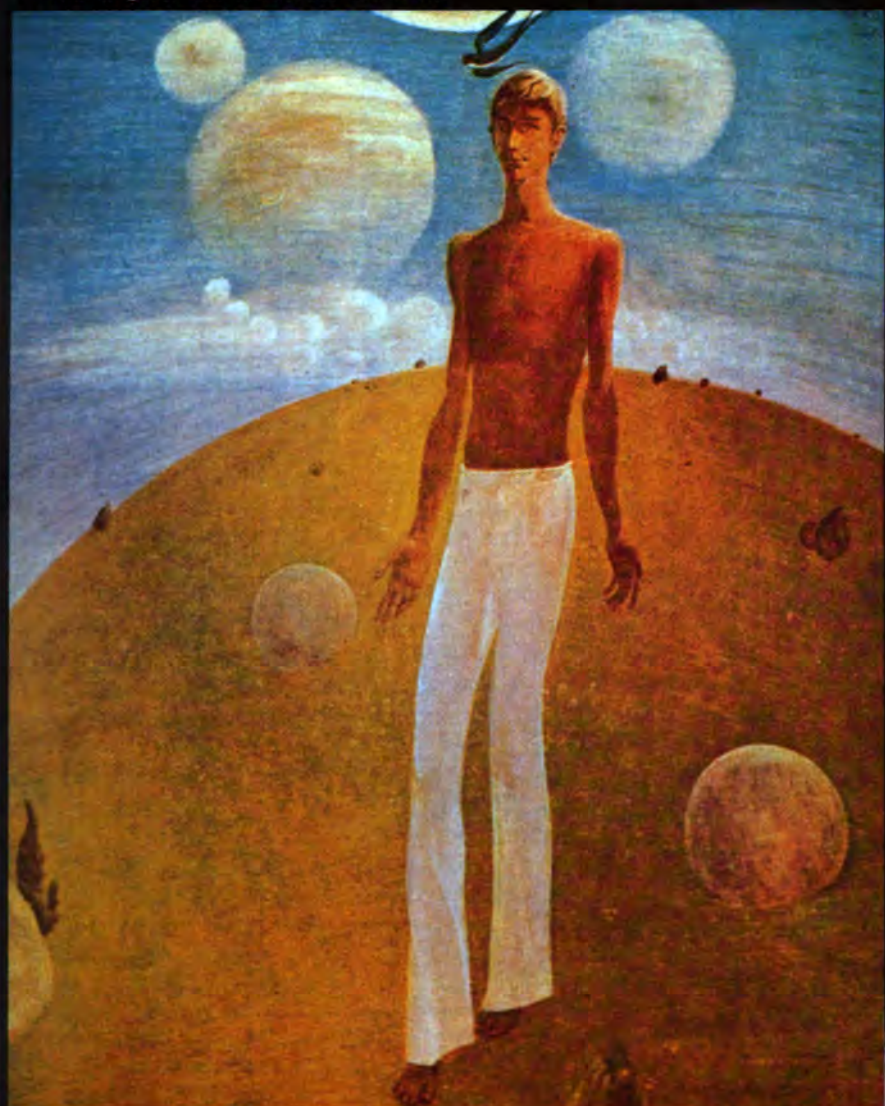
Alexeyev's book traces the history of geographical study of the Aleutian Islands and Northwest America and describes the sizable contribution made by Russians.



# EXHIBITIONS

**A**RTIST Nikolai Kormashov lives in Estonia, the subject of most of his paintings. In whatever genre he works—still life, landscape, portraiture—it is his own time he wishes to reflect. He paints in a number of media—oil, acrylic, egg tempera—and on a variety of bases—canvas, hardboard and wood panel. *Victims of the War*, for example, is done on burnt wood, the texture and color of the charred surface harshly symbolic of the victims and the earth.

In some of his latest works Kormashov has created an image of an idealistic hero, who, though realistically portrayed, also has a symbolic function. That is true of the oil *My Estonia*. "The painting is conceived," says Kormashov, "as an expression of youthful aspiration ready to comprehend the big world. Nature is shown as all-embracing—the round sphere of the Earth, the contours of clouds and rocks repeating, the gentle colors. All contribute to creating the motherland in which my hero lives. The swallow, symbol of freedom and unfettered movement, underscores the relationship between the world of nature and humankind discovering it. And though it was my son who was the model for the youth, I tried to give him universal features."



# MUSIC

## STAMPS



**T**HE latest stamps commemorate eight of the Soviet Venera space stations.



**R**OY CLARK, with a group including the Grammy Award-winning Oak Ridge Boys, banjoist Buck Trent and other country music performers, gave 14 concerts in two weeks in Riga, Leningrad and Moscow.

The Roy Clark Show brought a variety of American country music styles and got a very warm reception from audiences who still remembered the Ernie Ford Country Music Show. Ernie had called it "the most moving experience of my life" when he talked about the trip to Roy on his return, and said: "If you ever get the chance to go—go!" Roy repeated this at a press conference for Soviet correspondents held at the close of his tour. It certainly lived up to everyone's expectations, he said, and indeed was "the warmest experience he had ever had."

Roy found that country and folk music native to the United States had a lot in common with Russian folk music, and he praised the interest here in bringing back old and nearly forgotten instruments. The U.S. group met Soviet musicians and composers informally and went to several folk music concerts given especially for them. They were much impressed with the dexterity of Mikhail Rozhkov, the famous Soviet balalaika player, who, Roy believed, is as versatile on the balalaika as Roy is on the banjo.







By Lyudmila Zakrzhevskaya  
**MAKING A BETTER WORLD**



Any film Fyodor Khitruk directs is almost bound to be a small masterpiece. Here are shots from some of his prize winners.







"The cartoonist is the performer in the movie," says Khitruk, who drew film cartoons for a long time before he became a director. "To depict the movements and 'emotions' of even an inanimate object naturally, he must become an imaginary mushroom or an airplane or a samovar."



**D**URING THE MANY YEARS that I have known Fyodor Khitruk, I have seen him in all sorts of situations: when he was starting work on a movie and at premières, in the everyday hurly-burly of the studio and at film festivals, at meetings with movie fans and in his family circle. Always he is calm and thorough, patient and thoughtful. Khitruk is the kind of person you can always go to with a problem and find understanding, advice and assistance. Like any true artist he has his moments of disappointment and anguish, but he never lets that affect his relations with people. Khitruk does little talking about himself and always underplays his contributions as director. He prefers to talk about movie making as the most collective of all arts, holding that the success of this or that picture is due in equal measure to the talents of the director, the artist, the script writer and the composer.

He has a special respect for the profession of film cartoonist, perhaps because he worked as one for a long time before he turned to directing.

"The cartoonist is the performer in the movie," he says. "To depict the movements and the 'emotions' of even an inanimate object naturally, the artist must be absolutely certain about the way the 'character' moves and, to do that, must become, for a time, an imaginary mushroom or an airplane or a samovar. . . ."



*History of a Crime* (1962), the first film Khitruk directed, brought him success, popularity, excellent reviews and festival awards. Since then every new Khitruk film has an audience waiting for its release.

While *History of a Crime* (the artist was Sergei Alimov) is a cartoon for adults, a witty, satiric sketch that lampooned egoism and bad manners, *Toptyzhka* (Teddy Bear) is a story for small children. It has all the necessary ingredients: miniature woods, cozy houses for the animals, a Russian-style stove, a round, red sun, red-breasted robins, rowan trees, bunches of berries, and we must not forget a tea party attended by bear families. Done in the best traditions of Russian illustrations for children's tales, *Toptyzhka* was an experiment in contourless drawing of animated cartoons.

*Boniface's Holiday*, based on a story by the Czech writer Milos Forman, is a fairy tale in every way. The ingenious drawings are elegant and full of humor. And the detail is fascinating: the circus arena, the town and funny little train, and the toy sea over which a tiny ship carries Boniface to exotic Africa.

An educational cartoon *Young Friedrich Engels* is the work of Katji and Kalus Georgi, film directors from the German Democratic Republic, and Soviet directors Khitruk and Vadim Kurchevskii. Based upon sketches and letters of young Engels, they skillfully combined historical documents with the image of the hero drawn by the artist. The picture not only marked an important stage in Khitruk's work, it expanded the possibilities of the cartoon and established a new style.

Two of Khitruk's latest pictures deal with important and vital issues of today. Both are parables. The artists are Vladimir Zuykov and Vladimir Nazarov.

*Island*, the film that got excellent notices at many film festivals and won the Grand Prix in Cannes, tells the story of a modern Robinson Crusoe on an uninhabited island. Crowds of curious visitors come to gape at the poor little bearded man, but it never occurs to anyone to stretch out a helping hand until another unfortunate, who had also suffered shipwreck, offers him half the log he is floating on. It is easier for two to brave the ocean!

*I Give You a Star*, also a winner at the last Cannes Festival, is dedicated to International Women's Year.

Every one of the films is interesting and significant in its own way. One of the most attractive characteristics of Khitruk's work is its variety. But his purpose is always the same—to make the world a better place to live in.



At Our Reader's Request

# FREEDOM OF RELIGION



Is there freedom of religion in the Soviet Union? Are there functioning churches and monasteries? Can Bibles and prayer books be purchased? Is a person allowed to change his religious belief? What authority does the government's Council on Religion have? Is the number of believers in the country diminishing?

**Y**ES, there is freedom of religion in the Soviet Union. The Constitution of the USSR says that all citizens have the right to profess any religion or none at all. They are free to change their religion. In other words, the Fundamental Law of the Soviet State guarantees freedom of conscience. It gives all citizens freedom of religious worship as well as freedom to disseminate antireligious propaganda.

To ensure that these principles are applied, the church in the USSR is separated from the state. That means the state does not interfere with the doctrines or rituals of any religious organizations and does not provide financial support for any religion or extend preferential treatment of any kind. It also means that all religions have equal rights, regardless of the nationality of the people who profess the religion or their number, great or small. The church, in turn, does not interfere in state affairs.

The school is also separated from the church. There is no religious instruction in the public schools. Ministers confine their religious teaching to church, mosque and synagogue services and sermons and to their talks with parishioners.

Soviet citizens' religious or nonreligious preference plays no role in their civil life. No official Soviet document, whether passport, questionnaire or census sheet, contains any mention of religious belief. Religious discrimination is banned by law. No one can be refused employment or admission to an educational institution nor can anyone be dismissed from a job, expelled from an educational institution or deprived of any social benefits or advantages because of religious belief.

Here are some of the major religions:

**Russian Orthodox.** Its supreme body is the General Council of the Russian Orthodox Church, which assembles periodically and elects the head of the church, the Patriarch of Moscow and All Russia. In 1971 Metropolitan of Krutitsy and Kolomna Pimen was elected to this office. The Patriarchy has a Synod.

The church is subdivided into 73 dioceses. The largest, the Moscow Diocese, has 49 functioning churches and cathedrals which are always open to believers. The Russian Orthodox Church has 19 monasteries and convents in various parts of the country. Besides their religious duties, the monks and nuns work their fields and gardens and pick mushrooms and berries in the surrounding woods. Some monasteries and convents are known for their handicrafts.

The church has several foreign dioceses with which it maintains regular contact.

**Georgian Orthodox.** It is headed by the Patriarch Catholicos of All Georgia David V. His residence is in Tbilisi, capital of the Georgian Republic.

**Armenian Gregorian.** Believers live both in the Soviet Union and abroad. The church is headed by Supreme Patriarch-Catholicos of All Armenians Vazgen I. His residence is in the Echmiadzin Monastery near Yerevan, capital of Armenia.

**Islam.** In the Soviet Union most Moslems are Sunnites, but there are Shi'ites also. There are four Moslem boards: The Central Asian and Kazakhstan Board, in Tashkent; the Board of the European Part of the USSR and Siberia, in Ufa; the North Caucasus and Daghestan Board, in Buynaksk; the Transcaucasian Board, in Baku, capital of Azerbaijan. Each board has its own religious authorities. The members of the board are elected by the Congress of Community Representatives, the supreme Moslem body.

**Roman Catholic.** Believers live in the western parts of the Ukraine and Byelorussia and in the Baltic republics of Lithuania and Latvia. The church has seven dioceses.

**Evangelical Lutheran.** Believers live in Estonia and Latvia. The Estonian Church is governed by a Consistory headed by Archbishop Tooming; the Latvian Church is governed by a Supreme Church Council headed by Archbishop Matulis.

**Evangelical Christian Baptist.** The governing body is the Assembly of Representatives of Evangelical Christian Baptists, which meets at least once every four years. The Assembly elects an All-Union Council of Evangelical Christian Baptists, which is the authoritative church government between assemblies. The chairman of the All-Union Council of Evangelical Chris-

tian Baptists is Andrei Klimenko, and the Secretary General is Alexei Bychkov.

**Judaism.** There are about 100 functioning synagogues in Moscow, Leningrad, Kiev, Minsk, Riga, Vilnius, Lvov, Odessa and other cities. The Jewish congregations have no central body. Each congregation functions independently. For example, the Moscow Central Synagogue has three services a day. Synagogue members meet regularly to study the Bible and the Talmud, and all holidays are observed, including Rosh Hashana, Yom Kippur, Sukkoth and Simhath Torah.

Other functioning churches and religious associations in the USSR include the Russian Old Believers Church, Buddhist associations and the Reformed Church. There are also such small religious groups as the Molokans and Mennonites.

Every church has its educational institutions for training its ministers. The Russian Orthodox Church, for example, has three theological seminaries and two theological academies (in Zagorsk, near Moscow, and in Leningrad). The Catholic Church has two seminaries (in Riga and Kaunas). The Armenian Gregorian Church has a theological academy in Echmiadzin. The Moslems have a madrasah in Bukhara and a higher theological educational institution in Tashkent. The Jews have a Yeshivah in Moscow. The Lutheran churches in Estonia and Latvia offer theological courses for their ministers-in-training. Theological educational institutions in the Soviet Union send their students abroad for advanced training, for example, to Moslem universities in Cairo and in Beidha and the University of the Holy Casimiro in Rome.

Financially, churches in the USSR support themselves from fees for the performance of religious ceremonies, voluntary donations of believers, and income from the sale of theological literature, icons, candles and other religious articles. The income of churches and religious organizations is not taxable. The state makes land available free of charge for building temples, and materials are provided at the fixed state prices current in the country. Religious centers and societies have the right to rent, construct and purchase buildings for workshops to produce matzoths, icons, candles and other religious articles. Facilities are available for slaughtering meat in accordance with rabbinical law and for the performance of other religious rituals.

Religious associations publish magazines, calendars, and materials used in religious services. The Old and New Testaments and the Koran are on sale in kiosks adjoining places of worship. New editions are printed as the need arises.

Concerning the authority of the Council on Religion, its chairman, Vladimir Kuroyedov, explains, "Our main concern is the strict observance of the constitutional requirement of freedom of conscience. We are responsible for the application of legislation on religion for the entire country. Though it happens very rarely, individual local officials have been known to permit an incorrect attitude toward believers. Such errors have to be corrected. Besides, problems emerge in the daily activities of religious organizations whose solution requires contact with a government body."

Though there are no statistics kept of the religious attitudes of the Soviet population, it is nevertheless obvious (and this is confirmed by sociological studies) that the proportion of believers in the country has greatly decreased in Soviet times. Many factors are responsible, including the broad dissemination of scientific views on nature and society. Of significance also is the educational work of various organizations in behalf of atheism. This activity, like freedom of religion, is sanctioned by the Soviet Constitution.

The trend away from religion is enhanced by the Soviet Union's equitable and truly socialist policy toward national minority groups. In czarist Russia, where the rights of small nationalities were trampled, the working people of the national minorities felt that their religion was to some degree an expression of national self-defense. In Soviet times, with complete and real equality of large and small nations, religion no longer has this function.

Though an over-all decrease in the number of believers is observed in the country, new adherents do join one or another religious association. This is partially a result of natural migration.



# A COMMON PROBLEM— THE ARTIFICIAL HEART

By Anna Nikolayeva

**A** GROUP of surgeons are bending over an operating table. An artificial heart is being transplanted. The anesthetized "patient" is a calf that is being sacrificed to science.

The demonstration was given this spring at the Moscow Institute of Transplantation of Organs and Tissues by Professor Valeri Shumakov, a well-known surgeon and director of the institute. He showed American colleagues the technique of transplanting a Soviet model of an artificial heart.

The next day a similar operation was performed at the same institute by George Noon, Professor at the Baylor College of Medicine in Houston, Texas. This time an artificial heart of American design was transplanted.

This joint experiment took place under the agreement signed by the two countries in 1974 on cooperation in artificial heart research and development. Thus, specialists from the USA and the USSR met for an operating-room demonstration rather than a conference.

"The purpose of our trip," said Professor Noon, "was so that we could become familiar with the facilities in the Soviet Union for the development of the project, and also so that both sides could demonstrate the basic techniques that we use surgically. Just to provide a foundation or base from which we can begin to work."

When the experiment was completed, George Noon said: "I can say that so far as basic care for the patient and operative technique are concerned, except for minor differences, our methods are very close."

What Professor Noon did feel a lack of during the operation was a knowledge of the Russian language. But he was helped out by his colleague Valeri Shumakov, who knows English.

Actually it was the work itself that helped overcome the language barrier. "It was easier because of the work that we do," said George Noon, "It is just as if you take an American hockey player and a Russian hockey player and put them on the ice field. They can play together even though they can't speak together—the rules are the same."

Professor Noon also thought that this important practical step gave both sides an

opportunity to judge each other's facilities and capabilities. And this, he noted, makes the task of further joint research to create an artificial heart much easier.

"This is a problem that is really more difficult than going to the Moon," he said.

Soviet and American specialists are working simultaneously on several models of an artificial heart. The intention is to develop the best version.

"At present," says Professor Shumakov, "our institute is trying to improve two basic versions. One model is made of silicon rubber with a semirigid outer case and a soft inner bag; the other is a diaphragm version of the heart with a rigid body. Sensors that can be fixed inside such a body make possible an immediate determination of the flow of blood. This is a very important factor for the creation of automatic control systems for the artificial heart.

"We started working on our system by creating a mathematical equivalent of a physiological model of the cardiovascular system. Then, by substituting various algorithms of automatic control of the artificial heart for the natural heart, we found an algorithm with which the whole system worked in the same way as in a living heart."

The agreement requires that the Soviet and American sides exchange three models of an artificial heart. Both Professors Shumakov and Noon believe there is no difference in principle between the models except for some minor details in design. The systems of control which both sides will also exchange are operated manually. As Professor Shumakov remarked, the Soviet system to be turned over to the Americans already has room for the units that will make it possible to shift the system to automatic control.

Soviet specialists will soon pay a return visit to Houston for experiments at the clinic of Professor Michael De Bakey.

Soviet and American scientists see any number of experiments and years of painstaking work ahead before they create an artificial heart that can perform for a long period.

But, according to Professors Noon and Shumakov, joint effort will certainly bring that time closer.

Professor George Noon (left) and Professor Valeri Shumakov holding artificial hearts.



**NEXT  
ISSUE**



## 2,500 MILES DOWN THE YENISEI

### All the Way to the Arctic Circle

"One vast construction site!" is the invariable exclamation of everyone who visits Siberia. The Yenisei flows across this huge area, past cities with hundreds of thousands of residents and tiny fishing villages of just a few families—people of all nationalities and occupations united by the dynamic events taking place on its banks.



## A MIRACLE OF EDUCATION

### About Blind-Deaf Students

For someone born deaf and blind, the simplest act becomes a tremendous obstacle. Our photo story is about four blind-deaf Moscow University students. Learning to speak was a minor accomplishment compared to the other skills they have acquired. The work of Alexander Meshcheryakov, their first teacher, and Ivan Sokolyansky has illuminated not only the development potential of the blind-deaf but the intellectual powers dormant in all humans.

## ON THE EVE OF THE OLYMPICS

### Is It Risky to Name Favorites?

*Olympic Champions and Challengers* is a US-USSR TV film. It includes interviews with some of the leading Soviet athletes, a few of which are published in August. The questions are asked by Novosti Press Agency and U.S. TV commentators.

**COMING SOON**

The Georgian Soviet Socialist Republic



In Interlaken, Switzerland, on June 30, 1975, Zebinisso Rustamova, from Dushanbe, capital of the Tajik Republic, won the world title in archery. Leading from the first day of this twenty-eighth World Archery Championship, she finished with 2,465 points, a new world record.

**T**HROUGHOUT her school years Zebinisso Rustamova had marched along with the rest, dignified and uncomplaining but lost in the crowd because she was so little. She wanted to be out front, to lead the march. Last summer it happened.

"Zebinisso, at the head of the line!" the coach said, when the Soviet archery team was returning home from the twenty-eighth World Archery Championship. The passenger ramp rolled up to the plane, and a proud and happy Zebinisso was the first to step out.

#### Brother Champ

She has an older brother Hamid, who could come out on top in any sport with practically no effort. A month or two in a new sport, and he would be among the best. Then, just as quickly, he would shift his attention to some other sport and excel in that one.

Now, of course, he has slowed down and become a family man. His new interest—a serious one—is chess, and the talk is that he's become one of Dushanbe's crack players.

In his younger days, he had wanted to do everything. And as he jumped around from one sport to another, he was always followed by little Zebinisso. Her sports history, however, was quite different: She couldn't get herself enrolled in a single sport until the archers took her. But even there she heard, "It's fine, Zebi, that you're so persistent and persevering, but don't build any castles. With your height and your short arms, you really don't stand much of a chance."

#### Her Championship Qualities

"Extracurricular activity was also taking up

# TAJIK GIRL HITS THE BULL'S EYE

By Igor Maslov





much of my time," Zebinisso told me, "particularly when I was elected chairman of our international club at school. We were the best in the republic. 'Good for you, girl,' I was told, 'there's a creative spark in you.'

"I was awarded a voucher for a free stay at an international youth camp in the German Democratic Republic. I had a fine time. When we were preparing a farewell party, I suggested we do some of our Tajik dances. I organized a dance group, and we were a great success."

But what about the bow and arrow? People as much as said she had no chance. After all, she was pressed for time, she didn't have a long enough reach, and she was too short.

What gave her the strength to persist? It was a line from her favorite Tajik poet Mirza Bedil. "When the will is as taut as a bowstring, the ant can overcome the lion." She made it her motto.

Comments about Zebinisso sum her up very well. "She's a real wonder. Just a little girl but what self-command, what confidence."

"She has that unusual quality of being in harmony with herself. That's where her complete freedom and ease come from."

"She swept into the national team, and it looks as if she's there to stay. With only three or four years of training, believe it or not, she beat the best of them."

#### Waiting for the News

The Rustamovs live in an old house in the outskirts of Dushanbe. There's a little orchard and Chinese roses near the porch. Sangin Rustamov's home has been in the family for generations and will continue to be. He himself seldom leaves it. He did just once—for a long period during the Great Patriotic War. Right after finishing school, he volunteered for the front. When the war ended, Rustamov returned to his native city. Now he works in a shoe factory.

His children (the Rustamovs have five) are often away from home. Particularly Zebinisso. She's not home now either. But the rest of the family and guests are together and speculating about how she's doing over there in Interlaken. The youngest, Nurinisso, also an archer and a master of sports, is explaining, from her authoritative perch, what's doing in the Swiss resort town where her sister is competing for the world championship.

It's 1 A.M., then 2. Sangin Rustamov brews some fresh green tea and passes the bowls around. "Fortify yourselves a little, we'll soon have the news."

And there it is, the radio finally announcing that Zebinisso Rustamova is the world archery champion, with a world record to boot! Only then does the host permit himself to leave his guests. He is off to the kitchen to make pilau. Rustamov was expecting a good many guests in the morning, and he wasn't mistaken.

That night in Dushanbe another person stayed awake—Coach Valeri Panzhin. Himself an archer of note, he had devoted all his time lately to Zebinisso. A wise choice, as had been proven.

#### Triumph at Interlaken

Zebinisso had spent only one day in Interlaken. And here she was a champion. Furthermore, on the plane, when she woke up high in the sky, they

told her the champion was to step off the plane first.

Yesterday morning she was a nobody in Interlaken, one among a hundred-odd contenders. Serious competition? She was just a child!

Then a rumor began to spread—there was a little girl shooting. Nobody seemed to know her, but she was doing very well.

During one of the breaks, several Americans came up to our archer, spread a big map on the grass and asked, "Would you show us where that Dushanbe of yours is?"

They were surprised—so far away and so close to the border. Another question: "What about the others on your team?"

Zebinisso introduced them: "This is Valya Kovpan from Lvov, Galina Arkhipova from the city of Chita—that's someplace else on the map. And Virve Holtsmeier from Tallinn. You see, ours is a multinational team."

But while all this was happening, clouds began to gather over Interlaken, and it began to pour. Zebinisso doesn't like the cold and immediately put on her warmest raincoat. She returned to her bench and wrapped up her shaggy teddy bear, her personal good luck mascot of long standing and the first witness of her final, victorious series.

"I was very chilly and out of sorts," she said. "And to make things worse, I kept hearing people behind me saying that I was in the lead and the medal was in my pocket. There's nothing worse at such a time than talk like that. I decided I had to take my mind off the actual situation and imagine that I wasn't in Interlaken at all, but at some ordinary match at home. Say, in Kislovodsk [central Greater Caucasus], for instance, or, better still, in Alushta [Crimea]. That was where it all began for me. It was in Alushta that I qualified for an international master of sports rating. This pretending helped me, and I got control of myself."

Even in Interlaken she stayed in character—a restless, inventive soul, something of an actress. Performing, by the way, is in her blood, it runs in the family. Her elder sister not long ago placed first in a republic national dance contest, and another sister was a prizewinning vocalist. I said to her:

"Everything you do, Zebinisso, looks so easy and turns out so well. Perhaps archery is not such a difficult sport?"

"Oh, you're wrong. It's twice as hard as college. There I try to get 'fives' [an A grade in the United States], but at competitions I have to try for 'tens'." (Zebinisso majors in philology at the Dushanbe Teacher Training Institute, and she is an excellent student.)

Naturally people rushed to ask for her autograph. After a moment she took a piece of paper, pinned it to a target and shot 10 silver arrows into it. They all struck close to the center of the sheet. "There's my autograph, how do you like it?"

#### The Future

"Great fame has come to sit upon little shoulders," people say of Zebinisso, the first woman in Tajikistan to become a world champion. She is also a member of the republic's Komsomol (YCL) Central Committee, a future philologist, the pride of the Teacher Training Institute and a general favorite besides.

"You're very famous now, Zebinisso. As famous as . . . Malika Sabirova" (a Tajik ballet dancer, winner of many international competitions).

"No, no, Malika is a ballerina, that's quite different."

But like a child, she is very happy when people recognize her in the bus or when total strangers greet her. "Maybe I am really as famous as Malika?"

Somebody suggested that she take a leave of absence from the institute. It's the Olympic season after all, and she has to get in a lot of training. Zebinisso has always listened to advice, but this time she immediately shot back: "Why should I? My studies have never gotten in the way of other activities. It's not easy, of course, to combine study and training, but it's more exciting to be involved in both."

Zebinisso carries her fame lightly, takes her talent calmly. She will have her disappointments, that's inevitable in every worthwhile endeavor, certainly in sports. She has made a fine, a wonderful start, what she makes of the future is up to her.



These cartoons originally appeared in widely circulated and very popular comic and satirical magazines published in Estonia, Latvia and Lithuania, the three Soviet Baltic republics.



A. Pakalnis, Estonia

Rimtautas Grabauskas, Lithuania



Ants Kasesalu, Estonia

## ECCENTRICS



I. Melgailis, Latvia



The poster reads: "Will exchange island for a boat."

I. Sīčevs, Latvia



# SOVIET LIFE

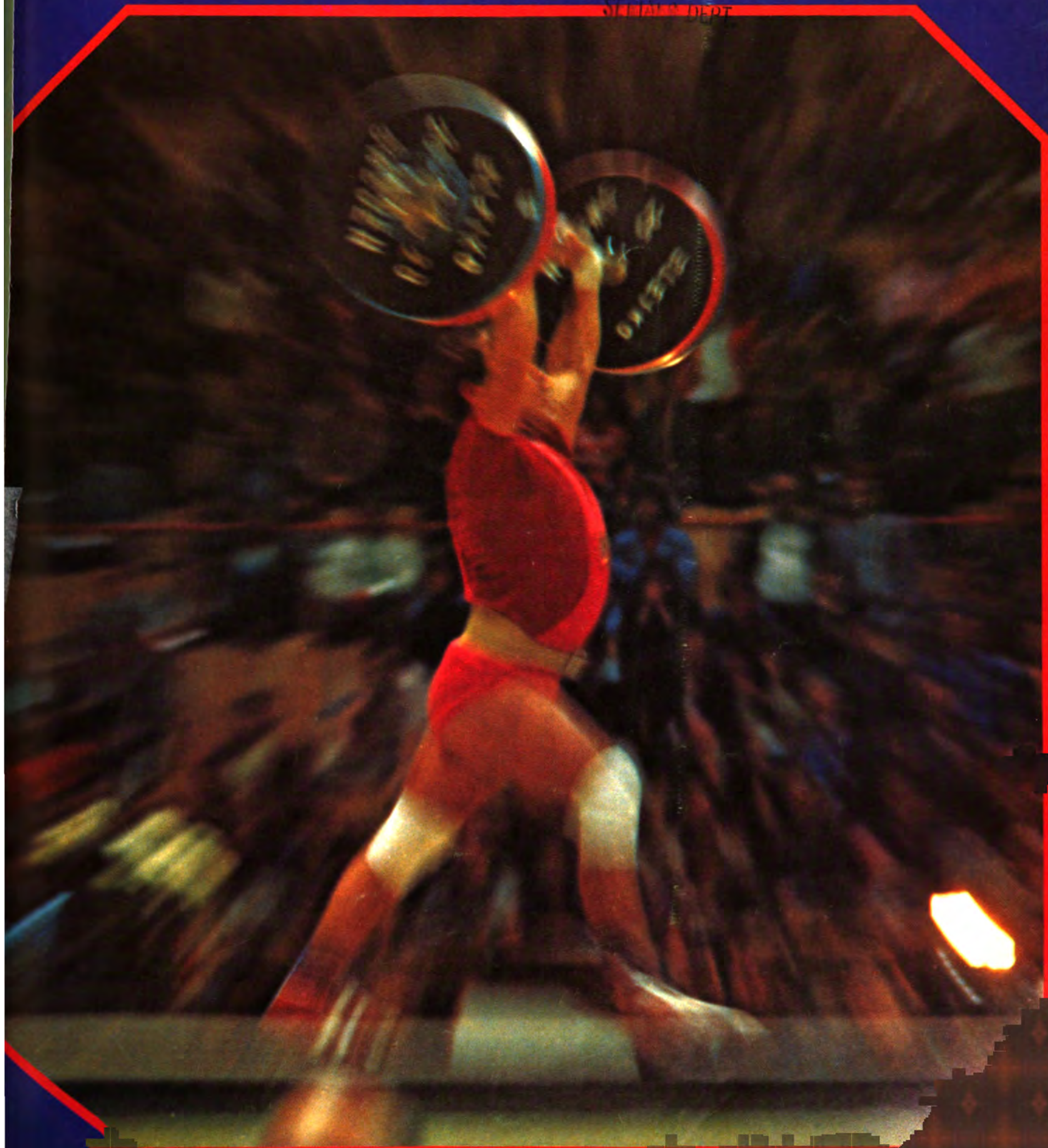
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OUR OLYMPIC HOPES

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# SOVIET LIFE

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Front Cover: Soviet weightlifter David Rigert competing at the Moscow World Championship. See article p.61. Photo by Dmitri Donskoi

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## LETTERS TO THE EDITOR

The picture and stories on Soviet Armenia in your April issue of SOVIET LIFE renewed my memory and nostalgia to see again those places I have seen before.

I believe that your magazine has done great educational work in teaching people to understand each other and cleared many misconceptions they may have had in their minds about the aim and policies of the Soviet government which stands for peace and progress.

Pasquale DeAngelis  
Spencerport, New York

I have had the good fortune to participate recently in a three-week tour through the Soviet Union organized by the Chicago Council for American-Soviet Friendship.

The people I found friendly, open and hospitable, and it is easy to make contact with them even if one does not speak more than a few words of Russian.

I met and talked to many Russians, Byelorussians, Ukrainians, Armenians, Georgians, Jews. Not only was there no evidence of overt or covert nationalistic agitation by any minority group or individual among these peoples, but there was definitely considerable evidence of devotion and loyalty to the Soviet Union. Especially younger people were unqualifiedly and happily enthusiastic about their land and its institutions.

Henry H. Metzger  
Chicago, Illinois

In the last three issues you published three letters from Americans complaining there is no criticism in SOVIET LIFE.

The type of criticism that I find in SOVIET LIFE must be too subtle for these readers who are accustomed to strong and harsh comments about the Soviets.

Have they written those sources asking for more constructive and informative news?

SOVIET LIFE is a stylish magazine, written in impeccable English. Where else could one find such a compact variety of news about this country?

Anna P. Armbruster  
Naugatuck, Connecticut

Over the past several years I have read your fine magazine and found it to be quite interesting and informative. The articles relating to the everyday life of our respective peoples have gone a long way in erasing the myths surrounding our societies.

A. K. Rosenhan  
Mississippi State, Mississippi

My wife and I enjoyed the Armenian issue. Our friends are excited about the issue and the rejuvenation of one of the most ancient and civilized of nations, Armenia.

Peace, prosperity, and the creative drive of mankind has been properly channeled in Armenia to achieve great socio and cultural changes in a land ravaged by massacres, famine, and pestilence.

We wish another 50 years of progress and peace to Armenia and her people.

Edward Zahigian, Jr.  
Colton, California



transport, ancient and modern, are both doing service on the dry steppe of the Yenisei.

Below left: The bride and groom both work on the Sayano-Shushenskaya hydroelectric Station construction project. Below right: Building goes on around the clock.

The Yenisei was dammed in the Karl range in the fall of 1975. This picture is past history. The project is now in the "big concrete" stage.

Estimates indicate that the power potential of the Yenisei River and its principal tributary, the Angara, can provide over 300 billion kilowatt-hours of electricity annually, almost one-third of the Soviet Union's over-all power resources. The Yenisei is therefore the backbone of the power industry in Siberia. During the Tenth Five-Year Plan period the first units of the world's most powerful hydroelectric station, the Sayano-Shushenskaya, with a capacity of 6.4 million kilowatts and an annual output of 23.5 billion kilowatt-hours, will begin generating electricity. The power resources of the Yenisei and the other big rivers of Siberia will make it possible to develop the country's eastern region more rapidly. Chairman of the Council of Ministers Alexei Kosygin stated at the Twenty-fifth Communist Party Congress that Siberia's industrial output will grow by almost 50 per cent in the next five years.



Lenin Prize winner Andrei Bochkin, retired and living in Moscow, is an honorary citizen of Divnogorsk. He directed the construction of the Krasnoyarsk station near that town.





First residents on the Kureyka shore, from where a road will run to the hydropower project. Left: Erik Bekker, chief of a Moscow prospecting trust, was fed up with a desk job. Now he is head of a northern taiga prospecting team.



They are as different as people can be, in character, vocation and life experience, but they have something in common. Both the unskilled young worker and the qualified engineer will say if they are asked, "A job on a Yenisei project is a challenge."

*Continued from page 2*

head, the jaws wide open, sharp fangs bared, a sad look in the eyes. The lion was young and formidable, but the master wasn't pleased. This beast was too tame to spring from his hands. Gradually the animal matured and finally lay down on the windowsill beside another maned beast, darkened by age. When the lions turned twins, the master put aside his knife.

Do children inherit skills?

Soon after I met Boyarov I happened to be present at a contest at a construction site not far from where he lives. A bunch of young fellows had arranged it for one Sunday: Who could hew out a porch pole fastest—and at the same time do the best job? The contestants sharpened their hatchets, spit into their palms, like their elders, and the jury watched the clock.

It took the winner two hours to make his pole, plus several minutes to give it a final examination. It had to meet his own strict specifications.

## Elektrograd<sup>3</sup>

Minusinsk is a quiet and green

<sup>3</sup> The suffix grad means city.

little city, 150 years old. It boasts what is probably the finest climate in Siberia. Watermelons grow here as sweet and big as in Astrakhan (on the Volga) and in Tashkent (Central Asia). There are more sunny days here than in the Crimea.

Many a pensioner chooses Minusinsk as the place to retire to, particularly Northerners, who long for warmth but do not want to give up the snow and the skis and the kind of winter they cannot have in warmer locations.

Minusinsk's museum has been famous for a long time. A hundred years ago a certain Nikolai Martyanov, a pharmacist, came here from the Volga, from Kazan, impelled by the desire to learn more about this distant land. He was a most unusual man. He charmed all sorts of people in this out-of-the-way taiga—political exiles, descendants of the Decembrists, rural teachers, high school boys and girls, foresters, progressive-minded officials, surveyors, residents of Khakass nomad tent villages. He got them to collect plants, minerals and antiques for him—displayed later at world exhibitions in Paris and Chicago.

Ninety years ago George Ken-

nan took a 400-kilometer sleigh ride along the icebound Yenisei to meet Martyanov and see his museum.

Along with the monument erected in his honor, the museum attracts a great many visitors. Until quite recently it was probably what brought people to Minusinsk. But suddenly . . .

An avalanche of letters. Thousands. From the South and the North, from the West and the East. They are delivered to the museum building, but to the back door: The management of a new electrical engineering complex going up has temporary offices there. The contents of the mail doesn't vary much—"I want a job on your project." "We want to help build Elektrograd." "When can I start?" "Do we have to wait to be called or can we come whenever we're ready?" "We are not afraid of hardships."

Builder Ivan Ivanov is 35 years of age. It was an informed choice the deputies to the City Soviet made when they elected a builder as deputy chairman of the City Executive Committee.

I made the rounds of the construction sites with Ivanov, and almost every other worker greeted him like a pal. It seems he was a superintendent and section chief here not too long ago.

Construction in the area in the past had stopped at houses and a glove factory. Today industrial plants are going up one after another. There will be a full dozen of them: a turbohydro-

generator plant, factories to produce high-voltage equipment, power transformers, cables and the like. Add to that a foundry, with welding, stamping and other auxiliary facilities nearby, a design bureau, and an electrical engineering institute with nine departments, all this in a city with half a million population—New Minusinsk—surrounded by forest.

Significantly, this is the first time in the Soviet machine-building industry that 12 plants of a single branch will be located in one place. To follow a scatter pattern, that is, to locate individual plants in small towns in the same district, would have cost another 114 million rubles and would have called for at least 13,000 more workers. This was the estimate of Valeriya Sokolikova, an economist who has been working for many years on efficiency grouping of large economic complexes. Elektrograd is part of the Sayan territorial industrial complex that will incorporate four more industrial aggregates on the scale of Minusinsk's.

Elektrograd's first plants will start production in the next two years. But old Minusinsk—it is already being rebuilt—will remain a quiet city, nestled in greenery. Old people will, as before, settle down here, grow tomatoes and melons, fish in the Yenisei's tributaries and wait for their grandchildren to spend their vacations with them.



# SERGEI PAVLOV: "WE HOPE TO WIN"



Sergei Pavlov, Chairman, the Committee for Physical Culture and Sports of the USSR Council of Ministers

On the eve of the Soviet Olympic team's departure for Montreal, Lev Lebedev, a *Soviet Life* correspondent, interviewed Sergei Pavlov, who is often called the unofficial Soviet Minister of Sports.

**Q:** How do you think the Soviet team will do in the 1976 Olympic Games?  
**A:** The Soviet team that is going to Montreal is larger and stronger than any of our previous Olympic teams.

The Soviet Union has participated in the Olympic Games since 1952, but Munich was the peak of our Olympic triumphs: Our team won 50 gold medals—better than any national team in the entire history of the games.

This year also began well for our team. Of the 69 gold medals awarded at the Winter Olympic Games in Innsbruck, 38, or more than half, went to our athletes for their performances in 13 separate events.

**Q:** The results were so good that even the Soviet sports writers who covered the Olympics in Innsbruck were surprised. Were you also surprised?

**A:** Going into the games in Innsbruck, we hoped to win gold medals in 12 of the events, so we were not particularly surprised.

We were especially pleased with our women skiers and skaters, who did much better than in Sapporo. Our figure skaters and hockey players also did well. However, in ski jumping and the Nordic combined we did worse than we expected to, and we suffered setbacks in the luge. We made some progress in the alpine events, though—moving up to places in the twenties from the forties.

**Q:** Why do you think we did poorly in these events?

**A:** Problems in our training programs. Victory takes great perseverance, intensive training and preparation. The training program must be planned so that the athletes reach their peak at the time of the games. In our preparations for the Montreal Olympics we have taken into account both the favorable and unfavorable results of the Innsbruck Olympics.

**Q:** Where do you think our strongest competition will come from?

**A:** U.S. athletes. They know how to get themselves in shape for major events, and especially since its their Bicentennial, they will try to perform well in Montreal. And there are many other top athletes in addition to the Americans. At the last European championships the East German team was second to the Soviet team. The sports achievements of East Germany are impressive, and in the contest for the first three places at the Olympics their team will be competing with the Soviet Union and the USA.

**Q:** So there is competition, but, as far as I know, you are confident of victory. What makes you so confident?

**A:** My confidence is based on the performances of our athletes, particularly in such events as wrestling, boxing, gymnastics, weightlifting, fencing, springboard diving and the team games—basketball, men's volleyball, handball and water polo. Here we have unquestionably made a great deal

of progress, and I think that in Montreal we will do even better than before. However, about half of all the Olympic medals will go to the winners of track and field, swimming and rowing events. Although our athletes still have some way to go in these sports, in which American and East German athletes continue to win the most medals, at the latest swimming and track and field meets Soviet athletes showed that we can count on some medals in Montreal in these events too. For instance, at the recent Soviet-East German swimming match our athletes did well in some of the freestyle heats. Our women breast-stroke, butterfly and back-stroke swimmers did especially well.

**Q:** You mentioned three favorites—the teams from the USSR, the USA and East Germany, but at every major competition athletes from other countries win some events.

**A:** I'm sure this will be the case in Montreal, too. There will be a lot of surprises. For example, at Munich few people expected the African athletes to do so well in track. They have made dramatic progress over the past four years, and I'm sure that they will do well in Montreal. I believe that the Cuban athletes will be active contenders for medals too. In other words, the competition will be intense.

**Q:** We know that, in addition to Soviet athletes and coaches, various specialists involved in the preparation of the 1980 Olympic Games in Moscow will go to Montreal. What will they be looking for?

**A:** We will be studying everything related to the organization of the Olympic Games, the construction of sports facilities, accommodations for tourists and the news media.

We are grateful to the organizers of the Olympic Games in Montreal for giving us the chance to observe this complicated process firsthand.

**Q:** You said that going into the Winter Olympic Games in Innsbruck, Soviet sports writers forecast the number of medals the USSR would win. Have they made such a forecast for the summer games?

**A:** Certainly we have a fairly good idea of our chances in Montreal, but if you don't mind, I'll keep quiet about it. I'm not a superstitious man, but I'll follow the advice in the old saying: "Don't count your chickens before they are hatched." But I will say that we do hope to win.

I must also add that, irrespective of the outcome, we think the Olympic Games are a wonderful institution. They provide young people from all over the world with an opportunity to meet each other and display such positive qualities as strength, agility and courage, and feelings of friendship and understanding.

## THE ROAD TO THE OLYMPICS

**S**PRINTER VALERI BORZOV, gymnast Olga Korbut, weightlifter Vasili Alexeyev, discus thrower Faina Melnik—these Olympic champions are familiar to everyone, but they are only the tip of the sports iceberg. More than 50 million people take up sports on a regular basis in the Soviet Union. Gymnastics, bicycling, volleyball, basketball, soccer, ice hockey and figure skating are especially popular.

Today the Soviet Union has more than 3,000 stadiums and some 50,000 gyms, swimming pools and ice rinks. Our athletes are trained by more than a quarter of a million coaches, graduates of physical culture institutes.

To ensure that everyone who wishes to take up a sport has the opportunity to do so, the state allocates sizable sums of money. In 1975 alone, 10 billion rubles from the state budget were set aside for sports.

Physical education is a major subject at school, taught by experienced teachers and very popular with the students. Millions of children take part in national competitions for prizes such as the Silver Skates or the Golden Puck, the Merry Dolphin for swimming or the Leather Ball for soccer.

If a boy or girl is particularly interested in sports and wants special training, he or she can join a junior sports school set up by either the district public education department or local sports society. There are some 4,000 such schools in the USSR today for children between the ages of 9 and 14 that offer afterschool sports instruction free of charge.

Sports clubs are at the center of Soviet athletics. More than 200,000 such clubs have been set up by trade unions in factories, offices, schools and colleges, state and collective farms.

In the last five years, in addition to state appropriations, sports clubs received more than two billion rubles from the trade unions, but the construction and maintenance of sports facilities are paid for by the management of enterprises.

There are about 40 DSO's (Russian abbreviation for voluntary sports societies) which unite groups of sports clubs. The DSO of the collective farmers, for example, is called Urozhai (Harvest) and that of the railroad workers is called Lokomotiv.

The DSO yearly membership fee is 30 kopecks for the right to use DSO facilities and equipment and the services of coaches and trainers and to take part in competitions held by the DSO.

In addition to annual national championships in various sports, the Soviet Union stages the People's Games or Spartakiads. They are held every four years and millions of athletes participate, from beginners to world champions. Young people compete in some 20 sports at the club, district and city level, and the winners move on to meets at the republic level. The Spartakiad finals bring together teams from all the union republics of the USSR, plus Moscow and Leningrad, the two largest sports centers in the nation.

At the USSR People's Games, usually held the year before the Olympics, new records are often set and new talent discovered. For instance, young Nellie Kim—a story about her is on page 61—scored a convincing victory in the 1975 Summer Spartakiad and was included in the 1976 Soviet Olympic gymnastics team.



# THE WELL-BEING OF THE PEOPLE— THE PRIME CONCERN OF THE COMMUNIST PARTY

By Alexander Smirnov  
Subdepartment Chief of the USSR State Planning Committee

**T**HE ADVANCEMENT of the socialist way of life and the people's well-being are the core of the Guidelines for the Development of the National Economy of the USSR for 1976-1980 adopted at the Twenty-fifth Congress of the Communist Party of the Soviet Union.

## Level and Way of Life

Within the lifetime of one generation socialism has ensured a rising standard of living and high educational and cultural levels for the country's whole population. But objective historical conditions made it difficult for the world's first socialist state to realize all the possibilities intrinsic in the new system.

The advantages of the new society and its plan-based economic system have become increasingly evident. In the past 10 years the per capita money income of the population has nearly doubled as a result of a vast social program to raise wages, to increase old age and disability pensions and other free benefits and to reduce taxes, while maintaining stable state retail prices for goods and services.

Along with planned growth in the output of goods and services and a considerable rise in income have come progressive changes in the level and structure of consumption. This is most clearly seen from the growth in the sale and consumption of nonfoodstuffs as well as in the expansion of consumer services. The consumption of goods and services has increased markedly, making household chores easier and allowing more time for rest and recreation.

Similar structural changes have also taken place in the consumption of foodstuffs. We long ago solved the food problem. Now we are gradually improving its qualitative composition to ensure the greater consumption of such foods as meat, dairy products, vegetables and fruit.

A big step forward has been made in solving the housing problem. In 1966-1975 the country built more than a billion square meters [11.4 billion square feet], providing new or better housing for more than 110 million people.

The educational and cultural level has risen. As a result of universal compulsory secondary education, 35 million boys and girls, more than in all preceding Soviet years, graduated from 10-year schools in the past decade. Another 16 million received a higher or specialized secondary education.

Recreational opportunities improved. The five-day workweek, more holidays and longer vacations have increased the over-all number of free days by 80 per cent since the mid-1960s.

Finally, let us note that this improvement in the general well-being is stable, a factor which has become increasingly evident in the past decade. Under the Eighth and Ninth Five-Year Plans, with the yearly average rate of increment in per capita real income projected at five per cent, the increase for the year was never below four per cent, even in 1972 and 1975, when the weather was unusually bad for crops.

At every stage of building the new society, improvement of the well-being of the population is inseparably tied to the development of a new way of life, shaped and conditioned by the new social relations. Characteristic of the historical period of developed socialism which the USSR has entered is the advance of society from class differentiation to social homogeneity and stronger sociopolitical and ideological unity. This foundation encourages collectivism and comradely mutual assistance, humanism, confidence in the future, civic consciousness and involvement.

The social program of the Tenth Five-Year Plan derives from the solution of problems connected with raising living standards and developing the socialist way of life. A sufficiency or even an abundance of goods and services does not automatically ensure a better life for the people. It is only the starting point.

## Labor and the Distribution of Goods and Services

The material well-being of the citizens of our society is determined by their work, their participation in social production. Goods and services are distributed according to the labor contribution people make to the common cause of communist construction. Public ownership of the means of production implies the equal right and obligation of the owners to work. It also determines the distribution and consumption of material benefits by the principle of equal pay for equal work. Distribution according to their labor gives members of society a material interest in the results of their work, in the improvement of their skills, in the more efficient utilization of working time and, consequently, in the development of social production.

The main source of income of factory and office workers and collective farmers is payment

for work done. In the past decade these payments have been responsible for the decisive part, about 75 per cent, of the rise in income.

The state plans regularly provide for raising the standard of living, primarily through increasing the remuneration for work. Under the Eighth Five-Year Plan the average wage of factory and office workers rose by about a fourth, and under the Ninth Five-Year Plan by about a third. In the tenth five-year period the corresponding rise will be 40 per cent. Both the minimum wage and middle-bracket wages have gone up. In the 1971-1975 period the incomes of more than 75 million factory and office workers grew as the result of wage increases and tax reductions (in some cases workers in low-pay categories are not taxed at all).

Many workers received higher wages as a result of improved skill and higher labor productivity, as well as the wider application of bonus systems and incentive funds. Along with the growth of income, there was progress toward the plan-based goal of evening out the socioeconomic position of workers. Evidence is the reduction in the decile coefficient of wage differentiation. In 1956 the correlation of the wage levels below or above which it was received by 10 per cent of the workers was 4.4; the corresponding figure now is about 3.

Measures connected with wages and the role of wage incentives in raising the efficiency and quality of work proposed in the decisions of the Twenty-fifth CPSU Congress indicate that there will be other adjustments in the future. The main point is that the differences in remuneration for work must correspond to the differences in the work itself and the skill of the workers.

The picture is similar, even more striking, for labor remuneration on collective farms. Under the Eighth and Ninth Five-Year Plans the incomes of collective farmers from the common enterprise grew faster than industrial wages. The same will be true of the Tenth Five-Year Plan. The economic wherewithal comes from the continued strengthening of the material and technical foundation of agriculture, accompanied by changes in the character of labor and the improved skill of collective farmers.

The socioeconomic gap between Soviet society's two friendly classes—industrial workers and farmers—is narrowing. One sign is the radical change in the source of income of the collective farmer. In the late 1950s the main source was



the collective farm family's personal subsidiary plot. In about the mid-1960s income from personal plots and income from the common enterprise were equal. At present the income from the collective farm socialist property is decisive in the family budget. If we include the items that the collective farm family receives from the state (pensions, children's grants, free education, medical aid and other benefits), the income from socialized property is now double the income from personal subsidiary plots.

In this way distribution according to labor and plan-based increases in remuneration for labor, making workers materially interested in developing their skills and productivity, not only ensure an increase in income and, hence, in material benefits, but also strengthen the labor character of the socialist way of life. The method of the distribution of goods and services prevailing under socialism promotes the erosion of socioeconomic differences between members of society and the further development of relations of equality.

An important role is also played by the purposeful utilization of the accumulation fund. By developing and improving the means of production, the socialist state ensures the necessary socioeconomic changes directly in the sphere of work.

This concerns, above all, changes in the character of work and improvement in working conditions, which are regarded in the decisions of the Twenty-fifth CPSU Congress as a major task of the Tenth Five-Year Plan. The classics of Marxism-Leninism stress that work is the primary requisite of life, the fundamental force in shaping the individual. Without changing the character of labor, without making it more creative and improving working conditions, it is impossible to foster a communist attitude toward work and gradually to change it from a means of survival into the fulfillment of life.

#### Public Consumption Funds

An important role in raising living and cultural standards and developing the socialist way of life is played by the distribution of benefits from the public consumption funds. They pay for nearly a third of the over-all public consumption of goods and services and constitute a major addition to the family's income derived from labor.

Ensuring equal pay for equal work, distribution by labor does not, nor can it, eliminate the inequality in the level of consumption. That inequality is due to differences not only in the ability of individuals and the character of their work but also in the size and, even more important, the composition of their families. The public consumption funds make it possible for the socialist state to diminish the damaging effects of this inevitable differentiation in people's income and consumption.

Although the public consumption funds are the economic foundation and guarantee of the constitutional right of Soviet citizens to a whole number of social benefits, this does not exhaust their function in fostering equality, humanism and collectivism.

The state increasingly assumes the maintenance of those members of society who cannot work. More than two-thirds of the public consumption funds will be spent for that purpose during the Tenth Five-Year Plan period. Financial aid to families will increase in the form of state allowances for children and grants paid to mothers with many children and single mothers. Working mothers will receive partially paid leave to look after their children until they are a year old. The network of children's facilities, maintained mostly at the expense of the state, will be expanded. Even now every third child in the country and every second in the city goes to a kindergarten or nursery school.

Much is to be done to raise the living standards of various categories of pensioners.

The public consumption funds give every citizen, regardless of family income, free access to education, medical aid, cultural and other services. Thanks to these funds, the state evens out the structure of consumption of families that differ in composition and in income. The structure of consumption is formed consciously and made more progressive, meeting the interests of the individual citizen and society as a whole. The public consumption funds make for equal conditions, equal not only in the sociolegal but also in the economic sense. All told, in 1980 payments and benefits from the public consumption funds will reach the grand total of 115 billion rubles.

The social program of the Tenth Five-Year Plan distributes material benefits according to the quantity and quality of labor to affirm the equality of Soviet people as workers; it also distributes material benefits through the public consumption funds to even out their socioeconomic position as members of society.

The unity and, at the same time, functional differences of these two principles of the distribution of goods and services under socialism determine the importance and complexity of a key socioeconomic task—to establish the optimal correlation between the rates of growth of payment according to labor and of the public consumption funds. The state is interested in increasing the stimulating role of distribution by labor to achieve greater productivity and the purposeful migration of the labor force. However, the more of its resources the state uses to raise wages, the fewer resources can be channeled into the public consumption funds, which play, as we have said, a very important role in affirming the principle of social equality. The decisions of the Twenty-fifth CPSU Congress are an example of the creative approach to the conscious regulation of this ratio. In the tenth five-year period the funds for payment according to labor will grow more in absolute terms, while the public consumption funds will increase more in relative terms, i.e., in rate of growth.

This is how, with the interaction and plan-based use of various socioeconomic levers, purposeful changes in labor and the distribution of material benefits, the state ensures the successful advance of Soviet society toward social homogeneity and the gradual transformation of the socialist into the communist way of life.

Courtesy of the magazine *Communist* (Abridged)

## LEONID BREZHNEV MEETS THE WORKERS OF THE LIKHACHOV AUTO PLANT

*Continued from page 1*

period, he reminded his audience, was to raise living and cultural standards by the dynamic and balanced development of social production, increasing its efficiency, accelerating scientific and technical progress, raising labor productivity and improving the quality of work in every sector of the national economy.

He noted that much had been done, but that there was still much to do, citing the housing problem as example. In the current five-year period approximately 10-11 million people will move into new apartments annually. Not long ago a new program was approved for the development of new standard houses for the next stage of mass-scale housing construction. The average space per person will be increased and rooms will be larger.

Rent in the Soviet Union has not gone up since 1928, even though the earnings of factory and office workers have multiplied several times over in the period and the quality of the housing has improved substantially. Rent and payment for utilities do not cover even a third of the cost. That is why the state annually allocates about five billion rubles for the maintenance of housing and public utilities. And it will continue to finance these costs.

Then Leonid Brezhnev reminded his listeners of the severe trials of the war against nazism. Sixteen thousand workers from this automobile plant fought to defend their homeland; half of them never came back.

"Peace was won at a high price," he said, "and our homeland has not spared, nor does it spare, its efforts to keep the peace. . . . The efforts of our party and the Soviet state, the active policy of the countries of the socialist community, working together, in a concerted way, their growing alliance with all fighters for progress and the freedom of peoples, and their businesslike cooperation with peace-loving and realistically-minded circles in the capitalist countries—all this is bearing fruit. International tension has been reduced considerably, and the prerequisites have been created for extensive and peaceful cooperation among nations.

"The consolidation of the international positions of the Land of Soviets is not the business of politicians and diplomats alone," he further noted. "It is the business of the entire party, of all the Soviet people. While operating machines, presses and assembly lines, you are also taking part in carrying out the foreign policy of our great homeland.

"And if we have succeeded in warding off the danger of war, if the international position of this country is stronger than it has ever been, we know that its tremendous moral and political prestige and its economic and military might were created by the efforts of the working class, collective farmers and intellectuals."

Orders and medals were presented to a thousand workers and specialists for their outstanding work in helping to fulfill the Ninth Five-Year Plan, after which Leonid Brezhnev read the Decree of the Presidium of the USSR Supreme Soviet and pinned the Order of the October Revolution to the plant's banner.





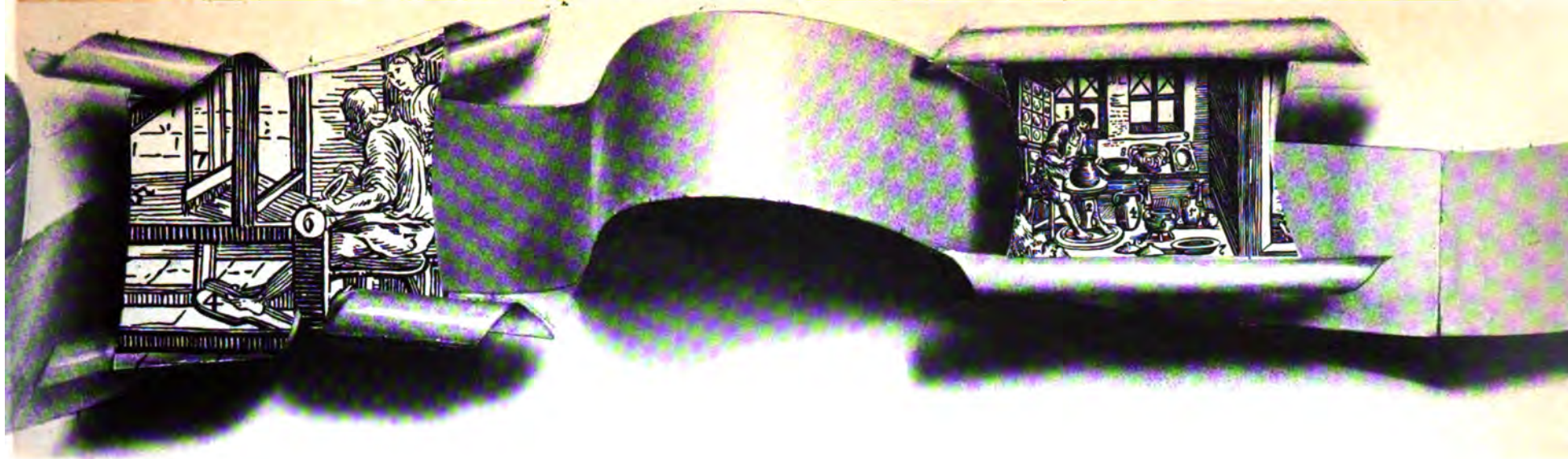
By Edward Alesin

# **JOBS**

## *FOR THE TAKING*

Several generations of people in the Soviet Union know of unemployment only from their elders and from the history books. For almost half a century there has been more than full employment—more job openings than can be filled. About 93 per cent of the able-bodied population, men and women, hold jobs or go to school. Only a small fraction of the women stay home to look after young children. The Soviet economy has a high and stable growth rate, hence the perpetual demand of most industries for additional help, even with rising labor productivity. In the past 20 years alone, the number of jobs has grown by an average of 2-2.5 million annually.





**T**ENS OF THOUSANDS of people could suddenly come to our city to stay, and we would be able to place them in jobs immediately," said Mikhail Dubenko, head of the Moscow City Employment and Employment Information Agency.

This is not an employment agency in the usual sense—our country did away with unemployment back in the thirties. The agency was created to place our available labor resources where they would be most effective.

The indicator panel mounted in Mikhail Dubenko's office, in an old mansion in the center of the city, includes all of Moscow's 30 districts. Its changing figures show how well the district agencies are meeting their quotas. Every column reads over 100 (the planned quota is 100 per cent).

"As you see, our branches are kept pretty busy," Dubenko explained. "More than 100,000 people come to us annually, and we have something for each of them."

Now, who applies to the employment agency in the country's capital, where, according to statistics, 93 per cent of the able-bodied men and women have jobs? For the most part they are people who want to change their place of work. New residential districts keep going up in Moscow. In the past five years alone, 2.5 million people moved to new or better housing. When people leave their old apartment, they sometimes want to leave their old job as well, so that they won't have to spend more time than before getting to work.

There may be another reason. Many people continue their education and professional training extramurally or at evening colleges and technical schools. Sometimes they cannot find the job their diploma entitles them to at their old place of work, and so they look elsewhere.

Jobs are also sought by young people after service in the army, by women who stayed home to bring up their children, by pensioners who miss the stimulus of a job, and so on.

Such factors as the quality of management at an enterprise, the working conditions, the possibilities for advanced training are also responsible for labor fluctuation.

### No End of Vacancies

There are vacancies at almost every enterprise and institution in Moscow. Want ads are posted on billboards all over the city and broadcast on radio and television. But this is not enough for a city with more than 20,000 enterprises and agencies. Statistics tell us that looking for a job of your own takes an average of 28 days.

"Our agency and its branches serve as intermediaries between all the city's enterprises and people looking for work. They sharply reduce the time a person has to spend finding a job," Dubenko explained.

The procedure is simple. The district employment agency inspectors (the person looking for a job pays nothing for their services) have information on openings in their district, along with detailed data on each job: working conditions, wages, bonuses, availability of kindergarten, vacation resort accommodation, prospects for promotion and other pertinent factors. With this information and the skills and specialty of a job seeker in mind, several prospects are selected.

If any of the jobs the inspector suggests is suitable, the applicant is given an assignment slip and goes for an interview. The agency is just a link. It cannot force anyone to take a particular job, and it cannot force an enterprise to hire a particular person.

The assignment slip has a detachable stub that is returned to the agency if the applicant is hired. The inspector is thus advised of the fact that a particular job has been filled. In the past five years Moscow's employment agency and its branches have received about half a million such stubs.

### Expanded Activity

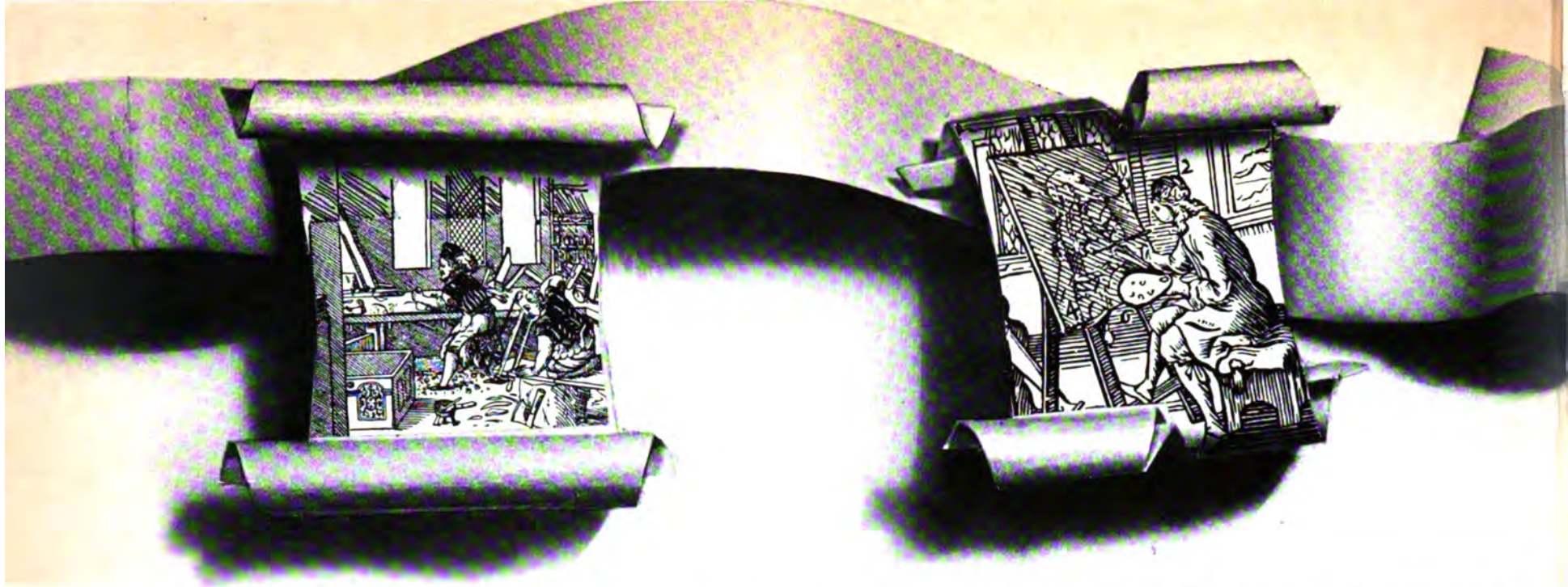
The agency foresees an expansion of its activities. "The scale of construction projected for the Tenth Five-Year Plan period is creating new demands for people," Mikhail Dubenko said. "Labor is becoming increasingly valuable, and it is our function to reduce to a minimum the time people spend looking for work."

The district branches of the City Employment Agency are already being incorporated into an automated system.



This, however, is only one side of the picture. The other, according to Dubenko, "is that the information coming in from all parts of the city (and the country) provides a clear idea of the demand for workers and specialists in the different trades and professions, and that makes it possible for us to offer guidance in matters of personnel training."





## HOW THE AGENCY HELPS

Operator (left)

## CAREER GUIDANCE AND TRAINING

By Yevgeni Dvornikov

VOCATIONAL TRAINING of young people remains an essential item in Soviet long-term plans, including the current plan for 1976-1980. The previous plan, however, has set itself so ambitious a goal: the training, through state subsidies, of some 11 million workers at vocational schools, providing skilled workers for all sectors of the national economy.

More attention than ever before will be paid to the vocational guidance of children and teenagers. Another million young people will be enrolled in new vocational schools. A considerable number of vocational school students will be able to earn a trade while getting a complete secondary education, a requirement set by the Twenty-Ninth Congress of the Communist Party of the Soviet Union.

### Practical Guidance

Some 1,500 boys and girls 15 to 17 are getting practical vocational guidance in a four-story building on the Griboyedov Canal embankment in Leningrad. This is one of the new types of schools that have been opened in the Soviet Union in recent years. Instructors give them a sampling of 15 trades, all of them short of personnel. They can learn how to operate a lathe or a milling machine, study radio-electronics, computer techniques, programming, the assembly of semiconductor devices, the fundamentals of navigation, and innumerable other such skills.

One day each week is reserved for classes—two hours of theoretical instruction and four hours of practical training. Several factories and institutions with job openings have equipped study rooms and laboratories with machine tools and equipment and have even sent qualified people to conduct classes.

Vocational schools of this type have become exceedingly popular and have justified themselves completely. In the summer of 1975 some nine million pupils in the middle and senior grades worked at part-time jobs. Three and sometimes four out of every five seniors chose their future careers as a result of this sample employment.

All "the working levers" of vocational guidance—the investigations and recommendations of educators, the publication of mass literature on modern trades and professions, radio and TV programs and the youth clubs for those choosing a trade—are only ways to discover individual preference, not to suppress it.

### When the Choice Is Made

Eventually the teenager says: "I have made my choice."

Special youth employment commissions attached to the local Soviets work all year round

An electronics laboratory at the Kharkov vocational schools complex.



The Heavy Electrical Machinery Plant, where many vocational school students do their practice training. The plant makes generators and turbines for power stations.



Vocational school student Alexander Kirsanenko will be using all these books in his first term.



The tractor plant, one of the four Kharkov factories that financed the construction of the vocational schools complex.



a trolley bus to get to work.

So I began to think about getting a job nearer home. My friends suggested that I go to the district employment agency. I told the inspector there what I had in mind, and he fed the information (43 years old, lathe operator, married, one child) into the computer. A few minutes later I was going over several openings and the conditions that went with them.

Now my life is back to normal, it doesn't take me long to get to work, and I have more free time than I had before to spend as I like.

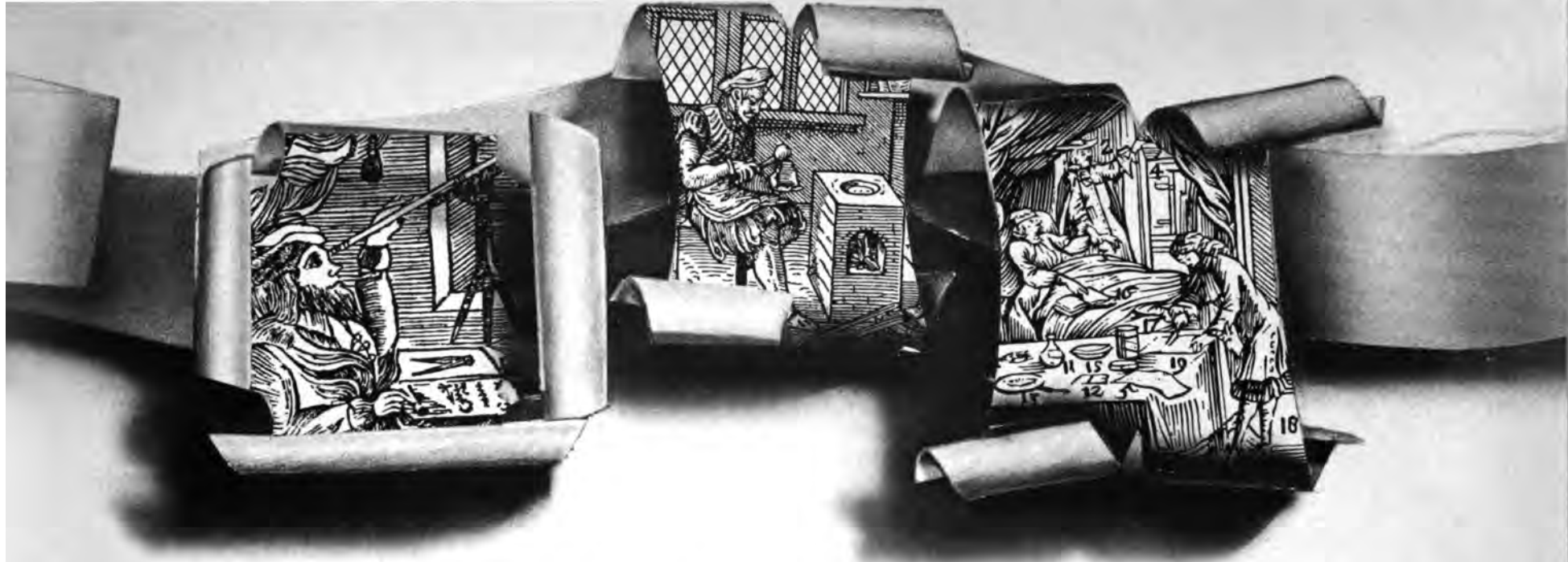
### Vladimir Moiseyev, Electrician (right)

My life story is very ordinary. I was born in Moscow, graduated from a general secondary school, served in the army and worked as an electrician at a housing development.

I was satisfied with my job and the pay, but I was single then. When I got married, my expenses increased and since the housing management office didn't have a higher-paying job open, I decided to look around for another place to work.

In November 1974 I went to the district employment agency. Of the several jobs I was offered, I chose the one at the Moscow sanitary equipment factory. The reason was that it is a large enterprise that pays monthly bonuses of up to 20 per cent of the salary and also has facilities for further study.





assigning jobs at industrial plants to the young people. They have the information necessary to match up the available personnel with the openings in various trades.

Two forms of training these newcomers have proved effective—the individual and the team methods. The one in widest use is team training in study workshops. Nearly 50 per cent of Soviet workers employed in industrial plants begin their working career in a study workshop; in construction the figure is 17 per cent, in agriculture 14 per cent, and in transport 9 per cent.

This means that only some of the workers are trained on the job, the rest get their training at

full-time technical vocational schools. This form of training has been recognized as the most promising.

#### Well-Educated Workers

Between 1971 and 1975 the number of graduates of Soviet vocational schools grew by 196 per cent as compared with the period 1961-1965. During the Tenth Five-Year Plan period (1976-1980) the figure will climb to 229 per cent.

These schools have a number of advantages over the other forms of training skilled workers. Class study is applied in practice. For example,

today a pupil learns a theorem, tomorrow he tests it in classes in special technology, and the day after tomorrow he applies it in the workshop when marking some detail.

With technological progress, industrial plants need more and more skilled labor. The vocational schools equip students not only with the trade skills, they also give them a good theoretical and cultural background. The course includes required classes in esthetics. Trainees listen to lectures on art, they go to the theaters and museums. The vocational schools are looking into the future, at the next 20 or 25 years. They are training not only workers, but well-rounded people.

## KHARKOV VOCATIONAL SCHOOLS

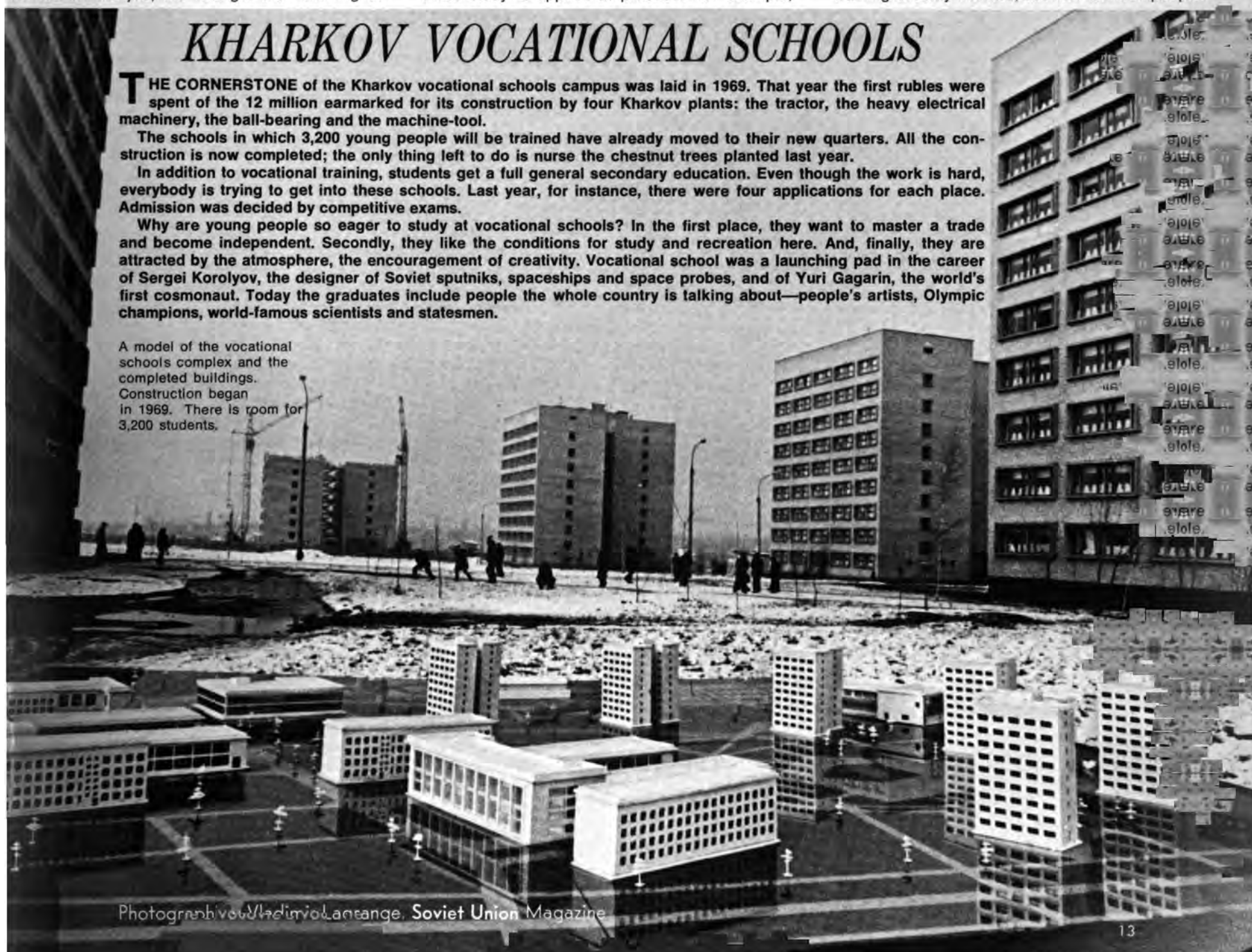
**T**HE CORNERSTONE of the Kharkov vocational schools campus was laid in 1969. That year the first rubles were spent of the 12 million earmarked for its construction by four Kharkov plants: the tractor, the heavy electrical machinery, the ball-bearing and the machine-tool.

The schools in which 3,200 young people will be trained have already moved to their new quarters. All the construction is now completed; the only thing left to do is nurse the chestnut trees planted last year.

In addition to vocational training, students get a full general secondary education. Even though the work is hard, everybody is trying to get into these schools. Last year, for instance, there were four applications for each place. Admission was decided by competitive exams.

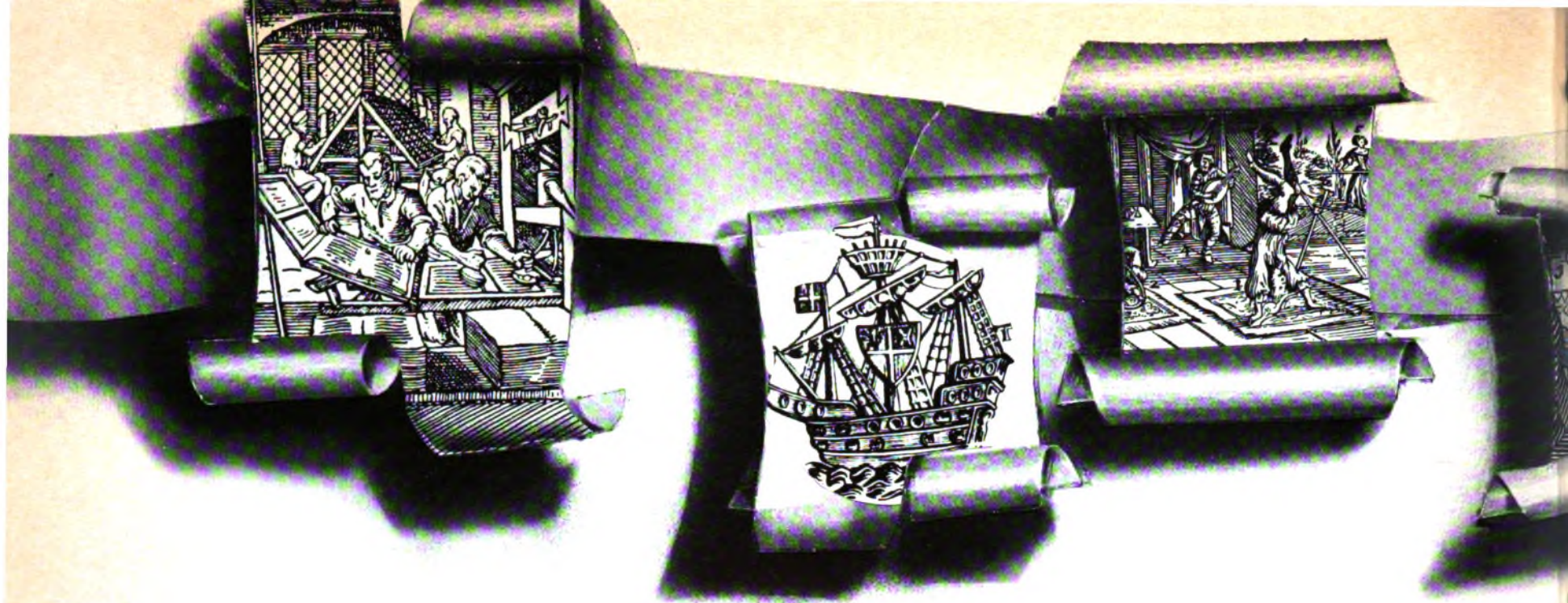
Why are young people so eager to study at vocational schools? In the first place, they want to master a trade and become independent. Secondly, they like the conditions for study and recreation here. And, finally, they are attracted by the atmosphere, the encouragement of creativity. Vocational school was a launching pad in the career of Sergei Korolyov, the designer of Soviet sputniks, spaceships and space probes, and of Yuri Gagarin, the world's first cosmonaut. Today the graduates include people the whole country is talking about—people's artists, Olympic champions, world-famous scientists and statesmen.

A model of the vocational schools complex and the completed buildings. Construction began in 1969. There is room for 3,200 students.



Photograph by Vladimir Lantange. Soviet Union Magazine





# LABOR RESOURCES

By Professor Alexander Birman  
Doctor of Science (Economics)

**T**O GIVE THE READER a better idea of how labor resources are handled in the Tenth Five-Year Plan, I shall begin by defining them. I shall use figures for 1975 since when I wrote this article I had no detailed statistics for the current year. I do not, however, foresee any significant changes.

Last year the entire able-bodied population in the Soviet Union totaled 143 million (in round figures). This number included men 16 to 60 years of age and women 16 to 55—people who were able to work and had not reached retirement age.

Practically all of them are working. We cannot count on additional labor power in the years to come, since growth there will be relatively small. However, it may be possible to attract a certain number of the 44.4 million pensioners who want to continue working and to use the labor of college and high school seniors during their vacations.

That is why the point was made at the Twenty-fifth Congress of the Communist Party of the Soviet Union that factories and business enterprises, scientific organizations and institutions now in operation, particularly those in the European part of the country, cannot count on enlisting more workers. Moreover, many of them will be losing part of their labor force to the rapidly developing areas in Siberia, the Soviet Far East and the Maritime Region, where the "white spots" on the map are disappearing with each passing year to be replaced by railways, industries and cities. Every year 15 to 18 new cities and about 400 large enterprises are added to those already in existence.

It is interesting to see how personnel is distributed in production and in the nonproductive sphere. The number of people working in the latter, i.e., in education, the arts, science, health, social maintenance, public services, and so on, has a tendency to increase.

Out of 10 million people who started working during the Ninth Five-Year Plan (1971-1975) period, more than five million were engaged in the non-productive sphere. Estimates indicate that will be where no less than 60 per cent of the total will begin their working career in the future.

I mention this fact to rectify the misconception that in the Soviet Union priority is given to the production of machinery and equipment rather than to services for the population.

## Every Second Worker Is a Woman

We have 100 million industrial and office workers. Fifty-one million of

them are women, practically every other person. But this ratio varies for different occupations. The highest percentage, in terms of the total of those engaged, occurs in the public health and social maintenance services—84 per cent, and the lowest in transport—24 per cent. Seventy-five per cent of all working women hold jobs at schools or other facilities for children and in the service trades.

The trend is typical of all the constituent republics except certain ones in Central Asia, where women account for 39 to 42 per cent of the industrial and office workers. The explanation is very simple. The greatest population growth is in Central Asia, and so there are more women who stay home to look after their infants.

The educational level of the gainfully employed population is as follows: 697 out of every thousand workers, 512 out of every thousand collective farmers and 968 out of every thousand specialists and office workers have a secondary, incomplete higher or higher education. There are 1.17 million scientific workers, half of them in the technical sciences and 10 per cent in physics and mathematics.

## Goals of the Tenth Five-Year Plan Period

Industrial output is to increase by 35-39 per cent in the five years. Such key industries as chemicals, engineering and instrument making will at least double their output. Agricultural output will increase by 14-17 per cent annually, and freight turnover on all kinds of transport by 30 per cent in the five-year period. Some 550 million square meters [5.92 billion square feet] of housing will be built, and so on.

But, as we have already indicated, the entire gainfully employed population is already working, so that this growth can only come from raising the productivity of labor. This is to be achieved in two main ways: first, through the mechanization and automation of labor-consuming processes like casting, loading and unloading and construction (in particular, decorative) work; and, secondly, through the concentration of production and, simultaneously, its further specialization. Speedup is ruled out. On the contrary, steps are being taken to make labor easier.

More and more factories, transport facilities, construction projects, sources of supply will be integrated into associations. Enterprises included in these associations will specialize in a relatively narrow production field. Automation will be introduced on a wide scale, replacing workers.

We expect substantial returns from strengthening small repair, building and transport organizations and also from consolidating supply agencies on a town, district or regional basis. Most of these enterprises will be territorial not departmental, servicing all those working in a given district.

For each such group of enterprises centralized bookkeeping departments and calculating and computer centers are to be set up. Each enterprise will be expected to complete all phases of an operation. For example, plants making prefabricated housing parts will deliver such parts complete with all the necessary joining facilities to construction sites, shops will



Help-wanted ads are posted on boards like this one in Moscow and all other towns and cities and broadcast over radio and television. There are job openings at almost every factory and business office in the capital.





receive prepackaged goods, the amount of partially prepared foods for restaurants will be increased.

### Long-Term Strategy

All this will certainly take more than a year or two to carry out. We are speaking here of the economic strategy that will make it possible to guarantee through higher productivity approximately 90 per cent of the increase in industrial output and the entire increase in construction and assembly work and in agriculture. In terms of the economy as a whole, that also means a 90 per cent increase in national income.

Take agriculture as an example. Its development in 1976-1980 envisages two approaches. First, big livestock, poultry and fruit complexes are to be set up, each of which will, in essence, be an industrial enterprise. From a central control point one person will be able to look after thousands of fowl, hundreds of head of cattle, or hundreds of acres of orchards and vineyards. I know that this kind of industrial approach is not new to American readers. I simply want to indicate that we are now able to set up such complexes. We did not have the means to do it before.

The second big point is the creation of intercollective farm sectoral agroindustrial associations. Several farms specializing in a particular sphere, say in pig breeding or wheat growing, will be engaged, along with their main occupation (particularly between seasons), in processing fruits, vegetables or berries, in manufacturing building materials or in construction or repair work.

Both these approaches require the training of highly skilled farm specialists. A mechanical engineer will become a full and equal member of a village community, just like a teacher or a doctor. This will alter the social climate of the countryside, enrich its cultural life, bringing it closer to that of the city.

These two approaches in our economic strategy will make it possible to sharply cut production costs and reduce retail prices. A great number of people doing farm work will not be needed, and, after special training at various free courses, will take jobs in shops and the service industries.


In all fields of endeavor people will have more than one skill: machinist and mechanic, worker and supervisor, driver and purchasing agent, and so on. It goes without saying that all additional work and higher labor productivity will be remunerated by extra wages and bonuses. The wages of industrial and office workers will rise by 16 to 18 per cent in the current five-year plan period, and the incomes of collective farmers by 24 to 27 per cent. The benefits and grants received by consumers from the public consumption funds are to grow by 28 to 30 per cent, while retail prices and the cost of all services are to remain unchanged. This guarantees that the goals of the Tenth Five-Year Plan will not be delayed or hampered because of the shortage of personnel. But it does not mean that there are no problems.

The first is connected with the need to interest people in moving to Siberia, the Soviet Far East, the Maritime Region and the country's European North. After all, housing, schools, roads, hospitals, moving picture theaters and many other things besides enthusiasm are needed by people who go to live and work in difficult conditions. A considerable number of workers could be drawn from areas with a large labor force—Moldavia, Central Asia or Transcaucasia. But not everyone wants to leave these settled areas. A good deal of work has to be done to create a system of economic incentives, and this is not easy in a country where there is no unemployment. There are also certain trades that are not particularly popular.

But I am sure these problems will be solved. The result will be the more effective management of our economy as a whole and a rational distribution of our productive forces throughout the country.

Collage by Igor Nechayev





Pressure chambers have revolutionized many types of surgery, especially vascular surgery. This hyperbaric unit consists of six chambers divided into three sections: surgical, therapeutic and experimental. A team of surgeons could be operating while patients are being treated in the therapeutic section and research is under way in the experimental section.

## NEW TECHNIQUES IN MEDICAL TREATMENT

# MEDICINE



No social task is more important than concern for the health of Soviet people. Our achievements in this area are universally known. But we must also see the problems in this field. They are linked with the improvement of the organization of medical care, the enlargement of the network of hospitals and polyclinics and the growth of the output of medical equipment and highly effective medicines. Moreover, they are linked with the further progress of medical science and with the energetic drive against the most dangerous diseases.

*From the Report of the Central Committee of the Communist Party of the Soviet Union to the Twenty-fifth Congress of the CPSU*



Professor Sergei Efuni is head of the hyperbaric department of the Moscow Research Institute of Clinical and Experimental Surgery.

American doctors Jonathan Rhoads and George Rosemont talk shop to Soviet scientists Edward Vantsyan and Vitali Lukich at the institute.



**Soviet medical research is being carried out today in over 400 research institutions by 67,000 researchers. New drugs, instruments and treatment techniques are also being developed in health care facilities staffed by more than 832,000 physicians and specialists.**

### Air Pressure Can Be Therapeutic

UNUSUAL is the best word to describe this hospital. Inside, it has been compared to a submarine, a computer center, even a space station! These attempts at description of the hyperbaric unit of the Research Institute of Clinical and Experimental Surgery are not surprising. It is indeed a unique medical and engineering project.

The principle behind this unit is simple: The higher the air pressure, the more air is absorbed by both the hemoglobin and the blood plasma. If pure oxygen is used under pressure, the blood, and thus the entire body, will be forcibly saturated with oxygen. When patients are placed in high-pressure chambers, the effects are dramatic. Hyperbaric oxygen enrichment of the blood can work miracles in cases of cardiovascular disease, poisoning and labored breathing, and it prevents gangrene.

According to Professor Sergei Efuni, director of the hyperbaric unit, "Today various forms of cardiac insufficiency, myelosclerosis and lung diseases are treated in pressure chambers. They also look very promising for resuscitation. A great deal of work has been done on hyperbaric oxygenation in the last 10 years in

the United States, Japan and many European countries. We have been manufacturing pressure chambers in different sizes—for example, for ambulances and infants—in our country, and we are also planning to install them in helicopter ambulances. But even so, this new center is unique."

The professor talked to me in the middle of a tremendous room four stories high. There are six pressure chambers along two of its walls.

The chambers are divided into three sections: surgical, therapeutic and experimental. They communicate with one another and can function either as a single unit or separately. A team of surgeons can work in the spacious operating room (70 cubic meters\*), while patients with cardiovascular and lung diseases are treated in the therapeutic unit (also 70 cubic meters), and research is being done in the experimental unit (40 cubic meters). The total volume of the chambers is close to 300 cubic meters.

"The pressure chambers are particularly important for surgery," the professor continues. "You can imagine the complications that may develop during operations, especially on the heart and blood vessels! Cutting off the blood supply to the heart and the brain is especially dangerous. But in the pressure chamber there is no risk of oxygen deficiency. The body can get oxygen from both the hemoglobin and the plasma. An operation which under conventional conditions took several hours can be done in a pressure chamber in minutes. Take, for example, the

\*One cubic meter equals 35.3 cubic feet.

removal of a blood clot from the carotid artery. Usually the blood has to be detoured from the involved area, and numerous other safeguards have to be taken. All the time, we are working against the clock.

"In the pressure chamber, however, we can go straight to the artery, because we know that the brain will not experience any oxygen deficiency. The operation takes only about 30 minutes."

Other specialists also spoke enthusiastically of the pressure chamber's potentials. Hyperbaric oxygenation could successfully treat such disorders as stomach and other slow-to-heal ulcers, as well as inflammation and obstruction of the arteries, thus opening a new era in medicine.

### They Can Hear Again

PEOPLE are beginning to hear again after being deaf for many years. What makes this possible? Our research brought us to young Dr. Yuri Ulyanov's office at the Moscow Ear, Nose and Throat Research Institute.


"Like most doctors, you probably dreamed of being a physician as a child, didn't you?" I began.

"I wanted to be a radio engineer," he replied. "That was what I liked best at school, but when I got to college, I changed my mind. I realized that machines do nothing more than simulate functions of the human body. After I came to that conclusion, I decided to go to medical school. Later, when I studied the structure of the ear, I was astonished by how beautifully and efficiently it was designed. That is how I became an ear, nose and throat specialist."

By Maya Ignatenko  
Science Commentator,  
Soviet Union Magazine

Photographs by Yuri Rybchinsky,  
Yuri Bagryansky, Mikhail Grachev,  
Anatoli Zibin and Victor Reznikov





Pressure chambers have revolutionized many types of surgery, especially vascular surgery. This hyperbaric unit consists of six chambers divided into three sections: surgical, therapeutic and experimental. A team of surgeons could be operating while patients are being treated in the therapeutic section and research is under way in the experimental section.

## NEW TECHNIQUES IN MEDICAL TREATMENT

# MEDICINE



*No social task is more important than concern for the health of Soviet people. Our achievements in this area are universally known. But we must also see the problems in this field. They are linked with the improvement of the organization of medical care, the enlargement of the network of hospitals and polyclinics and the growth of the output of medical equipment and highly effective medicines. Moreover, they are linked with the further progress of medical science and with the energetic drive against the most dangerous diseases.*

*From the Report of the Central Committee of the Communist Party of the Soviet Union to the Twenty-fifth Congress of the CPSU*



Professor Sergei Efuni is head of the hyperbaric department of the Moscow Research Institute of Clinical and Experimental Surgery.

American doctors Jonathan Rhoads and George Rosemont talk shop to Soviet scientists Edward Vantsyan and Vitali Lukich at the institute.



**Soviet medical research is being carried out today in over 400 research institutions by 67,000 researchers. New drugs, instruments and treatment techniques are also being developed in health care facilities staffed by more than 832,000 physicians and specialists.**

### **Air Pressure Can Be Therapeutic**

**U**NUSUAL is the best word to describe this hospital. Inside, it has been compared to a submarine, a computer center, even a space station! These attempts at description of the hyperbaric unit of the Research Institute of Clinical and Experimental Surgery are not surprising. It is indeed a unique medical and engineering project.

The principle behind this unit is simple: The higher the air pressure, the more air is absorbed by both the hemoglobin and the blood plasma. If pure oxygen is used under pressure, the blood, and thus the entire body, will be forcibly saturated with oxygen. When patients are placed in high-pressure chambers, the effects are dramatic. Hyperbaric oxygen enrichment of the blood can work miracles in cases of cardiovascular disease, poisoning and labored breathing, and it prevents gangrene.

According to Professor Sergei Efuni, director of the hyperbaric unit, "Today various forms of cardiac insufficiency, myelosclerosis and lung diseases are treated in pressure chambers. They also look very promising for resuscitation. A great deal of work has been done on hyperbaric oxygenation in the last 10 years in

the United States, Japan and many European countries. We have been manufacturing pressure chambers in different sizes—for example, for ambulances and infants—in our country, and we are also planning to install them in helicopter ambulances. But even so, this new center is unique."

The professor talked to me in the middle of a tremendous room four stories high. There are six pressure chambers along two of its walls.

The chambers are divided into three sections: surgical, therapeutic and experimental. They communicate with one another and can function either as a single unit or separately. A team of surgeons can work in the spacious operating room (70 cubic meters\*), while patients with cardiovascular and lung diseases are treated in the therapeutic unit (also 70 cubic meters), and research is being done in the experimental unit (40 cubic meters). The total volume of the chambers is close to 300 cubic meters.

"The pressure chambers are particularly important for surgery," the professor continues. "You can imagine the complications that may develop during operations, especially on the heart and blood vessels! Cutting off the blood supply to the heart and the brain is especially dangerous. But in the pressure chamber there is no risk of oxygen deficiency. The body can get oxygen from both the hemoglobin and the plasma. An operation which under conventional conditions took several hours can be done in a pressure chamber in minutes. Take, for example, the

\*One cubic meter equals 35.3 cubic feet.

removal of a blood clot from the carotid artery. Usually the blood has to be detoured from the involved area, and numerous other safeguards have to be taken. All the time, we are working against the clock.

"In the pressure chamber, however, we can go straight to the artery, because we know that the brain will not experience any oxygen deficiency. The operation takes only about 30 minutes."

Other specialists also spoke enthusiastically of the pressure chamber's potentials. Hyperbaric oxygenation could successfully treat such disorders as stomach and other slow-to-heal ulcers, as well as inflammation and obstruction of the arteries, thus opening a new era in medicine.

### **They Can Hear Again**

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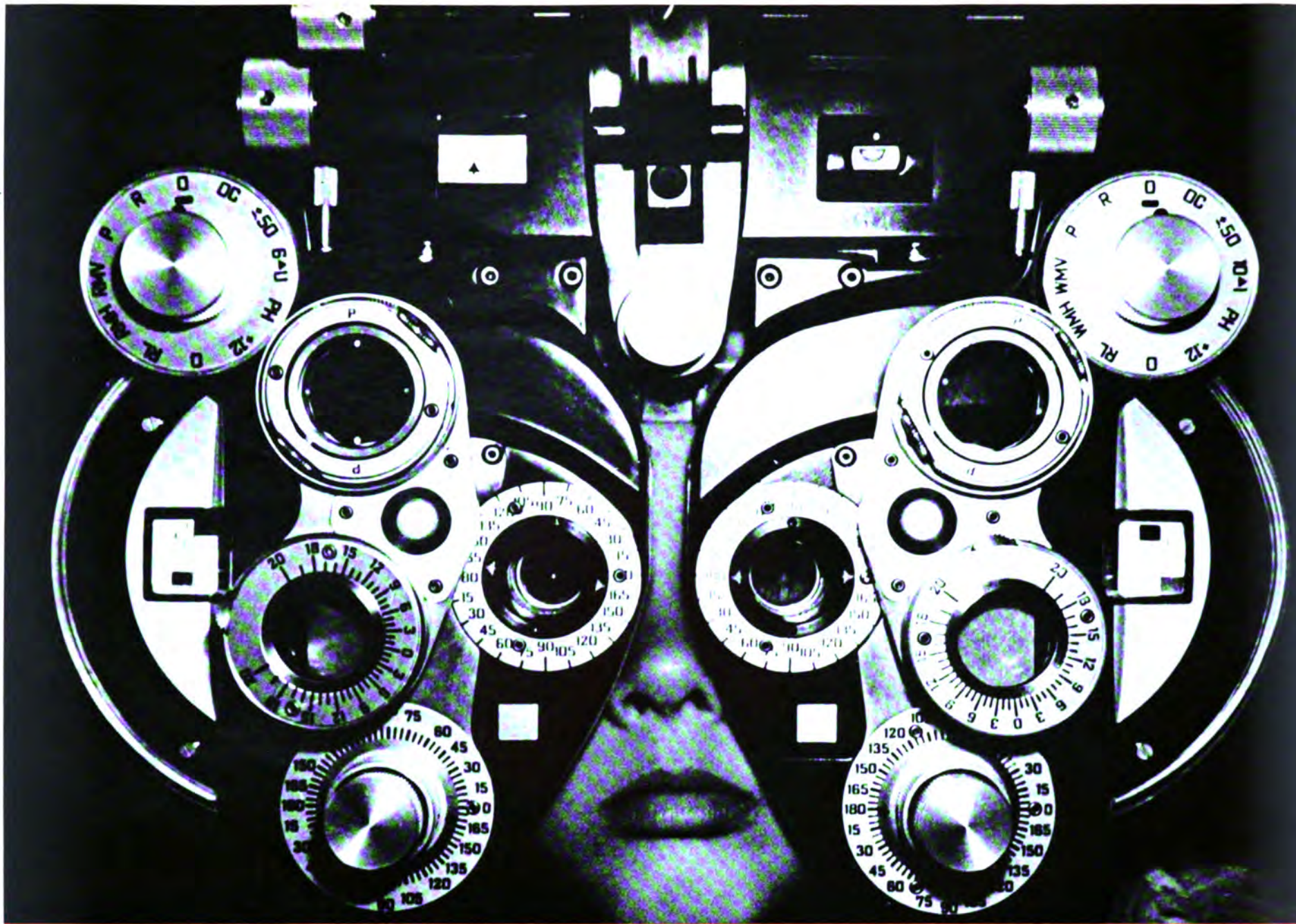
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But Ulyanov's interest in engineering stood him in good stead when he became a doctor. He began to specialize in operations to restore hearing, displaying the precision and technical aptitude necessary to design amplifying devices and place them in his patients' ears. They were able to hear again but often not for long: Inflammation lodged in a tiny, almost inaccessible cavity, the mastoid antrum, which neither medicines nor instruments could reach.

In 90 per cent of the cases that originate in childhood, this disorder results in deafness and, sometimes, even death—if the infection reaches the brain. Operations to treat inflammation in the cavity inevitably resulted in permanent deafness.

But Ulyanov solved the problem. He found a way to enter the mastoid antrum without destroying the patient's hearing.

The antrum evolved when two bones in the head joined together as terrestrial vertebrates first appeared. The slit between the bones fused tightly, but a tiny formation at the beginning of the already invisible seam remained. Ulyanov proved that the antrum could be entered at that point.

But the correct angle of approach to the antrum had to be

Original methods of treating strabismus have been developed at the Helmholtz Research

Institute of Eye Diseases in Moscow. By

a series of special exercises and an operation, which is only one stage in the procedure, normal eyesight

is restored in 35 to 40 per-cent of the patients. Since the

success of the treatment depends upon how early the condition comes to the attention

of specialists, special kindergartens

are being set up in various parts of the Soviet

Union for children who have a tendency to be cross-eyed. In

such kindergartens the children are constantly observed by doctors, teachers and psychologists.





found. That was a complicated problem because the angle varies from zero to 55 degrees in different individuals.

Dr. Ulyanov uses a tiny drill and, after determining the exact point and angle of entry, makes a tiny hole. A thin plastic tube is inserted in the aperture through which an antibiotic is injected.

Ulyanov explained that "the antrum has to be injected five to six times before the patient can be discharged, and then another few times in an outpatient clinic. The tube is then removed and the bone heals over. In a year the patients undergo another operation to improve their hearing."

I saw some of his patients, spoke to them, read their comments in the hospital visitors book. Many of them had been deaf for a long time, and no medicine, therapy, or operation had helped. Now they could speak to me and hear me too.

Researchers at the institute have worked out a method to determine the surgical angle that today is used by many physicians in our country and abroad, and hundreds and hundreds of patients have now been operated on successfully.

### No Case Is Hopeless

**G**AVRIIL ILIZAROV, a surgeon in the Siberian city of Kurgan, has a reputation for

performing fantastic medical feats—he has extended patients' legs by 20 or more centimeters,\*\* he has made crippled people walk normally.

This future miracle worker, a native of the Caucasus, began his medical career in a little district hospital in Siberia. There he treated children, delivered babies, and, of course, performed operations while making his rounds throughout the district.

When treating patients with new or poorly mended fractures and dislocations, he did the best he could, using traditional methods, including the plaster cast. The limitations of this were obvious: While it kept the fractured bone in place, the cast prevented the joints and muscles from getting the exercise they needed.

After several years, Ilizarov, by then working in a regional hospital, perfected an unusual device which consisted of two rings with crisscrossed spokes. The spokes are passed through the bone, with one ring above the fracture, the other below it, and four rods alongside the bone connecting the two rings. The broken sections of bone are pressed together by tightening screws on the rings. Thus the broken bones are kept in place, but the joints are not immobilized.

Although his device was con-

\*\* One centimeter equals .4 inches.

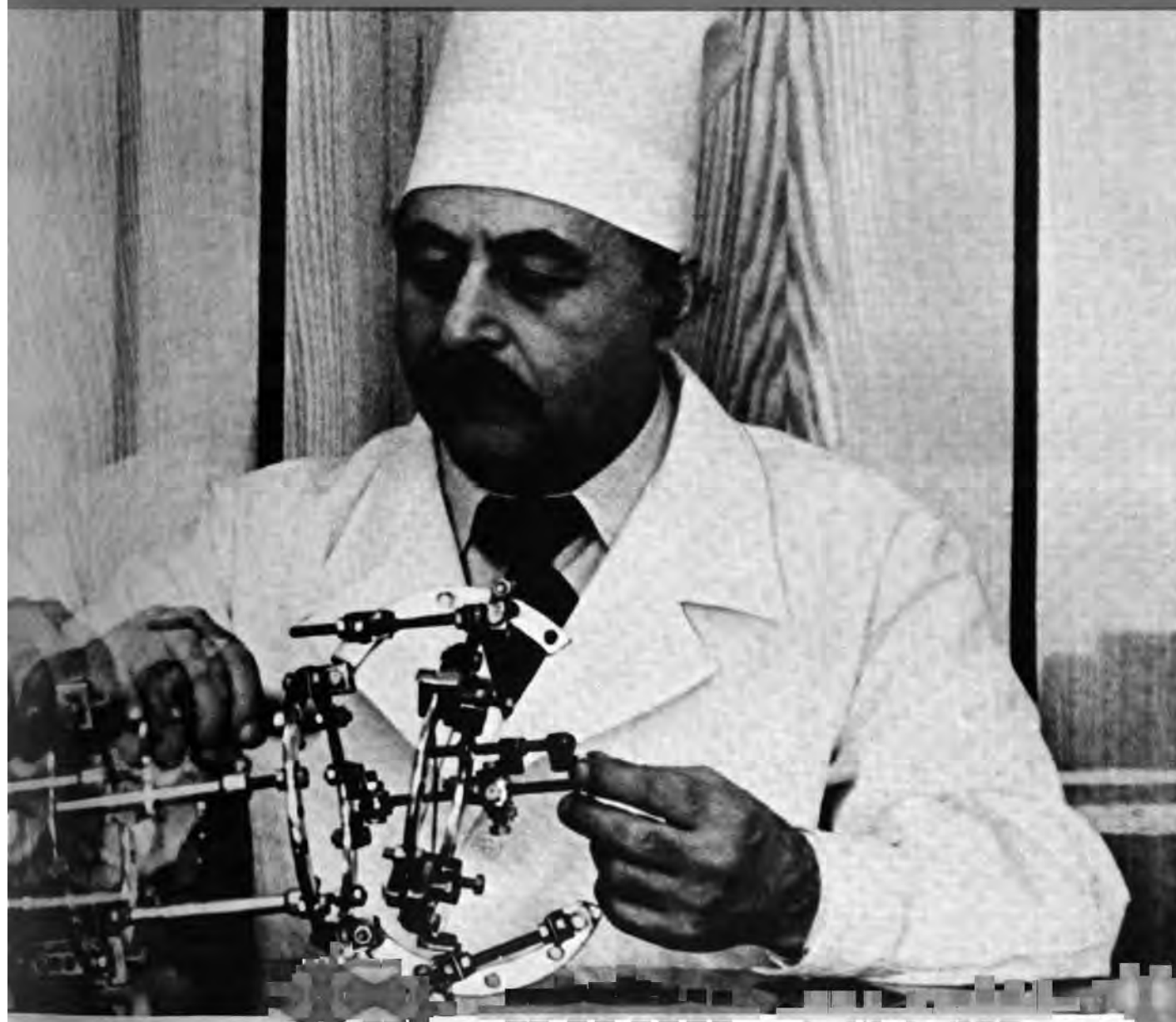
The Institute of Pediatrics in Moscow treats children referred by doctors from all over the country. The latest medical equipment is available to its specialists, including this monitor that registers all the vital signs.



Dr. Yuri Ulyanov performing the successful operation he devised to treat otitis, a disease that causes deafness. A tiny hole is bored in a bone in the ear, a tube inserted into the antrum and the cavity syringed. The operation takes only 15 to 20 minutes and the patient spends only five to six days in the hospital.



Dr. Gavriil Ilizarov straightens and lengthens the limbs of crippled patients with this strange piece of equipment he invented. His device is used in most of the country's large hospitals. Below: One of the legs of this former patient was 15 centimeters shorter than the other. Can you tell which one?





# DIAL 03



This ambulance answers calls concerning motor vehicle accidents.



Left: Ambulances, fire engines and the police can be summoned from one of these callboxes located on Moscow's main streets. Emergency calls can also be placed through any public telephone. Right: Two attendants carrying a special pressurized stretcher.



troversial, people came from all over to be treated by him. He continued to improve and modify it, and began to use it in cases of congenital pseudarthrosis (false joints) and badly distorted and shortened limbs. He was able to straighten and lengthen legs and arms by as much as 25 centimeters.

Today Gavriil Ilizarov, an Honored Doctor of the Russian Federation, heads a research institute in Kurgan, and his special device is being used in over 300 different kinds of therapy in all

the regional and most of the large city hospitals in the country. Over 30,000 former patients are proof of the value of Ilizarov's methods.

Medical science today is a very diversified field. The training of specialized and qualified medical personnel, the establishment and maintenance of scientific centers and up-to-date medical facilities, research and the development of new equipment, all are complicated and

expensive undertakings. The crucial question, however, is who pays the bill? We chose a system under which the patient does not have to make the agonizing

choice between health and the family budget: Our entire society covers the cost of the most expensive medicines and the most complicated operations.





Emergency care centers in Moscow provide immediate treatment and follow-up care for those patients who no longer require hospitalization.



Map showing location of Moscow emergency care centers. Left: If necessary, emergency treatment can be given on the spot.

At any time of the day or night Muscovites can call an ambulance by dialing 03 at public telephones. No coin is necessary. Special emergency callboxes are also located on the city's main streets. Within an average of 30 seconds an ambulance, staffed by a doctor, a paramedic and an orderly, will be on its way. Care can be provided on the spot in the case of a serious accident or life-threatening illness. The ambulances are equipped for fairly elaborate diagnostic procedures and routinely carry splints, respirators, oxygen and anesthetics, in addition to the normal complement of drugs. Increased emergency services, including helicopter ambulances, have reduced the mortality rate for myocardial infarction from 93 to 30 per cent, and shock control ambulances with specially trained crews have reduced the shock mortality rate from 16 to 5 per cent.



# PREVENTION IS THE BEST TREATMENT

**Natalya Larina of  
*Literaturnaya Gazeta*  
interviewed Nikolai Malov,  
head of the department of  
public health and the medical  
industry of the State Planning  
Committee of the USSR  
Council of Ministers.**

**Q:** Several lines in the Report of the Central Committee of the Communist Party of the Soviet Union to the Twenty-fifth Party Congress are devoted to public health. . . .

**A:** Only a few lines, but they are very important. The Soviet public health service is concerned with healthy people as well as sick, with improving general health as well as controlling disease. "Prevention is the best treatment" is our motto.

Healthy living and working conditions are essential for the prevention of disease. Moscow is generally acknowledged as one of the cleanest cities in the world, and the medical profession is to a large extent responsible. Doctors closely monitor air and water pollution levels.

Medicine has become one of the largest branches of the Soviet economy. The number of hospitals grew considerably during the Ninth Five-Year Plan period. Many specialized and general hospitals, as well as research institutes and sanitary-epidemiological stations, were built during that period. The number of sanatoriums and health resorts also increased.

A total of seven billion rubles was invested in public health during the Ninth Five-Year Plan period.

**Q:** Recently a group of American doctors toured the Soviet Union. They said that they were particularly impressed by the rapid spread of disease prevention efforts and medical care throughout the country. Do you think they were referring to the eradication of a number of infectious diseases?

**A:** Not only to that. But we did get rid of many infectious diseases in a relatively short time. For instance, we eliminated smallpox in 15 years. The incidence of polio decreased by 50 times between 1959 and 1965, and the incidence of diphtheria by 31 times. There has also been a sharp decrease in tuberculosis.

**Q:** Today we constantly hear about cancer, cardiovascular diseases and particularly the flu. Where will the greatest efforts be concentrated? Which diseases cost the state the most money?

**A:** In the next 10 to 15 years the emphasis will be on research, treatment and prevention for all

three. Let's take our cancer program as an example. There are 20 cancer research institutes in the country, 249 cancer centers and over 3,000 cancer departments in general hospitals. You can judge how effective the system is from these figures: Over 400,000 patients who have received a combination of treatments have survived over 10 years, and another 400,000 have survived for five years. Achievements in the treatment of cancer are primarily the result of early diagnosis, and preventive physical examinations of the general population are obviously a great help.

The construction of cancer and cardiological centers began in Moscow during the Ninth Five-Year Plan, and a flu institute is being built in Leningrad. During the Tenth Five-Year Plan period cardiological departments will also be added to existing hospitals.

You wanted to know which disease costs the state the most money. The flu. Since all medical care is free in our country and workers continue to receive their wages when they are sick, the state sustains enormous losses during flu epidemics. Unfortunately nothing has yet been invented to prevent the rapid spread of these epidemics not only from one country to another but even across whole continents. I should note, though, that our scientists in Leningrad have developed a new method for obtaining a flu vaccine. The method has been tested and patented in several countries, but we will have to wait to see how effective the vaccine is during an epidemic.

**Q:** Are any new drugs to be produced?

**A:** From 1971 to 1975 over 180 new medicines, including antibiotics and fungicides, and new methods of cancer chemotherapy were made available to the public. In the Tenth Five-Year Plan period the volume of production of the medical industry will increase by more than one billion rubles. Over 200 new medicines will be produced.

**Q:** What new developments in medical equipment can you tell me about?

**A:** In the past few years we have set up diagnostic screening laboratories where dozens of tests are done simultaneously. Everyone knows how much time a complete physical examination takes and these laboratories speed up the process. During the Tenth Five-Year Plan period we will considerably increase the number of diagnostic screening laboratories.

In addition we will be producing over 300 new types of medical equipment, including a blood analyzer that will provide faster and more accurate results, an autoanalyzer that can perform seven different analyses, computerized equipment to monitor the central nervous system and automatic respirators. We will also manufacture more

sophisticated equipment for the monitoring of patients.

**Q:** What are the prospects for rural medical care? Are there any specific problems related to the increased use of chemicals in agriculture?

**A:** Various chemicals are indeed in general use in agriculture. The USSR Ministry of Health has founded the Research Institute of Hygiene and Toxicology of Pesticides, Polymers and Plastics, and rules for the protection of farm workers have been drawn up.

Also we shall continue to build large hospitals with outpatient departments in rural districts. These hospitals and polyclinics will have the latest medical equipment and will handle 15 to 20 departmental specialties. This will help a great deal to bridge the gap between health care in the cities and in rural areas.

**Q:** Environmental protection is becoming increasingly important. What part does the public health service play?

**A:** New state sanitary inspection regulations were adopted in 1973. This document gave the state sanitary inspection service additional powers. The USSR Ministry of Health was assigned the task of controlling the use of new chemical compounds in the production of foods, growth regulators for plants and livestock, pesticides, polymers and plastics. Standards for new kinds of raw materials, food products, manufactured goods, containers and packaging materials, building and synthetic materials must now be coordinated with agencies of the sanitary-epidemiological service.

In our country working conditions must satisfy strict standards. The present rules cover all branches of industry and agriculture without exception. Admissible concentrations of 500 substances have been determined for working areas.

In the Russian Federation, for instance, since 1971 funds for environmental protection have been a compulsory part of the economic plan of the republic. In spite of an increase in production capacities, air pollution levels have been reduced in Moscow, Leningrad, Sverdlovsk, Togliatti, Kuibyshev, Makeyevka, Kharkov and other industrial centers.

In 146 cities, where the fluorine content in the water supply and in the soil has been reduced, facilities have been built for the fluoridation of drinking water, in 16 more cities construction is under way, and in six other cities plans for such units have been completed. This is a very important project. According to official data, in Murmansk the incidence of tooth decay among children of preschool age whose tooth formation coincided with the introduction of fluoridation has been reduced by 24 per cent, and among school-children by 22 per cent.



# MEDICINE

**MEDICAL FACILITIES** Under the Ninth Five-Year Plan (1971-1975) the state spent 29.7 per cent more on health care than in the previous five-year period, a total of 52 billion rubles. Seven billion rubles were allocated just for the construction of medical facilities.

**MORE DOCTORS** In 1975 public health expenditures exceeded 11.2 billion rubles. In the same year the number of doctors increased by 33,000 to 832,000. At present there are 33 doctors per 10,000 of the population.

**HOSPITAL BEDS** By the end of 1976 the number of hospital beds will reach 3.1 million. The output of drugs and medical equipment will increase by nine per cent, and the number of doctors will reach 860,000.

**PEDIATRIC AND OBSTETRIC CARE** The Soviet Union has over 20,000 pediatric and obstetric-gynecologic clinics. There are more than 200,000 maternity beds in Soviet hospitals.

**PREVENTIVE MEDICINE** There are more than 3,000 preventive medicine centers of various types in the USSR. More than 109 million adults and 56 million children have annual check-ups.

**MEDICAL RESEARCH** Medical research is carried out in more than 350 institutes and laboratories, 100 medical schools and departments of medicine, and in specialized refresher courses for doctors.

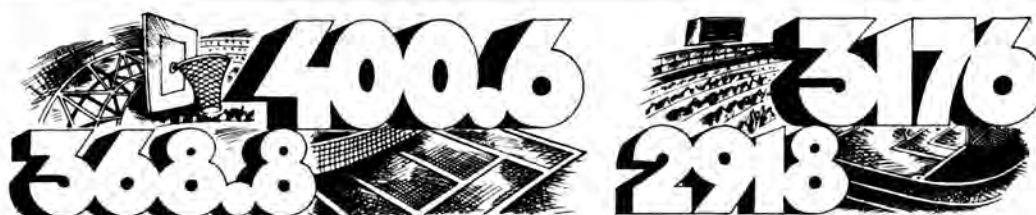
**CANCER TREATMENT** Over 1.5 million people who have been cured of cancer by modern methods are now living normal lives in the Soviet Union. In the past 10 years the number of patients cured of cancer has risen by 41 per cent. The cancer mortality rate in the USSR is 20 to 25 per cent lower than in developed capitalist countries.

**HEART DISEASE** Thirty years ago more than 40 per cent of all heart attack victims died within two months. Today 8 out of 10 patients who have suffered a myocardial infarction return to their previous job.

**EMERGENCY CARE** There are more than 21,000 surgeons and other physicians and 52,000 paramedics and nurses in the Soviet emergency medical service. Each day over 5,000 emergency operations are performed.

**FREE HOSPITALIZATION** One month's hospitalization costs the state 240 rubles per patient. The patient pays nothing.

**LIFE EXPECTANCY** The average life expectancy in the USSR increased over the past 50 years from 32 to 70 years. Today there are over 20,000 citizens in the USSR over 100 years of age.



There were 400,600 ball courts in 1974 compared to 368,800 in 1970, and the number of stadiums for 1,500 or more increased from 2,918 to 3,176.

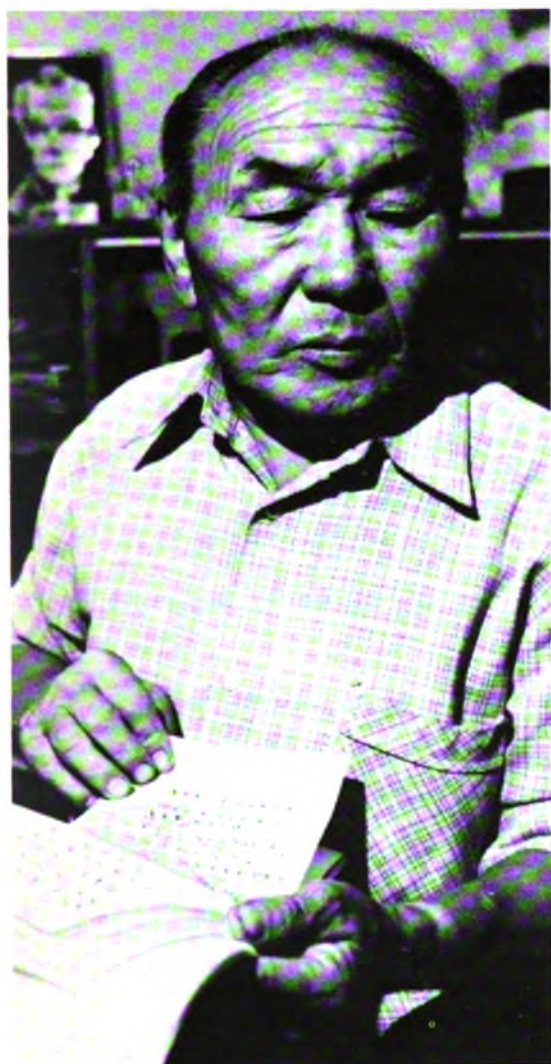


Some 10,978,000 children were in day care facilities in 1974 compared to 9,281,000 in 1970.



In 1974, 27,464,000 people spent their vacations at health resorts, an increase of over 10 million from the 1970 figure of 16,836,000.





**Tuvian playwright and actor Maxim Munzuk. He recently starred in the Soviet-Japanese film *Dersu Uzala* and celebrated his fortieth year on the stage. He has five children. The eldest son is a pilot and a deputy to the Supreme Soviet of the Russian Federation. The second son is an engineer and the youngest an art director. His older daughter teaches, the younger is a student at a theater school.**

The small nationalities of Siberia are in the mainstream of contemporary Soviet life, with their own trained professionals: engineers, doctors, writers.

## Krasnoyarsk

**K**RASNOYARSK, with 800,000 residents (third in population in Siberia after Novosibirsk and Omsk, each with a million), is the Yenisei's capital. It started, like most old Siberian towns, as a stockade, a fort. Three and a half centuries ago (in 1628, to be exact) "Andrei Dubensky and his retainers . . . chose a suitable spot on the steep shore of the Yenisei River, high and attractive, with many forests nearby, and much arable and pasture land," the local military governor reported to Moscow. On a small plot of land surrounded by a high paling with three watch-towers and two towers at the gate, were sited a scribe's cabin, the governor's home, Cossack winter quarters, barns, a government sable warehouse, a bath-house and a little church.

And here is what Krasnoyarsk was like in 1897, after czarist Russia's first and last population census: It had 26,000 residents (10 per cent of them exiles), about 300 clergymen, 31 teach-

ers and 18 physicians. The city hospital accommodated 140, the prison hospital, 220. There was no plumbing, no electricity, not a single paved street.

Preparing to celebrate its 350th anniversary, Krasnoyarsk today deserves a detailed description. But we will confine ourselves to some statistical data.

The city's 120 industrial plants turn out high-power cranes, silk fabrics, combines, paper and photographic paper, aluminum, washing machines, TV sets, Yenisei pianos, automobile tires, medicines and one million school notebooks a day.

Its 52 specialized schools, seven of them institutions of higher education, train musicians, metallurgy engineers, agronomists, physicians, teachers, historians, mechanics, power engineers, machine and road builders, river workers, lawyers, foresters.

Forests are one of the subjects of study at four institutes (the main subject at the Siberian In-

stitute of Forestry). Biologists, biophysicists and magnetologists conduct research in the academic town.

The city has four professional theaters. Its Siberian Dance Ensemble has toured more than 30 countries all over the world.

Eight thousand physicians service 112 hospitals and clinics. To keep the number of patients down and bring the number of healthy persons up, the city has 17 stadiums, 118 gymnasiums and 16 ski centers (also the Soviet Union's longest cable ski lift and the highest ski jump).

About 400 of Krasnoyarsk's citizens have earned the title Master of Sports and 11 the title Snow Leopard, awarded mountain climbers who have scaled the Soviet Union's four 7,000-meter<sup>4</sup> peaks. Engineer Rosalia Bezzubkina and designer Nina Lugovskaya are two of the Snow Leopards.

Wrestler Ivan Yarygin, a Munich Olympic champion, was born in a little village near the Sayan Mountains.

The city's airport handles four million passengers a year. Regular flights link Krasnoyarsk with all the big cities of Central Asia, Siberia and the Far East, with the health resorts of the Crimea and the Caucasus, with Moscow and Leningrad, as well as with all the districts of the Krasnoyarsk Territory and with Tuva. The railroad line to Moscow—the trip takes 70 hours—is electrified.

Krasnoyarsk has 560 kilometers of trees and bushes lining the streets, and 230 public gardens with an average area of 2.5 hectares<sup>5</sup> each.

### Shipyard Memorial

The ship-repair yard on the bank of the Yenisei grew out of local shops. The area's working class came from the railroad workshops. From those, the Yenisei's proletarians marched in 1917 to take over their city.

River workers who come of working class stock, the crews of ships that winter in the backwater and are registered with the ship-repair yard, are first and second generation sons and daughters of river people who navigated paddle-wheel steamers up and down the Yenisei and run the ships today, spring through fall. In the winter they repair refrigerators and tankers, electric and motor vessels, and a hydrofoil fleet. Young people, overflowing with energy. Every second one was born after the war.

What I saw some of them doing, however, was polishing the raised letters on a memorial in the shipyard.

"They gave their lives for their country," the inscription reads, and lists those who did not return to the yard after the war. There were more names than

<sup>4</sup> One meter equals 3.28 feet.

<sup>5</sup> One hectare equals 2.47 acres.

a single slab could hold. . . . I read:

P. P. Sakunov, soldier  
A. P. Sakunov, soldier  
I. P. Sakunov, sergeant

They were not just men who happened to have the same last name, they were all from one family. Only Mariya Sakunova, mother and widow, survived. Like her husband and sons, she worked on the river. For more than 30 years—before the war, during the war and after three death notices in a single year.

The banks of the Yenisei were not touched by war. But walk along Krasnoyarsk's main street, and you will come to a building with the nameplate Patriotic War Invalid Hospital.

Solemn Young Pioneers stand watch at an eternal flame.

Soviet publications from the war years (1941-45) are stored in a chest coated with hydro-insulating varnish and covered with a layer of ice. The chest was placed at the bottom of an ice well nine meters deep, the world's only permafrost museum. The well hasn't thawed in a thousand years.

The chest will not be opened until May 9, 2045, still 69 years to go. But the custodian—he hands it on like a relay baton—says that when the chest is finally opened, the papers will be as fresh as if they were just taken out of the mailbox after the morning mail delivery.

### Shipbuilders

The shipbuilding yard is younger than its neighbor, the ship-repair yard. But it has been building ships for a quarter of a century already. First they were 75-horsepower boats for Siberian ports, then roadstead motor tugs, and now heavy freighters, modern vessels as much at home at sea as on a river. They are even called river-sea ships.

What wonderful people they are, these Siberian shipbuilders! Two elderly men are having a conversation in the shipyard.

Victor Pekarsh was not yet 10 when he found himself behind bars. His parents, Polish revolutionaries, had been exiled to Siberia by the Russian czar (Poland was then part of the Russian Empire). But even there, far from home, they kept fighting the czar. They hailed the October 1917 Revolution. During the Civil War, the White Guards threw the Pekarshes (husband, wife and two little children) into Krasnoyarsk's jail. The names of Grigori Pekarsh and his wife are today inscribed on a monument over a 1919 common grave: Victor's father and mother were executed by the White Guards.

Victor was brought up by friends of the family. He graduated from an aviation institute, and in 1936 went to Spain to

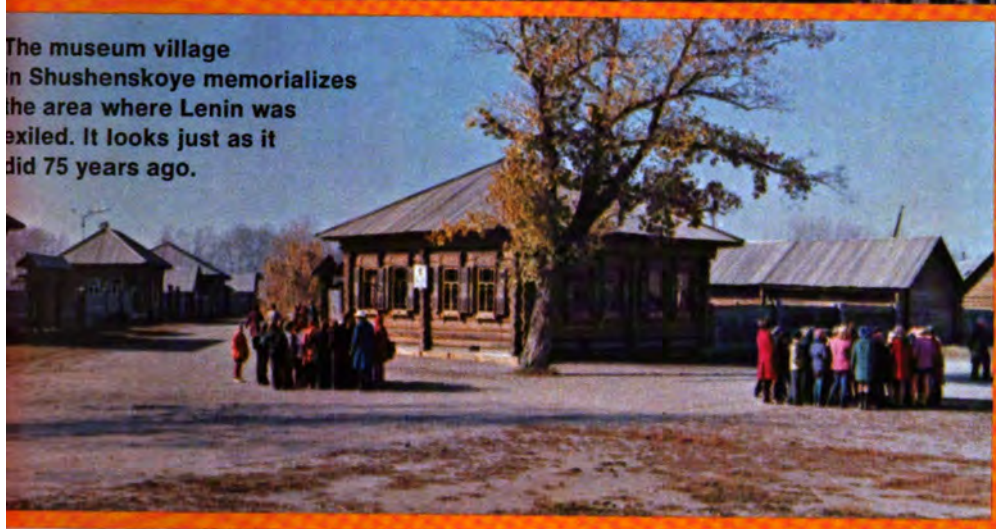
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Sayanogorsk is one of the youngest towns on the Yenisei, 1975 vintage.



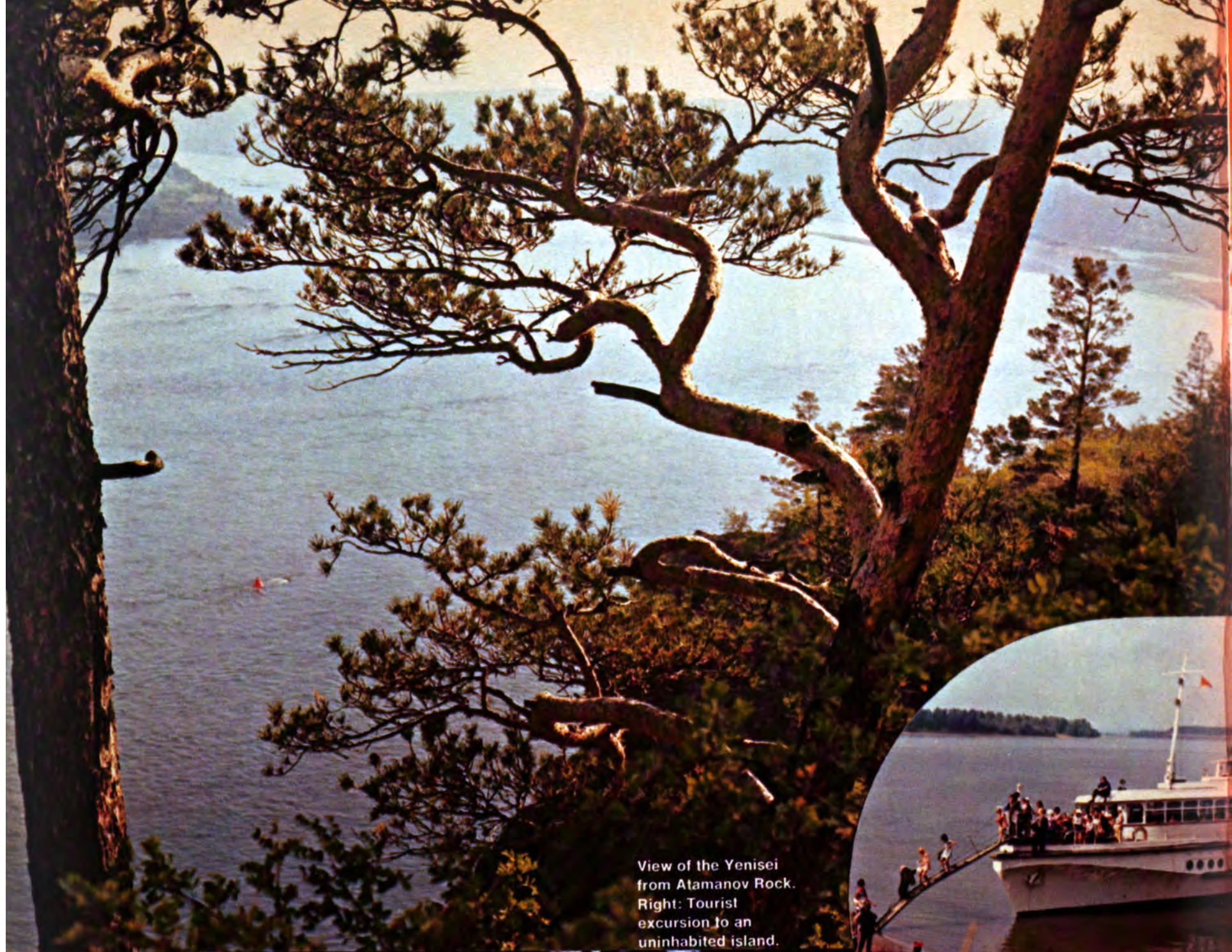
The museum village in Shushenskoye memorializes the area where Lenin was exiled. It looks just as it did 75 years ago.



Students from all over the country spend their summers working on the Sayan Complex. These are from nearby Krasnoyarsk.







View of the Yenisei  
from Atamanov Rock.  
Right: Tourist  
excursion to an  
uninhabited island.



Young Pioneer summer camp in a pine grove north of Krasnoyarsk, near an old village, Atamanovo. It is situated on the Yenisei and accommodates 1,000 children from the northern city of Norilsk every year. Their parents work in steel mills and mines. The youngsters travel 2,500 miles to get there, not unusual for Siberia's distances.







**Captain Mikhail Selivanov of the *Chekhov*.**  
Below: Yevgeni Kudinov, 28,  
builds electric transmission lines.

*Continued from page 24*

fight against fascism in the International Brigade side by side with volunteer Hungarians, Frenchmen, Americans and Czechs. He distinguished himself in action and was decorated with the Order of the Red Banner.

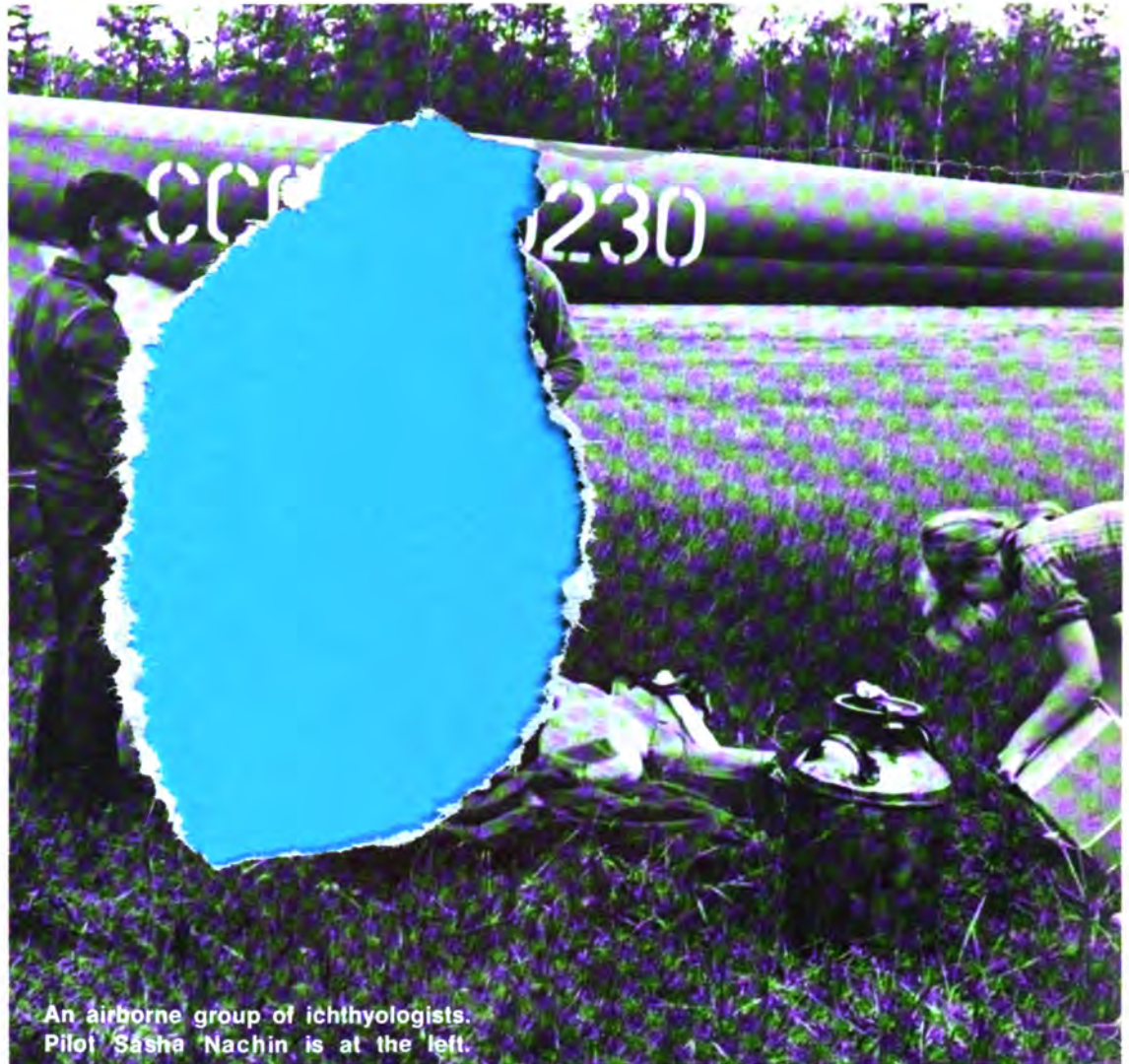
In 1941, when Hitler attacked the Soviet Union, Pekarsh was not placed on active service, but sent to Krasnoyarsk as shop superintendent in a shipyard. He worked his way up to chief engineer and in 1954 was appointed director of another shipyard. Now Pekarsh is retired and lives far from Krasnoyarsk, but he is here for a visit to his parents' grave, to see his friends, to look around the yards and recall the old days.

The man he is talking with is Ivan Manakov. Also a shipbuilder, founder of a Krasnoyarsk worker's dynasty, as we say here. His elder son, Victor, is an engineer at the same shipyard. A second son, Herman, is a foreman in the assembly shop, and the youngest, Vladimir, took a job at a neighboring plant after graduating from technical school. But Manakov's daughter Olga remained at his side—she is also a shipbuilder, like his daughters-in-law Galina and Nina. They are all Manakovs. It seems not very long ago that the first Manakov began building ships; today the family claims a record of more than 100 years in shipbuilding.

Ivan Manakov retired on pension but soon returned to the yards. He couldn't live an old man's life, just fishing.

### The Captain

The *A.P. Chekhov* is heading along the river. The shores are asleep. So are the passengers. Mikhail Selivanov is standing



An airborne group of ichthyologists.  
Pilot Sasha Nachin is at the left.



watch, from 10 P.M. to 4 A.M., the captain's watch.

The *A.P. Chekhov* is hastening northward, and the taiga is retreating into invisibility to the south.

The captain's eyes are accustomed to the deckhouse gloom. You can just about make out three silhouettes—the captain, the navigator and a sailor. Through the glass the river is a thin strip gradually emerging in the light.

"No wind and yet its rough. Very strange. Very strange."

That's a habit of Selivanov's, repeating his last few words.

"Not too much to starboard. Hold it. Hold it."

His voice sounds comfortable, but it's really an order, firm, tested by experience.

The captain's voice has a captainlike ring, but it has shadings, too. I've heard him recite poetry. He knows an astonishing number

What sort of people seem to suit the Yenisei River area? Hardy people with vision as large as the Siberian expanses, strong people prepared to cope with the hazards and promises of a powerful and willful river. Their occupations? More likely than not, they are road builders, power engineers, geologists, testifying by their professions to the priority development of this region with enormously rich potential.

of poems from memory, and all of them seem to be about the Yenisei.

Selivanov's great-grandfather was from the Volga, but he was a farmer, not a riverman. Grandfather arrived in Siberia when he was a little boy. And his grandson was drawn to the river at an early age.

"But I still love the steppe. Mother used to wake me up early, while it was still dark—a peasant's life. . . . I sometimes have a real longing for the village."

But Selivanov is just making small talk after the night watch, over a glass of strong tea. Practically a whole lifetime on the Yenisei, that's not to be taken lightly. He was 17, a fledgling sailor, when he stood his first watch. Young as he still is, he already has 30 years on the captain's bridge to his credit, 15 of them on the *Chekhov* alone.

"How many times have you gone up and down the Yenisei? 500?"

"I've never cruised the upper reaches. Just from Krasnoyarsk to Dudinka and back. Probably a thousand runs."

"So you must have covered a good two million kilometers?"

"I never added it up."

With the return run, Mikhail Selivanov was rounding off the current navigation season, his fortieth on the Yenisei. The mayor of Krasnoyarsk, who was to meet the captain at the pier, is just a little over 30. One day some 25 years ago Captain Selivanov ("Uncle Mikhail") led a little Yenisei boy, whom he came across now and then, up the ramp onto the deck of his motorship. He showed him the chart-house and took him to the captain's bridge. That was the future mayor's first visit aboard the big ship from the South.



# REGIONAL NEWSPAPER



*Volgogradskaya Pravda* gets an average of 200,000 letters a year from readers, dealing with questions of concern, or six, are each week with criticism in the Reader Action."



*Volgogradskaya Pravda* has been published daily since 1917 without interruption even during the war. The editorial offices are in this building. Right: editor in chief Victor Rostovshchikov.

By Anatoli Prazdnikov  
Photographs by Stanislav Golubev

AS I WAS PUTTING the finishing touches on this article, the 17,269th issue of *Volgogradskaya Pravda* was rolling off the presses. The first one had to be years back, in fact, the paper is on the way to its sixtieth anniversary. It was founded on May 31, 1917, at a city meeting of Communists, and was named *Borba* (Struggle). It has been coming out regularly ever since.

Poyotr Ulyev, once the staff war correspondent, now on pension, recalls that the paper was published all through the Battle of Stalingrad (now Volgograd) in 1942-1943, though the city was in flames and the battle was raging in the streets.

"A nazi bomb made a heap of rubble out of the editorial office and the print shop," he says. "Most of the staff went to fight at the front, but we continued to get the paper out in a print shop on wheels, just a few small pages, of course. I can't say it was up to our standards technically, but it was readable."

Today *Volgogradskaya Pravda* is published six times a week in four large-size pages. Circulation is 215,000, a large part by subscription. At two kopecks a copy the paper makes a profit; annual income tops a million rubles.

In 1967, when *Volgogradskaya Pravda* celebrated its fiftieth birthday, it was awarded the Order of the Red Banner of Labor. At various times in contests held among USSR papers *Volgogradskaya Pravda* has won many awards

## The Editorial Staff

As with all morning papers, the staff is busy till well into the night. The telephones don't stop ringing, the teletype clacks along constantly. Someone is always going out on assignment and someone else is coming back. One group is making up tomorrow's issue, another is planning the following day's. Correspondents are filing the news from all over.

Handling the news as it comes in is taken care of as a matter of routine, but all 11 departments of the paper are also working on long-term, as well as current, plans.

Assistant editor Lev Kukanov says:

"With plans, we guard against overlooking important subjects and events."

The staff of 40 works as a team, relations are good. Some are quite well-known writers: Vsevolod Yershov, for example, is the author of the TV film *Battle of Stalingrad* that was bought and televised by many Western broadcasting companies. Vladimir Bogolyubov is a member of the Union of Soviet Writers, author of several books.

The editor is Victor Rostovshchikov, a native of the city. When the nazi army forced its way into Stalingrad, he was in the ninth grade. He volunteered for military service, where he did demolition work.

When Rostovshchikov was demobilized, he started out on the assembly line at the Volgograd electric power station. Soon he began contributing articles to the factory paper. In 1950 he got the job of special correspondent of a regional paper. His education, interrupted by the war, was completed at that time by correspondence. In the years that followed he worked for such important Soviet papers as *Pravda*, *Literaturnaya Gazeta* and *Izvestia*. Finally, in 1973, the seasoned newspaperman returned to his native city to head the editorial staff of *Volgogradskaya Pravda*, bringing with him the results of his Moscow experience: the journalist's selective eye, a broad and sophisticated knowledge of public life, and the ability to discern the essentials of problems and developments.

What are the paper's guiding principles? The editor says:

"Our paper is the organ of the Volgograd Regional Committee of the CPSU and the Regional Soviet of Working People's Deputies. Like the entire Soviet press, we have the responsibility of publicizing progressive developments, of fighting everything that inhibits progress. To sum it up, we are not satisfied merely to record events."

## Tone of the Paper

Papers and periodicals have their characteristic tone. *Volgogradskaya Pravda's* is best described as calm. A principle of Soviet journalism is the avoidance of sensationalism. It does not give space to titillating crime and scandal.

Yelena Almazova, the managing editor, says:

"It is variety of materials and not sensational items of the moment that make a paper interesting and exciting.

"In our continuing analysis of readers' letters, we learn what they are interested in. Among many other things—developments at home and abroad; party activity; the state of the economy; stories about the region; reportage from construction sites, research laboratories, fine arts studios; travelogues; court trials; articles and comments on the family; bringing up children, especially adolescents; theater reviews, topical satire."

A column that's a favorite with readers is the "Panorama of Events," which deals with the city and region. The column one day, for example, involved workers at the Volgograd Shipbuilding Yard. Through the paper they raised the need for more mechanization on cargo-handling and other jobs. Workers in other industries wrote in to support them. Excerpts from half the many letters sent in were printed in the paper. The Executive Committee of the Soviet of Working People's Deputies discussed the complaints and the supportive letters and ordered the agencies concerned to take remedial steps. The regional scientific and technological society followed up by devoting a special session to the letters and coming out with their own recommendations, which have been introduced at other factories and plants. So, having focused public attention on a need in one industrial area, the paper helped improve production generally.


*Volgogradskaya Pravda* has been discussing environmental problems for quite some time. It has not limited itself to just recognizing and giving voice to the facts. It has assumed the job of campaign organizer. As a result of the paper's efforts, for example, all public motor transport in the city will convert to liquefied natural gas.

The editorial office is keeping a close watch on the water of the Volga River and on its fisheries. It informs the public of industrial violations and keeps its readers abreast of progress in afforestation and enrichment of wild life and in construction of ponds in areas where water is scarce for the development of fish farming. Construction and operation of purification plants is





Anatoli Mikhailovsky interviewing a team of workers at a synthetic fiber factory. A regional paper, *Volgogradskaya Pravda* emphasizes local news, but it covers national and international events as well.



Alexander Chernyshov is the ubiquitous reporter. Our photographer caught him during a May Day parade as he was talking to Vladimir Samoilov, a veteran of the Second World War who fought in the Battle of Stalingrad.

duly noted. Like the other cities and towns on the river, Volgograd is spending on environmental protection hundreds of millions of rubles from funds allocated by the state budget. As a result, the waters of the Volga are much cleaner than they used to be.

Every year, along with the papers of the other Volga regions and republics, *Volgogradskaya Pravda* devotes a special issue to the problems of the river and its resources. One recent issue ran a feature story on the efforts of several republic ministries and the State Committee for Affor-

estation to prevent the pollution of the Volga and the Caspian Sea.

#### Reader's Rostrum

The paper's mail room receives annually an average of 30,000 letters. One in every six gets printed. As a rule, they deal with questions of general concern: ethical problems, the best use of leisure and rest, municipal matters, everyday living. Each week letters with complaints and criticism are published in the column "The

Reader Requests Action." Some 12,000 are forwarded by the editorial office to the factories, plants or agencies directly involved. Every letter gets an answer.

A few months before the opening of the Twenty-fifth Congress of the CPSU, the paper received an especially large number of letters from readers. They were in response to a discussion the paper had initiated on the Draft Guidelines for the Development of the National Economy of the USSR for 1976-1980. The editorial staff then published over 400 articles and



notes that contained proposals for improvement of local industry and agriculture. For instance, the personnel of the Division of the Central Institute of Agricultural Services to Farms suggested the establishment of a broad network of agricultural machinery and agrochemical sectors.

"This would make it possible to use the equipment more efficiently."

Teacher Victor Zotov wrote that the city needed an opera house and a symphony orchestra.

A section of the Guide to the development of small and medium enterprises got special reader reaction. There was interest in the possibility of creating specialized departments and plants. Sergei...

"This policy will make it possible to make changes in the social and economic life of the small and medium enterprises. There are many in Volgograd."

The decisions of the regional press and the discussion of the problems are getting a lot of coverage in the regional press.

#### Window on the region

Like most regional papers, *Volgogradskaya Pravda* does not have a Moscow correspondent in the capital. However, a short shrift of international news and national importance would be considered a weakness in a paper serving a region.

When Victor Rostovshchikov became editor, his paper had already signed contracts with TASS and Novosti Press Agency, the Soviet

similar to *Volgogradskaya Pravda*. More and more, of late, the regional press has been talking up questions of national importance. As a result, not only the local, but also the central, agencies have been listening harder.

A number of USSR and republic ministries not long ago had to answer criticism voiced by the paper. Among these were the Ministry of Power and Electrification of the USSR, and the ministries of Land Reclamation and Management, the Ministry of Tractor and Agricultural Machine Building and the Ministry of Waterways.

Rostovshchikov says, in this connection:

"It is not long to think that once you have received criticism, you've done your job. That's just the beginning. A quick reply, and that's published. If it doesn't satisfy us or looks like we need to write an editorial making clear that the criticism is unacceptable, and we insist on a reply that speaks to the substance of the question."

For several reasons, he explains, why the paper is having more of a say now. One is that the regions are accelerating economic and social development and, as a result, are making an increasing contribution to the division of labor. Another is the high skill of local journalists. Finally, the communication has become more efficient and integrated."

Rostovshchikov wound up our discussion by pointing out that *Volgogradskaya Pravda* is there with countrywide papers when covering events of national and international importance.



Lev Kukanov (center), the assistant editor, preparing the morning edition for the press.

Right: the paper is published six times a week. Circulation is 215,000, a large part by subscription.



TASS teletypes bring domestic and foreign news 24 hours a day.





# Kureyka

EVERY SPRING, I have to confess, I secretly envy the people I see at the Yenisei Steamship Company's travel offices. Lucky ones!—soon to be making all kinds of discoveries, soon to see the shore sailing swiftly by. Soon to sleep in ships' cabins and be invited to set foot on the captain's bridge. Even if they're going only on a brief excursion. I can see them now, ticket in pocket, waiting for the three-decker diesel-electric ship to cast off from the Krasnoyarsk wharf.

Think of it, June, July, August. Absolutely no ice on the Yenisei. You can sail all the way up to Dickson.

Sometimes the banks narrow in on the river, but more often it is the other way around, the river pushing the banks farther and farther apart and flowing freely and broadly. At times, though, a bank turns stubborn, refuses to retreat. Then the Yenisei spreads its arms, takes it captive, and you have an island! Then it goes complacently onward again, down to the ocean.

Sometimes the river doesn't recognize its own strength and swallows the island. The next thing you know there is a little new bay.

So the land keeps fighting with the water, or maybe playing—who knows?

A little red boat with a pert little turned-up nose swishes past the ship. You can't go far on a tiny thing like that—so there must be houses somewhere nearby, more likely a settlement. Fishers' cookfires are lit on the bank. Or maybe it's hunters come up to the river to spend the night.

Evening conversations on deck have a flavor all their own. An older man reminisces about his youth, someone recites poetry. It's poetry that doesn't grow old, and the listeners feel young again. The sun begins to set, a cool breeze blows over the river, delicious, a pleasure to breathe.

For some reason or other, guidebooks and travel ads are very eloquent about many attractions, but they never mention the distinctive pleasure of a cruise on a river, where you breathe the cleanest air in the world. On the Yenisei it smells of the steppes, the taiga, the mountains and the sea all rolled up into one.

And in the morning new shores to see, enough to make a thousand national parks.

This is Kureyka, the Yenisei's next to the last tributary before it meets the Arctic Ocean. The northern polar circle passes through its mouth. The Yenisei doesn't always accept the Kureyka. When the ice begins to move, Big River pushes the Kureyka off, whereupon the smaller one flows dutifully in the opposite direction, carrying on its back a part of the Yenisei's ice some 50 kilometers from its mouth.

Kureyka is a border river. The taiga ends here and the forest-tundra begins. Only the boldest cedars manage to get this far.

People have also made it: They are going to build a hydroelectric station here. Not the biggest, as in the Sayany. In fact, it will have not quite 10 per cent of the capacity of the Krasnoyarsk station. But it will still be very important: It will breathe life into these parts.

A variety of reasons brought people to the Kureyka, but every person wanted to settle here.

How did it all begin? First a site was chosen for a temporary settlement. Then prefabricated houses were put up. Timber was cut along the mooring strip and a flooring of logs laid down on which helicopters would be able to land.

Then barges came down the river loaded with machinery, bricks and containers.

The builders team that arrived here numbered 19 men. Who are they? Let me leaf through my notes:

Victor Sysoyev, 38 years old. A bulldozer operator. This is his third hydroelectric station, and all on permafrost.

Vladimir Svetlilobov, 30. Born in Yakutia. A real taiga man, an excellent carpenter. Also experienced in hydroproject construction.

Yevgeni Geineman, 32. He built a hydroelectric station on the Khantayka, where he began working as a carpenter and moved up to assembly operations in the station's machine room.

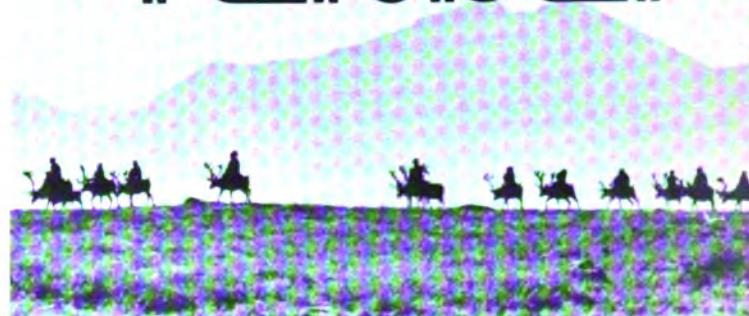
Victor Lygin, 34. I remember him from another hydroelectric station on the Khantayka. He left there several years ago for his native Orel Region. But as soon as he learned that a station was going up on the Kureyka, he came running back.

Most of the builders have considerable experience living in the Far North. Almost all of them came here some seven or eight years ago from central and southern districts. Many came just to make a little pile and return home as soon as possible. However, although they had put away a neat little sum, somehow they were in no hurry to leave. "We were carried away by the project," they say now. Those few words are more than a figure of speech. They express the men's deeply felt realization that their work on construction projects like these, called shock projects, is very much needed by the country, and they have the proud feeling that they are trailblazers who have stood up to this formidable region.

The first northern construction project for the veterans was a leap into the unknown. It's different today. The present builders heard a great deal about both the Khantayka and the Kureyka hydroelectric stations. High earnings and all kinds of other benefits for working in the North carry weight with them, of course. But more important is the primary motivation—to work where the challenge is greatest. That was how 28-year-old Vladimir Zhdanov found himself among the Kureyka's first builders. Before that he was a mechanic and assembly worker at a large plant in the industrial city of Omsk.

In this temporary settlement

# YENISEI



Tuva landscape.



The Abakan Plant will turn out 50,000 railroad cars a year, the number presently produced by the whole country.

The General Secretary of the CPSU Central Committee said in his report to the Twenty-fifth Congress: "It is planned to begin a fundamentally new stage in the development of Eastern Siberia's productive forces. The Sayan Complex alone, which will receive its energy from the Sayano-Shushenskaya Hydroelectric Power Station, the largest in the world, will consist of a number of industrial centers specializing in metallurgy and the engineering industry."

every day brings something new: "Tomorrow we begin finishing work on the medical depot and post office!" "We're starting to build a bakery and temporary diesel shop!"

And every day someone gets a house. I saw Victor Sysoyev driving his bulldozer to the housewarming of a friend of his, orange balloon tied to his cab to celebrate the event! In the last house on Mekhanizatorov Street someone had laid a layer of reindeer moss on the sill between the double windows and placed several stemmed red mountain cranberries on top: a tiny island of au-

turn taiga to adorn the house during the long winter.

... The winter is over. Sleighs had run from February to May. The settlement's population had grown to 300, many had brought in their families. The first child to set foot in Kureyka was a little girl, hydrologist Lyuba's daughter. Now there are more than a dozen little ones (the older children are with their grannies until a school is built). A kindergarten is going up. A dirt road was laid through the forest to the site of the dam. Movies are shown at the clubhouse every day. Already it feels as though



life on the Kureyka's banks is nothing new, that smoke has been curling from house chimneys and axes have been ringing in the forest for a long time.

But it really all began only a little while ago.

#### River Old and New

The river flows on. In the winter, quietly, under the ice, invis-

ble to man. In the spring, noisily, breaking up the thick ice coating, getting crammed in between the banks and, in a rage, pouring out, flooding over islands and lowlands. In the summer it comes racing down mightily from the mountains, hastening toward the wide, high latitudes.

This Siberian river is a cold one, half of it is melted ice and snow. The Yenisei is life: It pro-

vides food and drink. The Yenisei is a road: It links the South with the North.

The shores, like the river, were always beautiful. From time immemorial people here called the ravines, cliffs, rocks, ridges and mountains *red*, which means beautiful. People were always drawn to the Yenisei's boundless reaches, its ever youthful spirit and tremendous power, the abun-

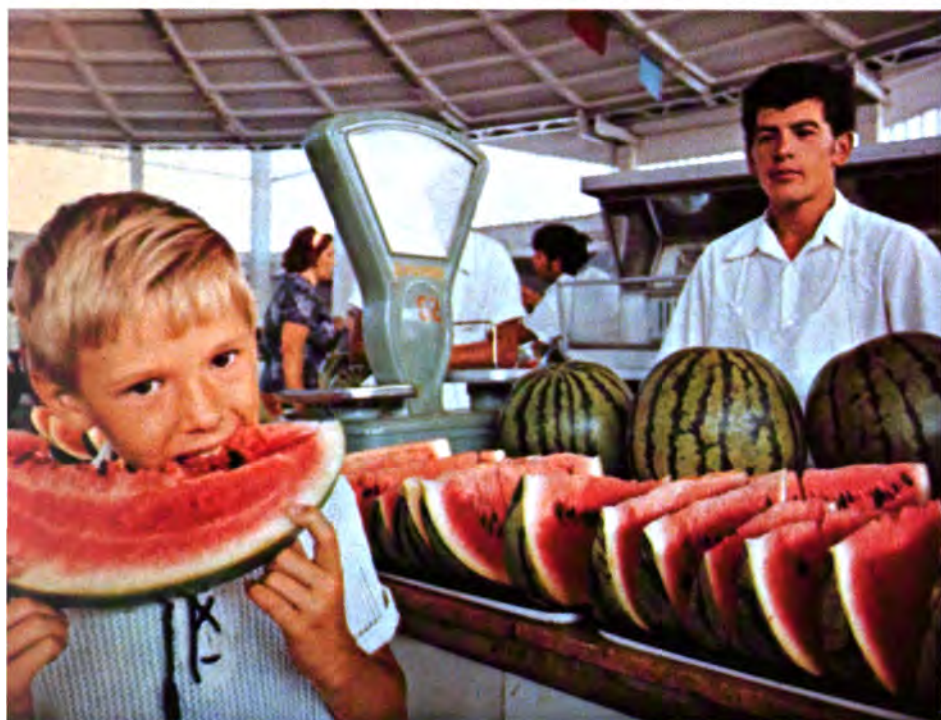
dant gifts of nature along its banks. Just look around and listen, too. How much noise and thunder! How deep, rapid and wide the brooks, the pools, the hollows and the springs! How rich in sables, fish and ores!

There were always poets on the Yenisei. They sought images, and found them, as well as words—very apt ones—for fords and crossings, plots and folds, capes and camps. Such names as Bare, Rotten, Bad and Deaf have remained on the map, the bitter tears of a long-bygone past. Of the hundreds of names along the entire length of the Yenisei only one little island shows the name Vesyoly (Gay) and one ravine Vesyolenky (Rather Gay One).

The river flows on. Day after day, for thousands of years. The past centuries, and even the beginning of this one, did little to change anything on the river banks—from Abakan and Angara to Turukhansk and Khantayka. But a new life appeared on the shores, and not long ago. The new names on the map tell us so. Cities have risen near the Divniye Mountains, near the Sayany and the snow-clad mountains. Lights went on in Tukhard (Torch) in the North not far from ancient Mangazeya.

The river itself has changed, too. In the South it has become electrified. Hundreds of kilometers in its middle reaches no longer freeze over. And shallows steam in the wake of icebreakers beyond the polar circle.

# YENISEI



Krasnoyarsk, called the capital of the Yenisei, is preparing to celebrate its 350th birthday. With a population of 800,000, it ranks third among Siberia's cities. Its airport handles four million passengers a year. It has 52 specialized schools, seven of them schools of higher education; four professional theaters, including the world-famous Siberian Dance Ensemble; 112 hospitals and clinics staffed by 8,000 physicians; 17 stadiums and 16 ski centers.

Hot weather fruit in Siberia. The setting is the Krasnoyarsk market.  
Below: A marina on the Yenisei near Krasnoyarsk.  
Far right: In one of the city's parks.









# YENISEI

A mighty river in a vast land,  
this is the Yenisei near  
Krasnoyarsk on a quiet evening.



Top: A stone-processing plant, one of the units of the Sayano-Shushenskoye industrial complex. Center: Angara pine is rafted down the river to sawmills in Igarka from where it is eventually loaded on ships headed for dozens of countries. Above: Among the 120 industrial enterprises in Krasnoyarsk is this synthetic fiber factory.





*Grigori Petrovsky in Kiev, March 1937.*

## GRIGORI PETROVSKY

Grigori Petrovsky (1878-1958) was a prominent party and government leader. He took an active part in the 1905 Revolution and the October 1917 Revolution. He was elected to public office and served for 20 years as Chairman of the All-Ukraine Central Executive Committee of Soviets, the equivalent of President of the Republic, and as Vice President of the USSR Supreme Soviet.

By Alexander Grek

**G**RIGORI PETROVSKY was born in a Ukrainian village, the son of a tailor. His father died when he was three. His mother and stepfather could not earn enough to feed their big family and pay for Grigori's schooling as well. He was a good student, had even been awarded a prize—a copy of the Gospel—at the parochial school he attended, but he was forced to leave school before completing the third grade. So that he began to work when he was 11. He suffered many privations, tried his hand at various trades, and became a skilled worker at a Yekaterinoslav plant.

### He Joins the Revolutionary Struggle

He had to put in 12 to 14 hours a day for a starvation wage. Fatigue, malnutrition, impossible living conditions and the brutality of the bosses drained many of the workers of their fighting spirit. They saw no hope of improvement. Petrovsky did not succumb to despair but stubbornly tried to educate himself. He looked for and found friends who, like himself, resented their virtual slavery and were ready to wage a conscious and organized fight for a better life.

Ivan Babushkin,\* a man of 25 in the same shop, whose independent spirit made him stand out from the others, turned out to be an exiled revolutionary. Petrovsky looked up to this man who was on cordial terms with everybody in the shop. Babushkin began to notice the bright youngster and invited him to his home. He lived in a small modestly furnished room. Petrovsky noted the white cloth on the table, the neatly made bed and the potted flowers on the window sill. But what caught his eye most in this simple abode, as spotless as the clothes Babushkin wore, were the books. Babushkin guided his reading, recommended serious writers, social and political material. He recruited Petrovsky into the Marxist circle which became part of the League of Struggle for the Emancipation of the Working Class organized in Yekaterinoslav by Babushkin and his comrades.

Under his tutelage Petrovsky learned the fundamentals of socialist theory, of the struggles waged by the international liberation and labor movement. Step by step he learned the art of spreading revolutionary ideas among the workers and conspiratorial techniques. Revolutionaries in czarist Russia had to master the techniques because people who showed the least sign of independent thought were under constant surveillance of the secret police.

Petrovsky soon grew into a leading working-class organizer. Illegal meetings of militant workers disguised as family parties were held at his home in Yekaterinoslav. With his young wife Donna, who shared his political views and was his life-long revolutionary helpmate, he set up an underground leaflet print shop.

With the rise of the working-class movement in Russia and the growing influence of the Marxists, Petrovsky's authority grew as well. He joined the Russian Social-Democratic Labor Party and was elected to its Yekaterinoslav Committee. He was persecuted by the authorities and his bosses for

\* The July 1975 issue carried an article on Babushkin in the "Tribunes of the Revolution" series.

*Petrovsky and  
his wife Dominika.  
1909. Mariupol  
(now Zhdanov),  
the Ukraine.*



Д. РУБАНЧУК МАРІУПОЛЬ



his revolutionary activities and had to change jobs and residence frequently.

### The Storm of 1905

From 1905 to 1907 the country was in the throes of revolution. In the southern part of European Russia, where industry was more developed and the working class relatively large, the revolutionary movement was especially widespread. Petrovsky was one of the leaders of the popular uprising in Yekaterinoslav. He was secretary and subsequently chairman of the Deputy Assembly of Workers, one of the first Soviets to emerge in the cities of Russia. From the experience of these first organs of workers' power, Lenin later developed the theoretical groundwork for the government of the Soviet socialist state of workers and peasants formed after the October 1917 Revolution.

The Chechelev Republic (named after Chechelevka, a big working-class district in Yekaterinoslav) was proclaimed by the Deputy Assembly and held out for two months.

### At the Duma

Although the Revolution of 1905-1907 ended in defeat, the working-class movement in Russia learned from the experience. As a result of this great upheaval the czar finally agreed to let the people have a duma, a kind of parliament, but with very limited powers.

In the autumn of 1912, Petrovsky, who was then on the Board of the Yekaterinoslav Guberniya

delegates, to each one singly, asking about their work with the constituents," Petrovsky said later. "When he talked to me, Lenin wanted to know how the working-class movement in the south in 1912 compared with the situation in 1897-1900 when Babushkin was active in Yekaterinoslav. I told him that while class-conscious workers were few and far between then, now there were scores and even hundreds of them in each factory."

Lenin urged the worker-deputies to speak in the Duma with courage and resolution for they were the true champions of the people and had the support of millions. Impressed by his talks with Petrovsky and other Bolshevik deputies, Lenin, in a letter to Maxim Gorky, made the comment: "And the workers now are just fine. . . ."

Petrovsky made 32 speeches in the Duma. He attacked the existing order in Russia, pointed out that the workers were forced to live under inhuman conditions, were cruelly exploited, deprived of all rights. Even a horse collapses under the appalling burden imposed on the coal miner, Petrovsky said in one of his speeches. Horses were therefore relieved every eight hours, but the men had to stay in the pits for 12 and even 15 hours a day. Such conditions, he declared, were directed at "human extermination."

Shortly after the conference in Cracow, on May 20, 1913, he delivered a speech in the Duma on the nationalities question. Basing his speech on a draft provided by Lenin supplemented by his own data, personal impressions and observations, he exposed the reactionary czarist policy in governing the non-Russian nationalities that comprised the greater part of the country's population. The

Commenting on the trial, Lenin said that the Bolshevik deputies were convicted for their anti-war propaganda, and that only in such revolutionary propaganda and revolutionary activity lay humanity's salvation from the horrors of this and future wars.

We have impressions of Petrovsky from other participants in the movement. In one of his private letters Yakov Sverdlov\* writes:

"... what a good type Petrovsky is! Wonderful! A man of amazing rectitude, sincerity, devotion to duty and the cause. That is the memory I have of him from my personal impressions. And he grew before our very eyes. His letters reveal that growth. There can be no fears on this score. He is up to the mark."

### Free

The convicted deputies were exiled to Yakutsk, a place with the worst climate in Siberia. Petrovsky kept up his spirits and continued to be active. He gave talks to other exiles, read a good deal and helped the local people in whatever way he could.

In February 1917 the second people's revolution overthrew the autocracy in Russia. The exiles were free, but they had to wait until the Siberian rivers were clear of ice. Petrovsky stayed in Yakutsk until the summer of 1917 and headed the local Bolshevik organization, no longer underground.

\* The April 1976 issue carried an article on Sverdlov in the "Tribunes of the Revolution" series.



The Yakut depot. Petrovsky (marked with a cross) in a group of Siberian exiles. 1916.

Metal Workers Union, was elected to the Fourth Duma. By a strange coincidence the landowner Markov was a member of the same Duma; he was the grandson of the squire of a large estate on which Petrovsky's mother had been a serf in her youth. The overwhelming majority of Duma members were wealthy landowners like Markov; only 14 of the 442 represented industrial workers. Five members made up the Bolshevik (Leninist) faction in the Social-Democratic Labor Party group of the Duma. Petrovsky was one of its leaders and after the summer of 1914 its chairman.

The Bolsheviks took advantage of whatever legal rights they had as deputies to speak up. They kept in touch with Lenin and the Central Committee of the party. These secret meetings were usually outside the country. Many of their speeches in the Duma derived from Lenin's writings, his advice and guidance.

It was in 1912, at a conference of the Central Committee of the Bolsheviks with party workers, held in Cracow, that Petrovsky first met Lenin and was elected a member of the Central Committee.

"After the meeting Lenin talked to the Duma

flagrant facts he cited could not but outrage honest people. There was only one road to the truly democratic solution of the nationalities question in Russia, Petrovsky said, the struggle for socialism, which would simultaneously emancipate the working class and free all the oppressed. "To win this struggle, the working people of all nationalities must unite under the banner of proletarian internationalism."

The Bolshevik Party and its deputies at the Duma kept the banner of proletarian internationalism raised, even in such a difficult situation as the outbreak of the First World War in 1914. In keeping with the principled stand of the party, Petrovsky and his comrades voted against war credits. That served as the excuse for reprisals against the Bolshevik deputies. Petrovsky and his comrades were arrested and sentenced to lifetime exile in the Turukhan Territory of Siberia. Petrovsky conducted himself with great courage at the trial, held in February 1915. He declared: "We are being tried for our staunch defense of the people's rights. We have deep faith in the people, every hope that they will set us free."

A visit to a Kharkov factory. Petrovsky worked for a blacksmith in this Ukrainian city when he was a young boy.







*Petrovsky and Alexei Stakhanov, the miner who originated the high production method named after him.*

The February Revolution brought no radical changes in the way people lived; that had to wait until the October Socialist Revolution. Petrovsky fought ardently for its victory on his return to Central Russia, and on Lenin's recommendation he was appointed People's Commissar (minister) of Internal Affairs of the Russian Soviet Federative Socialist Republic. He tried to decline the appointment, telling Lenin that he thought he was not equipped to hold so important a post. Lenin's simple response was that during a revolution you don't refuse assignments.

Lenin thought highly of Petrovsky as a man and a revolutionary, but more important, he believed that the strength of Soviet power, the true power of the people, rested in the consciousness and organization of the millions of workers and peasants, on their support of the government. Under Lenin's guidance, in personal contact with him, Petrovsky, the former machinist, learned the skills of socialist statesmanship. Petrovsky helped draft some of the major decrees of the new government as well as the first Soviet Constitution of 1918. Although he held the office of a people's commissar of the Russian Federation for only a little more than a year, he contributed appreciably to the organization of the new government both centrally and regionally.

#### **Heading the Soviet Ukraine**

In March 1919 Petrovsky was elected Chairman of the All-Ukraine Central Executive Committee of Soviets. He held this high office, the equivalent of president of the republic, for almost 20 years.

He was a loyal and consistent supporter of the socialist nationalities policy—a policy of equality and amity among the peoples of all the Soviet republics. During the Civil War he came out for a close military alliance of all the nationalities, which contributed immensely to the Red Army's rout of both the counterrevolutionaries inside the country and the foreign intervention. Lenin's project for the formation of a Union of Soviet Socialist Republics won Petrovsky's wholehearted support, and on December 29, 1922, he signed on behalf of the Ukraine the Declaration on the Formation of the Union of Soviet Socialist Republics. The following day, at the First Congress of Soviets of the USSR, he was elected one of

the chairmen of the Central Executive Committee of the Soviets of the Union (there were four chairmen, representing each of the republics which then made up the USSR). After the USSR Constitution of 1936 was adopted, Petrovsky, as President of the Presidium of the Supreme Soviet of the Ukraine, automatically became a vice president of the Presidium of the Supreme Soviet of the USSR. He was a delegate to many of the CPSU congresses and was elected to the highest party bodies of the Ukraine and the USSR.

A considerable part of his work was in the Ukraine. He was directly involved in developing socialist industry in the republic, in collectivizing the countryside, in public education programs and, of course, in the activities of the Soviets themselves. He laid the cornerstones of new industrial plants, toured cities and villages, addressed young people and schoolchildren, regularly received in his office workers and peasants who came to him with their various requests.

"... On his job he was entirely free of bureaucratic methods of governing," wrote Serafima Gopner, a veteran party member. "It is not enough to say of him that he was closely linked with the masses. Their life was his life. He was acutely aware of their needs, shared their sorrows and joys. . . . He did not have a bookish understanding of Marxism, but delved deeply into its inner substance. He reacted keenly to every event with both his mind and his heart."

The latter part of Petrovsky's career was devoted to the Museum of the Revolution of the USSR; he was its deputy curator. This museum is the country's biggest repository of treasured relics of the movement for emancipation in Russia and of all the phases of communist construction. Advanced in years, his health poor, he was nevertheless tireless in collecting more and more mementoes to fill out the displays. An unfinished article he was writing for a youth magazine the evening before he died was found on his desk.

Petrovsky died in January 1958, a month short of his eightieth birthday. His ashes are buried in the Kremlin wall, not far from the Lenin Mausoleum.

The city of Yekaterinoslav has been renamed Dnepropetrovsk in honor of this worker-revolutionary and son of the Ukrainian people. The plant where he started his long career as a revolutionary also bears his name.

*With Leonid, his young son, an army officer killed in the Second World War.*





# A DRESENT

The ever popular children's books of Samuil Marshak (left) were illustrated by the no less famous Vladimir Lebedev.



## FROM CHILDHOOD



Illustration by Lebedev for Kornei Chukovsky's translation of Kipling's *The Elephant's Child*.

SOME of my colleagues and I are making a study of Russian children's books of the 1920s and 1930s. When we want to see an edition published back in those years, we go to the Rare Books Division of the Public Library, the only place where we can find the book in good condition. ("To die an honorable death," Samuil Marshak once said, half seriously, "a children's book must be read, reread—and then torn up.")

Turning the pages of one of these old books in the hush of a reading room, I am not only excited (if the book is really good), but also sorry that today's children cannot see it. They may have read the same fairy tale or the same poems in another, later edition. It is newer, of course, but not everything new is better! How unfair it is, we say, that only collectors and researchers can exclaim over these beautiful old editions.

What treasures we have! Samuil Marshak's books illustrated by Vladimir Lebedev; Kornei Chukovsky's, with the pictures of Yuri Annenkov, Re-mi and Vladimir Konashevich, and Vitali Bionka's, the drawings by Valentin Kurdov, Yuri Vasnetsov and Yevgeni Charushin. They've been classics for a long time now, and regularly come out in new editions. You must agree, though, that the first edition has its own very special charm. What a pity that it cannot be reproduced!

"But it can!" Sovietskii Khudozhnik (Soviet Artist) publishers decided a few years ago. They began putting out a series of *Selected Children's Books Illustrated by Soviet Artists*. The first set was devoted to one of the most famous of children's book illustrators, Vladimir Lebedev (1891-1967).

It started off with Kipling's *The Elephant's Child*, in Chukovsky's translation, and Marshak's *Ice Cream* and *Circus*. Soon to come off the press are the latter's *Yes-*

*terday and Today*, *Story About the Silly Little Mouse*, *The Baggage* and more.

How are these books reproduced? In facsimile, that is, in the same format, the same colors and on almost the same kind of paper.

On the back cover of *The Elephant's Child* it reads:

"This edition is printed at the Fifteenth State Print-Shop (formerly Golike and Vilborg), with the close cooperation of V. I. Anisimov, in January 1922." And at the bottom is inscribed: "1,500 copies."

This, then, is an actual repetition of the edition of 1922, exactly reproduced, only this time in 100,000 copies. And so it is with the editions of *Ice Cream* and *Circus*—200,000 each. Children can rejoice, and they do.

There is a serious aspect to this undertaking: It is not a mere republication, but the project of scholars. Every facsimile copy is sewn into a book that provides a detailed commentary.

What do these commentaries consist of? In the case of *The Elephant's Child*, five distinct items. First, there is a chronology of the artist's life and work. That is followed by a general article, "Children's Books by V. V. Lebedev," covering the painter's contribution to the art of children's book illustration. The third piece is a critical study: "About *The Elephant's Child*: Analyzing the Versatile and Integral Graphic Language" (of Lebedev's drawings). Next comes a roundup, entitled "V. Lebedev's *The Elephant's Child* and Criticism," of critics' reviews over the years. Finally, there is a detailed bibliography listing and appraising all the editions of *The Elephant's Child* illustrated by V. V. Lebedev, as well as the Russian editions with drawings by other artists (including some by Kipling himself).

I call this lovingly composed commentary: "Everything About

Lebedev's *The Elephant's Child*."

Art historian Yuri Gerchuk, the editor of this series, has analyzed the success of the illustrator's art and makes an equally precise evaluation of the book's graphic language.

"Vital, ironic and frank," he says. "These illustrations have come out of the artist's intense preoccupation with movement and plasticity in his sketches from life, and from the texture, material and form of his cubist and sometimes nonobjective canvases and drawings, as well as from the expressive economy of the ROSTA window posters."

Though, as Gerchuk says, the book was first published 50 years ago and many talented artists have since illustrated Kipling's tales, "the very old drawings by Vladimir Lebedev for *The Elephant's Child* are not outdated when compared with the illustrations in new editions."

This venturesome departure of the Moscow Sovietskii Khudozhnik Publishing House had an immediate effect on the publishing world. The Leningrad Artist of the RSFSR Publishing House began issuing its series of the best children's books of the twenties and thirties; also, of course, in facsimile. The Marshak-Lebedev *Circus*, *How the Plane Made a Plane* and *Ice Cream* have all been republished. (In the twenties the artist had equal billing with the writer on the book's front cover.) The editions range from 300,000 to half a million copies.

It should be noted that the Leningrad series is different from Moscow's, since it does not have scholarly commentary. The back of the new hard cover, however, which protects the facsimile edition, carries the photograph of the artist and a brief item on the illustrations, addressed to adults, of course. Children will probably not read it—the story and the pictures are what interests them. I myself prefer the Moscow edi-



Only specialists these days remember that in the twenties there were private publishing houses like Epoch, which put out *The Elephant's Child*, and Raduga (Rainbow), which issued all the other books mentioned above. Today's state publishing houses have set themselves the goal, in the seventies, of presenting a new generation with old books.

## A stylized illustration of a man with a pink face and glasses, wearing a red and white striped shirt and a green skirt, riding a brown donkey. He is holding a fishing rod with a yellow worm and a small fish, and a yellow guitar. The donkey is wearing a red collar and a yellow saddle.

**ПОДБРАСЫВАЕТ СРАЗУ  
И ЛОВИТ ОН ШУТЯ**



**ФАРФОРОВУЮ ВАЗУ,  
БУТЫЛКУ И ДИТЯ.**

## A woman in a black leotard and red tights is performing a handstand on a unicycle. She is balancing on the wheel with one foot, while her other leg is extended high into the air. Her arms are extended downwards, supporting her weight on the pedals. She is wearing black shoes and has a large black bow in her hair. The background is plain white.

## НА ОДНОМ КОЛЕСЕ.

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Above: Another of Lebedev's rollicking illustrations for Rudyard Kipling's *The Elephant's Child*.

Instructional drawings by Lebedev for Marshak's *How the Plane Made a Plane*.

Far right: A Lebedev illustration for Marshak's *Ice Cream*.

Застучало долото:  
— Это, дядя, ты про что?



В доску брянула пила:  
— Что нам делать без рубанка?



Заскрипел коловорот:  
— Все пойдёт наоборот!



Он стоит и не шевелится.  
А вокруг шумит метельца!



VASIL GERASIMOV decided to retire on pension at the age of 55. In the USSR most men are eligible to retire at 60. However, in certain trades and professions the retirement age is lower. Gerasimov had worked as a solderer and had handled toxic substances, so under the law he was eligible to retire at an earlier age and with a higher pension.

The factory he had worked for gave him a farewell party, presented him with a gift and praised his conscientious work. However, the official at the district social security office explained to Gerasimov in a dry and businesslike tone that it was a little too early for him to retire. Only solderers who had worked at the trade for at least ten years qualified for early retirement. Gerasimov had worked the necessary length of time, but his papers showed that he had frequently been sent away on special assignment and it was not clear what type of work he had done. If it was soldering, everything would be all right. But if his work had nothing to do with toxic substances, he would have to work for three more years.

"But I couldn't have done any other work," Gerasimov said. "Soldering is my trade."

"We are glad to hear that," the official replied. "But to give you the pension we have to have the pertinent documents."

"I don't know anything about documents. When I was sent to a special assignment," Vasili pleaded, "my duty was to go there and work."

"All we need is legal confirmation that you were doing soldering outside your factory too. We are not trying to make trouble for you on purpose, you know," the official remarked.

Over a period of many years Vasili had been sent to several dozen places and it was physically impossible for him to get confirmation from each of them. He applied to the management of his own factory, but they only shrugged their shoulders. Papers connected with special assignments are not kept on file forever. His own trade union organization said they couldn't help. If his problem had anything to do with work inside the factory, they would take care of him, but they could do nothing about work outside the factory. Gerasimov filed a complaint with the ministry, but the reply was brief:

"This is to inform you that the ministry has no record of your work."

His comrades urged him to write to the public prosecutor.

"To the prosecutor?" he asked. "Do you mean I have to sue somebody?"

"You don't have to sue anybody to write to the prosecutor. It's his job to see that the law is observed. In your case there has definitely been a violation of the law, since you did work as a solderer all that time," his friends said.

Gerasimov thought it over and wrote a letter to the public prosecutor. Soon he was asked to come to the district prosecutor's office. The director of the factory received a report from the public prosecutor. It stated that the factory management had broken the law twice. In the first place, the management failed to respond properly to a worker's complaint, and, in the second place, Gerasimov was being penalized for the carelessness of those responsible for filling out his work reports. The management had told him that he himself had to find proof of his length of service. The prosecutor pointed out that the factory was obligated to provide the worker with all the necessary papers. The prosecutor also took the ministry to task for giving a form-letter response to a worker's complaint.

Before long the authorities supplied all the necessary papers and Vasili Gerasimov received his pension.

We did not cite this case just to show that an individual received the pension he was entitled to under the law. People often get into complicated situations, have difficulties with their fac-



By Yuri Feofanov

## IF AN INDIVIDUAL'S RIGHTS ARE IGNORED

tory management, try to get the local authorities to take action, argue their labor, housing and other rights. Things do not always run smoothly. Far from it. Often enough an individual will have to file a complaint with one official body about another.

However, people usually apply to the authorities with proposals of a public nature, rather than with complaints. Most citizens have a personal interest in problems that concern the country as a whole. They submit their opinions on legislation, the economy, management of production, environmental protection and a hundred other matters in letters to the editor, to state agencies and to mass organizations. At meetings of various kinds they criticize state agencies and officials. These statements, written or oral, usually deal with some shortcoming or violation of the law which has no direct bearing on the personal affairs of the writer or speaker. A complaint is something else again; it usually means that somebody's personal rights have been infringed.

The point we are making is that the law which guarantees a citizen the right to file a complaint against any official or agency and establishes the procedure for dealing with complaints makes no distinctions or exceptions. Regardless of the issue, whether it is purely personal or public, a minor matter or one of national importance, the state guarantees that the complaint will be considered in depth. A substantive reply must be given within the strictly specified period of one month. If this condition is not met, the officials concerned are subject to penalties, and a mechanism is activated which prevents the complaint from being ignored.

The legislative instrument which guarantees this right is a decree of the Presidium of the USSR Supreme Soviet of April 12, 1968, "On the Procedure for the Consideration of Proposals, Applications and Complaints from Citizens." The right to file complaints is granted to all citizens of the USSR without exception. Complaints may be filed by individuals or by groups. Regardless of who files the complaint—whether it is a state agency, public organization or individual citizen—the law establishes identical principles for dealing with it. The law governing the response to citizens' complaints is effective. It includes no provision for refusing to accept a complaint if it has been sent to a body competent in the given

field. Complaints may be written or oral. The form is not important, except in certain cases when a written statement is obligatory. There is no time limit on complaints, except in rare cases when an appeal must be filed within a specified period.

The law says plainly that an official or agency has no right to send the complaint for verification to the person against whom it has been filed. If the applicant finds the answer to the complaint unsatisfactory, he can file another complaint to that effect. There are many other provisions. After analyzing them, you come to the conclusion that, in the complicated process of citizens defending their rights to state authorities, the former enjoy far broader rights and bear no responsibility whatsoever. However, complaints cannot contain libelous material, because the law defends the honor and dignity of citizens against all sorts of attacks, including slander and libel.

Since the early days of Soviet power, thoughtful attention has been paid to the personal complaints of citizens. Vladimir Lenin, the founder of the Soviet state, told an official:

When you get a complaint or a request, imagine that you yourself are the applicant. Try to understand each person's position with your heart and soul. Imagine that you yourself are getting no reply to your application, that you are being prevented from seeing the person in charge you want to see. Or take a person asking for an apartment. Imagine that it is you who have no apartment, that it is you and your family who are seeking shelter. . . . Then you will surely find a way to help the applicant. This is not charity. This will be a communist approach to your duty.\*

Lenin re-emphasized this point in a letter to another official, V.V. Adoratsky:

. . . All the assistance you can give to applicants should consist in "legal" aid to them, i.e., teaching them (and helping them) to fight for their rights according to the rules of the legitimate fight for rights in the RSFSR.\*\*

We cited these historical references for a reason. From the beginning all Soviet legislation has strengthened guarantees of the individual rights of citizens in all aspects of life. At the same time the law has made the state and individual officials more strictly accountable for the rapid and thorough consideration of complaints. The Decree of April 12, 1968, I quoted above provides for disciplinary action toward persons guilty of delays. It states:

The actions of officials which have inflicted serious damage on state or public interests, or to the rights and interests of citizens protected by law and prosecution by officials of citizens for complaints or applications filed by the latter shall entail criminal responsibility. . . . (Emphasis added.)

The office of the public prosecutor, the local Soviets and Public Control groups check to see that the authorities keep open office hours for citizens, that files of complaints are kept, that responses are written in time and that they deal with the substance of the complaint.

We began our story with the case of Vasili Gerasimov, solderer, and his pension. Letters from citizens sometimes raise matters of national significance, sometimes of little importance. Unfounded or even absurd complaints are not ignored. Anything is possible, for people are different. But the law is the same. It requires that all complaints be considered. Unfounded complaints will be dismissed, but with reason. Justified complaints that a person's rights have been denied will be considered and appropriate action taken. This is guaranteed by an explicit law and strictly observed.

\**Meetings with Lenin: Reminiscences of Railwaymen* (Moscow: State Railway Publishing House, 1958), p.159.

\*\*Vladimir Lenin, *Collected Works*, English edition (Moscow: Progress Publishers, 1970), vol. 45, p.274.



# FAMOUS RUSSIANS ON AMERICA

Compiled by Valeri Ponomarev,  
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The history of modern, civilized America opened with one of those great, really liberating, really revolutionary wars of which there have been so few compared to the vast number of wars of conquest. . . . The American people . . . set the world an example in waging a revolutionary war against feudal slavery. . . .

V. I. LENIN

FROM THE WAR for independence fought by the British colonies emerged a new nation—the United States of America—which this year celebrates its Bicentennial. In describing that momentous event in history, the American Revolution, Vladimir Lenin wrote:

The history of modern, civilized America opened with one of those great, really liberating, really revolutionary wars of which there have been so few compared to the vast number of wars of conquest. . . . The American people . . . set the world an example in waging a revolutionary war against feudal slavery. . . .<sup>1</sup>

Alexander Radishchev (1749-1802), the writer and philosopher who is often called Russia's first revolutionary, time and again cited the young American republic in his book *A Journey from Petersburg to Moscow* (1790), an attack against serfdom. To refer to the constitutions of the American states in an autocratic and feudal Russia was in itself an act of great courage.

The American governments granted freedom of the press with the very first civil liberties they proclaimed. Pennsylvania in Article 12 of a proposed declaration of rights for its citizens, appended to Chapter 1 of its statutes, stated that the people had "the right to speak, write and make public their opinion, from which it follows that the freedom of the press must never be abridged. Section 35 on the form of government, Chapter 2, stated: "Let there be freedom of publication to all who desire to investigate the regulations of the legislative assembly or other branches of government."<sup>2</sup>

The sociopolitical structure of the United States was studied closely by the Decembrists. These first Russian freedom fighters, who rose in open struggle against the czarist autocracy in 1825, sought to profit by the American experience in their plans for Russia's future. There was frequent mention of America in their writings. Kondraty F. Ryleyev felt that:

. . . the most suitable government for Russia would seem to be the regional kind of the North American republic under an emperor whose power should not greatly surpass the power of the president of the States. . . . In our time even a vain-glorious man, provided he is sensible, would prefer to be a Washington rather than a Napoleon.<sup>3</sup>

At the same time the Decembrists were sharply critical of certain aspects of American life, notably Negro slavery. As Mikhail S. Lunin wrote:

Slavery is incompatible with the spirit of the times, is based upon ignorance alone and flagrantly contradicts the advances made by people in the pursuit of rights. A sad but useful example of this is the United States of America where slavery is endorsed by law. Their Constitution is based on the solemn premise that all people are equal before the law, but they prove the opposite with their gallows, giving shades of skin color as an excuse for villainies which outrage mankind.<sup>4</sup>

American literature was read in Russia as early as the beginning of the nineteenth century. James Fenimore Cooper, whose books were translated into Russian in the 1820s, was especially popular. The distinguished literary critic Vissarion Belinsky (1811-1848) wrote:

Cooper is a profoundly original writer . . . a genius. . . . He has created a distinct type of novel—the American frontier and sea story.<sup>5</sup>

About *The Pathfinder* Belinsky wrote:

Many of the scenes in *The Pathfinder* could come from Shakespeare. Its underlying theme is self-denial, which is one of the most noble manifestations of the human spirit. The novel is indeed a great tribute to self-denial.<sup>6</sup>

The late fifties and early sixties of the nineteenth century were crucial years for both Russia and the United States. It was during this period that serfdom collapsed in Russia and the plantation system based on slavery crumbled during the Civil War in the United States. Supporters of Russian democracy noted that similar socioeconomic processes were taking place in Russia and the United States and saluted the triumph of progress in America. Nikolai Chernyshevsky (1828-1889), a revolutionary democrat, thinker, writer and critic, wrote in *Sovremennik*, a progressive magazine:

The defeat of the Democratic and the triumph of the Republican party in the American presidential election on November 6 [1860] is an event of great importance. That momentous day when victory belonged to Lincoln's party marks the beginning of a new era in the history of the United States, a turning point in the political development of the great

North American nation. Until now it has been the plantation owners, who belong to an aristocracy and are proud of it, that have dominated politics. Their party is called Democratic but it has, in effect, been an oligarchy. Today the farmers of North and South—those who literally work the soil with their hands—have discovered in themselves the strength to do without the tutelage of their Southern lords and rule their Union. On November 6, 1860, they overthrew the yoke under which they had languished for many decades and, no matter what problems they may encounter, they will move on toward their objective to restore American politics to heights it has not known since the days of Jefferson. The population of the South who did not own slaves will begin to recover and in time will join the States of the North in order to abolish Negro slavery, a practice which has weighed heavily on the whole American nation for its entire life and has been a blot on its good name. And the good name of the North American people is important to all nations because of the rapidly increasing significance of the North American states in the life of all humanity.<sup>7</sup>

Both Nikolai Chernyshevsky and his close associate, the literary critic and publicist Nikolai Dobrolyubov (1836-1861), contributed regular articles to *Sovremennik* which informed the Russian reader of life in America and the political and social system of the United States. Russian revolutionaries spoke very highly of the great Americans of the time and of America's democratic institutions.

Ordinary men assiduously engaged in a humble pursuit partly draw their energy from a lack of aptitude for a wide range of activities. Only a very few combine valiant effort with such talents that enable them to execute the very highest duties. Washington was a rare man not merely because of his uncompromising honesty and outstanding talents, but also because he fulfilled with equal fervor his obligations in the most unimportant offices while he was indeed capable of the supreme administration of the affairs of a whole nation. He, the great general and head of state, had in the past been an equally model officer of a small detachment, an equally model manager of an estate.<sup>8</sup>

In a review of the book *Travels in the North American States, Canada and the Island of Cuba* by Alexander Lakiyer, Dobrolyubov makes some interesting observations about office holders in the United States.

Complete equality of rights can be observed among the members of the New England commu-

<sup>1</sup> V. I. Lenin, *Collected Works*, English edition (Moscow: Progress Publishers, 1965), vol. 28, pp. 62-63.

<sup>2</sup> A. N. Radishchev, *A Journey from Petersburg to Moscow*, Russian edition (Moscow: 1938), vol. 1, p. 347.

<sup>3</sup> N. N. Bolkhovitinov, *Russo-American Relations 1815-1832*, Russian edition (Moscow: 1975), p. 505.

<sup>4</sup> *Ibid.*, p. 508.

<sup>5</sup> V. G. Belinsky, *Complete Works*, Russian edition (Moscow: 1953), vol. 3, p. 158.

<sup>6</sup> *Ibid.* (Moscow: 1954), vol. 4, p. 459.

<sup>7</sup> N. B. Chernyshevsky, *Complete Works in 15 Volumes*, Russian edition (Moscow: 1950), vol. 8, pp. 352-353.

<sup>8</sup> *Ibid.* (Moscow: 1948), vol. 4, p. 670.



... I hail you with particular pleasure, as the first harbinger of those friendly relations with your country, so desirable to ours. Both nations being in character and practice essentially pacific, a common interest in the rights of peaceable nations, gives us a common cause in their maintenance. ...

THOMAS JEFFERSON, from a letter to Andrei Daschkoff, Chargé d'Affaires from Russia to the United States, August 12, 1809.



From top:  
Kondratyi Ryleyev,  
Alexander Radishchev  
and Mikhail Lunin.



From top:  
Alexander Herzen,  
Vissarion Belinsky,  
Nikolai Chernyshevsky  
and Alexander Dobrolyubov.

## WALT WHITMAN ON RUSSIA

You Russians and we Americans! Our countries so distant, so unlike at first glance—such a difference in social and political conditions, and our respective methods of moral and practical development the last hundred years;—and yet in certain features, and vastest ones, so resembling each other. The variety of stock-elements and tongues, to be resolutely fused in a common identity and union at all hazards—the idea, perennial through the ages, that they both have their historic and divine mission—the fervent element of manly friendship throughout the whole people, surpass'd by no other races—the grand expanse of territorial limits and boundaries—the uniform'd and nebulous state of many things, not yet permanently settled, but agreed on all hands to be the preparations of an infinitely greater future—the fact that both Peoples have their independent and leading positions to hold, keep, and if necessary, fight for, against the rest of the world—the deathless aspirations at the inmost centre of each great community, so vehement, so mysterious, so abyssmic—are certainly features you Russians and we Americans possess in common.

As my dearest dream is for an internationality of poems and poets, binding the lands of the earth closer than all treaties and diplomacy—As the purpose beneath the rest in my book is such hearty comradeship, for individuals to begin with, and for all the nations of the earth as a result—how happy I should be to get the hearing and emotional contact of the great Russian peoples.

WALT WHITMAN, from the letter to Dr. John Fitzgerald Lee.  
December 20, 1881.

nity. Those who govern and those who are governed do not feel the least constraint in one another's presence. The former know full well that their very power is merely a particular form of service to the public and can continue only on the condition that they wield it conscientiously. The latter obey the power, not because they recognize its superiority over themselves, but because they find this division of public services to their benefit. Vested with authority, the official in the American community knows that he owes his election to his fellow-citizens and therefore will not dare to look down upon them, especially since he feels dependent on them during his entire tenure in office. On their part, in electing a man to a particular office, the citizens thereby manifest their trust in his ability and integrity. As a result the community government neither burdens nor restricts anyone; persons holding office do not constitute a privileged caste and, as travelers to America have noted, it is not even obvious to a stranger by whom and how the country is governed.<sup>9</sup>

Despite the considerable differences between the governments and sociopolitical systems of Russia and the United States, leading Russian thinkers as early as the late nineteenth century commented on the inherent similarity between the historical destinies of the two countries. They predicted a great future for both nations and for their neighborly relations and cooperation. Alexander I. Herzen (1812-1870), Russian revolutionary writer, philosopher and publicist, wrote in the famous *Kolokol*:

When the new railroad reaches the Pacific and gives Russia an open coast, the Russians and the Americans, with backs calmly turned on Europe, will be able to extend a hand to one another across the ocean. May its very name Pacific be the lofty motto of the future alliance!

... Our age is an age of fast moving events; new states are springing up on unknown shores, grandiose plans are not only being conceived but carried out, Russia and America are leaving other states far behind in fulfilling them. ... Other nations have not pampered us either with their sympathy or understanding. There have been many reasons for this—first and foremost the policy of St. Petersburg since 1825. But Russia is moving out of this period. Why then is America alone becoming aware of it and the first to welcome it?

The reason is that Russia and America meet on the other side of the globe, that there is a whole ocean of salt water between them instead of a whole world of outdated prejudices, fixed notions, envious seniority and a static civilization. ... Both lands are full of vigor, change, organizational fervor, and a stubbornness that defies all obstacles, both do not have much of a past, but indeed break with tradition from the start, both sprawl across endless valleys reaching for their boundaries, both from opposite sides, across vast distances, marking their path with towns, villages and settlements, reach to the shores of the Pacific Ocean, the Mediterranean of the future.<sup>10</sup>

<sup>9</sup> N. A. Dobrolyubov, *Collected Works in 9 Volumes*, Russian edition (Moscow: 1962), vol. 4, p. 262.

<sup>10</sup> A. I. Herzen, "America and Siberia," *Collected Works in 30 Volumes*, Russian edition (Moscow: 1958), vol. 13, pp. 398-401.





## Around the Country

### HIGH-SPEED BOOTS

Some really extraordinary boots have been designed by the Aviation Institute in Ufa, capital of the Bashkir Autonomous Republic. Wearing these boots, a person can run for hours and keep up with a streetcar, although each boot weighs more than three kilograms (one kilogram equals 2.2 pounds). An internal-combustion engine is set into both sides of each boot top. A compressor is attached to the heel. With the aid of the compressor, the engine cylinders are scavenged and charged with fuel mixture. Gasoline, the fuel, is ignited when the mixture is compressed, as in conventional diesel engines. The wearer of the boots is pushed off the ground by means of the mechanized soles.

In these boots, a running speed of 25 kilometers (one kilometer equals .621 miles) an hour can be attained, with an expenditure of just 70 grams (one gram equals

.035 ounces) of fuel. With a bottle of gasoline, in a day one can go from Moscow to Tula, a distance of 193 kilometers, or to Yaroslavl, 282 kilometers.

A stride is more than three meters (one meter equals 3.28 feet) long. It takes the wearer a minute to make about 100 such strides.

The high-speed boots will be a help to shepherds rounding up their flocks in the steppes and to geodesists and mail deliverers in rural areas. Tourists will also find them useful. Very likely the invention will lead to a new and fascinating sport.

### BIG DUMP TRUCKS

Belaz-549, the 75-ton dump truck now in series production at the Byelorussian Auto Plant, can be driven easily by a ballerina. That is how specialists from UMO Plant Ltd., a British firm in Letchworth selling Soviet



vehicles, described the maneuverability of the big truck.

It is 10 meters (one meter equals 3.28 feet) long, about 5 meters wide and 4.5 meters high. The easy driving is due to the fact that all mechanisms are hydraulically driven.

The new vehicle has no gear boxes. It has neither a cardan shaft nor a rear axle. The eight-cylinder, 950-horsepower engine is connected to a 500-kilowatt D.C. generator. Power is supplied from the generator to electromotors mounted on the wheels which ensure a speed of 60 kilometers (one kilometer equals .621



### SHAPED HOUSES

When children want to make an ice hill in winter, they do it by pouring water from above, letting it freeze, layer by layer, until the hill takes shape. A new Moscow apartment house

was "shaped" in much the same way, each layer of 10 to 12 centimeters (one centimeter equals .39 inches) taking an hour to "freeze." Of course, it wasn't water, but concrete that the building workers poured into a special casing. Step by step the casing was raised, and in this way the walls, all interior partitions and even the elevator shaft were formed.

In the opinion of A. Belokon, one of the architects of the one-piece house, the sliding casing method makes it possible to build houses of various shapes and to greatly cut construction time.

Two such houses have already been built in Moscow.

The same kind of construction is being used in many Soviet cities, for example, a 20-story rooming house in Tagliatti on the middle reaches of the Volga, an apartment house in Baku, the capital of Azerbaijan, a big complex of a number of such build-

ings in Minsk (the capital of Byelorussia).

### NEW HABITAT FOR ANIMALS

The spotted deer (sometimes called flower deer) have branchy antlers that contain medicinal substances. From their natural habitat in the Far East they are being resettled in the forests of Kabardino-Balkaria, an autonomous republic in the North Caucasus. Fifty deer have already been resettled. Another 50 will join them in the near future.

Many roe deer roam this forest. There are also bears and lynx. The number of squirrels resettled here is growing fast. Thousands of aurochs, with their upswept horns, are grazing in the mountains. And the wild boar popu-

### "AIR-CONDITIONED" VEST

A vest which prevents workers in deep mines from becoming overheated has been developed by the Donetsk Institute of Labor and Occupational Diseases in the Soviet Ukraine. The vest does not hamper movement. Cooled air is pumped through thin plastic tubes worked into the fabric. Special padding at the waist reduces effects of another factor, vibration.



The Donetsk institute has developed a series of special garmets, protective suits of aluminized fabric for mine rescue teams, suits with lightweight jackets, insulated vests, cooling hoods and helmets. These are not used exclusively by miners; workers in industrial plants where the heat is excessive find them equally helpful.

### ANOTHER ATOMIC POWER STATION

One of the largest atomic power stations in the world is being built on the bank of the Pripyat River, not far from the city of Chernobyl in the Ukrainian Republic. Its first section, with a capacity of two million kilowatts, will begin generating electricity in the Tenth Five-Year Plan period (1976-1980). The first reactor is now being assembled.

### BUDDHIST MONUMENTS IN CENTRAL ASIA

A "new" city has appeared on the archeological map of Soviet Tajikistan. Scientists date it somewhere between the fifth and eighth centuries A.D. Excavations in the Kafirnigan valley uncovered houses, workshops where metal was smelted in small furnaces, various stone articles and many coins.

In the southern part of the city archeologists found an impressive temple with a shrine, a hall of nine statues and other rooms decorated with bright frescoes much like Buddhist monuments in Ceylon and Japan. The shrine has many statues of Buddha and other Buddhist gods.

The city and the temple are one more proof of the historical relations between neighboring India and Central Asia and the mutual enrichment of their cultures.

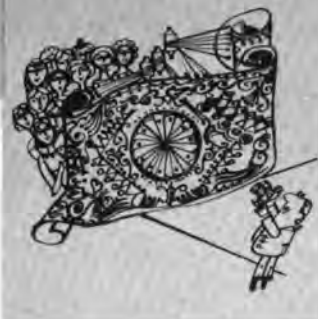


miles) per hour. The body can take about 50 cubic meters (one cubic meter equals 35.31 cubic feet) of bulk cargo, so that the Beloz-549 can be used efficiently at open-cast mines for the extraction of minerals and in the construction of large industrial enterprises.

However, 75-ton (one metric ton equals 1.1 short tons) dumpers are not the largest of the Byelorussian heavy-duty trucks. Two 120-ton dumpers are being tested at open-cast coal mines of the Kuznetsk Basin. Later, 180-ton dumpers will be produced. With these vehicles, it will be possible to make up truck trains with a 400-ton carrying capacity.

## GIANT CARPET

At international exhibitions and fairs—in Brussels, Leipzig, Budapest, Poznan, Damascus, Montreal, Osaka, to name a few—the



patterns and colors of Kanash carpets always draw admiring viewers and knowledgeable rug merchants.

The biggest carpet ever woven in the Urals and Siberia was recently completed at the Kanash carpet factory. It measures 30 square meters (one square meter equals 10.76 square feet) and weighs 120 kilograms (one kilogram equals 2.2 pounds). Twenty weavers worked on it.

## NEW PLANE

The new AN-28, created by the aircraft design office Oleg Antonov heads, has come through almost two years of rigorous testing.

The multipurpose light plane is powered by two gas turbine engines. It can take off and land on grass airfields with an unpaved flying strip of only 550 meters (one meter equals 3.28 feet). The advanced flight-control and radio-navigational equipment, radio communication and the anti-icing system enable the plane to make regular and safe flights in all weather conditions and at any time day or night.

The AN-28 easily gets off the ground fully loaded and, in a critical situation, with only one of its engines operating.

It carries 15 passengers. Cruising speed is 350 kilometers (one kilometer equals .621 miles) per hour, and the range is up to 1,000 kilometers. The AN-28 can

carry up to 1.5 tons (one metric ton equals 1.1 short tons) of cargo, patrol forests, search for people who are in distress and give them aid, spot fish shoals and service expeditions. It can be fitted out with ski landing and floatation gear.

## ZOO BABIES

In the USSR there are 24 zoos.

The Kaliningrad zoo, covers an area of 17.5 hectares (one hectare equals 2.47 acres) and has a collection of 1,300 animals and birds, with 220 species represented. The zoo boasts such rare species as white rhinoceros, fur seals, Amur tigers, a Ceylon elephant, giant tortoises and dwarf hippopotamuses.

Recently the zoo celebrated the birth of baby giraffe Ushastik (Long-Ears). This is the second addition to the family of giraffes brought here in 1970. Giraffes



bred in captivity are not rare; even so, great care and attention are necessary: conditions close to the natural habitat, a good deal of attention and the right food. A baby elephant was also born recently, and a baby kangaroo was bred for the first time.

The Kaliningrad zoo, besides housing and showing animals, is a large research center.

lation has increased so rapidly that 1,500 of them were recently caught and sent to other areas.

The animals are well looked after: Salt is spread for them, corn is sown in the meadows, and topinambou is specially planted.

## SNAKE VENOM: POISON AND HEALER

Frunze, the capital of the Kirghiz SSR, has a big snake laboratory.

The walls are lined with cages for cobras, vipers and other snakes. Every snake family has two communicating cages. One cage has electric lamps for lighting and heating, the other is in semidarkness in the daytime and total darkness at night.

To get one gram (.035 ounces) of dried viper's venom, more



than a hundred snakes must be milked. Last year's output was 920 grams.

Venom is collected once every three weeks, after which snakes are fed and left alone until the next milking.

The liquid venom is dried in special chambers and sent to customers in small glass bottles.

Snake venom is a deadly poison. But in serum form it can save the life of a snakebite vic-

tim. It is also used to relieve the symptoms associated with radiculitis, rheumatism, bronchial asthma and neuralgia. The Frunze laboratory is the main supplier of this valuable medicinal substance, not only within the USSR but also to foreign customers.

## TEN YEARS OF CHILDREN'S OPERA

The Moscow Children's Music Theater is celebrating its tenth birthday. It has given about 3,000 performances to more than two million young spectators. The company has toured many Soviet cities and foreign countries. At the USSR Competition of Musical Theaters it won a prize for the presentation of *For the Motherland with a Song*.

Right now the company, directed by Natalia Sats, People's



Artist of the USSR, is rehearsing the opera *A Cap with Flaps* by Edward Khagagortyan for the grade school youngsters and the opera *Maximka* by Boris Terentyev for high schoolers. Also in rehearsal are Sergei Prokofiev's *Peter and the Wolf*, the symphonic fairy tales *My Friend and I* by Tikhon Khrennikov (words by the poet Sergei Mikhalkov) and *Dr. Aibolit (Doolittle)* and *His Friends* by Igor Morozov.

## HOW MUCH DOES A STORM WEIGH?

Weather forecasters of Alma-Ata, the capital of Soviet Kazakhstan, have "weighed" the dust storms that sometimes rage in the semideserts of the republic. The storm that swept for 116 hours over the Koschagyl region, on the northeastern shore of the Caspian Sea, proved to be the "heaviest." The measurements taken over a range of only 100 meters (one meter equals 3.28 feet) showed that the wind carried more than 100,000 tons (one metric ton equals 1.1 short tons) of sand and dust. For three years running, the scientists searched for the foci of the storms and finally established the regions in which sand clouds were formed from 20 to 30 times a year. They have compiled the first map showing the areas of dangerous dust storms.

## BELLS MAKE MUSIC

Above the city of Kaunas in Lithuania. Its 35 bells have been silent for a long time.

A Kaunas native, composer Viktoras Kupriavicius, decided the bells must play.



He designed a control panel resembling the keyboard of an organ. Today the bells can be heard all over the city. A Beethoven piano concerto may be followed by Bach fugues, Chopin nocturnes or the symphonies of Mozart or Tchaikovsky. Kupriavicius' repertoire includes several arrangements of classic operas, folk tunes and works of contemporary Soviet and foreign composers.

## UNDER-DESERT SEA

Vast water resources have been tapped at a depth of only 400 to 500 meters (one meter equals 3.28 feet) in the Muyunkum Desert in the Kazakh Republic. Alma-Ata's hydrogeologists had predicted a sea of crystal-clear fresh water under the sand.

The water is under pressure here, gushing from many of the



wells at the rate of some 80 liters (one liter equals .26 gallons) per second. One such well is enough to continuously irrigate an oasis of 60 hectares (one hectare equals 2.47 acres). Researchers believe that eventually these wells can be used to create a mighty river.

## MOUNTAINEER HANDICRAFTS

Kosov, a small town in the Carpathians (Western Ukraine), has long been considered the

handicraft capital of the Gutsuls, Ukrainian mountaineers. Gutsulshchina is the name of a studio in which several hundred artisans produce original works. These pieces, made of wood, leather, ceramics, wool and metal, are exported to 20 countries.

A secondary school of applied arts has been set up at Gutsulshchina. The 360 young students study the theory of painting, sculpture, composition and drawing and get practical experience in the workshops.

## KAMCHATKA'S UNDERGROUND BOILER

There is a vast area of geysers and hot springs in the southern part of Kamchatka (Far East) in the valley of the Pauzhetka River. Hot springs shoot about 350 tons (one metric ton equals 1.1 short tons) of water an hour



into the river. In many places the temperature of the soil reaches 100 degrees Celsius even at a depth of one meter. In the mountains, closer to dormant volcanoes, the underground heat is seen in an even more dramatic way: 100 tons of steam an hour spout into the air.

A geothermal power station, the first in the Soviet Union, has been set up here. Its capacity has reached 5,000 kilowatts.

The station is simple in design. Steam from bores is sent under pressure directly to the turbines. Spent steam is dumped into condensers which are supplied with cold water from the river.



# OUT OF THE WORLD OF DARKNESS AND SILENCE

By Valeri Dyomin  
Photographs by Igor Zotin

All human beings should  
be given the  
opportunity to realize  
their potentials  
to the fullest extent  
possible.

Soviet psychologists  
have shown how  
blind-deaf children  
can be taught  
to perceive the world  
around them and  
share in all its joys.





*Learning about the Moon.  
The blind-deaf person's  
world differs only in  
form, not in essence,  
from the world of those  
who can see and hear.*







Sergei Sirotkin, one of the four blind-deaf Moscow University students, repairing a teletactor, a machine that converts the click of a typewriter key into a pricking felt by the fingertips. Different combinations of the prickly sensation denote different letters.



Right: Yuri Lerner, another of the four blind-deaf students, ponders a hard exam question.

The four at a psychology department seminar. Note the teletactor on the table.



**I**T DOESN'T HAPPEN OFTEN, perhaps in one birth in a million. But sometimes a child comes into the world doomed to darkness and silence. What will become of such a person?

"Lower animals," "a vegetable"—these are some of the words once used to describe blind-deaf children.

These words and the attitudes they reflect have, for the most part, become relics of the past. The best proof of this profound change is four students I met during a visit I made to Moscow University. They were majors in psychology: Natasha Korneyeva, Sergei Sirotkin, Alexander Suvorov and Yuri Lerner. These four are among the relatively few blind-deaf college students in the world. For the first few minutes of our meeting I was glad they couldn't see or hear me: I was uneasy, and I was anxious. What should I say? What could I ask? It took me some time but no extraordinary effort to realize that my apprehension had no realistic basis. We went to the

planetarium, to the zoo, enjoyed an evening party; I learned their manual alphabet and listened to their somewhat monotonous—but comprehensible—speech. And I read a number of books on their disabilities. Gradually I realized what a miracle had been wrought: These four young people had been helped out of silent blackness into a world of sound and light. The fact alone that blind and deaf people, who recognized a question only through the sense of touch, had learned to reply in speech that differed only slightly from ours—in sharpness of articulation and tone variations only—seemed incredible to me. Scientists claim, moreover, that their ability to speak is a minor accomplishment as against the other skills they have acquired.

From the book *Blind Deaf-Mute Children* by Professor Alexander Meshcheryakov (the students call him father) there emerges a picture of the long and difficult road to the miracle.

Here are the chronological milestones.

**1749** In his famous *Lettre sur les aveugles à l'usage de ceux qui voyent* (*Letter About the Blind for the Edification of the Seeing*), the French encyclopedist Denis Diderot made the first theoretical assumption that the blind-deaf were educable.

**1826.** The first description of a blind-deaf child appeared in print. Gathered to discuss this child's condition, leading British educators and physicians came to the conclusion that nothing could be done for the child.

**1842.** In his *American Notes* Charles Dickens told the true-life story of a small blind-deaf girl who had been taught to read, write and communicate simple thoughts.

**1887.** This was the year Anne Sullivan, Helen Keller's teacher, was able to get across to the seven-year-old girl that there was a relationship between words and objects. Sullivan, by her pedagogical talent and with her singleness of purpose, transformed "a little raging monster Helen, who





*It seems incredible that the blind-deaf, who perceive a question only by touch, can be taught to reply in speech. This blind-deaf child is*



*being taught to speak by "hearing" with his hands the vibrations of his teacher's throat as she pronounces sounds which have already been explained in sign language. The boy will then "listen" to his own throat making the same sound.*

in no way resembled a human," into an educated young lady, who graduated with honors from Radcliffe College and became an author. Helen Keller was called "the miracle of the century." Mark Twain compared her to Napoleon and Alexander the Great; kings and presidents sought meetings with her; she became a national heroine.

1923. Soviet professor Ivan Sokolyansky founded a special clinical school for the blind-deaf in Kharkov.

1933. Maxim Gorky, the famous Soviet writer, receiving a letter from one of the students at that school, a certain Olga Skorokhodova, described it as a "miracle—one of those great miracles our minds make possible."

1935. Delegates to the International Congress of Physiologists who visited Sokolyansky's school called it "an outstanding institution of research not only in the Soviet Union, but in the whole of world science."

1942. The nazi invaders destroyed the Kharkov school. Olga Skorokhodova somehow survived.

1947. Skorokhodova's first book appeared. It contained the author's detailed psychological observations of herself and also a selection of her poetry.

1961. Skorokhodova defended her thesis for her degree in psychology, and became a senior researcher in a laboratory named for Professor Sokolyansky.

1963. A school for the instruction of the blind-deaf was opened in Zagorsk, near Moscow. Under Professor Alexander Meshcheryakov a program of research was developed. Its goal was the maximum development of the abilities of all the blind-deaf in the country.

1971. Four graduates of the Zagorsk school became Moscow University students.

1974. The Soviet Government awarded Olga Skorokhodova the Order of the Red Banner of Labor. That same year marked the publication of Meshcheryakov's basic work *Blind Deaf-Mute Children*, the conclusions of 15 years of practical experience and work.

1975. The Learned Council of Moscow University's Psychology Department summarized the four-year training of Meshcheryakov's students. All four delivered their own theses, which demonstrated not only the quality of their professional psychological training, but also their thorough grasp of the subtlest details of the subjects under discussion.

These people, it was clear, had entered our world confidently and with a sense of security about their future. Though Sergei Sirotkin's thesis proved that the blind-deaf world differed only in form and not in essence from the world of the seeing and hearing, just ordinary contact with the four was proof enough of that truth.

Eminent Soviet scholars—Academicians Alexei Leontyev, Bonifati Kedrov, Vsevolod Stoletov, the





Left: Natasha Korneyeva, also one of the blind-deaf university students, wants to teach at the school for the blind-deaf in Zagorsk from which she herself graduated four years ago. She likes working with children and they like her. Above and upper right: She celebrates her birthday with friends. Academician Bonifati Kedrov is congratulating her, and Raisa Matveyeva, head of the laboratory of deafness with blindness at the Institute of Defectology, is beside her. Right: Olga Skorokhodova, a blind-deaf poet and psychologist, with Korneyeva and Alexander Suvorov. Far right: Suvorov with fellow students and, below, with Evald Ilyenkov a close friend of the four young people.





## OUT OF THE WORLD OF DARKNESS AND SILENCE



President of the Academy of Pedagogical Sciences, and many others—have recognized the work of Sokolyansky and Meshcheryakov as major findings. They have expanded not only the development potentials of blind-deaf children, but also the intellectual and ethical powers that lie dormant in every so-called normal person.

These four students have a fine sense of humor, and respond to difficult and embarrassing situations they sometimes find themselves in with good sense and amiability. Of course the disabilities are not canceled out by the humor, but they are pushed out of the way into the background, where they belong.

Relaxing after the day's classes, my new friends often enjoy friendly verbal wrangles. There is a visual beauty in their exchanges: The

hand of one is under the palm of another, and the fingers swiftly form different figures, each one a translation of a letter, a syllable or a word. You are reminded of a bird's heart beating in your hands. The remark is completed, the "bird" soars up—and the friends burst out laughing. Then immediately, what had been the "listening" palm dives and, just as swiftly, rustles its wings in reply against the fingers of the other. I am not skilled in this language, so, to converse, I work the keys of a teletactor, a device that converts the ordinary typewriter click into a pricking felt by the fingertips, with different combinations of the prickly sensation denoting definite words.

I couldn't help noticing the tender, easy relationship of those four students with their friends and teachers—Evald Ilyenkov, who has

a doctorate in philosophy and who, after Meshcheryakov's death, began to devote all his spare time to them; Lyudmila Obukhova, an assistant professor, who undertook to organize their studies, and Raisa Matveyeva, head of the laboratory of deafness with blindness at the Institute of Defectology, who, in spite of the general skepticism, managed to teach Sergei Sirotkin to speak.

Ilyenkov likes to tell people the little story of how Yuri Lerner once asked Meshcheryakov, "How can I, in my condition, be happy?" Taken aback by the unexpected question and trying not to be evasive, the professor asked, "What do you think?" "I think I'm happy, that's the funny thing," Yuri replied, laughing. "A person is unhappy when he loses something, but me—I discover something every day!"



# "STOP! THAT'S IT FOR TODAY!"

By Grigori Gorin



**T**HAT MORNING bright sunlight woke me up. It was blazingly white, dazzling. The Sun was a perfect sphere.

"It's going to be a fine day," I said to myself. "Nice and warm."

Well, the day turned out to be not only warm but lucky. No sooner was I out of bed than one good thing followed another.

To begin with, my wife walked out on me.

She had intended to leave for a long time but kept putting it off for some reason or other. No matter, today turned out to be the day.

"I'm going without calling down curses on you!" she said, packing her valise.

I said nothing.

"I'm going without calling down curses on you!" she repeated. "Of course it's cruel, this hour of parting, but you and I are strangers, so try to forget me. I had no idea I was in your way, that you had chosen to follow a different path."

Those were her final words. Out she walked and slammed the door.

With a sigh of relief I went to the bathroom.

A charming, beaming man looked back at me from the mirror.

"You look fine," I told myself smugly, picking up a toothbrush.

The evening before I had had a terrible toothache. Today my tooth made no objections to the cold mouthwash. It gleamed a pearly white that added handsomely to my face.

Ah, this leisurely sipping of my morning coffee! I unfolded the newspaper and was met with another happy surprise: my article! For months the editor in chief had held off running it, but he must have grown kinder or decided to retire.

Humming a happy tune, I donned my best gray suit and went out into the yard. There was our housing administration chief.

"You wanted your ceiling whitewashed, didn't you?" he inquired.

"Certainly. I put in my request a year ago, don't you remember?"

"Well, the painter'll be up in your apartment at 3 P.M.," he said.

I took this happy news as though I had fully expected it, shook his hand and walked out into the street.

Everything looked unusually festive. The shop windows shone from a recent washing. Music was playing. Smartly dressed people strode along on their way to work. Janitors were sweeping the street, whistling as they worked. A boy in velvet shorts accompanied them on a flute.

At the corner a vendor with a handsome red mustache and wearing a snow-white apron was selling beautiful, fat tangerines.

"Splendid" I thought, and smiled up at the perfect sphere of the Sun. "Simply wonderful!"

Passing a bank, I decided to drop in and see whether my one and only lottery ticket had won anything. And it had! A refrigerator!

At first I could not believe it. Even for such a lucky day this was going some. I checked the number with the list again. Right, absolutely right! I had won! No little thing, either, like a ball-point pen or a woolen scarf or even a Tula accordion plus case.

The prize was an Oka-4 refrigerator—worth 275 rubles!

"I won't take the refrigerator, I'd rather have the money," I decided. "I'll go to the Baltic coast or maybe to the Carpathians. They say that's a great place."

The two Caps were armed with pistols, and the Stetson with an enormous film camera. Beret had nothing.

"Keep your shirt on, everybody," said Beret. "Just stand where you are and behave as naturally as possible. We're shooting a picture. The bank robbery sequence. Take 1."

Stetson trained his camera eye on us, and off it whirled.

Both Caps advanced upon the teller.

"Hands up" one of them croaked.

"What's going on?" whispered the teller, turning white.

"What picture are you talking about? This is the first I've heard of it."

"Put your hands up!" croaked Cap No. 2 still more wildly. "Step away from your desk."



I looked around, I couldn't suppress a smile of satisfaction. What a day!

There was nobody in the bank but an elderly, amiable-looking teller, who was grinning at me from behind his cage. You could tell he was only too happy to pay me the sum given in the newspaper.

Just then the door slammed, and four men walked into the bank: two lanky villains in caps, a man of middle height in a Stetson and an undersized fellow in a beret.

The teller staggered back and raised trembling hands.

Cap No. 1 opened the desk drawers, his companion produced a market bag and began dropping the money into it.

I began to shiver violently.

"Just a moment, comrades," I said quietly.

"Where's your identification?"

"Shut up!" yelled the pistol-packing Cap, aiming right at my eyes.

My legs caved in, and for the first time I felt the



eternal revolution of the Earth under my feet. "Excellent," said Beret. "That's genuine fear. Let's have a close-up of this guy."

The camera moved up and drilled me with its penetrating glance.

"Enough of him," cried Beret. "We have one more take. Let's have the safe-cracking episode."

Caps 1 and 2 pulled a bunch of keys out of the teller's pocket, opened the safe and poured the bills into a second bag.

"Fine," said Beret. "We're finished here, let's go."

All four swept out of the bank, taking the bags of money with them.

Frozen with horror, we stared through the window at the men climbing into a black Volga.

"Help! We've been robbed!" shouted the teller, running to the door.

I rushed after him.

The black Volga slowly rolled away from the curb. The right rear window was open for the camera.

As we dashed up to the car, the front door opened, and the man in the beret stuck his head out.

"You're doing fine," he called out to us. "Swing your arms and holler for help."

"Help!" cried the teller, swinging his arms.

"Help!" I cried swinging my arms, too.

"Good!" said Beret. "Now yell: 'Stop 'em!' "

"Stop 'em!" we roared in unison.

The street was full of people. I could see their enjoyment and their smiles. Nobody made a move to stop the car.

"Listen!" I cried out. "This isn't any movie shooting! It's the real thing—these are real robbers! Stop 'em!"

Two girls laughed. A man nodded his appreciation. The militiaman on the beat smiled and saluted us. The black Volga kept moving down the middle of the street. We flew after the car, yelling and swinging our arms wildly. Mr. Beret stuck his head out of the window and shouted his approval.

Suddenly I saw a militia motorbike with a sidecar—two officers were sitting in it.

"Comrades!" I cried, running up to them. "Stop that black Volga. This isn't a movie, it's a real robbery! They stole the bank's money!"

The militiamen looked at me quizzically, smiled, then they scowled. The motorbike started up and sped down the street.

In no time it had caught up with the black Volga. I heard shouts and shots. Then the Volga and the motorbike disappeared around the corner. I ran after them and saw an enormous crowd ahead. By the time I got there, I realized it was all over: The Volga was standing at right angles to the sidewalk, and all four criminals had their hands up and were eyeing the militiamen's revolvers with unmistakable fear. The elderly bank teller was skipping around rescuing the scattered banknotes and dumping them into a bag.

"Aha! Got you this time!" I cried out triumphantly.

Beret looked daggers at me.

"Come on, climb in!" said the militiaman.

"You'll have to come along," he called to the teller. "But I've got to return the money to the bank!"

"That money's material evidence," said the militiaman. "Bring it along."

"I'll come, too," I said. "I'm a witness."

"We don't need you. It's an open-and-shut case. Just run along home."

I don't know why, but I didn't like his answer.

Neither did I like the way the militiamen were putting the men and the teller into their car. When a militiaman suddenly gave one of the robbers a mysterious wink, a horrible idea crossed my mind.

"Comrades!" I yelled to the crowd. "These aren't militiamen! They're members of the same gang. Grab them!"

"Shut up!" one of the militiamen barked, shaking a revolver awfully close to my nose.

I caught him by the hand and he grabbed me by the collar.

The crowd gasped and moved toward us.

"STOP! !"

The voice, loud and imperious, came from somewhere above.

The big, white perfect sphere of the Sun began to fade and disappeared in the sky.

"STOP! THAT'S IT FOR TODAY! EXTRAS ARE DISMISSED!"

The voice from above enunciated every word very clearly. The crowd began to disperse.

"Let go of my hand!" said the militiaman. "Can't you see the scene is finished?"

The burglars climbed out of the car and lit cigarettes. The bank teller took a cigarette from the pack offered him by Beret and also lit up, dropping the bag of money to the ground.

"What's all this?" I whispered to him. "What gives?"

"Shooting's over," said the teller. "Time for a smoke. How about lunch?"

I looked about in complete confusion.

The shop windows were no longer shining. The music had stopped.

The passersby were taking off their fine clothes on the run and handing them into a small window over which a sign read: "Properties."

The boy with the flute and velvet shorts was crying, loath to part with them.

The red-mustached vendor had packed the tangerines into a crate and was nailing the lid back on.

"Just a minute!" I cried. "There's something funny going on. Just a moment!"

I ran back to the bank, picked up the list of lottery winners and checked my number.

I had won nothing.

I checked it again.

I had not won an Oka-4 refrigerator. Not even a woolen scarf. Not even a ball-point pen. And certainly not a Tula accordion plus case.

Dizzy and nauseous, I made my way home.

Today's newspaper was pasted on the wall by the yard.

My article was not in it. Where I had seen it there was a big crossword puzzle instead.

In the yard I met our housing administration chief.

"You needn't have hurried," he said. "The painter's not coming today."

Just then my tooth began to ache again.

Holding my head, I climbed the stairs and pushed open the door of my apartment.

There was my wife.

Her cold, narrow eyes gave me a hard look.

I laughed nervously.

"Why laugh if your heart aches?" my wife asked, unpacking her valise.

"The shooting's over," I thought. "It's over."

Without looking at my wife, I went into the bedroom, dropped on my bed and broke into sobs.

"STOP!"

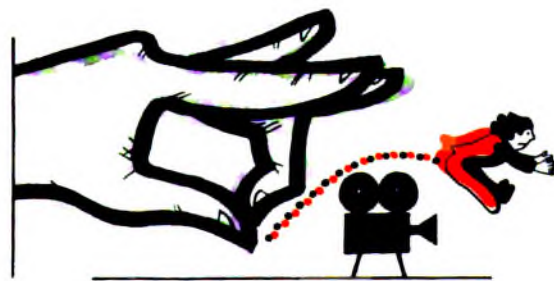
It was that imperious voice again, very close by. I wiped my eyes and sat up.

The film director was sitting on the bed. "You shouldn't cry. That's going too far. You have very nicely conveyed the feelings of a man who confused a film shooting with reality. But tears? That's too much. Too melodramatic."

"I'm just tired," I said in a low voice. "Dead tired."

"Good. Well, that's it for today. Rest."

"Thanks," I said quietly, and began taking off my makeup.



Drawings by Valeri Belyakov

**NEXT  
ISSUE**



## WHERE HISTORY AND TECHNOLOGY MEET

### Touring West Georgia

Traveling through this picturesque southern republic, you can experience all the seasons of the year in just a few days. There is snow on the tops of the mountains surrounding Upper Svanetia, areas resembling Brazilian jungles, and everything between. Colchis, the land of the Golden Fleece, is here, and so is the arch dam—the highest in Europe—of the Inguri Hydroelectric Power Station.



## LVOV STUDENTS ACTIVE IN CITY AFFAIRS

### They Help Solve the Problems

Two articles—one sociological, the other human interest—and many photographs give the reader a rounded picture of this Ukrainian city where there are 40,000 students in a population of 640,000. They are involved in every aspect of community life, from serving as deputy to the City Soviet, to heading a children's science circle, designing—and often helping to build—housing projects.

## REAL INCOME TO INCREASE Gains for Every Family

Vasili Prokhorov, Secretary of the All-Union Central Council of Trade Unions, explains how the successful fulfillment of the five-year plans helps to raise living standards through wage increases, grants, free services and stable prices.

**COMING SOON**

SOVIET LIFE Is 20 Years Old



# Facts and Figures on Estonia

Many of our readers ask about the Estonian Soviet Socialist Republic. Here are some facts and figures on life in this Baltic republic.

## Men and Women

Vilma Toevali has been skipper of the tugboat *Triigi* for 25 years and she is by no means atypical. In Estonia, 57 per cent of the specialists with a college education are women, including 30 per cent of the engineers; 50 per cent of the agronomists, zootechnicians and veterinarians; 70 per cent of the economists; 77.2 per cent of the teachers and 41.2 per cent of the researchers.

Women make up 34.5 per cent of the deputies to the Supreme Soviet of the Estonian SSR, the highest legislative body in the republic. The percentage of women in the local Soviets is even higher—48.32.

Over 55 per cent of the people's judges in Estonia are also women.

## With the Help of the Other Republics

Estonia's industry now turns out in 10 days as much as it did in the entire year 1940, despite the fact that more than 2,500 factories and 21,000 homes were destroyed during World War II and the Nazi occupation. The devastation cost Estonia 16 billion rubles (in 1941 prices).

The loss was so great that it would have taken the republic decades to rehabilitate the economy on its own. But the other Soviet peoples helped. The USSR government allocated an additional 300 million rubles to the republic, and by 1950 Estonia's gross industrial output was 3.4 times greater than in 1940.

A third of the population in 1940 lived in cities. Today 67.8 per cent do.

## Larger Crops

Thirteen per cent of Estonia's people with full-time jobs work on farms. They annually produce 820 kilos of milk, 115 kilos of meat and 310 eggs per capita. In per capita output of livestock products Estonia has surpassed its closest foreign neighbor, Finland.

Although three times fewer people work on Estonia's farms than before the war, meat production has almost doubled, milk production has increased 150 per cent and egg production 300 per cent. The grain yield has almost trebled.

What accounts for the difference? Two figures—144,000 and 360.

Before the war, there were about 144,000 small private farms. Now there are 360 large state and collective farms with the most modern farm machinery and equipment.

## Medical Care

The network of medical institutions in Estonia is steadily expanding. In the last five years a new surgical unit for the Tartu hospital, a cancer clinic in Tartu, new surgical facilities for the Kohtla-Järve hospital and a maternity clinic for the Pärnu City Hospital have been built. A 300-bed hospital in Tallinn, a 200-bed maternity hospital in Narva and a cardiological center in Tartu are under construction.

The republic has over 5,000 doctors (88 per cent of them women). In 1940 Estonia had 10 doctors per 10,000 people. The figure today is 36.

## New Housing

A total of 261,000 people, close to a sixth of the republic's population, moved into new or better housing in 1973 and 1974.

## Welcome to the Olympics

From 1971 to 1975, 376,800 tourists from 30 foreign countries visited the republic. Estonia's tourist agencies are receiving an especially large number of inquiries about the Olympic Regatta to be held in Tallinn during the 1980 Olympic games in Moscow.

## They All Study

Aino and Endel Klaassen, both teachers at the Vaimela Technical School, have eight children—one son and seven daughters.

Tiina and Pilvi attend the Viru Secondary School. Tiina last year graduated from the Tartu music school's piano department and is teaching in a children's music school. Sirje and the Klaassens' only son Lembit graduated from the Estonian agricultural institute. Kulli graduated from Tartu University's biology department and is working at a limnological station. The Klaassens' oldest daughter Leili received her degree in medicine from Tartu University, and their youngest, five-year-old Kadri, has her life ahead of her.

Estonia's institutions of higher learning today have almost five times as many students and its secondary schools almost twice as many students as in 1940. Some 76 per cent of the college students receive stipends from the state.

## The Estonian Language

The 450th anniversary of the publication of the first book in Estonian was celebrated in 1975. Since 1525, 85,000 titles have been published in Estonian in editions totaling 350 million copies. More than 50 per cent of the titles have been published and 80 per cent of the total number of books printed in the last 35 years.

In 1939 Estonia's public libraries had a total of 884,000 volumes; now they have more than nine million. The library network itself has expanded considerably, and covers all the republic's cities and districts.

## Uku

Uku, the Estonian name for a weather and lightning fairy, is also the name of a shop in the center of old Tallinn, on Ratusnaya (town hall) Square, where the products of the local arts and crafts cooperative are sold. The shop is always crowded: Both Estonians and tourists are attracted by these colorful creations.

There are over 2,000 artisans in the Uku cooperative. The cabinetmakers from the village of Avinurme on the shore of Lake Chudskoye and the embroiderers from the island of Muhu have long been famous for their skill and artistry.

Estonian handicrafts have won many prizes at international exhibitions and fairs. They will be on display at the National Festival of Arts and Culture in Montreal at the time of the Olympics.

# THE CURTAIN RISES

## Actress Inna Churikova and Her Characters

By Ivetta Knyazeva

IN THE CAREERS of great actors and actresses it is said, chance has played no small part. The plot is common enough: A young and timid talent appears, full of hopes and plans, but nobody gives it a nod. Then, suddenly. . . Here the trite plot may deviate some, but of course the young unknown wakes up one morning famous, a star.

Inna Churikova is famous. The film *No Force Through the Fire*, in which she played her first major role, won the main Golden Leopard prize of the twenty-second international film festival in Locarno, Switzerland, in 1969. Her second major role, in the film *The Beginning*, had the critics raving about the "Churikova phenomenon." A *Soviet Screen* magazine poll rated Churikova the best actress of the year. Bulgarian filmgoers put her at the top of the foreign actors list, which included such stars as Sophia Loren and Elizabeth Taylor. Italians called her the "Russian Giulietta Masina," praising her talent for tragicomedy.

Did the story of the shy unknown, Inna Churikova, fit the plot? Did she "suddenly" become famous?

Of course not. In art nothing happens overnight. In a recent interview she gave me, Churikova said at one point:

"You have to 'store yourself up,' store up observations, thoughts and feelings over a long time so that you really have something to say to the audience. Even a talented artist is ineffective without that experiential growth. As someone once said, the first law of art is that if you have nothing to say—say nothing; if you have something to say—say it and don't lie. . . ."

Her teachers recall the way this girl told them resolutely, trying to overcome her natural shyness, how much she wanted to become an actress.

Churikova certainly didn't give the impression of a likely candidate for a theater or film career. And her first attempt to enter a theatrical institute failed completely. But persistence won her admittance to a school associated with a Russian theater. Then Churikova was invited to join the company of the Moscow Young Spectators Theater. She was an immediate hit with the youthful audience as a very funny—and unfrightening—Witch, then a nosy but lovable Fox!

Churikova began to build up a reputation as a comic.

She was invited to do films. One comic role followed another. . . . The film directors called her a "Nikulin in skirts." (Yuri Nikulin is a very popular and talented Soviet circus clown.)

But even then she was not simply a comic character. The small roles always throbbed with life these were real people she was playing. She knew what to say to her audiences, whose hearts went out to the pitiful and ludicrous Rosochka (33), or who found a kind and sensitive soul inside the seemingly tough factory girl Nelli (*The Older Sister*). These bit parts Churikova developed into brilliant studies in her later roles on the screen. She was "storing herself up," learning the language in which she was to speak fluently and expressively.

Suddenly? . . . Now, when she had made herself good enough for major roles, that long-awaited "suddenly" appeared—it didn't just hap-



*Inna Churikova as Joan  
of Arc in the  
trial scene from the film  
The Beginning.*

Photographs by Boris Kaufman







"You cannot play with art. Nor is it simply an occupation; it is the reason for your life. You have to know what you are defending and against whom you are fighting. You have to defend and to fight with a pure, confident, convinced heart." That is Inna Churikova's credo.

pen, it proceeded, out of the iron logic of art. It was delivered by phone—a call from Leningrad: "Gleb Panfilov, the young film director, is preparing to make *No Ford Through the Fire* at Lenfilm Studio. Please read the screenplay. There's a leading role. . . ."

"I was told she was very plain looking," recalls Panfilov with a smile. "My answer was that she was perfect. Can't you see that she is Truth incarnate? She's real! Innocent but wise. Humble but unbending. She has the beauty of soul for which Russian women are so famous."

That was indeed the character of Tanya Tyotkina, the heroine of *No Ford Through the Fire*, a little nurse on a train that carried wounded men away from the battlefields of the Civil War. The events depicted followed on the heels of the October Revolution of 1917. At that time of upheaval, when the old world was desperately resisting the new, the human being and the artist awoke and blossomed in the youthful Tanya. We saw two films in one, as it were, on the screen. The first was composed largely of Tanya's drawings, romantically expressive and touching. In the other, the story of Tanya's life, her love and death, actress Churikova created a character of power and purity. Both films, interweaving and complementing each other, by giving larger dimension to the period, showed the ethical demands being made on the people: They are free to choose whatever

*Top: Churikova with actor Leonid Bronevoi (left) and director Gleb Panfilov rehearsing for May I Have the Floor? Shooting a sequence for the film May I Have The Floor?*

*Scene from the film No Ford Through the Fire, Churikova's first major role. With her are Vadim Beroyev (left) and Mikhail Glusky.*







road in life they wish, but they must make the choice and find themselves on one or the other side of the barricades. There is no third road, no detour, no bypass. Through the fire there is no ford!

It goes without saying that a brief synopsis of the picture doesn't do justice to the original. When it was released, filmgoers stormed the movie houses. The critics were unanimous—a most unusual verdict—and the word phenomenon appeared in practically every newspaper review. Actress Inna Churikova and film director Gleb Panfilov had not entered—they had burst—into Cinematography with a capital “C.”

“And yet, for Panfilov and myself,” says Churikova (now she will be saying “us” all the time, for Gleb has become her husband), “this first joint production is memorable not only because it was a success. It expresses so well the ideological and esthetic principle we live by: The choice everyone has to make is also obligatory for the artist. It is a free but clearly defined choice. You cannot play with art. Nor is it simply an occupation; it is the reason for your life. You have to know what you are defending and against whom you are fighting. You have to defend and to fight with a pure, confident, convinced heart. I once read that writers cannot disguise themselves or fool their readers. From their books you will know what they want to say or want to conceal. The

same thing applies to the acting profession—it is splendid but it is tormenting, it forces you to spend yourself without mercy. . . .”

The splendid profession, Churikova believes, is splendid not because of the fame it can bring (she is chary of the word and does not relate it to her own work). Because of what, then? She turns it over in her mind and says quietly:

“Because you can live many lives.”

The film *The Beginning* presented her with two new lives. Yevgeni Gabrilovich and Panfilov wrote a screenplay especially for her. There were many comic situations in the film, but it was not a comedy. Some of the sequences center around the unhappiness of a young factory working-woman, Pasha Stroganova; in others the focus is Joan of Arc, who died in torment at the stake. This mingling of times and characters develops naturally within the plot structure: Pasha Stroganova has been invited to play the part of Joan of Arc in the movies. Pasha is a contemporary, recognizable to the last psychological detail; Joan is the embodiment of an overwhelming tragic force. It is hard to imagine—one actress portraying two such different lives. But the picture, about the talent of a personality which changes life, about the rebirth of a person, about the complex road to finding herself, is a triumph of integrated story, direction and acting.

Last winter Churikova and Panfilov finished

their third picture, *May I Have the Floor?*, in which she stars as the mayor of a small town.

“This is a very important role for me,” she says. “I know women like Mayor Uvarova, and I have the greatest respect for them. Unlike my former heroines, young, emotional and finding themselves, Uvarova is a mature person who knows who she is and where she belongs. She is a really social person, living by the knowledge that she works for the people. She is a very contemporary and very Soviet character.”

Our interview was taking place backstage in the Lenin Komsomol Theater, where Churikova is now in her second season. Her sensational debut here, in an adaptation of *Till Eulenspiegel*, has most of Moscow still trying to see it. Recently she opened in Chekhov's *Ivanov*.

Today it's *Ivanov*. There is still plenty of time before the play begins, and Inna is in no hurry. She talks about the roles she has played and would like to play.

“I dream of a full-length *Joan of Arc*. And of *Lady Macbeth*. And I'm always looking for a serious, deep, honest, modern role.”

She talks about the responsibility of an artist: “There is no simple recipe for art. Nor is its effect immediate, like the stimulant from a cup of coffee. Art is multipurposed—it can lift you up or show you up, interpret life or make a muddle of it. . . .”





## ACTORS AND PARTS

Alexander Marshany has produced an entertaining montage of 24 characterizations by the well-known actor Igor Ilyinsky. Depicted are 24 characters from seven of Chekhov's humorous stories. Igor Ilyinsky plays them all in a TV-film called *These Different, Different, Different People*. With his subtle gift for changing himself completely, he reveals, with a touch or two, the motivations of the most diverse characters, thus once again demonstrating that mastery which makes audiences look forward to seeing him perform. In his 50 years as an actor he has played hundreds of parts, creating unforgettable images from the works of Russian, Soviet and foreign classics at Moscow's famous Maly Theater.



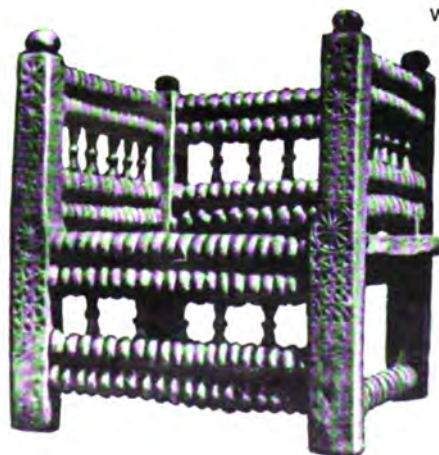
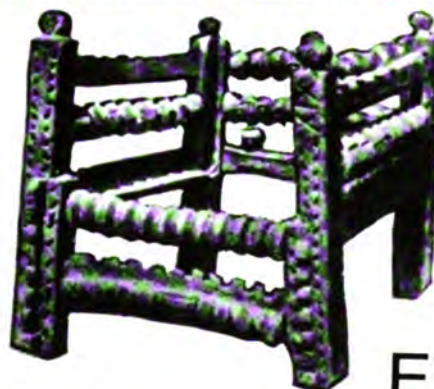
## BOOKS

**THE ANTHOLOGY** *Reader in Modern American Literature* is meant for students specializing in the English language. It covers the years between the two world wars, a rich and fruitful period in the history of American literature. The excerpts with commentary reflect the leading influences in American prose, dramaturgy and poetry. Theodore Dreiser, for instance, is represented

by excerpts from *An American Tragedy* and Upton Sinclair by chapters from his novels *King Coal*, *Jimmie Higgins* and *World's End*, the latter from the *Lanny Budd* series. Several years ago a nine-volume collection of Sinclair Lewis' works was published in our country in Russian translation. The anthology includes excerpts from his novels *Main Street* and *Arrow-smith*. Eugene O'Neill is represented by *The Hairy Ape*, John Dos Passos by excerpts from his novel *The 42nd Parallel*. Among the other novelists represented are F. Scott Fitzgerald, Erskine Caldwell, Ernest Hemingway, John Steinbeck and William Faulkner.

The 12 poets included represent various thematic and stylistic trends: Edwin Arlington Robinson, Edgar Lee Masters, Vachel Lindsay, Robert Frost, Carl Sandburg, Archibald MacLeish, Wallace Stevens, Langston Hughes and others.

To quote the compilers of the anthology, they chose "writers whose works made an outstanding contribution to the development of American literature."



## FOLK ART

**E**VEN TODAY you still come across unique specimens of folk art in Georgia's mountain villages. *Sakartskhuli*—wooden four-legged and three-legged armchairs—have not changed at all in form and décor over the centuries. They played an important role in family ceremonies, judicial hearings, religious rites and festivities. They were covered with asymmetrical carvings and decorated with all kinds of rosettes symbolizing fertility and eternal life. Reserved for the head of the family, the ancestral armchair was treasured, handled with care and passed down from father to son.



# sculpture

THIS EQUESTRIAN STATUE of Vardan Mamikonian, a fifth century Armenian leader, not long ago erected at the far end of a new avenue in Yerevan, is another creation of Yervand Kochar (b. 1899). A sculptor, painter and graphic artist, he draws on both contemporary life and history for subject matter. It is hard to say in which genre Kochar's talents are most fully expressed. Every work of this original master demonstrates new facets of his creative talents.

During his 15 years abroad, mostly in Paris, Kochar exhibited with such luminaries as Matisse, Léger and Picasso. A man with a profound perception of European culture, he is at the same time a truly national artist, linked with the ancient art of his people. Shortly after returning to his native country in 1936, he did the illustrations for the Armenian epic *David of Sasun*. These drawings, which have the quality of stone reliefs, are remarkable for their originality and, even more, for their folk quality.

In his statue *David of Sasun* in the Yerevan railway station square, Kochar has made the legendary hero come alive.



# MUSIC

THOUGH the synthesis of color and music is considered a new art form, it actually came into being long ago.

In Russia Scriabin and Rimsky-Korsakov produced tables that recorded the parallel perception of color and music. These were only intuitive quests, but the very effort to fuse the visual with the auditory predicted the future scientific principles of the new genre.



WHEN CAESAR ambles toward a hurdle, un- hurriedly, Denisov looks as though he just can't contain his indignation. At such moments you almost believe that tigers have a sense of humor. This same Caesar stalks into the arena, aware of his power and majesty. In his mouth

he is holding one end of a wire on which Denisov intends to balance. Just as the trainer is preparing to do a routine, Caesar gives the wire a couple of jerks. When Denisov turns to him with an obvious rebuke, Caesar makes it clear with every muscle in his body that he is not responsible. Moreover, he rolls his eyes so comically that even the very people who saw Caesar jerking the wire are ready to swear that the tiger had nothing to do with it.

Stepan Denisov has been working with tigers for four years now. His is not what you would call a dull occupation. Tigers are likely to do the unexpected. But the unexpected can startle them too, and Denisov thinks it good training to serve them up with a surprise now and then. It is obvious that a trainer is most helpless when he is lying down. Once a tiger suddenly leaped forward, and Denisov reacted by stretching out under the feline's nose (while ready to do battle if necessary). The tiger was so confused by the maneuver that he backed off.

# CIRCUS



# OUR OLYMP

"I believe that there is no competition as interesting and necessary as the Olympics. The games show nations that they have something in common, that something can bring them closer."  
Sergei Belov, captain of the USSR Olympic basketball team, one of our Olympic hopes.

## VALERI BORZOV

Winner of Olympic Gold Medals in the 100- and 200-Meter Sprints



**Q:** What importance do you attach to the mental attitude of an athlete?

**A:** The athletes who plan how they will win long before the starting gun is fired will cross the finish line first. This requires intelligence as well as natural ability.

**Q:** Has your life been affected by what you have just said?

**A:** Of course. International competitions are a very important part of my life, but I'm also taking a graduate course at the Kiev Institute of Physical Culture. My future research work will be in sports.

**Q:** Am I right in believing that your coach has encouraged you to combine sports and science?

**A:** Yes, you are. Valentin Petrovsky has been my coach for the last nine years. At each level he has taught me to understand and analyze everything I do and what happens to me. Petrovsky is a remarkable teacher and scientist. His philosophy is

based on effective "coach-athlete" contact. He wants to know the exact effect of each of his assignments. In this respect my background in physiology, biomechanics and sports medicine, and my ability to give a clear description of my sensations are very important.

**Q:** Since you just mentioned sensations, what are they before and during a race?

**A:** I try not to pay attention to things that can upset me before the "on your mark" signal. I'm not worried by a head wind, because I'm heavy and can fight the wind better than lighter runners. This is true when the wind is blowing in my back too. This is elementary physics. I don't mind if it rains, because the ground gets harder. I suppose you remember that I became a national champion for the first time when I sprinted 100 meters in 10 seconds flat in a terrific thunderstorm.

Take, for instance, the 1969 European

championship in Athens when the draw put me on the outside lane in the final heat. Our coaches recalled a similar situation where our runner was unnerved by being so close to the spectators that he trailed the field to the tape.

I forced myself to think positively. I told myself that from Lane 8 it was easy to watch the other runners. Well, to make a long story short, I won the European title for the first time in Athens.

I've discovered that seeing things in a favorable light regardless of the circumstances is beneficial in other things besides sports. If you don't believe me, try it yourself.

**Q:** Does your fame influence your relationships with other people?

**A:** It all depends, but I know one thing for sure, that special demands are made on an Olympic champion. Even the slightest indication of conceit or rudeness is noticed

immediately. By becoming an Olympic champion, I signed an invisible contract with society telling me my rights and duties, more duties than rights, you know. Meeting people in factories and offices, in schools and colleges, traveling frequently around the country with other athletes—all this contributes to the popularity and further development of sports.

American newsmen often tell me that I would be rich if I lived in the West, possibly a TV or movie star. They ask me what I think about the fact that I don't have these opportunities in the Soviet Union. There is a saying about money coming and going easily, like water. The support of relatives, friends, and thousands of sports fans is the important thing for me.

**Q:** Whom do you consider your principal competition in the coming Olympics?

**A:** Steve Williams of the United States and Don Quarrie of Jamaica.



# HOPES

## IRINA KALININA

**S**WALLOW is what the people of the old Russian town of Penza call Irina Kalinina. But her reputation has spread far beyond that town despite the fact that she is only 17.

Ten years ago, when Kalinina was in first grade, she joined the Penza Divers Club. From the very beginning she had no fear of heights. She enjoyed acrobatics and the trampoline, but her favorite sport was diving. She did more than a hundred dives, both platform and springboard, in a single practice session.

Boris Klinchenko, Kalinina's coach, believes in training his divers on both the platform and the springboard. That is why Irina won silver medals for both at the European championship meet in Vienna in the summer of 1974. That was her second big international match. She had made her debut a year earlier at the world championship in Belgrade, where she scored third in the high dive.

In 1975 Irina entered seven major competitions, and won at least second place in all of them. At last summer's world championship in Cali, Colombia, the 16-year-old Penza student beat 24 competitors from 17 countries and won the title of world champion in springboard diving with the brilliant score of 489.81 points.

Kalinina is a combination of flawless technique, fearlessness and will power. She is especially good at the twist dive, the hardest technical achievement in her sport.

This summer is a hectic one for her. After competing in the Olympic Games in Montreal, she will be taking entrance examinations for a physical culture institute.

Irina Kalinina with her coach Boris Klinchenko.

the favorites do not always win Olympic titles. Every large international competition brings surprises and unexpected victories as new talents are discovered. We hope, of course, that our favorites bring home the gold medals. But at the same time, we wish all the competitors at the 21st Summer Olympics the best of luck.



# YENISEI

## FIRST TUVINIAN ARTIST

SERGEI LANZY was born into a peasant family in the small village of Samagaltay in 1927. His father was Konchuk Lanzy. Sergei showed an early passion for drawing, and Tuva's landscape, the legends and songs he heard from his mother, who was a gifted folk storyteller, were the main subjects of his work.

In 1954, the 27-year-old Lanzy came to Leningrad and entered the Ilya Repin Art Institute. With his graduation in 1959, he became Tuva's first professional artist.

Lanzy's two major subject areas are landscape and history. The interest in Tuvian history goes back to his mother's stories. And his historical paintings characteristically reflect his interest in scenic design.

His landscapes are very beautiful. The horizontal elongation echoes the Tuva landscape—endless steppes, sloping plateaus dotted with forests, the shores of the Yenisei. His palette is a pearly and silvery range of colors, and his lighting is soft, muted. Lanzy does many portraits—they are quite another matter—full of rich, varied color and contrasting elements.

It's only 18 years since his first large show, but Sergei Lanzy's name is familiar to art lovers not only in Tuva, but all over the country. He has been awarded the title Merited Artist of the RSFSR and elected board chairman of Tuva's Artists Union.

*Sergei Lanzy, easel painter, book illustrator, stage designer, board chairman of Tuva's Artists Union. Above: Mountain Taiga. Below: Shoal Water.*





# SOVIET LIFE

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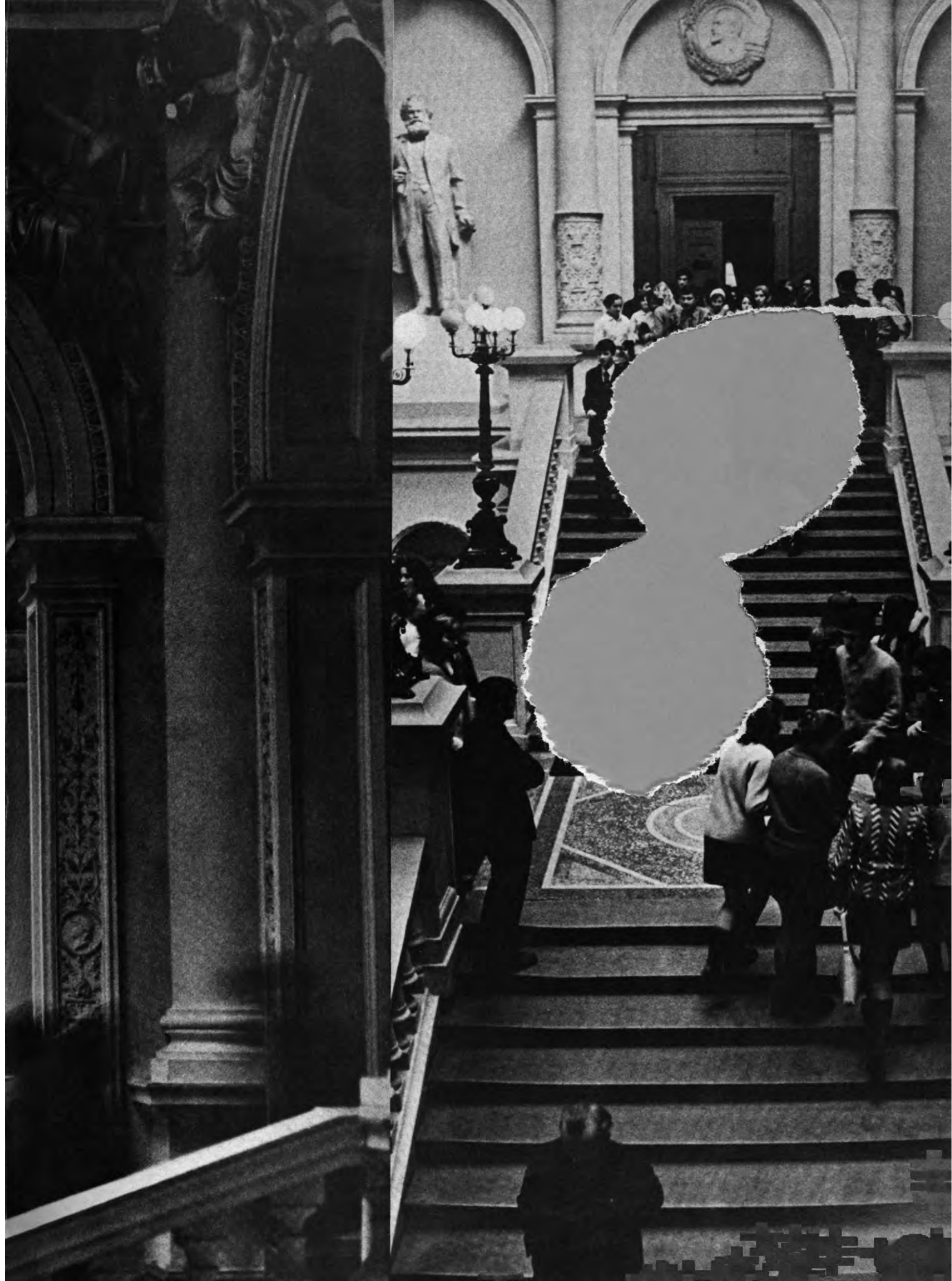




# TOWN AND GOWN

How can students  
participate in the life of their city?  
(story on page 24)







# SOVIET LIFE

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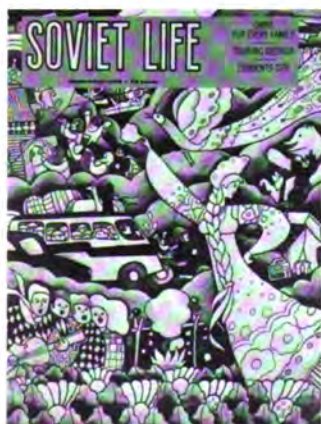
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## LETTERS TO THE EDITOR

Your SOVIET LIFE magazine has assisted us as Ninth Grade students in gaining a more fair and complete picture of the USSR and its myriad of people. We desire to visit in person but are at least temporarily satisfied with the privilege of enjoying the beautiful pictures and interesting articles.

The informative nature of your magazine leads us to believe that such exchanges can only lead to improved mutual understanding between our two great nations. SOVIET LIFE softens traditional stereotypes and naturally incites a high level of curiosity.

Finally, may we compliment the citizens of the Soviet Union on their national pride, admirable attitude toward work and fitness, and concentration upon the youth.

K. Allen, S. Bennett,  
S. Reynolds, D. Riopelle,  
K. Shepard, S. Thorne  
G. Crawford, teacher  
Tampa, Florida

Response to Mr. E. M. Pierce, Sr., May 1976.

Criticism has only one message, only one purpose: To be constructive and to make this a better world to live in.

I thoroughly enjoy the pure enthusiasm, the beauty and the positive reporting of the best in human effort to be found in SOVIET LIFE. That is its greatest virtue. I believe this positive attitude can accomplish more than all the ugly, negative criticism you wish to be expressed.

SOVIET LIFE speaks impartially and with the same positive attitude of the USA as of the USSR.

Mrs. M. Engestad  
Santa Monica, California

I receive great enjoyment reading SOVIET LIFE. I have had the opportunity to visit your beautiful country and look forward to my next visit there. I have always considered myself a friend of the Soviet peoples. May the friendship between our peoples grow with each new day.

Richard L. Bornstein  
San Francisco, California

I think that your magazine SOVIET LIFE is a valuable tool in understanding how the Soviet people are striving toward world peace and better understanding between your nation and our nation. Congratulations!

Wilfredo R. Rivera  
Ponce, Puerto Rico

Thank you for your excellent magazine. I hope it will promote understanding and peace between our two great countries. The average American knows very little about Russia. Your articles are well written and a real education. Photography is tops.

A. M. Quarnstrom  
Holiday, Florida



# ONE YEAR AFTER HELSINKI

By Vadim Nekrasov  
Novosti Press Agency Political Correspondent

**T**HE FINAL ACT of the Conference on Security and Cooperation in Europe held in Helsinki was signed just a year ago, on August 1, 1975, by the leaders of 33 European countries, the United States and Canada. The event was described as unprecedented and of enormous international significance. As a political writer who witnessed the historic ceremony put it: "There are events which are so far above the daily routine that it becomes clear even at the moment they take place that they are destined to leave a deep mark on history. The major collective action to strengthen peace on the scale of a whole continent—Europe—is certainly among such events."

This evaluation was, for the most part, accurate. There were many things about the Helsinki conference that were unusual. It was attended by representatives of states with opposite social systems, of states belonging to military and political alliances as well as of neutral states. It relied on consensus, unanimity, in dealing with major international problems. This necessitated broad discussion of all questions, major and minor, and reaching decisions that met the interests of all states, large and small.

But most important was the fact that the conference dealt with problems exceptional in scale and importance. It collectively summed up the political results of the Second World War and confirmed the fruitlessness and harmfulness of the cold war policy, which had for decades been poisoning the international atmosphere. The conference showed that there were further possibilities for resolving the main problem of our time—how to strengthen peace and universal security. What is more, proceeding from the present realities and the centuries-old experience of the European peoples, it considered these possibilities in terms of practice.

Now what concretely has been accomplished by the Final Act of the conference? We all know that after it was signed there were people who asked why the conference was needed when its major political conclusions only confirmed earlier bilateral and other agreements.

True, the Final Act's principles on the sovereign equality of states and their inalienable rights did confirm the legally valid provisions of a number of treaties between countries and other documents signed in recent years. These principles were based on the generally recognized propositions of international law, including the UN Charter. And yet they had an element which gave the Helsinki Declaration of Principles something of the stature of a code of moral commandments for international conduct.

*Continued on page 23*

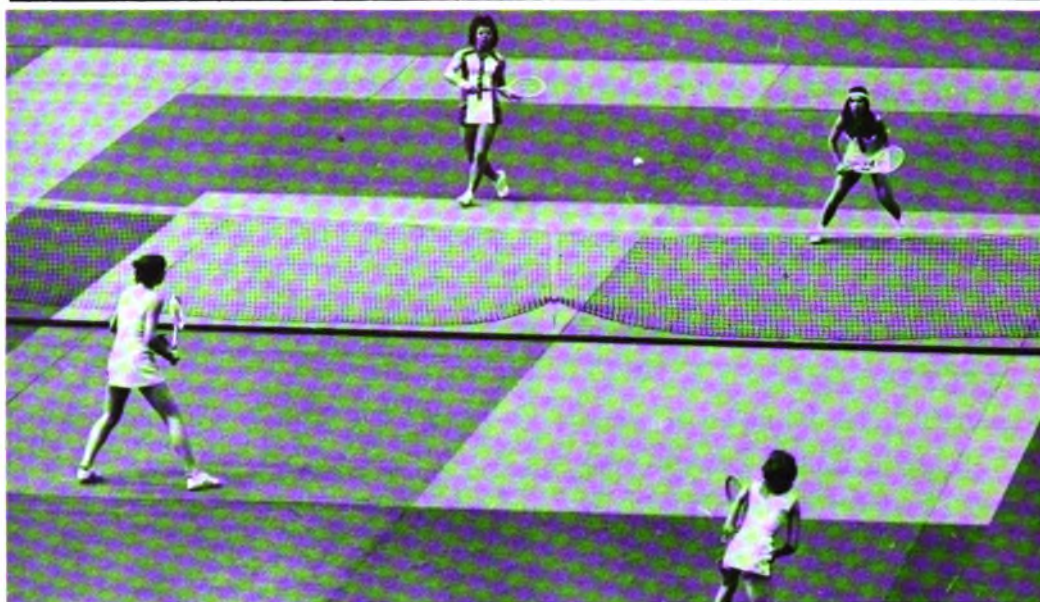
## Trying to Trap An Elusive Particle

Physicists now have the equipment to catch and investigate the neutrino, the most mysterious and elusive fundamental particle.

Neutrino particles, which originate in outer space, reach the Earth without any deviation from their trajectories thanks to their phenomenal penetrating power. Scientists studying these particles need millions of them.

With this aim in view the SKAT, a gigantic propane-freon bubble chamber, has been placed in operation at the biggest proton accelerator in Europe, the one at the Serpukhov Institute of High Energy Physics near Moscow. The liquid in the chamber is the target for the particles being researched. They leave a visible trace in the illuminated space of the chamber because of the special properties of the liquid. This unique stereophotography lasts no more than some thousandths of a second, but several cameras are able to get shots from various angles. Physicists then use computers to analyze the photographs.

Scientists believe that research into neutrinos and the nature of their interaction with the substance will open new and inexhaustible energy resources.



## The First Soviet-U.S. Tennis Match

**T**he house was sold out for the first USSR-USA tennis match long in advance. On March 8, 1976, 20,000 tennis-lovers saw some spectacular playing in the Moscow Sports Palace. The game between the leaders of the women's teams, many-time Wimbledon win-

ner Billie Jean King and Muscovite Olga Morozova, was especially exciting. Morozova held the lead for a long time but finally ceded to the talented American, who was awarded the Inspiration Prize by *Literaturnaya Gazeta*, sponsor of the match. The Will to Win Prize

was won by a young Soviet player, Vadim Borisov, who defeated Wimbledon player Alex Mayer. The guests won five of the nine matches.

Soviet-U.S. tennis is to become a regular event. Soviet players have already paid a return visit to the United States.

## Arctic Voyage Of the Penguin

**T**he *Penguin*, an orange sailboat with a baby penguin as its emblem, covered the distance from Arkhangelsk to Norilsk—more than 4,000 kilometers—in 44 days under the hard conditions of the North. The reason for the Arctic voyage in the White, Barents and Kara seas was to repeat the route of the ancestors of the Pomors, the present inhabitants of the Russian North, and to prove that it is possible to use sailing vessels in the northern seas.

Anatoli Yantselevich, skipper of the *Penguin* and a seagoing captain, has been piloting ships for 30 years. He also spends his vacations on the open sea. His trips aboard the *Penguin* began as far back as 1961, when he made a voyage from the northern port of Murmansk to the country's south, up and down the rivers of the European part of the Soviet Union.

Polar pilot Alexei Kash was the other member of the crew.





# LOOKING AHEAD FIVE YEARS

Inna Vasilkova  
interviewed Mikhail Rakovsky,  
Deputy Chairman  
of the State Planning Committee  
of the USSR (Gosplan)

**During the Tenth Five-Year Plan period industrial output is to increase by 35-39 per cent, with production of the means of production increasing by 38-42 per cent and consumer goods by 30-32 per cent. By 1980 the value of gross industrial output will exceed 720 billion rubles. There will also be a sharp rise in capital investments in agriculture—172 billion rubles will be allocated to that sector in the new five-year plan, up 41 billion from the last five-year period. Delivery of farm machinery will increase by 150 per cent, and intense research on irrigation and selection will continue in an effort to enable agriculture to become more independent of the weather. In the Tenth Five-Year Plan period improved labor productivity will account for 90 per cent of the increment in industrial output and for the entire increment in construction and agricultural production. Another important element of the tenth five-year period will be the expansion of foreign trade. Compared to the previous five-year period, the volume of trade will increase by at least 30 per cent.**

**Q:** Would you describe Gosplan for our readers?

**A:** Gosplan is the country's economic headquarters, the main planning center. It analyzes, appraises and refines all ideas and proposals related to economic development and, on the basis of these drafts, works out an optimal, stable plan for the country as a whole.

**Q:** Does that mean that five-year plans originate here in Gosplan?

**A:** No, it does not. We balance all the parameters so that no critical situation develops as the plan is applied, and check development rates.

A state plan is actually the fusion of hundreds of thousands of plans into one single plan. Those worked out at the economy's basic level—in factories, mines, plants, collective farms—are combined into district, regional, territorial, republic and industrial branch plans. Only then do they reach Gosplan. That is very important—the collective principle underlying all Soviet plans.

Here is an example of the effort that goes into drawing up a plan: Three hundred research institutes were recruited to work out the country's fuel and power balance for the tenth five-year period. Optimal conditions for raw material extraction and distribution were studied for a month and a half with computers. Transport workers, planners and mathematicians calculated the quantity of fuel that would flow through pipelines and be carried on railroads and highways, rivers and seas. When these operations were completed, the mathematicians announced that, thanks to their calculations, we would save one and a half billion rubles in capital investments.

The Soviet centralized planning system works for the balanced development of all branches of the national economy. For instance, to develop agriculture, we must supply the farms with modern machinery. The volume of production of such machinery has to be coordinated with the amount of available raw materials required to do the job—steel, paints, plastics, rubber, etc. For instance, to increase the output of trucks, we have to simultaneously increase output in 60 related branches. Under no circumstances is the balance between the different branches to be disturbed.

A draft plan is then examined by the government, after which it is submitted for countrywide examination and discussion in the press and other media. Five-year plans are approved by the

USSR Supreme Soviet, and their basic guidelines by the Congress of the Communist Party of the Soviet Union.

**Q:** Why is a period of five years and not, say, three or six taken as the basis for planning?

**A:** The five-year cycle in planning is to a certain degree determined by the regeneration cycle—when equipment is updated, overhauled or replaced. Not everywhere, of course, and not always, but it averages out to five years for most types of output. That, by the way, does not preclude operative one- and two-year plans.

We are now considering a new system of continuous planning which we call a sliding five-year plan system. It would give us the opportunity to determine development rates and proportions over a longer period.

Such long-term planning is especially valuable when the economies of several countries are involved (as in the case of the Council for Mutual Economic Assistance). Such a system promotes a stable international economic situation.

**Q:** But it's one thing to plan and another to implement those plans. Isn't there an inevitable gap?

**A:** I wouldn't say so. Take the Ninth Five-Year Plan. The Twenty-fifth CPSU Congress said without any qualification: "The principal socio-economic targets of that five-year plan have been achieved."

**Q:** What points of the Tenth Five-Year Plan would you like to draw particular attention to?

**A:** First of all, to the increase in industrial output over the next five years by 35-39 per cent, with production of the means of production increasing by 38-42 per cent and consumer goods by 30-32 per cent. What does that mean? That industrial



**A state plan is actually the fusion of hundreds of thousands of plans into one single plan. Those worked out at the economy's basic level—in factories, mines, plants, collective farms—are combined into district, regional, territorial, republic and industrial branch plans. Only then do they reach Gosplan. That is very important—the collective principle underlying all Soviet plans.**

development will continue at a fairly rapid pace. That will in turn make it possible to increase the country's basic production funds 140 per cent.

A very important index is the sharp rise of capital investments in agriculture. The party believes that every step must be taken to secure Soviet agriculture against the capriciousness of nature. Of the 320 billion rubles invested in agriculture during the entire period of Soviet power, 213 billion were invested during the past two five-year periods. In the new five-year period 172 billion rubles will be allocated for agriculture, 41 billion more than in the past five years. The following figure gives you an idea of the scale of the weather problem: Sixty per cent of all the Soviet Union's land under crops suffers from unstable weather conditions, that is, unfavorable growing conditions. Two more five-year periods will probably be required to solve all the problems in irrigation and selection and to carry out other projects that will enable agriculture to be more independent of the weather.

And another important thing: Delivery of farm machinery will increase 150 per cent, which should in turn result in a 30 per cent increase in agricultural labor productivity.

But the principle behind the Tenth Five-Year Plan is that every index is aimed at improving the well-being not of some particular section of the population, but of all the people.

**Q:** Why then will heavy industry—Group A—develop at a greater rate in the tenth five-year period than Group B industries, which produce consumer goods? How do you explain that?

**A:** At the Twenty-fourth CPSU Congress five years ago it was pointed out that a radical change had to be made in our attitude toward everything concerned with the satisfaction of people's daily needs. I must admit that we have not coped with this task completely. The last congress made that point very clear. We still have not learned how, while ensuring a high rate of development in heavy industry, to promote Group B and the service industry at a faster rate. For half a century, after all, the Soviet Union gave preference to the development of Group A industries so that we could maintain our high rates of economic development. That policy became so deeply inbred in the minds of economic planners that many, to this day, look on production of consumer goods as something secondary. But we have no intention of retreating from the course we adopted. We regard the present plan assignments of the Group B industries as minimal. Annual plans should provide for the accelerated growth of these industries.

**Q:** The Tenth Five-Year Plan is referred to as a plan for efficiency and quality. Haven't high quality and efficiency always been objectives of our economy? Why is that being accented today?

**A:** The shift of emphasis to efficiency and quality

is conditioned by the expanding scientific and technical revolution, as well as by the enormous increase in the scale of production and changes in society's requirements.

Quality has always been very important in our industry, but only after the last two five-year periods (1966-1975) did we fully realize the tremendous effect of this trend in industry. Motor vehicle manufacturers, for instance, improved the quality of their output, and the ZIL truck can now cover 300,000 kilometers\* without a major overhaul.

We are updating our designs and stressing attractive appearance, an area we have not paid enough attention to in the past.

**Q:** The rate of industrial growth in the tenth five-year period will drop as compared with the ninth. Why is that?

**A:** In recent years the average annual growth rate of the gross national product in the USSR has been a stable 8-9 per cent, which is 2.5 times higher than in the developed Western countries. The rate of growth will be 2-2.5 per cent lower in the tenth five-year period as compared with the ninth, first of all, because of the tremendous volume of money and labor that will be channeled into agriculture. Second, we are planning the development of new large raw material deposits in Siberia. This will call for large expenditures which will be recouped at a later date. Third, we are concentrating our efforts on the quality, reliability and durability of goods. This is a must if we intend to preserve high rates of economic development in the last quarter of the twentieth century.

At the same time, I would like to point out that all the production facilities the country has at its disposal today will be fully utilized. No one need fear that any plant or factory will be shut down for a single hour.

And the absolute volume of the annual increment in the gross national product in the tenth five-year period will be considerably greater than in the previous five-year period.

**Q:** Is borrowing foreign credit for the development of the Soviet economy included in the Tenth

---

\*A kilometer equals .621 miles.

Five-Year Plan? If so, why? Can't we manage on our own?

**A:** Of course we can. And until quite recently we have managed, as our history shows. But international economics in the seventies is not what it was in the thirties. International division of labor is a fact: Some countries find it more profitable to produce one thing, others another. The vast majority of countries are closely interconnected through their foreign trade systems. The volume of Soviet exports and imports has been increasing from five-year period to five-year period, and an important element of the tenth five-year period will be the expansion of foreign trade. Compared to the previous five-year period, our volume of trade will increase by at least 30 per cent.

Today all countries utilize foreign credit to develop certain branches of their economy. Why should we be an exception, if we can benefit from it?

The foreign trade balance of every country should be favorable, and all nations work toward that goal. Not all reach it. We have a very stable foreign trade balance and are an entirely solvent and absolutely reliable foreign trade partner. There is really no need to elaborate on that—the countries and companies that have been doing business with us for almost 60 years have seen proof.

The USSR is also developing new forms of foreign economic relations, in particular, compensation agreements under which new enterprises, entirely the property of the Soviet state, are built in cooperation with foreign firms. We are granted credits, receive equipment and licenses, and we pay with part of the output of these or other enterprises. For the time being agreements of this kind cover mainly industries producing primary materials and semifinished products, but we are also thinking of including processing industries. And we look forward to new approaches to cooperation in production.

**Q:** What is Gosplan working on at present?

**A:** We in Gosplan proceed on the assumption that it is already necessary to plan the tactics and strategy of our economic policy for the closing years of the twentieth century. But in our day-to-day work, our main job is to check the application of the current plan, to make a running analysis of all the indices of our national economy.

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# KEY PROJECTS: CHANGING THE MAP OF INDUSTRY

By Nikolai Nekrasov

This map shows the major industrial projects of the Tenth Five-Year Plan period.

The crosshatched sections on the map indicate territorial-industrial complexes.

A territorial-industrial complex is a number of enterprises, already in operation or under construction, with common sources of supply, which constitute a single technological entity. The creation of such complexes is a long-term program requiring considerable effort and expense, but they make for a more efficient use of raw materials and power, with the resulting economic benefits. Academician Nikolai Nekrasov, Chairman of the Council for Studies of the Productive Forces under the USSR State Planning Committee, defined territorial-industrial complexes, their organization and value in an article for *Pravda*.

**T**HE ECONOMIC STRATEGY of the Communist Party of the Soviet Union includes, along with programs for the development of branches of industry, others for the territorial organization of the economy. The latter programs provide for the more efficient location of the country's productive forces, with a view to developing new economic areas rich in raw materials and fuel.

The efficiency of social production depends largely on the balanced territorial development of the economy and on the rational division of labor among the constituent republics and regions. In the unified economic structure of the USSR the development of complexes is necessary for economic and social progress.

## A Shift to the North and East

The northward and eastward movement of Soviet industry and the realization of the economic potential of Siberia and the North are priority objectives. Over the years of Soviet power great changes have taken place in the economies of the Central Asian republics, Kazakhstan, southern Siberia and the Soviet Far East. The Tenth Five-Year Plan calls for not only industrial growth, but also a qualitative change in the entire economic structure of the eastern areas of the USSR.

New fuel and raw material bases are being set up beyond the Urals. They will account for the entire increase in oil and natural gas output and more than 90 per cent of the coal output forecast for the five-year period. In 1980 Western Siberia will produce 300 to 310 million tons [2.25 to 2.3 billion barrels] of oil and 125 to 155 billion cubic meters [4.4 to 5.5 trillion cubic feet] of gas. Oil and natural gas extraction will be expanded in Central Asia and Kazakhstan. The development of big coal-mining centers in Siberia will make major changes in the geographical pattern of the coal industry.

Southern Siberia, Kazakhstan and Central Asia will become the major power-consuming centers. These areas will account for the entire increase in the production of aluminum and for 80 per cent of the additional copper output. The creation of major petrochemical complexes in Tobolsk and Tomsk, the largest and oldest cities in Western Siberia, and other places will radically change the territorial balance in the location of synthetic fiber plants.

## Construction Costs

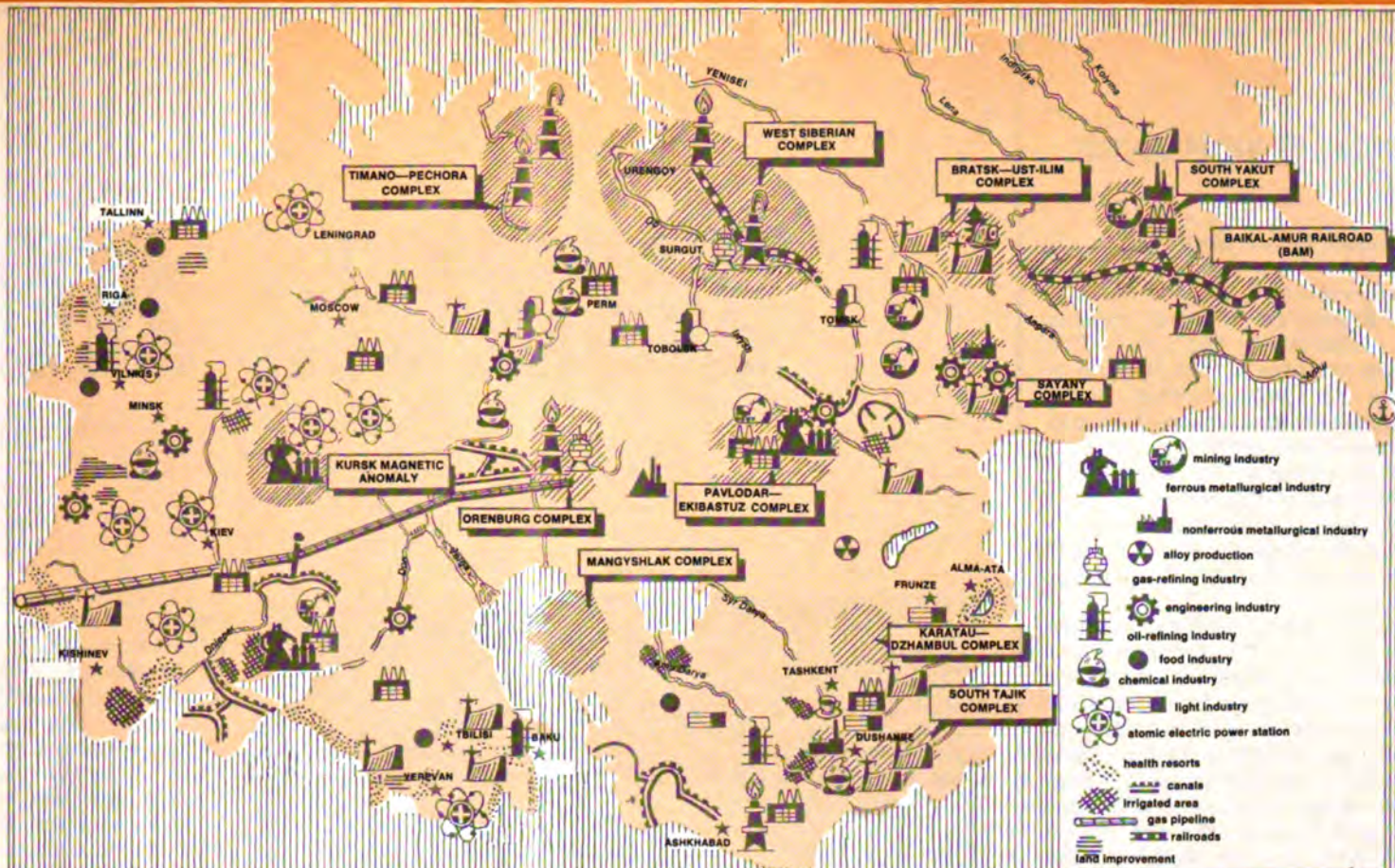
It is generally believed that the cost of construction is much higher in Siberia and the Far East than in the European part of the USSR. Our experience has shown, however, that industrial construction in the southern areas of Siberia and the Far East is no more expensive than in other regions of the USSR, provided the construction is efficiently organized.

Over 50 per cent of the outlay for construction and assembly work usually goes for building materials, rolled ferrous metal, timber, fuel and electric power. Analyses have shown that the basic costs of building materials in Western Siberia are no higher than in the center of the USSR. In Eastern Siberia and the Far East the basic costs are only 7 and 15 per cent higher respectively than in the center of the USSR. These areas, however, have certain advantages. Rolled ferrous metal in Western Siberia is nine per cent cheaper and in Eastern Siberia five per cent cheaper than in other regions of the USSR. Fuel and power are 40 per cent cheaper in Western Siberia, 20 per cent cheaper in the Far East and over 50 per cent cheaper in Eastern Siberia.

It is possible that in the near future the basic costs of primary materials in Siberia and the Far East will be considerably reduced.

*Continued on page 1*





## Timano-Pechora Complex

This complex covers 450,000 square kilometers [175,000 square miles] in the northern European part of the Soviet Union. The principal natural resources in the area are oil and gas, so this complex will be a major fuel base for the European part of the country. By 1980 it will be producing about 25 million metric tons [187.5 million barrels] of oil and 22 billion cubic meters [777 million cubic feet] of gas. The complex gets its name from the Timanski elevation and the Pechora River.

## West Siberian Complex

This complex is being developed in the northern part of Western Siberia. It will produce more than half the country's oil and gas and a large portion of its synthetic rubber and plastics. Estimates show that the comprehensive development of Western Siberia can save up to 10 per cent in capital investments and up to 20 per cent in maintenance costs. In the Tenth Five-Year Plan period (1976-1980) emphasis will be on the development of facilities to process natural resources on site.

## Bratsk-Ust-Ilim Complex

This complex is located in the valley of the Angara River in Siberia and is named after the cities of Bratsk, which is more than 300 years old, and Ust-Ilim, which was founded in 1973. It will play a key role in the Soviet economy because of the cheap electricity generated by the Bratsk and Ust-Ilim hydroelectric power stations, rich timber, water and mineral resources, and the location of the area in terms of transportation links. The complex was started in the mid-fifties, when construction of the Bratsk hydroelectric power project began on the Angara River.

## South Yakut Complex

This area is adjacent to the Baikal-Amur rail line. Major new industrial branches are to be developed, with special emphasis on coking coal mines, in addition to the existing enterprises in this complex.

## Baikal-Amur Railroad (BAM)

This rail line is being built in Eastern Siberia and the Soviet Far East. A 3,140-kilometer [1,950-mile] stretch of track, the distance from Moscow to Paris, is to be laid from the Lena River to the city of Komsomolsk-on-the-Amur. Some 3,200 engineering structures, an average of one per kilometer of roadbed, are to be built along the way. During the peak construction period 100,000 people will be working on the project. The cost of the railroad, scheduled to be completed in 1982, will total eight billion rubles. BAM is not only a new gate to the Far East and a lifeline to the vast expanses of Siberia, but also the backbone of a communications network.

## Sayany Complex

A comparatively small area in the southern part of the Krasnoyarsk Territory of Siberia has considerable water, water power and timber resources and rich deposits of iron ore, nonferrous metals, alumina, coal, asbestos and phosphate. The Sayano-Shushenskoye hydroelectric power station, currently under construction, will be the biggest in the world with its 6.4 million-kilowatt capacity. The Sayany complex will also provide agricultural produce for the whole of Siberia. Suitable locations for industrial and housing construction have already been selected and surveyed.

## Pavlodar-Ekibastuz Complex

This complex is located in eastern Kazakhstan, a republic in the southwestern part of the Asian USSR, and is centered around the Ekibastuz coal fields, which now produce 52 million metric tons [57 million short tons] of

coal a year. By 1980 they will produce 72 million metric tons [79 million short tons], eventually increasing to 120 million metric tons [132 million short tons]. The development of this power and fuel base ensures the priority growth of ferrous and nonferrous metallurgy, and the petrochemical, chemical, engineering and other industries in Kazakhstan. The complex was named after the cities of Pavlodar, which is more than 100 years old, and Ekibastuz, which was built in the fifties.

## Karatau-Dzhambul Complex

This complex is in the southern part of Kazakhstan. Big phosphate deposits, water and water power resources, good transportation links and available workers made possible the development of the Karatau-Dzhambul complex, which specializes in industrial chemicals.

## Mangyshlak Complex

Another territorial-production complex in Kazakhstan is located on Mangyshlak peninsula on the east coast of the Caspian Sea. The development of this area began in the Soviet period. Mangyshlak is now called the "treasure peninsula" because it is rich in oil and minerals. The area produced its first oil in 1965 and by 1975 output reached 100 million metric tons [747 million barrels]. The world's first big fast reactor is in operation in Mangyshlak, and nuclear power engineering is scheduled to play a major role in the economy of the area.

## South Tajik Complex

This complex is being developed in Tajikistan, a republic in the southeastern part of the Soviet Union. It covers a third of the land area of the republic, a total of 143,100 square kilometers [55,200 square miles], and includes dozens of enterprises. The industrial backbone of the area is made up of three major projects: an aluminum factory, an electrochemical combine and the Nurek hydroelectric power station. The station will reach its rated capacity in 1978, but several of its units are already generating electricity. It supplies power to other Soviet Central Asian republics as well as Tajikistan. The products of the aluminum plant will be used widely in industrial and residential construction. In 1977 the electrochemical combine will begin producing agricultural chemicals. The major production units of the complex will be put into operation during the Tenth Five-Year Plan period (1976-80).

## Orenburg Complex

This complex is named after the city of Orenburg, which was founded in the southern part of the Urals, the border between Europe and Asia, more than 200 years ago. It is centered around a unique gas and gas-condensate deposit. The Orenburg industrial complex will produce up to 30 billion cubic meters [one trillion cubic feet] of gas and 700,000 metric tons [770,000 short tons] of sulfur a year.

## Kursk Magnetic Anomaly

This iron ore deposit, which stretches in a 200-kilometer [125-mile] belt across several regions, was named after the city of Kursk in the central European part of the Soviet Union. The ore reserves are estimated at several billion tons, and ferrous quartzite reserves at about 10 billion tons. The deposit can supply the world's steel industry for 200 years. Today the area produces about 40 million metric tons [44 million short tons] of quality ore a year; the figure will soon increase to 120 and then to 140 million metric tons. A unique steel mill is being built in Oskol that will produce 3.5 million metric tons [3.85 million short tons] of steel a year, using new technological processes that require no blast furnaces. New mines, factories, cities and recreation zones will be built, and agricultural production in the area will increase as well.



## KEY PROJECTS: CHANGING THE MAP OF INDUSTRY

Continued from page 6

### New Methods for the North

Besides large reserves of oil, gas and coal, Siberia also has an abundance of other valuable mineral resources, water power and timber. The Tenth Five-Year Plan provides for the creation of the Timano-Pechora economic complex in the European North to increase production of oil, gas and coal and to expand and modernize the pulp and timber-processing industry. The three major tasks of the development of the Soviet northern regions are the accelerated buildup of the country's power potential, the expansion of its mineral and raw material base and the creation of major industrial complexes.

The large-scale development of these vast regions requires new methods, different from those utilized for the development of the Soviet Union's other outlying regions, which have proved ineffective in northern conditions. A new and comprehensive approach to the utilization of the northern mineral resources is necessary that will best suit the level of the country's scientific and technical development and its tasks for the future. Costs are still very high for new regions in the North compared with Siberia and the Far East. Delivery of building materials and foodstuffs, construction in remote northern areas, operation of enterprises and transportation are all very expensive. This necessitates a higher degree of mechanization and automation on construction sites and industrial enterprises than in any other region of the USSR.

These very complicated tasks call for a comprehensive program for the development of the country's northern areas. The most important element in this program will be a single transportation system which will adapt the latest technology and the most modern materials to the rigorous conditions of this region. The latest technological advances will also be used to provide optimum living and working conditions.

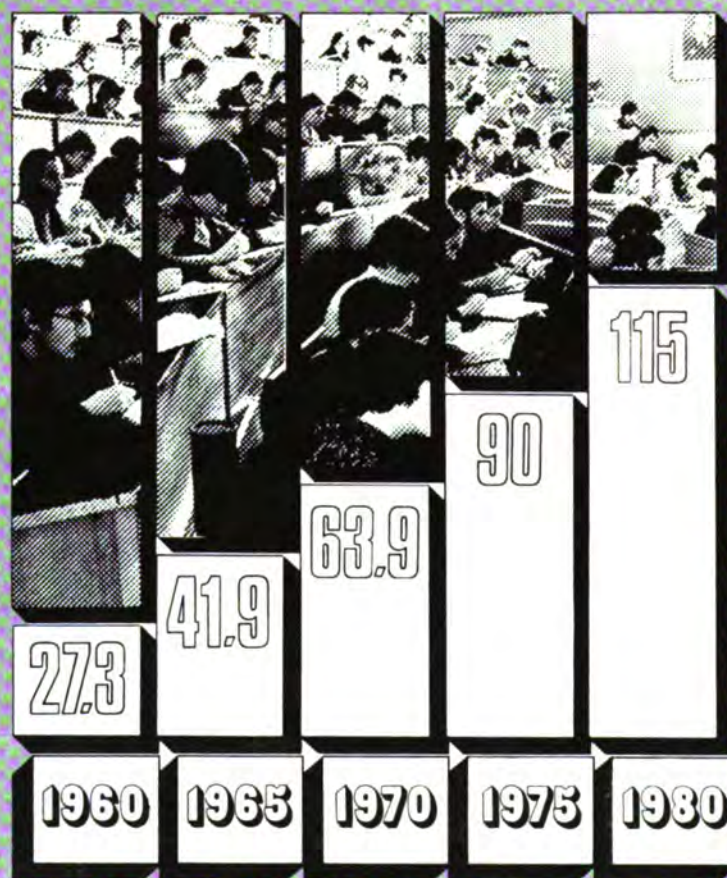
### Unified Programs

Leonid Brezhnev, in the Report of the CPSU Central Committee to the Twenty-fifth Party Congress, stated that: "... The time has come to settle the question of improving the methods of comprehensively resolving interbranch and territorial problems that are of major importance to the state. In this area there must be unified, centralized programs covering all phases of work—from designing to practical execution. It is important that in each case there should be specific bodies and people who bear full responsibility and coordinate all the efforts within the framework of each program."

Look, for instance, at the Angara-Yenisei system of complexes, an unprecedented achievement in regional economic development. The construction of a network of processing industry enterprises is being synchronized with the construction of major power stations. The first section of a complex of electrical engineering plants is being built in the city of Minusinsk, and the construction of a railroad car plant and an aluminum plant is under way in Abakan.

However, the economic development of the European USSR, the Central Asian republics and Kazakhstan is threatened with an industrial water supply problem. The Tenth Five-Year Plan provides for studies of the possible diversion of part of the flow of Siberian rivers to the Volga basin, Kazakhstan and Central Asia.

Payments and benefits from public consumption funds (in billions of rubles)



**U**NDER the Ninth Five-Year Plan, which spanned the years from 1971 to 1975, the Soviet economy took a giant step forward in raising the standard of living. "The history of our country knows of no far-reaching social program comparable to the one that has been put into effect in the period under review," said Leonid Brezhnev in his Report to the Twenty-fifth Congress of the Communist Party of the Soviet Union.

### The Trade Unions and Social Development

The Soviet trade unions have a primary role in the carrying out of the economic and social development program. They are involved in the organization of production and hold themselves responsible for the living and working conditions of their members. Together with economic agencies, the trade unions help to legislate wage increases and incentive programs.

Over the last five years 75 million workers in industries in all parts of the country got pay raises. Included were increases in the minimum wage, in the wage scales of medium-paid railroad workers and of farm-machine operators and of medium-paid workers in the Far North and other parts of the country with rigorous climatic and geographical conditions (sections of the European North, the Soviet Far East, Eastern and Western Siberia, the Urals, Kazakhstan, Central Asia, the Volga area, the Volga-Vyatka district and the Donbas). Schoolteachers, physicians, nursery school and kindergarten teachers, and instructors in specialized secondary schools and vocational training schools were among those whose pay went up 20 to 30 per cent.

Against this background of a general and steady rise in earnings, the prices of food and of the basic necessities are maintained at a stable level.

Our public consumption funds play a growing part in the goal of meeting people's material and cultural needs. An objective method of distributing the national wealth, these funds pay for public education, health care, pensions, the construction and maintenance



# FOR EVERY

of nurseries and kindergartens, state subsidies to public catering, annual paid vacations for workers, housing construction, advanced training courses, cultural advancement and other services. In 1975 alone these expenditures amounted to nearly 90 billion rubles. In other words, the cash payments and free services received by the consumer from public consumption funds came to an average of 353 rubles per capita last year.

The social insurance system is part of the broad program of steady improvement in Soviet living standards. The funds are provided by the state and the collective farms and administered by the trade unions. Social insurance appropriations have grown from 17.1 billion rubles in 1970 to 27.9 billion rubles this year.

## A Better Living

During the Ninth Five-Year Plan period, stipends to students in the colleges and specialized secondary schools were substantially increased. Large sums were allocated for meals and medical needs in hospitals and for meals at urban vocational training schools.

Between 1971 and 1975 more than 150 million people vacationed at trade union health resorts and hotels and at children's camps. This was 50 per cent more than in the previous five years. The chain of overnight health centers for industrial workers has grown from 175 in 1945 to more than 2,000 today. Between 1971 and 1975 the trade unions opened nearly twice as many new health resorts and vacation hotels, guest houses, tourist camps and other vacation facilities as in the Eighth Five-Year Plan period.

The Soviet Union ranks first in the world in volume and scope of housing construction. For example, we build more housing than all the Common Market countries put together. Approximately 75 billion rubles were budgeted for the purpose in the last five years. A total of 56 million Soviet citizens moved into new, modern apartments in the Ninth Five-Year Plan period.

Rents in the Soviet Union have stayed the same since 1926: 13.2

kopecks a month per square meter\* of living floor space. This comes to an average of three per cent of a family's budget. The state spends an annual 3 billion rubles for the maintenance of housing; this figure grows larger, of course, as more housing is built.

The sale of durable goods keeps growing. The volume of consumer services expanded 40 per cent in urban, and 70 per cent in rural, localities.

The Soviet economy expands at high and stable rates, with no recessions and no economic crises, ensuring a steady rise in the standard of living of all the people.

## Tenth Five-Year Plan Targets

During the next five years real income per capita will go up 20 to 22 per cent. The average pay of workers will increase 16 to 18 per cent, and collective farmers' incomes from the commonly owned economy, 24 to 27 per cent.

The consumer will be getting from 28 to 30 per cent more in payments and benefits from the public consumption funds. Another 11 million apartments will be built. Expenditures for housing construction are to go up 24 to 28 per cent. Special attention will be paid to better quality construction and improved layout of apartments; 60 per cent of the new dwellings are to be built to new standard designs.

In the next five years, factories will be turning out 30 to 32 per cent more consumer goods of higher quality and greater variety. By 1980 the output of fabrics, knit goods and carpets is to be increased substantially. A wider variety of clothing and footwear will be put on the market; more sports goods and tourist equipment are to be produced. The light industry factories making these articles will step up output 26 to 28 per cent.

Shops will offer a much greater choice of everyday commodities and household goods, output of which will rise 60 per cent. Mass production of color and portable TV sets, videotape recorders, air conditioners, automatic washing

\*One square meter equals 10.76 square feet.

machines and ironing machines is to be organized. More labor-saving household appliances will be manufactured.

Factories in many industries will make durable consumer goods. Production is to increase 200 per cent in the electronics and radio industry, 90 per cent in the manufacture of means of communications and 80 per cent in chemicals.

The output of foodstuffs will grow 26 to 28 per cent, of meat and milk products 20 to 22 per cent, fish products 30 to 32 per cent, flour and cereal products 21 to 23 per cent.

Over 31 billion rubles have been allocated to expand the light and food industries and public catering during the Tenth Five-Year Plan period, six billion rubles more than in the previous five-year plan period.

Measures to provide the Soviet people with the best possible working conditions and recreational facilities have a prominent place in the social program. Trade union proposals to improve working conditions at industrial plants and to use the most advanced labor-protection and safety techniques were taken into account in drafting the program. More particularly, it provides for a substantial reduction in manual, low-skilled and laborious operations. The plan calls for the manufacture of large numbers of new, highly productive types of machines, instruments and modern materials, and the use of more advanced technological processes. Special attention is to be given to the production of more equipment to mechanize handling, transport and auxiliary operations.

Lenin compared the Soviet people's road to communism to the ascent of "a very high, steep and hitherto unexplored mountain." The more mature Soviet society became, the "more boldly, more quickly and more directly to the summit" it would ascend.

Lenin's words have come true. Each five-year plan is another milestone in the advance of Soviet society. The Tenth Five-Year Plan will raise our country to a new and qualitatively higher stage of the ascent.

Abridged from Soviet Union Magazine



**Travelers through Georgia can experience the four seasons in a few days. They will find snow on the peaks of the Caucasus Mountains, autumn fogs in the high valleys, spring grass in the foothills and palm trees in the subtropical lowlands. In addition to Georgia's beautiful countryside, tourists can visit cities that are many centuries old, like the capital, Tbilisi, or new industrial centers like Rustavi. The route of our correspondents, writer Alexei Flerovsky and artist Nikolai Smolyakov, took them through part of western Georgia.**

## Upper Svanetia

**T**O SAY that Upper Svanetia is surrounded on all sides by mountains would be something of an understatement. The Svans live almost next door to eagles' nests. The small village of Ushguli is the highest alpine village in Europe, and the other Svan villages are only a stone's throw from Ushguli. So it's not an easy thing for a tourist who prefers to cover ground on foot to reach Upper Svanetia. In the old days such a trip presented terrible hardships and took a good while. People got here riding small horses, as plucky as the Svans themselves, along narrow winding roads that overhung precipices. The locals used to say

about their roads, "A bad road is one from which a traveler falls, and his body can't be found. A good road is a road from which a traveler falls, but his body can be found and buried. A fine road is one from which a traveler cannot fall."

There were always more good roads than fine ones, and a trip in Upper Svanetia, even for our fathers (say, in the early thirties), was a romantic but rather risky adventure.

Today it is all much simpler and hardly exciting. From the big Georgian industrial city of Kutaisi a six-seater plane (four flights a day) gets you to the heart of Upper Svanetia in a brief 40 minutes.

For the local people the flight is something they take for granted. A fellow passenger of ours, for instance, buried his nose in a newspaper as soon as the plane took off, but we couldn't tear our eyes away from the window. In a matter of 10 minutes perpetually snowcapped mountain summits appeared on both our right and left, then dazzling-white glaciers and variegated strips of green alpine meadows passed under us. Before we knew it, we had arrived in Mestia, the administrative center of Upper Svanetia. Recognition is instant—nowhere else in the world can you see a square like this, with its merlon-crowned tower battlements.

### Forty Years Versus Four Centuries

"The old people say..." Those are the words a Svan invariably uses to enforce the authenticity of the statement to come. So, the old people say that more changes have taken place in the life of the Svans in the last 40 years than in the whole of the preceding four centuries. Memory of long-bygone days is preserved in family tradition, but the dynamic changes began to take place before the very eyes of the present generation. And not necessarily the oldsters.

We are shown an old Svan house in which no one today could possibly live. A big common hall with one small loophole window that lets a narrow strip of light through. In the center an open fireplace. Near the fire an armchair for the head of the family. At a slight distance back, benches for the rest of the family and guests, separate ones for men, women and children. Along the walls, behind wooden partitions, a stall for oxen, cows and calves. A stone stairway from the common hall leading down to a basement dungeon, a place for prisoners.

What is this, a twelfth century mountaineer's habitation?

"I was born in such a house," said a woman on the staff of the local museum. She is not the only one. Most of the people here over 40 were born in a house like this. And every family, by the way, numbered no fewer than 20 to 25 persons.

An old Svan house preserving all the features of past centuries and not even requiring any restoration is indeed a find for a historian. No less can be said for the Svan towers, each one of

which was built 700 to 800 years ago. In Mestia alone there are 40 such towers, and in all of Upper Svanetia more than 200. They were built five or six stories high of large rocks—how, no one seems to know—and were so solid and durable that every house became an impregnable fortress.

Now why such fortress-homes? Were the Svans afraid of foreign invaders? Not at all. In the village of Dzhvari, at the entrance to the narrow Ingur gorge, where the border of free Upper Svanetia once passed, there was only one Svan tower. Three or four warriors inside it could hold off a whole army with little difficulty.

The fortress-home had a very special purpose: to protect the family from the vengeance of vendettists. The Svans lived then by the laws of *litsvri*—the blood feud—for many centuries, right up to the Soviet period.

Each year the *litsvri* cut down about 100 Svans. By 1924 there were only 12,000 Svans left (now there are about 20,000). You can imagine what eloquence the first Soviet activists had to summon up to convince the vendettists of the advantages of peace, to open their eyes to the barbarous nature of this centuries-old feud.

And how much effort and patience were required from the first teachers to persuade parents to let their children go to school, and from the first doctors to talk the sick into giving up the services of sorcerers.

In summary, to draw a small people, who had lived for more than a thousand years completely isolated from the outside world, into the rhythms of contemporary civilization was certainly a most significant accomplishment. The more dramatic, therefore, are the changes that took place over the Soviet years in the Svans' everyday way of life as well as in their attitudes and way of thinking.

You have only to hear with what pride an old, illiterate Svan tells his neighbor how his grandson or granddaughter received excellent marks in the entrance examinations for Tbilisi University. And such news is exchanged by neighbors in many homes. When we asked him, Kapitón Zhorzholiani, chairman of the rural Soviet in the village of Mulekhi, reeled off the names of one family after another with no fewer than three or four college students each or as many college graduates. The Gudakedzhmanises, for example. Grandfather and Grandmother are collective farm pensioners. They have five daughters. Two are philologists, three, biologists. Their son is an agronomist. Their elder granddaughter last year entered a medical college in Tbilisi. The younger grandchildren are in secondary school. Then Kapitón Zhorzholiani listed some of his most eminent fellow countrymen. They include a submarine commander who became famous during the war, an eminent Georgian poet, a doctor of philosophy, a doctor of history, a chief of a geological administration and the head of the Georgian language department at Tbilisi University. And, something to note, all are from the same village.

# GEORGIA

There is no comparing the Svans' prerevolutionary life with today's. Just try and imagine, for example, in a home today, a fire on a hearth in the center of the room, with smoke escaping through the window. All the houses in Mestia, as well as in the neighboring villages, are modern, but they preserve certain Svan features: the ground floor is one big hall, with a long table for guests in the middle. The second floor is ringed by an open veranda.

The local authorities, it should be pointed out, see to it that every new house harmonizes with the historically established panorama of Mestia. House plans must be approved by the District Soviet. Here one sees respect for the cherished things of old, for traditions that have stood the test of time.

On the other hand, what has sunk into oblivion never to return? Poverty, illiteracy, epidemics and the sense of detachment from the world that began even at the nearest mountain pass. And what is being preserved to this day? Respect for one's elders, and a hospitality which is impressive—even for Georgia. Asking no questions, the Svans will welcome travelers, give them food, drink and a bed. As of old, every Svan, boy or girl, is from childhood trained to ride a horse, and on Lion's Holiday, an annual fete here, hundreds do acrobatics on horseback through Mestia's streets. And, of course, as for many centuries, the Svans are passionately in love with their mountains. Even today you can hear a comic folk song, rendered with evocative harmony in Svan homes, which nevertheless has the overtones of truth: "Aren't you sick of the mountains yet, don't you want to come down to me?" the bride asks plaintively. "No, I'll never be sick of the mountains, they're more beautiful and desirable than a woman," is the betrothed's reply.

A writer who visited Svanetia back toward the close of the last century wrote, "There are some mountaineers you couldn't budge even if you promised them Mohammed's paradise beyond the glaciers, but a Svan will climb right into death's maw..." The Svan character has not changed since, but the Svan passion for scaling the steepest of cliffs goes by a fancier name today—alpinism. It has been estimated that in number of highly skilled mountain climbers, the Svans are way ahead even of the Nepalese.

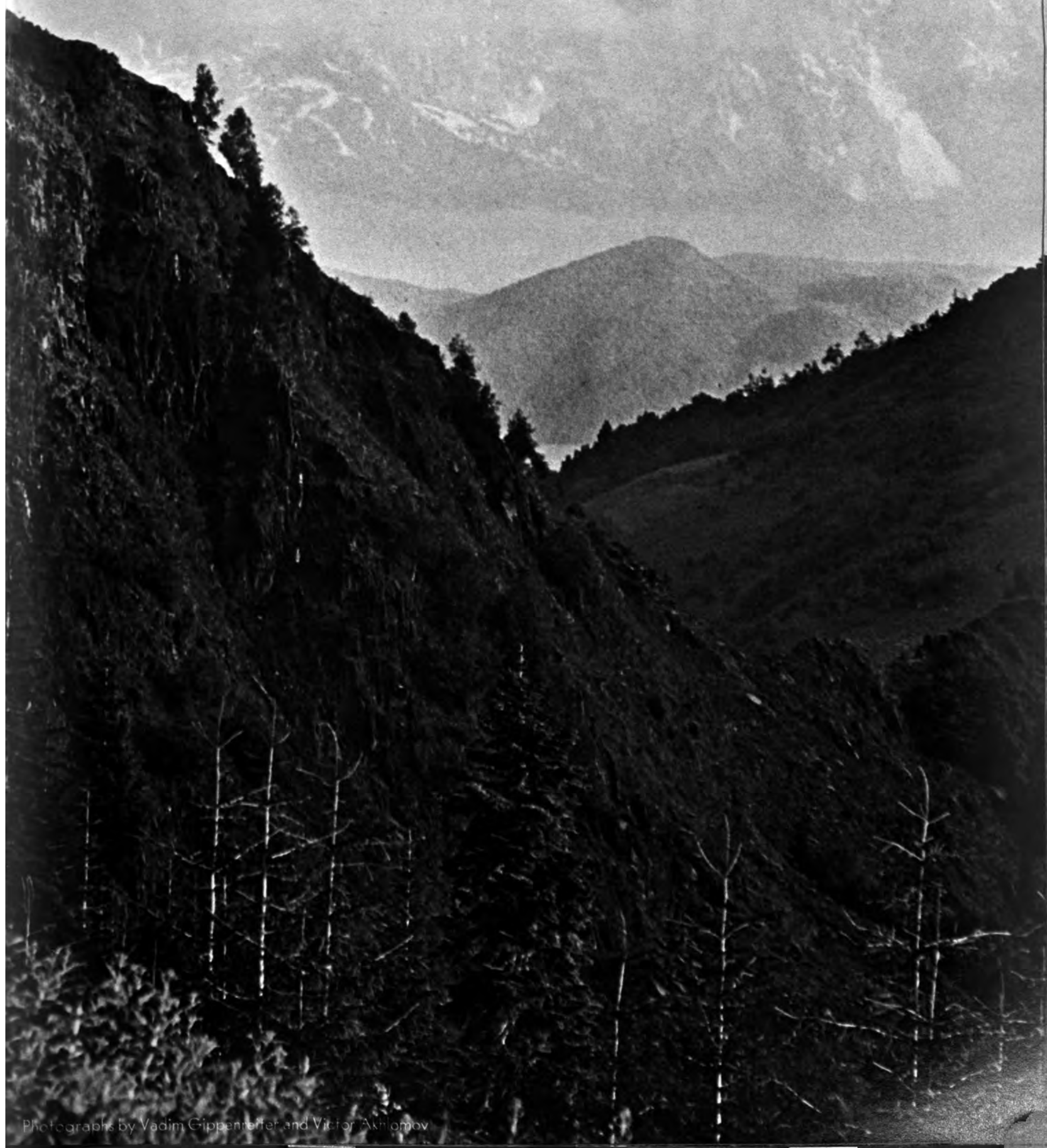
### New Road

The first automobile appeared in Mestia in 1937. A certain old man placed a wisp of hay under



# GEORGIA IN FOCUS

*The mountains of Upper Svanetia*

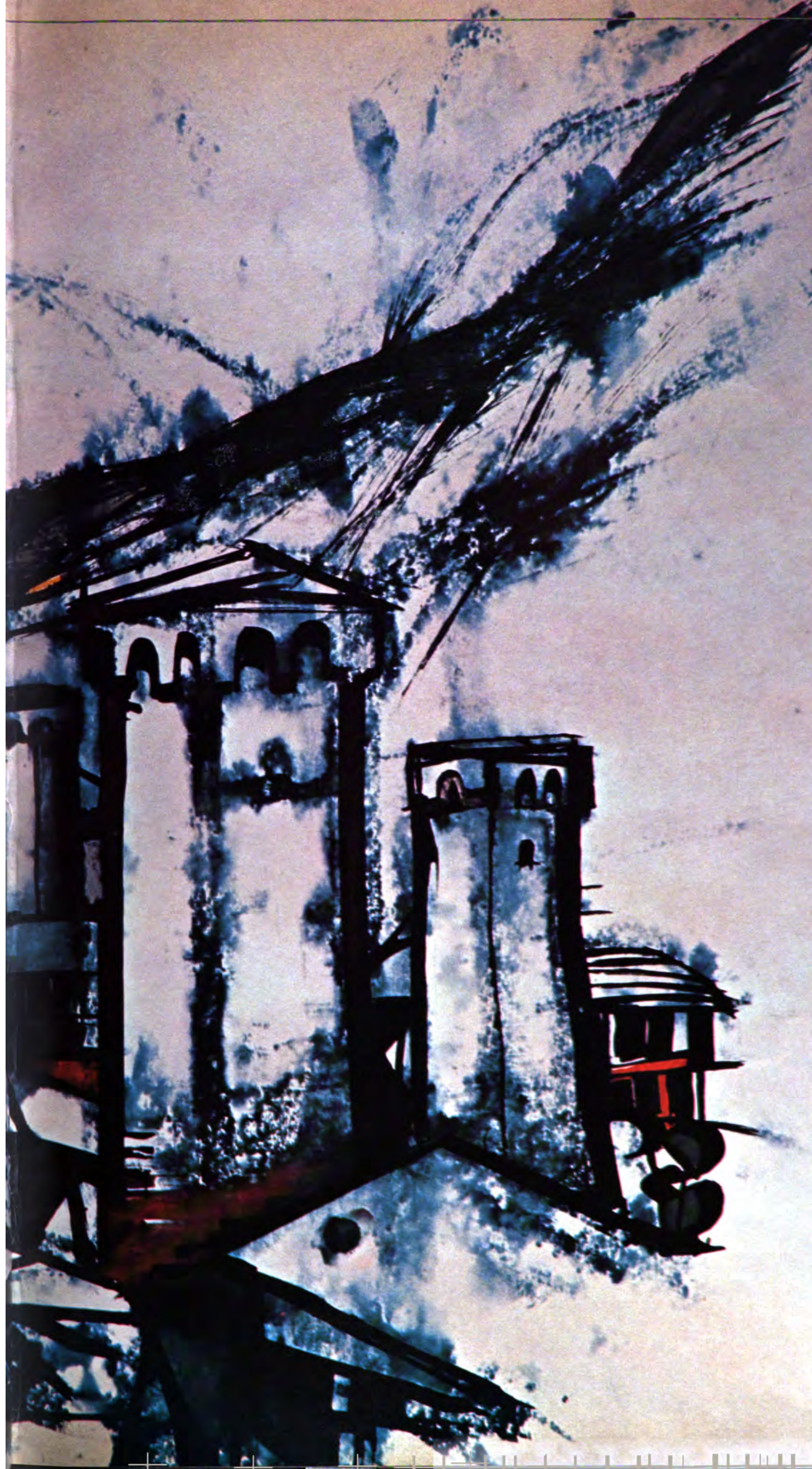


Photographs by Vadim Gippenterfer and Victor Akhlov









the car's wheels and was terribly upset when the "iron horse" did not eat it. It took eight years to build the road from Zugdidi to Mestia—about 260 kilometers<sup>1</sup> long. To lay it, the builders had to blast their way through cliff rock. Today this road is used by trucks loaded with timber, cement and foodstuffs, and once in a while by buses carrying "organized" tourists and passenger cars carrying "unorganized" ones. There are very few of the latter: it is rare for a car to detach itself from the unbroken stream racing along the Black Sea coast highway to take the Mestia road. And not because it's dangerous. There are few road accidents here, but the prospect of jolting for six hours over a bumpy road makes the most enthusiastic tourist think twice. That is why the number of travelers in Upper Svanetia is comparatively small, though 260 kilometers is, of course, no great distance, and there is an excellent tourist center in Mestia.

The road is now being rebuilt, or, rather, built all over again. A 12-meter-wide<sup>2</sup> highway will be opened in 1977. Considerable hope rests on that event in Svanetia today, since the future of this picturesque corner of Georgia depends to a large extent on the development of tourism. The chairman of the District Soviet, Muradi Ushvani, told us about the plans for building new tourist centers and hotels, mountain skiing stations, a big ski jump and giant slalom routes. In the immediate future they will be able to accommodate 1,000 tourists a year, and long-term plans provide for turning the whole of Upper Svanetia into a natural history park, where no industrial construction will be permitted.

And a very sensible decision that is. Large-scale mining projects would inevitably scar the environment and would not really be productive. Nor can intensive farming be undertaken here. What can the cliffs yield? To try and expand the area sown to barley and potatoes is a tough job and hardly worth the trouble. Prospects for raising cattle are more promising. High-capacity and fully mechanized stock-breeding state farms are now being built here. But even they are limited, probably, by terrain.

Upper Svanetia was once a large timber supplier; timber was floated down the Inguri. But commercial felling is decreasing from year to year and will soon stop altogether. The local timber people will only cut out diseased and dead trees, certainly a progressive and general attitude, and not only for Upper Svanetia.

And so tourism has the best of opportunities here. We found additional confirmation of that, flying from Mestia southward, toward Zugdidi. In parting, Upper Svanetia presented us with another heavenly sight: As the morning fog dispersed, silvery Mt. Elbrus revealed itself, and then, quite nearby, the Svan beauty, Ushba—a mile and a half cliff of pink granite.

<sup>1</sup> One kilometer equals .621 miles.

<sup>2</sup> One meter equals 3.28 feet.





*Young Svans are as devoted to their traditional folk music as their ancestors were.*





## A New Life

**I**F YOU approach Zugdidi by plane, the arch dam of the Inguri Hydroelectric Power Station looks like a tiny horseshoe. But it happens to be the highest dam in Europe. I don't know whether it was by chance or not, but the dam is exactly a meter higher than the big one the Italians built. Theirs is 270 meters high, ours is 271.

Why was the Inguri Hydroelectric Station, a key project of the Tenth Five-Year Plan, constructed precisely at this spot, and what advantages does the location offer?

In Upper Svanetia we met an engineer from Tbilisi who viewed all the local natural beauty with the eyes of a hydropower engineer. We were standing on a wooden bridge, and the foaming Inguri was roaring below us.

"A magic river," the engineer remarked, relishing the sight. "Think of all the untapped power there!"

The Inguri begins its mad race from Upper Svanetia's glaciers, and the Inguri ravine, close to 210 kilometers of it, gives the river added momentum, building up its speed to the maximum in the Dzhvari gorge. From there the river used to burst forth onto the broad valley reaches to flow into the Black Sea. But no longer. Now it is blocked by a dam in the Dzhvari gorge.

The Inguri station has a capacity of 1.6 million kilowatts. Compared with Siberia's giants there is nothing startling about it. However, the station is located near densely populated and industrialized districts and operates at peak capacity (voltage can be regulated). Naturally, its value is enhanced for that reason. Besides, the Inguri station is only the first stage of what will in the next 15 to 20 years become a most powerful hydroelectric cascade.

It goes without saying that the construction of such a station in the mountains is more complicated and expensive than on flat ground, and especially so in the case of the Inguri station. Dzhambul Chitanava, chief mine surveyor of the project, took us for a ride through several of its subterranean sectors, already or soon to be in operation. He "rode" us through the 15-kilometer-long tunnel (10 meters in diameter), otherwise the excursion would have taken several hours. The entire area of hydro-technical installations hidden away in the cliffs spreads over scores of kilometers.

We were surprised by the youthful appearance of the mine surveyor, entrusted as he is with the management of all these underground operations at such a large-scale undertaking. Chitanava really is young, only 29. What was more surprising was how a comparatively recent graduate of the Tbilisi Polytechnic Institute had worked himself up to so high a position at a construction project of countrywide importance.

Was Chitanava's rapid rise typical?

We asked Mikhail Tsiskarashvili, chief of the construction project.

"Probably," he replied. "It's a case of an old truth's confirmation once again: A big project holds out big opportunities. For a specialist with know-how who is also gifted and energetic, of course." According to Tsiskarashvili, the chief mine surveyor's age is about right for a specialist of his rank working at a hydropower construction project. Many like him are about 30 or a little over. Sixty per cent or so of all the specialists (a total of 13,000 people are employed here) were born, trained and built power stations right here in Georgia. They are all expert in mountain area construction, a particular specialty of the Tbilisi Institute's Hydroengineering Department. Any number of engineers, not only Georgians but Russians, Ukrainians, Byelorussians, Armenians and Jews, have been working together here as a group for more than 10 years. They have been able to develop a high degree of coordination, which, says Tsiskarashvili, is surely the principal asset on a construction project that has to tackle and solve very sophisticated problems.

The most highly skilled workers—asmblers, cutters, welders and the like—also constitute a multinational and stable group.

On the other hand, those in the mass trades, the concrete workers, for example, are, as a rule, from the neighboring mountain villages.

What's the big attraction?

"It would be hard to pin that down," the construction chief continued. "The chances to make good money and learn a good trade probably have equal weight. They are, of course, interrelated reasons. A machine operator, assembler, welder or drifter earns as much as 500 rubles a month. And anyone can learn a trade. At any rate, our building trust management is always looking for more skilled workers."

To get them, all kinds of training and retraining courses are offered. At the construction site are a branch of a polytechnic school and two vocational training schools. The large number of young workers who are high school graduates (10 grades) continue their education at institute evening departments, usually the Tbilisi Polytechnic Institute, with which the trust has long had close relations.

"Almost one out of every four of our young workers is studying somewhere," said Tsiskarashvili, "and, as far as I'm concerned, that is the most important component of a successful worker's career."

And one more feature of this large construction project, not limited to the Inguri power project alone: A modern builders township, with all the amenities, has risen in the foothills, on land not suited for intensive farm development. The movie theater is the equal of a big city's, and the pictures run are the very latest. The house of culture's substantial budget makes it possible to invite professionals to teach and

*Mikhail Tsiskarashvili is chief of construction at the Inguri Hydroelectric Power Station project, the first of a series to be built along the Inguri River.*



coach amateur performers and give guidance to literary, technical and other hobby groups. The equipment of the town's secondary school, hospital, kindergartens and nurseries is up to the highest urban standards. It's not surprising, then, that the town attracts young people from the surrounding villages. To sum it up, this big construction project means a new quality of life for them.

In our talk with Mikhail Tsiskarashvili we learned another interesting thing: Although he's a very busy person, nevertheless he sets aside two days a week to receive callers. One day he is approached as chief of the construction project, the next, as a deputy to the USSR Supreme Soviet. Often, what is not his responsibility in his role of construction project chief he must attend to as a Soviet legislator.

As a matter of fact, a private concern some person sees him about can turn into a public issue. For instance, everybody was worried about what would happen afterward, when construction would have been completed. Although the Inguri station was planned as the first stage of a cascade, specialists were not of the same mind about whether the second one should be a copy of the first.

For the many thousands of builders of the Inguri station this was a problem of major importance. They had specialized in a particular type of station (in this instance, with arch dams), and a project with different technical specifications would be hard for them to build. In that event the second stage would be assigned to some other trust. No one would be left without a job, of course, but the builders of this station might be asked to move on to another project, not necessarily in Georgia. Most of the people had more or less settled down here over the 10 years the station was under construction, and not everyone takes to the life of a nomad.

And what would happen to the township when thousands of its present residents moved out? Maybe some different kind of industrial production should be started right away, so that newcomers and those who preferred to stay on could be taught new trades and specialties?

So you see it was a very complicated situation. Tsiskarashvili himself, in his capacity as construction chief or as a Supreme Soviet deputy, could not untangle

it. And the people who came to see him didn't expect him to. But they did want the matter dealt with and decided, one way or another, realizing also that the state was just as interested as they were in seeing the situation resolved.

It goes without saying that the construction chief was not the only one to whom the question was put. The problem that worried thousands of people had been discussed at open party meetings (anyone can attend), production conferences and trade union sessions. Representatives from countrywide agencies were invited to all such meetings. They agreed that it was sensible to assign the construction of the cascade's second stage to the builders of the Inguri station. Plans provided for the construction of an arch dam there, too, and the site of the new project was only 15 miles from the town.

### Colchis Transformed


Hearing that we were planning to visit Poti, our friends said with just a hint of sarcasm: You certainly won't be able, in your article, to resist the temptation of mentioning the well-worn ancient myth about how Jason, in his quest for the Golden Fleece, outfitted the ship *Argo* and headed for Colchis. Well, yes, we do mention it. But for this reason only—because many people still think that Colchis is somewhere in Greece.

It's an understandable error. The first Georgian Colchis kingdom evolved in the sixth century B.C., and it had close ties with Ancient Greece. Greek authors of that time had names of their own for these parts: The Black Sea they called Pontus Euxinus, the seaport Poti, Phasis.

The Colchis lowland spreads for hundreds of kilometers along the Black Sea coast from Sukhumi to the small town of Kobuleti (not far from Batumi). Flat as a board and only a meter or two above sea level, it is crossed by dozens of rivers flowing down from the mountains, very turbulent ones. The rivers used to act up at various times of the year. In some districts rain poured down 240 days a year, so it was not surprising that the Rioni, one of Georgia's most full-flowing rivers, flooded its banks as many as 150 times a year. Ten billion cubic meters<sup>3</sup> of fertile soil was

<sup>3</sup> One cubic meter equals 1.3 cubic yards.





*Young people from the neighboring mountain villages are attracted to the construction site by the opportunity to learn trades at two vocational schools and a branch of a polytechnic institute.*

carried down by the river, polluting the sea along 200 kilometers of the coast.

But the sea retaliated, battering the defenseless shores. What was the result? Vast areas were transformed into swampland.

The noted Soviet writer Konstantin Paustovsky visited these parts in the early thirties and produced a book widely read in our country titled *Colchis*. He described the flat, swamp-ridden land with the exotic name, everlastingly flooded by warm rains and turbid river waters, as "primeval tropical forests standing knee-deep in water."

In Paustovsky's story a conflict arises between a botanist and a specialist in land improvement. The latter, draining the swamps—and this was a furious, uncompromising battle, because people had little machinery and less experience, and the ferocious, treacherous swamps threatened to swallow up all of life—was hardly inclined to be sentimental about the drenched forests. But the botanist, like the author himself, saw the woods in a romantic light. The conflict was not a serious one. The scientist, the engineer and Konstantin Paustovsky, then a young essayist on a magazine assignment to one of the country's shock construction projects, all had faith in the transformation of Colchis.

"If it were not for the swamps, it could become a land as rich in vegetation as Java and Ceylon," wrote Paustovsky.

The swamps also crippled people's lives. Malaria raged throughout Colchis. The fever would turn a person into a rag, able to work scarcely four hours a day. The battle against the swamps, then, was also a fight for the young generation's health.

As far back as the thirties draining operations in Colchis had already covered an area of thousands of hectares.<sup>4</sup> Georgia's

agencies alone could hardly be expected to cope with a project of such scale. But the Soviet Government allocated large sums for the job, sending hundreds of skilled specialists and the best machinery then available to Colchis. Many union and republic research institutions had already begun to look into the problem of Colchis.

From 1925, when experimental operations were begun, to 1965, about 67,000 hectares of waterlogged Colchis lands were drained. Malaria was eliminated completely, drained lands became populated areas, collective farms were established. The population of the Colchis lowland grew by more than 35 per cent in 35 years.

A great deal has already been accomplished, but the Colchis problem is far from solved. "Georgia's future will depend on the extent of Colchis' development," a prominent scientist declared in a republic newspaper. That was not an overstatement. Georgia is a republic with little arable land. There is four times less farmland and five and a half times less arable land here per capita than in the country generally.

That was why the Communist Party of Georgia and the Council of Ministers of the Georgian Republic in 1966 decided on a comprehensive program for the reclamation of 225,000 hectares. The program envisages, during the Tenth Five-Year Plan period, both the draining and development of 45,000 hectares.

Responsible for the program is Kolkhidstroi (Colchis Building Administration). The chief of the Inguri station construction proj-

ect suggested we talk to the director, Amiran Gatserelia, an old and close friend of his. It turned out that both had not only studied hydroengineering at the Tbilisi Polytechnic Institute, but had been roommates throughout their student years. Many people told us later that Tsiskarashvili and Gatserelia were rather alike. Not in outward appearance, but in their inexhaustible energy, expert knowledge of their job and ability to work with people.

And Gatserelia's plans are no less ambitious than those of his friend. The trust will probably in the near future be reorganized into Glavkolkhidstroi (Main Colchis Building Administration), an agency directly responsible to a union ministry. That means it will be entitled to more highly qualified specialists and more up-to-date machinery. There are plans to set up specialized building agencies, so that Glavkolkhidstroi will be able to implement the comprehensive program of reclamation and development and hand over the reconditioned land to collective and state farms. It will simultaneously build roads, housing, cultural facilities and shopping centers. That has already started.

So that we could see for ourselves how fruitful every hectare of Colchis' developed land could be, the assistant trust manager, Mikhail Khorava, and the chief trust engineer, Carlo Bulia, took us to an experimental plot, where perennial plantings were already showing a bountiful yield. There we saw what Colchis scientists and engineers had dreamed of 40 years ago. In Paustovsky's story *Colchis* there is a certain Becho, a self-taught artist, who draws on

the wall of a *dukhan* (a small restaurant) a picture of the future, when "orange orchards will blossom all over the land where the vast warm swamps are now."

If Becho could have visited with us the plot where Vladimir Dzhibladze, a very experienced gardener, was working his magic, he would have drawn an even more glowing picture.

What is grown here? Oranges, tangerines, lemons, apples and pears (only the best varieties, anything less would be unprofitable), also the tung tree, bamboo and laurel. And all this, it should be noted, on a small plot of several hectares, so that the whole could be called an open air greenhouse. The plot is surrounded on all sides by mighty eucalyptuses, whose leaves have a murderous effect on the malaria mosquito—an insect no longer found in Colchis.

The yield on this plot parallels its variety. Twelve tons<sup>5</sup> of citrus fruit are harvested from 0.7 of a hectare.

"Every hectare of reclaimed land can and should bear that much fruit," Mikhail Khorava told us.

Well, and what eventually happened with the primeval forests, where even the South American nutria lived? Were they really all cut down? No, the picture is not quite as sad as it might have seemed to the readers of *Colchis*. A big freshwater lake, Paleostomi, sprawls not far from Poti. To this day its shores are covered with tropical forest. You enter here from the lake by boat; your first impression is that you have suddenly landed in a Brazilian jungle. The area is rich in game, but, of course, no hunting is allowed without a special license. Licenses are strictly limited, and even the few now issued will soon be cut out. There are plans to turn the entire lake zone and its wooded shores into a preserve.

<sup>5</sup> One metric ton equals 1.1 short tons.







# GEORGIA IN FOCUS

## The Tea Collective Farm

IT WASN'T, of course, that we were just driving along the highway and happened to notice the Shroma sign. We were not just dropping in, either. We already knew, back in Moscow, that the Ordzhonikidze collective farm was unique, probably the tea farm of the whole republic. We had other reasons, too, for ending our West Georgian trip with Shroma. First of all, we wanted to meet this collective farm's 73-year-old chairman Mikhail Oragvelidze, known throughout Georgia by the familiar name





Mikhako (he likes it himself). Secondly, we were looking forward to several days of relaxing in the country and the opportunity to get a closer look at rural life. So we didn't shower the chairman with questions once we introduced ourselves. We could do that better later, when we had seen something of the place. Mikhako didn't press us with questions either, just smiled a little and asked someone to "drive the reporters down to Ureki."

That was how quite unexpectedly we found ourselves in a sun-swept cosy little room of a two-story cottage on the shore of the Black Sea.

And here was the first distinctive feature of Shroma life: our cottage and three others like it, part of the collective farm's Young Pioneer camp. Every month from May through September the camp welcomes 60 col-

lective farm schoolchildren, a total of 240 during the school summer vacations. In the course of two to three years the camp is able to take care of practically all the young members of Shroma's families. That is, if the parents have no objections. And why should they? The camp is free and the children are well cared for. Besides, it's not all play. For three hours a day they learn about farming working on their own experimental plot. During these hours some may, instead, be poring over school books—that's in the case of a few who need to bring up some of their grades.

In September, when the youngsters return to school, it's what they call the "mellow season" at Ureki. Now it's pensioners in the cottages, collective farmers who have done their full share of the work on the tea plantations, in the citrus orchards and corn-

fields. Though sound in body and spirit, most people that age can still do with a little special medical treatment. We heard this story. One of the farm's honored pensioners, who'd been having a bout of rheumatism, was sent off to a fashionable health resort at the farm's expense. He was there about half a month, but the treatment was not having much effect. The resort doctor said to him, "You'd probably be better off at another place." "And where is that?" the old man asked. "In Ureki," the doctor answered. The story sounded apocryphal, but it is a fact that the black magnesium sands of the beach at Ureki do have unusual healing properties.

We were a little concerned that our quarters in Ureki were some distance from Shroma (about 16 kilometers), but our minds were set at rest: "Someone will drop by mornings to pick you up."

That brings us to another special feature of collective farm life here today. The village of Shroma extends for some 40 kilometers; with its tea plantations it sprawls over a good 95. Not so long ago team leaders made the rounds on horseback. Today a horse and rider are seldom seen on Shroma's roads. The blacks and bays have been ousted by Volgas and Zhigulis. In addition to the two dozen passenger cars the farm board bought strictly for farm use, there are over 200 other cars in Shroma, all belonging to the farmers themselves.

This has to be a very prosperous farm, we commented. Leafing through his thick account books, the farm's manager, Vladimir Urushadze, a man with a higher education, showed us these figures: In 1973 the collective farm sold the state produce (mostly tea and citrus fruit) worth 2.9 million rubles, and in 1974, 3.3 million rubles. About 2 million rubles went to pay the farmers. Earnings depend on the amount of work done and the quality of that work. The farmers' private plots also bring in income. The editor of the collective farm newspaper, Ilya Chkhatarashvili, took us to visit several homesteads. A typical one consists of a two-story house (five or six rooms) with auxiliary structures (pigpen, chicken coop, summer kitchen, repair shop, garage and so on). All this is surrounded by a big orchard where tea shrubs alternate with tangerine, orange, apple and pear trees, a few grapevines, tung trees and bamboo. In their gardens the farmers grow a variety of vegetables, including tomatoes, cucumbers, eggplants and peppers.

Georgia's soil is bountiful, but you pay for its fruits. On the steep hill slopes, the tea leaf (Shroma's major crop) is picked mainly by hand, only because there's no room for a mechanical tea-picking machine to operate, and no other device has yet been invented. Tatyana Chkheidze, a deputy to the Supreme Soviet of Georgia, in a letter to one of the republic newspapers appealed to designers of tea machines: Get moving, make a new machine for us tea growers! The

designers listened, but they haven't come up yet with a tea-picking machine adapted to mountainous conditions.

Chkheidze started working on a tea plantation when she was 16. She was then a medical school student. However, she did not become a doctor but a tea grower, because even in those days people recognized that she was more than a skilled tea picker, she had a real gift for the job. Honored with the title Hero of Socialist Labor, she was the first person to pick tea using both hands at once, and "Chkheidze's method" was emulated by thousands of tea growers in many Georgian collective farms. In Shroma there are scores of her followers, many of them wearing orders and medals not only for high output but for inventive methods of work. It's more than high earnings, then, that makes Shroma's collective farmers work hard for bumper crops (20 and more tons of tea leaf per hectare).

And it's not only money and interest in the job that gets them up mornings (even on Saturday) at an hour a city dweller would consider the middle of the night. They're spending time on their personal plots, too, not only growing fruit and vegetables but experimenting, developing varieties a person with special agrotechnical training might well envy.

The Shroma farmers' creative initiative, on the collective farm plantation and on their own plot, is typical of collective farm work here. We discussed this point with Mikhail Oragvelidze. As you might expect, he knows about everything and everybody in Shroma. For 39 consecutive years now, the collective farmers have elected him their chairman (the Ordzhonikidze Collective Farm was founded in 1929).

Mikhako told us that the most difficult problem during the farm's first years was not financial but psychological. The state had provided tractors and other equipment, lent money to buy seeds for new cultures—tea and citrus fruit—and sent some experienced growers to Shroma. But to really get things going, it was necessary to change the attitude of the peasants, to convince them of the advantages of collective labor.

"Now, before the advent of Soviet power what was the poor peasant like?" Mikhako took us back to those years. "Gloomy, with a kind of sullen grin, a person with no rights who was therefore indifferent to almost everything in life."

"Most of today's collective farm land was waterlogged, and on the hill slopes the peasants grew only corn and millet. When we young collective farm activists (in 1922 Mikhako graduated from Tbilisi University and came to the village to teach school) told the peasants that our land would bear fruit as good as California's, the old people just nodded, they had no faith in us. But that was exactly what we achieved: In 1940, the year before the war, Shromians took in eight times more tea leaf than all of Georgia harvested in 1916."

"Those old people would never have believed me if I had pre-



Photographs by  
Sergei Edisherashvili  
and Georgi Zelma



*Shroma's central square. The village is in the center of the Ordzhonikidze Collective Farm's tea plantations. Below: Mikhail Oragvelidze, the farm's 73-year-old chairman. He is a deputy to the USSR Supreme Soviet.*



*Shroma memorial to those who fell in the war against nazi Germany. Right: Olyshek Svirid from the Ukrainian village of Rovnoye is an honorary citizen of Shroma. The fraternal relations between the two villages go back 40 years.*



dicted then that, say, in 1938, members of more than 50 families once very poor would become specialists with a higher education: to be specific, three doctors, three agronomists, three engineers, one geologist and 41 teachers."

"The proportion today is probably different, as many agronomists as teachers, right?" we asked.

"Yes," Mikhako replied. "The collective farm today is a modern enterprise and needs all kinds of specialists."

So our talk returned to present-day problems.

Sociologists have long noticed that a prosperous farm has as many problems, perhaps even more complicated ones, as a collective farm with a comparatively modest income. Among

other things, there's the problem of its youth. Young people are drawn to the city, if only because it offers them a broader choice of career.

We reminded Mikhako of a speech he had made at the Georgian Young Communist League Congress, where, as a Hero of Socialist Labor and a deputy to the USSR Supreme Soviet, he was an honored guest several years ago. He had said then, "To keep the youth in the countryside and to keep the countryside from aging, we must provide young men and women with interesting, absorbing work and, of course, decent living conditions, everything necessary to build stable families." Speaking for the farm, he promised that though there was not too much idle land available, every young family would



*Ilya Chkhatarashvili, editor of the farm newspaper, interviews a reader. Below: The village kindergarten. Below right: The farm's business manager, Vladimir Urushadze. Far right: Shroma's folk dance ensemble won first prize at a republic festival.*





be given a private plot and would be helped to build a home of their own.

Did the chairman keep his promise, and was he supported by the board, the farmers general meeting?

"This year alone the farm board allocated over 500,000 rubles for aid to young families, to help them settle on new land," said the chairman. "The outlook for our young people is fine. We need more diplomaed specialists every year. We now have more than 150."

A talk with Mikhail Oragvelidze is engrossing. People really mean it when they call him Shroma's historian. A book of his, *Bridges of Friendship*, came out not long ago in Tbilisi in Georgian and Russian, and in Kiev, too, in the Ukrainian language.

Why that title and why was the book reprinted in Kiev, of all places?

We learned that back before the war, in 1938, the Shromians had some business with the collective farmers of the distant Ukrainian village of Rovnoye. Comradely competition began. It was good for both farms and it's still going on. In fact, this action by the Shromians was taken up also by their neighbors: Today, not only the two collective farms, but two whole districts—Makharadzev in Georgia and Genichesk in the Ukraine—are competing.

This friendship between Georgia and the Ukraine stood the test of grim times. When the German invaders occupied the Ukraine during the war, the Shromians, who themselves could



hardly make ends meet (560 of the men went off to the fronts, half returned), sheltered over 200 evacuees from Rovnoye.

Driving up to the center of Shroma, you can see from a long way off a monument on a green hill: An elderly woman in Georgian peasant dress is supporting a wounded soldier. The inscription, in Georgian, reads "A Second Homeland."

The sculptor was inspired by a real-life incident. A Shroma farm woman, whose son had fallen at the front, took a gravely wounded soldier into her home. He came from the village of Rovnoye, and she cared for him like a mother until he was well.

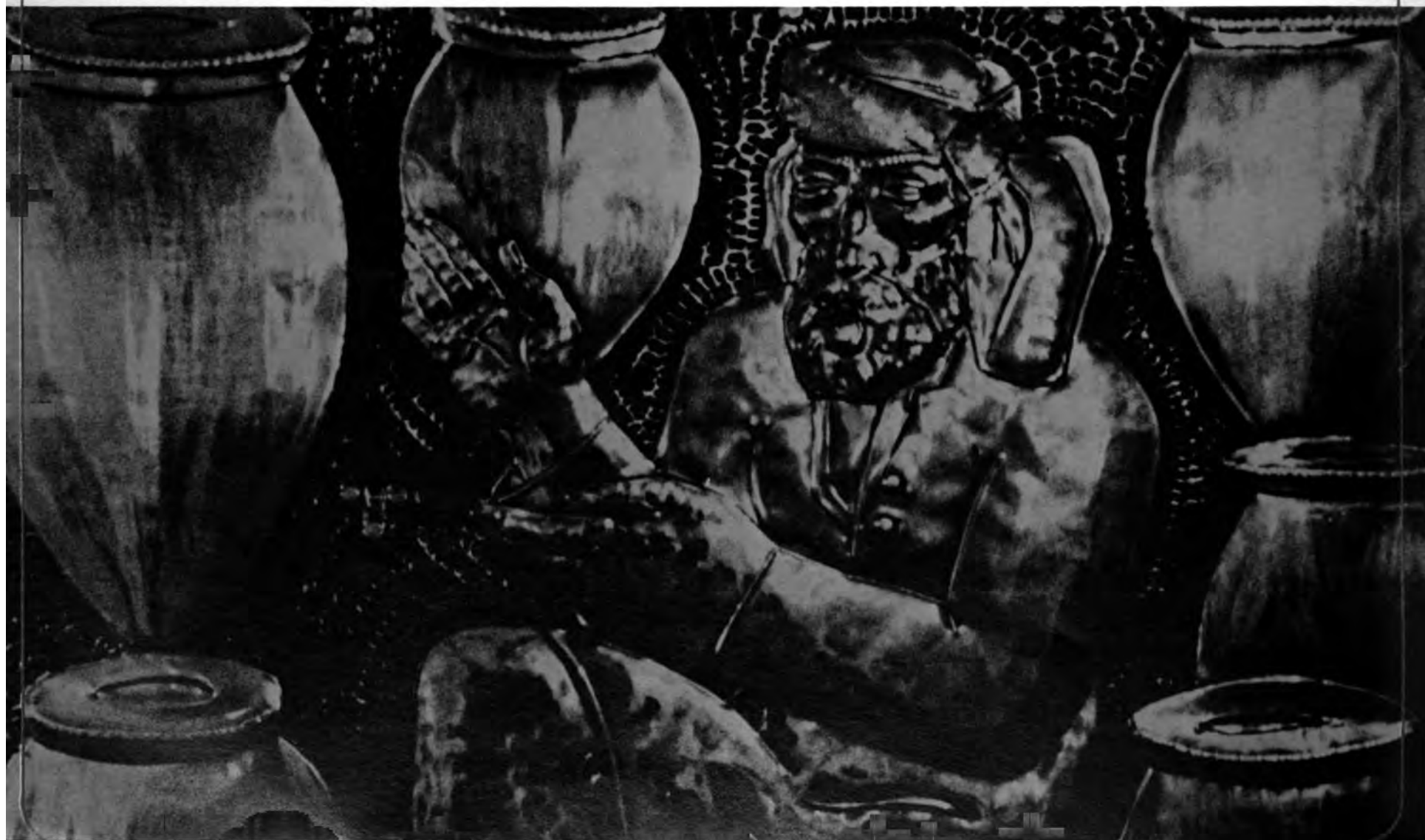
Mikhail Oragvelidze tells this story and many others like it in his book. That is why he called it *Bridges of Friendship*.





## Respect for Tradition

*Here one sees respect for the cherished things of old, for traditions that have stood the test of time. What has gone never to return? Poverty, illiteracy, epidemics and a sense of detachment from the world. And what is being preserved? Respect for one's elders and hospitality impressive even for the Soviet Union.*





# ONE YEAR AFTER HELSINKI

*Continued from page 3*

From the time of the Ten Commandments human society has had to establish generally accepted rules of personal behavior. They were essential to survival and the progress of civilization. But until very recently, it was the law of the jungle that seemed to rule in relations between nations and states. At the present stage of scientific and technological development, however, with the existing means of self-destruction, it is too dangerous to permit the strong to dominate international affairs. For the world to survive, ethical norms of conduct in relations between states are more necessary than ever. In the proclamation of such norms unanimously elaborated lies the significance of the Helsinki understandings.

It would, of course, be naïve to think that the conference documents will work immediate magic on the world situation and that, once adopted, they will automatically remove all difficulties and complexities in European and global relations. The class and ideological differences that exist between states and the differences in the social systems of these states make for differences in the approach to solving problems of international cooperation and evaluating political, economic and social processes. Nor is it possible to change political thinking when the realities of today continue to be measured with the yardsticks of the past.

Nature is so arranged that everything new is born in pain and suffering. Unfortunately, human society has not yet found the way to make the birth of new political trends painless. And the transition from the period of tension to good-neighborly international relations is not proceeding smoothly. It involves a fundamental rethinking of foreign policy views that have persisted for years, and this is not an easy process. That is why it is useful to recall now, a year after the Final Act was signed, how important it is not only to proclaim right and just principles in relations between states, but also to apply these principles in practice.

In summing up the past year, we can say that the Declaration of Principles, the political core of the Final Act, has in the main been implemented successfully. And this means that an atmosphere of mutual trust and confidence in peaceful development is being strengthened step by step on that continent, in spite of obstacles. The buildup of confidence has, among other things, also been helped by the signatories' implementation of the agreement to notify one another of major military maneuvers and to invite observers.

The proposal approved in principle by all the signatories on the need to supplement the relaxation of political tension with the relaxation of military tension is gaining increasing popularity. In this connection, Moscow and other capitals are watching the course of the Vienna talks on the

reduction of armed forces and armaments in Central Europe, which must be achieved without risk to the security of anyone and with benefit to everyone. It is widely believed that further progress at the Soviet-American negotiations to limit strategic armaments would be a major factor in relaxing tensions.

The Soviet point of view does not at all minimize the importance of the impact of Soviet-American relations on the general situation in Europe. It is, of course, true that these relations are taking shape and developing in the general context of the international situation. But it is equally true that the role and place of the Soviet Union and the United States in opposite social systems, their material and military resources and their military might, which has taken on new meaning with weapons of mass destruction, impose increased responsibility on the two countries.

There are those in the West who say that the results of the Conference on Security and Cooperation in Europe are a "one-way street," that they benefit only the Soviet Union. These people forget that all states, including the USSR and the USA, now have vital interests in common. The main one is to prevent a military conflict in which Europe might be one of the more probable seats. Those who talk glibly of the "one-way street" tend to overlook one indisputable fact—that Europe has moved a long way from situations like the Berlin crisis, from fears that a nuclear war might be around the corner. Thanks to agreements, situations like this have changed. Where then is that "one-way street?"

All the participating countries of the Helsinki conference can now think of allocating a larger part of their funds and resources to the resolution of such pressing problems as energy and ecology, problems that require all states, regardless of their social system, to pool efforts. Incidentally, the Final Act provides for the possibility of such collective action for mutual benefit. Is this really a "one-way street"?

At the end of May 1976 the Soviet-American treaty on underground nuclear explosions for peaceful purposes was signed simultaneously in Moscow and in Washington. By regulating conditions for such explosions and providing guarantees for their verification, this treaty will unquestionably promote cooperation between the two countries in the peaceful uses of atomic energy. This is an agreement that will most certainly benefit the whole world. We think that it can be seen as an application of the provisions of the Final Act.

The Soviet Union favors the strict implementation of all accords reached in Helsinki in their entirety. That point was made once again at the Twenty-fifth Congress of the Communist Party of the Soviet Union held in February to March of this year.

"The main thing now," Leonid Brezhnev, General Secretary of the CPSU Central Committee,

told the Congress, "is to translate all the principles and understandings reached in Helsinki into practical deeds. This is exactly what the Soviet Union is doing and will continue to do."

Of late there has been increasing talk in some circles that the West European countries have been fulfilling the provisions of the so-called "third basket," the section of the Final Act entitled "Cooperation in Humanitarian and Other Fields," and that the Soviet Union has not. What is the real state of affairs?

It will be recalled that when the conference participants were discussing provisions, they agreed that closer cultural and educational ties, broader dissemination of information and greater human contacts all helped to strengthen peace and understanding among nations and made for greater spiritual enrichment. Proceeding from this, they noted that cooperation in these areas must not violate the principles governing general relationships between the participating states but must observe the laws and traditions of each country. Thus, the direct connection between these questions and the basic problems of security and cooperation was taken into consideration. It was for the purpose of finding a solution to this that the conference was convened.

The Soviet Union has indeed been implementing the obligations assumed. Here are a few examples. Our country's international cultural ties have never been as broad and varied as they are now. They are maintained in different forms with 120 countries. This summer Soviet theaters staged plays based on 129 works by modern Western authors. Each year 50 to 60 films made in Western countries are shown in the Soviet Union. Since the end of the war, the Soviet Union has published 7,000 different books by American writers, 4,500 by British writers and 4,500 by French writers. Each year more than 300 books by American authors are translated into the languages of the peoples of the Soviet Union. In the past five years 15 million foreigners visited the Soviet Union and 11 million Soviet citizens traveled to other countries. In the current five-year plan period these figures will grow by 50 per cent. Where is the "nonfulfillment" by the Soviet Union of its obligations?

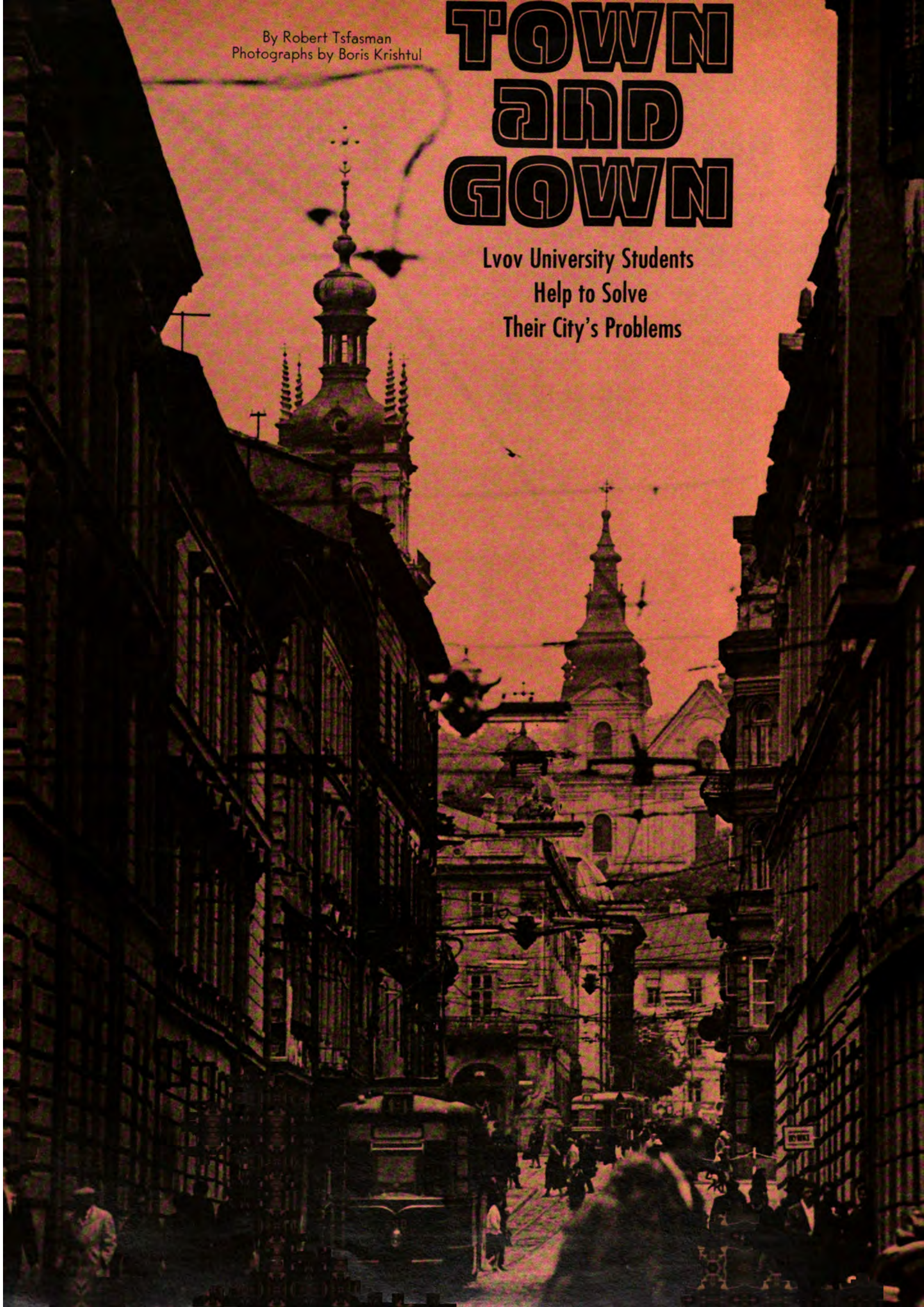
Foreign experts familiar with the real state of affairs justifiably note that the Soviet side is fulfilling the "third basket" conditions in greater volume than some of the Western signatories to the agreement. The same experts stress that what the Soviet Union refuses to permit is not cultural exchanges, but "information warfare" to be conducted on its territory. But this is not consonant with the entire spirit of the Final Act. It is not in the return to cold war customs but in the development of peaceful, equal and mutually advantageous cooperation that the Soviet Union sees the fulfillment of the Helsinki understandings. Progress along this line requires long and painstaking efforts by all the countries that signed the Final Act of the Helsinki forum.




By Robert Tsfasman  
Photographs by Boris Krishtul

# TOWN AND GOWN

Lvov University Students  
Help to Solve  
Their City's Problems







the first question foreign visitors put to Vladimir Goncharuk, the Komsomol leader of Lvov University. Here are the figures he gave me when I interviewed him.

Seventy per cent of the students are the children of workers and farmers. The parents of the remaining 30 per cent are intellectuals: doctors, engineers, teachers. Approximately one-third of the students live in Lvov; the rest, for the most part, are from small towns and villages in the western areas of the Ukraine. There are also quite a few young men and women from other republics since Lvov University's reputation has spread (deserved-

ly) throughout the Soviet Union.

The city of Lvov is surrounded by densely populated rural areas. That explains the large number of students with a farm background. There would be even more except for the fact that rural children are still not as well prepared as their urban counterparts.

Taking this into consideration, the university tries to help them. It has assumed patronage of villages in the most remote district of Lvov Region, Turkovskiy, which is right in the Carpathians. University students are frequent guests there: They tutor the local high school seniors and help them prepare for their entrance

exams. As a result, each autumn there are young people from those Carpathian villages in the freshman class.

There are 22 nationalities represented at Lvov University. The numerically largest group is the Ukrainian, with the Russian, Byelorussian, Jewish and others following in that order. Teaching is done in both Russian and Ukrainian, depending on the professor. Lectures in the humanities are more often given in Ukrainian; courses in the exact sciences are usually in Russian.

Readers might be interested in knowing that the male-female ratio



This audio-visual classroom was set up by Lvov University students for a city high school.

Left: (Left to right) Natasha Melnichuk and Valya Goncharova are philology majors; Galya Zakarchenya, journalism; Alla Ivanitskaya, economics; Galya Voitsekhovskaya, cybernetics.

is heavily in favor of the latter. The university has 14 departments, and the student body of some of them—like philology or foreign languages—is primarily made up of women. Men are more strongly represented in the mathematics and law departments. But I would not call a single department "male."

Is this good or bad? On the one hand, the emancipation of women can only be welcomed. On the other, the much feminization of the teaching profession (a large number of university graduates are teachers) does worry educators.

Although there are no restrictions, it is not easy to get into the university: There is an average of three applicants for each place. Nor is it easy to keep up with the work, especially for freshmen, who may not be ready for independent study.

The difficulties are many. They are made somewhat easier because students do not have to worry about tuition. They also receive a mainte-



nance stipend that takes care of many of their other expenses. The stipend is not large, but parents usually supplement it. Those who want to can make money during the summer vacation by joining a student construction team, and in winter by taking a part-time job at the university as a laboratory assistant.

Students from other cities are provided with dormitory accommodations, which cost only 20 rubles a year. The university has its own polyclinic, which provides free medical care, and a sports camp in the Carpathians.

As for the future, every graduate is guaranteed a job in his or her specialty. The choice is wide: Lvov University graduates are teachers, science researchers, translators, lawyers, journalists, geologists, economists.

### Building Workers and Architects

For a panorama of Lvov, ascend the wooded hill known as the High Castle. Incidentally, on this hill that the city's history began. In 1256 the Russian Prince

worth of labor—a record-breaking figure.

For the students, these projects have another value besides the pay. They give them a chance to prove themselves in a real working situation. But although future architects are willing to build schools, they would be even happier to design them as well!

Lvov Polytechnic Institute has long had a Student Research and Development Bureau (SRDB), with as many as 1,000 students participating every year. The designs and inventions—everything is done in the students' free time—are mostly on order from factories, business enterprises and government agencies. The money earned goes to the SRDB, the bureau, and the students.

The SRDB designed its Ukrainian

der way on how to implement it.

The university is no less active. Its students, too, fill state orders, doing fundamental research. The inorganic chemistry department alone, for example, does an annual 150,000 rubles' worth of work. Among its researchers is the university's celebrity, Yuri Grin, a fourth year chemistry student. Last year he won the Gold Medal of the Academy of Sciences of the Ukraine at the republic's student science research competition.

Grin is 21 years old. He lives in Lvov and is the son of a physician. He developed an interest in chemistry when he was a teenager; after school he attended chemistry classes taught by university instructors and students for inquisitive youngsters like himself.

Grin still goes to the classes but now he is an instructor.

### Rector: "Students Are Younger but More Mature"

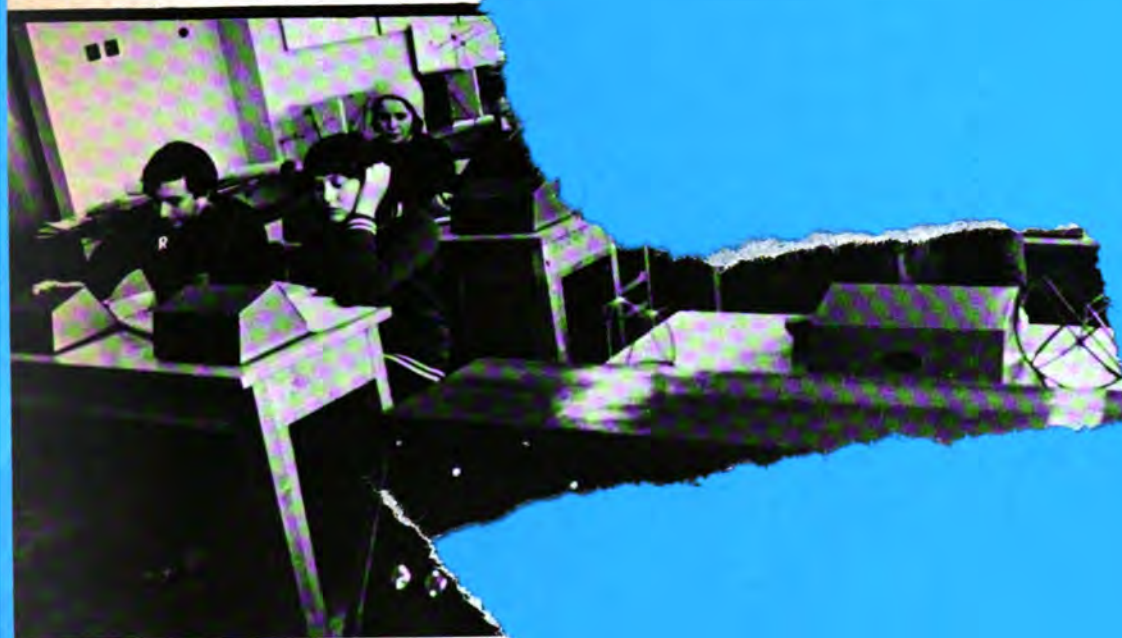
permanent community assignments. Some 1,800 of them hold elective office in different bodies of student self-government.

There are, moreover, students who have been elected to posts of greater responsibility than those within the university.

Maria Tsyorokh, a 20-year-old mathematics student, was last year elected a deputy to the Lvov Regional Soviet. A typical Ukrainian girl, she is very articulate and readily talked about herself. Before entering the university, she lived in a small town in the Lvov region, Sudovaya Vishnya. Her father is a driver and her mother works in a store. Why did the students nominate her as their candidate?

"Within the university's Komsomol Committee, I was in charge of the studies sector, the most difficult division," Tsyorokh explained. "It's not for me to judge how well I did, but I did my best. Perhaps that was why."

Her new duties are not easy for her because she lacks experience, but she compensates with enthusiasm. The Permanent Commission



Danilo Galitsky built a fortress here and named it after his son Lev.

Except for its name, there is nothing on the hill reminiscent of those ancient days. Students from the polytechnic institute are presently working to restore the High Castle—one of several student projects.

From the hill you can see that the old center of the city is surrounded by new housing projects. Students helped to build many of the apartment buildings. The university stadium was built entirely by students. The polytechnic institute's new dormitories and lecture halls and dormitories for the university were built by students, working with professional builders. They also helped to build movie theaters, schools, day care facilities and playgrounds in the city's streets and gardens.

And their contributions are not confined to Lvov.

There were 1,000 Lvov University student builders last summer. Over 200 of them worked in the city itself. Others traveled to Siberia, to the Far East and to the North. In Surgut, Western Siberia, for example, 50 Lvov students, who were building houses for the Tyumen oil workers, in one month did one million rubles' worth of labor.





for Youth Affairs of the Regional Soviet recently instructed Tsyorokh to find out how the local press covered the problem of difficult teenagers. Her conclusions were unfavorable: Almost no serious material on this subject was published, although the juveniles in the city do need attention. There are young hooligans who are always ready to use their fists. Tsyorokh made her point, and even before the question was discussed by the youth commission at its official meeting, the press was ready with concrete proposals on how to improve work with juveniles and to get them interested in constructive activities.

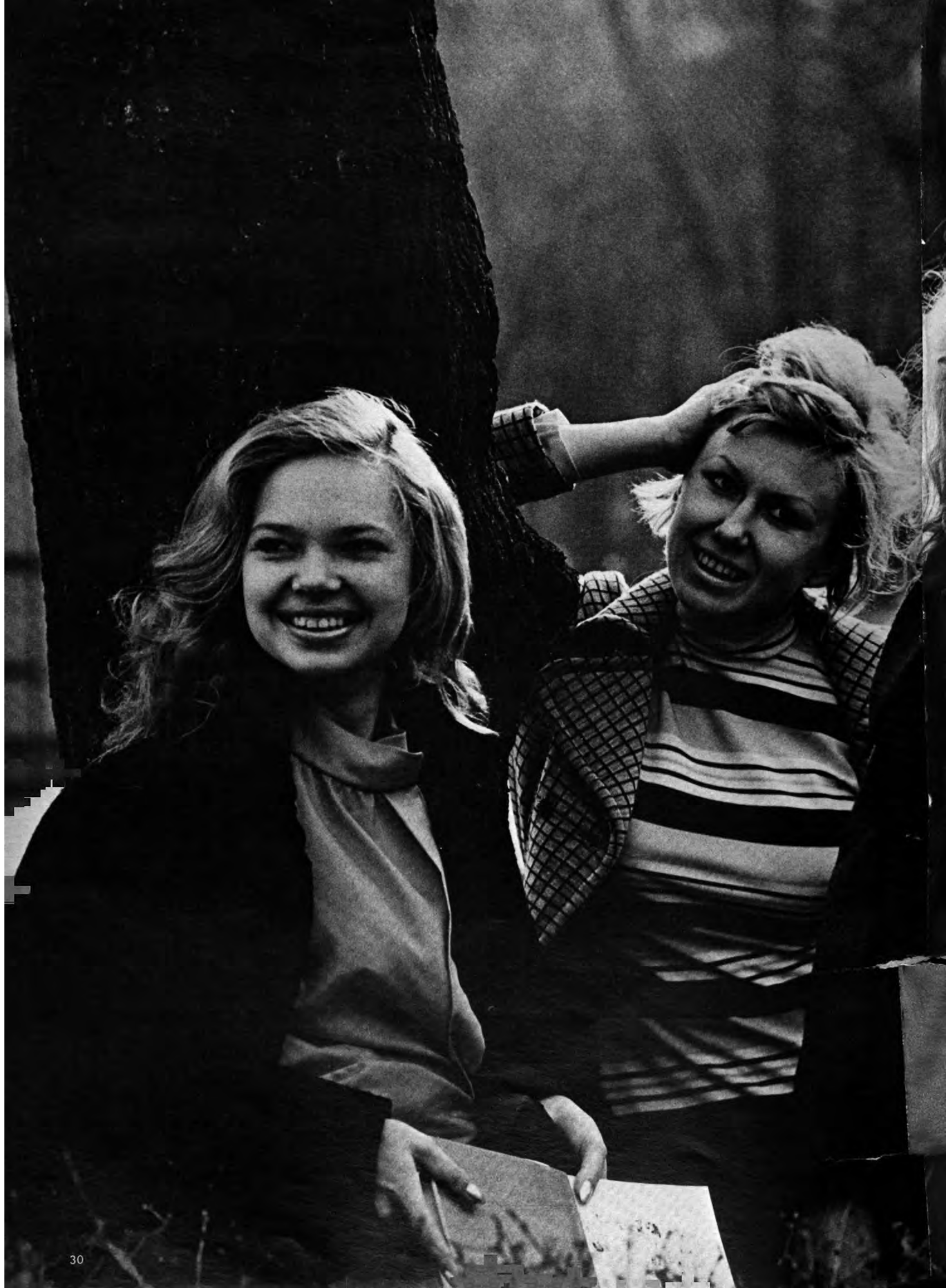
Another student deputy is Iosif Bogdan. Unlike Tsyorokh, he has had some experience. Now 31 years old, he was born in Turkovskiy district, that remote district I mentioned earlier. His father was killed liberating Czechoslovakia from the Hitlerites during the last days of the war. Before he entered the university, Bogdan worked for several years as an inspector for the District Soviet's Executive Committee. He is now a fifth year law student.



In their free time students help to build the new university dormitory.  
Below: Future civil engineers in the field.  
Bottom: Graduation designs done by students of the Lvov Decorative Arts Institute are used in city theaters and restaurants.











Sasha Kudryavtseva, Miroslava Turovskaya and Nadya Bigun are majoring in English at Lvov University. Right: Chemistry professor Yevgeni Gladyshevsky and Yuri Grin, one of his best students. Below: Archeology majors on a dig. Bottom: The old craft traditions are revived at the Lvov Decorative Arts Institute.



Bogdan is a deputy to the Lvov City Soviet and is on the permanent Commission for the Maintenance of Socialist Law and Order. He is also chairman of the university students trade-union committee. His responsibilities include such matters as financial aid to students, the university's clinic and cafeterias, accommodation at sanatoriums for those who need medical care and maintenance of the sports camp.

There are very few students of Iosif Bogdan's age at the university. Rector Nikolai Maximovich says that students today are noticeably younger. Most of the young men and women come straight from secondary schools or after working for a year or two. "On the other hand," he adds, "students have become more mature as far as determination, goals in life and independence are concerned. Their plans are more far-reaching, the confines of higher education are too narrow for them. This is certainly very gratifying. To find where to apply one's energies is no problem. There is an abundance of work."

There is, indeed, an abundance of work. Not long ago, the USSR Council of Ministers passed a special resolution for the further development of Lvov. The city has both great prospects and demanding tasks ahead. When they become tomorrow's specialists, today's students will deal with the problems in earnest. But they are already taking the first, very successful, steps.







# Around the Country



## FURS FROM YAKUTIA

**B**eautiful, warm furs are supplied by hunters of Yakutia, an autonomous Soviet republic in Eastern Siberia.

Winter is the busy season. Planes and helicopters carry trap-

pers to their hunting grounds and bring them provisions, ammunition, the latest newspapers and other necessities. Warm, comfortable cabins have been built for them in the woods.

Hunting the fur-bearing animal (the sable, fox, polar fox, ermine and muskrat) is expanding in Yakutia. In the past five years, trappers and hunters there sold 50 million rubles' worth of furs to the state, which regulates hunting. In especially bad winters feed troughs are set up in the tundra and taiga. As a result, the number of muskrats in Yakutia alone has multiplied many times over in recent years.

## URALS ASBESTOS

**T**he Uralasbest Plant near Sverdlovsk (Central Urals) has the distinction of producing half the world's output of asbestos.

Its natural properties make for the wide use of this relatively rare fibrous mineral: Three thousand different articles use elements of asbestos.

Soviet asbestos is bought by 60 countries, including the United States, the Federal Republic of Germany, Japan, France and Britain.

## SKATING AT MEDEO

**A**midst evergreen firs and golden birches in a picturesque ravine near Alma-Ata, the capital of Kazakhstan, the Medeo skating rink glitters in the mountain sun.

People call Medeo a record factory. Nearly 80 official world records have been set here. The rink is now the USSR national skating team's main base.

On Saturdays and Sundays, however, Medeo's ice is open to the general public. Thousands of



## PARACHUTE TESTER

**B**efore being approved for mass production, new models of parachutes have to go through a series of tests. Experimental designs are, of course, first tested on

the ground, then, carrying dummies, are thrown off planes. It is only after that successful stage that qualified testers are allowed to check the new apparatus.

The more complicated a parachute is, the less reliable it usually turns out to be. That is why both designers and testers try to simplify it. Many test jumps have to be made, followed by gradual changes of one or another unit on the parachute.

One of the parachute testers is 35-year-old Gherman Murchenko. He has over 2,000 jumps to his credit, about half of them test jumps. Murchenko was the first to test sports and assault parachutes, and took part in testing huge parachute systems for dropping heavy cargoes and space equipment. An engineer himself (he graduated from the Moscow Aviation Institute), he makes valuable contributions to improving parachute designs.



## AMATEUR BALLET

**T**he interest of Soviet young people in classical ballet keeps growing. Ballet studios can be found at urban and rural clubs and houses of culture, under the tutelage of professional ballet masters.

About 140,000 such clubs in the country are subsidized by the trade unions. Workers, collective farmers, teachers, engineers—who constitute the dancers and musicians of the people's ballet theaters—perform in places far beyond their own residential districts. The best of them tour the country and compete at republic, countrywide and international fes-



## LIFESAVING SUIT

**A**n accident on the road. Great loss of blood. The doctors do all they can but. . . Certain death? No, not yet. A special cellular-structured suit is put on the victim. A wave of compressed air that runs through the cells, keeping pace with the heart

rhythm, helps push the blood through the vessels. The heart can now do with a lesser volume of blood. The apparatus, designed at the USSR Research Institute of Medical Instrument Design by a group of specialists under engineer Nikolai Khapilov, relieves the heart of a considerable part of its mechanical functions.

The external counterpulsator (a block of instruments the size of a suitcase, a compressed air cylinder and the suit) can be set up in any medical ward or ambulance. Infarction, cardiac insufficiency, cardiac shock and serious hemorrhage have been rendered less dangerous than they used to be. Automatically controlled by bio-currents, the instrument, besides providing external counterpulsation, can at the same time perform indirect cardiac massage and supply artificial ventilation to the lungs.

And one more possible application of this marvel of a suit. A

steel smelter's assistant at a Moscow plant tried it on after a hard night shift; no more than 10 minutes later he said that he felt completely rested, fresh and full of pep.

The new apparatus has successfully passed tests at Moscow clinics.

## KARABAKH RACE HORSES

**H**orse racing in the Caucasus is everybody's sport. In the spring, when the season begins, most of Baku (the capital of the Azerbaijan SSR) heads for the track.

Race horses from all over Azerbaijan (there are several horse-breeding farms in the republic) and neighboring Georgia and Daghestan are entered in the contests. The grand prize usually



Alma-Ata citizens skate here on their days off.

Refrigeration installations keep the ice in shape even when the temperature is 30 above zero Celsius. At the service of skaters are sports gear rental shops, cafés and restaurants. A hotel with accommodations for 336 guests has been built close to the ice rink, and a swimming pool and beach are ready for use.

## CENTRAL ASIA'S FIRST SUBWAY

In Tashkent (the capital of the Uzbek SSR), which lies within a seismic zone, a subway is being built.

Quake-resistant structures have been designed for the underground tunnels. Special jointing of reinforced concrete blocks will make them flexible and springy.

All ferroconcrete structures have metal reinforcement.

Another difficulty the Tashkent subway builders have to cope with is the ground proper. A conventional tunneling shield cannot be used here because it sinks into the loamy soil. A special technique had to be evolved for tunneling in soft, yielding—but treacherous—rock and soil.

This first Central Asian subway, 12 kilometers (one kilometer equals .621 miles) long, will soon be in operation.



## LOW-SPEED ROTOR

Your rotor has outpaced the development of world turbogenerator construction. That was the appraisal by Dean Harrington, a development engineer at the General Electric Company in Schenectady, of the low-speed, 500,000-kilowatt turbogenerator built by specialists in Kharkov (the Ukraine) for atomic power stations.

Low-speed turbines are the most efficient types for these stations. The reason is that the steam fed to the blades of such a turbine is not superheated, as at thermal stations, but almost "cold," with a temperature of about 200 degrees Celsius. So in order to reach the design capacity of 500,000 kilowatts, it is necessary either to increase the size and the strength of the blades correspondingly or to reduce the rotor's speed.

The Kharkov designers chose the second variant. They made a low-speed turbine, with a rotor turning at 1,500 rpm, half the speed of the usual rotor.

These turbines will substantially raise the efficiency of the nuclear reactors of atomic power stations and enable them to compete with thermal stations that burn coal.

## NEW-TYPE PEOPLE MOVER

Engineers in the city of Kramatorsk (Ukrainian SSR) have designed and built a cross-country vehicle that can negotiate any surface. Swamp, snow and mud are no barriers. The vehicle has no wheels, no tracks, no legs and no air cushions; it is independently mobile. Shaped like a round-bottom desk-set blotter, it has a vibration generator (this can be

an ordinary piston engine) mounted inside the body. The engine is switched on, the piston starts moving up and down, the vehicle begins to nod, as it were, in time with the piston and simultaneously moves forward, then it springs upward sharply and flies for some distance through the air. Since the vehicle both rolls and flies, it was named *katolyot* (rollerplane). The engine's "beat" is very rapid, so no particular roll is felt.



tivals. The dancers' skill is sometimes of such a high order that they are offered permanent positions with large professional companies. For instance, some of the amateur dancers once part of the people's theater at the Khabarovsk trade union palace of culture are now professionals in the state opera and ballet theaters of Odessa, Ufa, Novosibirsk, Chelyabinsk and other large cities.

## NORTHERN CRAFTS

The crafts of northern Chukotka's natives, Chuckchi and Eskimos, are known far beyond the borders of the Soviet Union. Bone miniatures and exquisitely engraved walrus tusk articles frequently win prizes and awards at international exhibitions.

Bone carving is, traditionally, a

man's craft. Women of these parts have long been known for their deer hair and colored thread embroidery on leather and their decorated fur clothing and other articles. Ornamental patterns of great beauty and subtle execution, appliqué work and mosaics of masterfully matched light and dark furs adorn Eskimo clothing and household articles.

The Chukotka Folk Art Center arranges exhibitions and organizes training groups in which veteran masters of these crafts pass on their skill and knowledge to the youth, and professional artists and art critics also give their expert advice.



## ORCHESTRA OF PREMIERES

Last October, the Moscow Philharmonic had the honor of opening the symphony season in Rome. Largely responsible for its reputation as one of the world's best orchestras is its artistic director, Kiril Kondrashin.

A graduate of the Moscow Conservatory, Kondrashin began his career as a conductor of opera at the Bolshoi Theater. Then he worked with symphony orchestras, sometimes as a piano soloist with both Soviet and foreign musicians, which made him famous as a fine and unique conductor-performer.

In 1958 Kondrashin and the Moscow Philharmonic accompanied pianists at the third round of the first International Tchaikovsky Music Competition in Moscow. The conductor at that time

shared the success of Van Cliburn and went on a long tour of the USA with the young American.

For 15 years now Kiril Kondrashin has led the Philharmonic. Because he introduced many new works by Soviet composers, his orchestra has appropriately been called the orchestra of premieres.



## NEW LIBRARY

A new university library is under construction in the city of Tartu (Estonian SSR). It will be the biggest building in the city, covering 28,000 square meters (one square meter equals 10.76 square feet).

The Rare Book and Manuscript Division will be the repository of Tartu Library's precious collection. This includes 45 incunabula, some of which will be put on display.

goes to Karabakh horses, which are bred in the ancient Azerbaijani town of Agdam.

The Agdam stud farm boasts several hundred thoroughbred sires: Thin-legged, their coats shot with gold, they all have a similar birthmark—a white triangle on the forehead and at the hoofs, the distinctive mark of the Karabakh race horse.

Apart from prizes, the thoroughbreds net the farm a sizable income. The breed is in great demand at annual auctions in Pyatigorsk (Northern Caucasus).



## FAIR WIND, FISHER!

The nautical secondary school in Kaliningrad, with a student body of 3,000, trains officers for the fishing fleets. In their four and a half years of training (at state expense) they study astronomy and navigation, engineering, including heat engineering, ichthyology, fishing and radio communication.

Thousands of the school's graduates now work as captains, navigation officers, mechanics, chiefs of radio stations and ship electricians.



## KOMI SANCTUARY

In the Soviet Union there are 104 preserves, extending over a total of eight million hectares (one hectare equals 2.47 acres). One of them, the Pechora-Ilych preserve, lies between the Pechora and Ilych rivers (Komi ASSR). Established in 1935, this preserve of over 700,000 hectares is a sanc-

tuary for such northern animals as the reindeer, elk, sable, marten and squirrel. The beaver, wiped out here at the turn of the century, is back again, and the muskrat and mink are bred in natural conditions.

The preserve also protects salmon-spawning areas and studies the life pattern of this commercially valuable fish.

The number of rare and fur-bearing animals increases from year to year. A fourth of the marten trapped in the Komi ASSR are found in the Pechora-Ilych preserve, and about a third of all the salmon caught in the USSR.

## CRYOGENIC SCALPEL

The Technological Institute of the Refrigeration Industry in Odessa (Ukrainian SSR) has designed an original piece of equip-

ment for bloodless surgery. It is a small cylindrical container of liquid nitrogen with a temperature of 200 degrees below zero Celsius. A specially tipped cryogenic probe is attached.

Here is how chronic tonsillitis is treated. Introducing the probe into the patient's mouth, the surgeon presses the tip against the tonsils. The freezing action lasts about a minute, there is no pain. The patient can go home. In a short while the tonsils deteriorate and are rejected by the body.

Over 3,000 successful operations have already been performed with this new cryosurgical tool.





# TRANS-EUROPEAN PIPELINE:

## From the Urals to the Carpathians



Soviet and Polish specialists checking progress on the pipeline. Top: Zbignev Smas from Poland, driving a pipe carrier.

Right: An American tractor on the construction site. Below: A group of recently arrived Bulgarian pipeline construction workers.

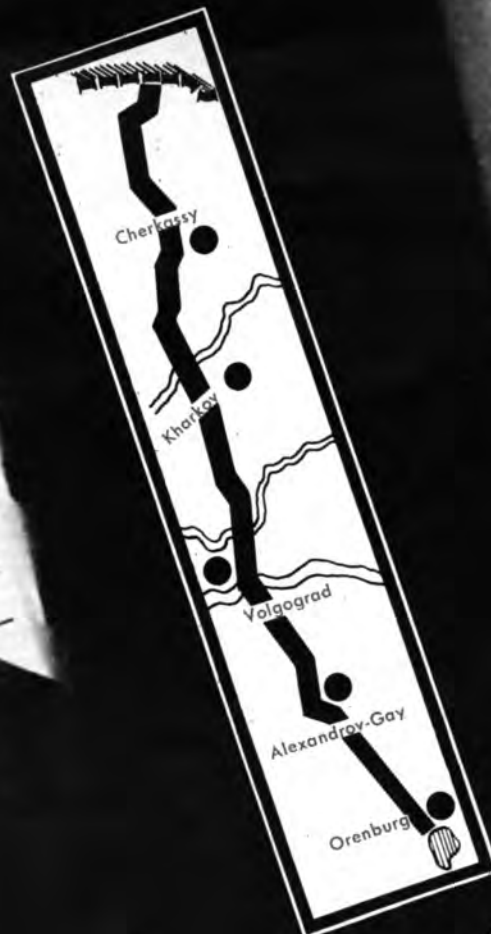


**I**N JULY 1974 government heads of the European socialist member-countries of the Council for Mutual Economic Assistance (CMEA) signed a general agreement on cooperation to develop the Orenburg gas-condensate deposit.

### Specifications

Orenburg is in the Southern Urals, on the borderline between Europe and Asia, 1,500 kilometers<sup>1</sup> southeast of Moscow. This city is the start-

<sup>1</sup> One kilometer equals .621 miles.




The pipeline route, from Orenburg in the Southern Urals to the western border of the Soviet Union, has been divided into five sections. The agreement provides that Hungary, Czechoslovakia, Poland, the German Democratic Republic and Bulgaria each be responsible for building one section. Rumania will supply equipment. The Soviet Union will repay in natural gas.

Facing page: Welder Victor Larin came to the project from Chelyabinsk. Center: The processing plant at Orenburg, where the pipeline starts. Bottom: The control room of the plant.







ing point for the pipeline that will stretch out for 2,750 kilometers to bring natural gas from the Soviet Union to the CMEA countries.

This is one of the many large-scale projects envisaged by the Comprehensive Program of Socialist Economic Integration. The pipeline will run through 15 regions in the Russian Federation and through Kazakhstan and the Ukraine. The builders are to cross 28 large and 59 small bodies of water, 84 kilometers of marshland and 240 highways and railroad lines. Some 110 kilometers of the pipeline are to be built under extremely difficult conditions in the Carpathians. The most modern machinery and equipment will be used, including heavy-duty excavators, pipelayers, bulldozers, automated welding installations and thousands of trucks. At the peak of construction work, 30,000 people will be employed. The project will take four years to complete.

Can this pipeline be compared to any existing one?

Sergei Kashirov, in charge of the Soviet section, has this to say on the subject:

"Nothing like it has been built anywhere. And not only in terms of length. It will be using 1,420-millimeter<sup>2</sup> pipes, the biggest in the world, a pressure of 75 atmospheres and 25,000-kilowatt gas-pumping installations at compressor stations. The pipeline will have a special built-in plunger that will clean the inside of the pipes without stopping the gas flow."

#### A New Arrangement

Responsibility for the construction of the pipeline is shared in an unusual arrangement: Each of the participating countries will use its own resources for the whole complex of work on the section it is assigned. It will go by the blueprints prepared by Soviet agencies and conform to the technical standards adopted in the Soviet Union for such projects. The blueprints were prepared by the staffs of four Soviet research institutes and submitted for discussion to the CMEA countries before they were finally approved.

<sup>2</sup> One millimeter equals .0394 inches.

The capital invested in the project by each participant country is determined by its gas requirements. The Soviet Union will repay the funds provided by supplying the gas equivalent. Annual capacity of the pipeline will be 28 billion cubic meters<sup>3</sup> of natural gas.

In keeping with the agreement, the route of the pipeline is divided into five sections, each assigned to a participant country. Hungary is the contractor for the section from Orenburg to Alexandrov-Gay; Czechoslovakia, from Alexandrov-Gay to Sokhranovka; Poland, from Sokhranovka to Kremenchug; the German Democratic Republic, from Kremenchug to Bar; and the final section, stretching to the western border of the Soviet Union, will be built by Bulgaria. Rumania will supply technological equipment.

The Soviet Union has a vast body of experience in the building of pipelines to carry oil and gas over great distances. For this reason, at the request of the CMEA countries, Soviet agencies will provide help in building certain sections of the pipeline and some of the compressor stations.

The first kilometers of pipe were laid in 1975. Work is accelerating, and the plan is to lay a thousand kilometers of pipe this year and another 1,200 in 1977. Completion of the project is expected in 1978.

In 1980 the European CMEA partners of the Soviet Union will receive over 15 billion cubic meters of gas over the new pipeline, twice as much as they got in 1975. The additional gas supply will improve the fuel and energy balances of the socialist countries and strengthen the raw material base of their chemical industries.

According to Boris Shcherbina, Minister for the Construction of Oil and Gas Industry Enterprises of the USSR, the gas pipeline, a kind of "energy bridge," will constitute a milestone in the integration processes under way in many industrial sectors of the socialist countries. "We are convinced," he says, "that the joint effort will enable us to make a tangible contribution to the economic development of the countries of the socialist community."

<sup>3</sup> One cubic meter equals 35.31 cubic feet.





# The USSR As We Saw It\* PEACE TESTAMENT

Book Review by George B. Murphy, Jr.  
Journalist

**M**OST AMERICANS living in the United States know practically nothing about the facts pertaining to freedom of religious belief and practice in the Soviet Union, where there is strict separation of church and state and church and school, and the question of religious belief and practice is defined as a matter strictly between the citizen and his or her conscience.

With few exceptions, what the average American in the United States reads or hears from all sources is calculated to strengthen an already biased opinion, based upon deliberate distortion advanced by powerful forces in and out of government, whose aim is to undermine the growth and development of normal, friendly and cooperative relations between the peoples of our two countries.

The right to believe and practice religion freely and the right *not* to believe and practice religion and to propagandize against it are *both* enshrined in the Constitution of the Union of Soviet Socialist Republics. This has been true since the founding of the USSR. One year after the victory of the Great October Socialist Revolution, the Soviet Government issued a decree establishing the separation of church and state and church and school, and the inviolable right of a Soviet citizen to believe and practice religion or not to believe and practice religion.

Elaine and William Townsend are two widely known North American Biblical scholars who have spent most of their adult lives working actively in the field of linguistics as applied to the area of religious instruction in the study of the Bible.

Given free and friendly access to the world's foremost scientific and humanely developed peoples' languages laboratory in the Soviet Union, the Townsends made the first of seven trips to the land of the Soviets in 1968. Their aim was to exchange ideas on bilingual education and to find out for themselves, without official government oversight, the facts of religion and everyday life among the peoples in the USSR.

They visited nine of the 15 voluntarily united Soviet socialist republics, including several autonomous regions and areas inhabited by different nationalities comprising only a few thousand people.

They traveled by plane, car, bus and train, experiencing the beauty of nature in summer, winter, spring and fall. They gave lectures, showed films, talked at length, explaining the nature of their work, entertained and were entertained, and broke bread with Soviet citizens from every walk of life, including workers, schol-

ars, farmers, religionists, men, women and young people. In 1973 they even put their car, with its comfortable trailer, aboard the Soviet ship *Mikhail Lermontov*, sailing on its maiden voyage out of New York to Leningrad.

As a result of their seven visits to the land of the Soviets, which, in terms of total time spent in the country, equaled more than a year according to their statistics, the Townsends drew some important and instructive conclusions about the new type of human being emerging under socialism, about love and friendship between peoples of different cultures, about the tremendous advance of bilingual education in the USSR and about the life-and-death necessity of conducting state relations between the United States and the Soviet Union on the basis of mutual respect and the principles of co-existence.

Here, in their own words, are some of their impressions and the thoughtful conclusions they reached about the Soviet peoples, who are now engaged in building a communist society in their country, the land area of which covers one-sixth of the earth.

## On Lenin and Language

*"Fortunately, the languages that are spoken by ten thousand people or more have all been reduced to writing in the Russian alphabet. This makes it possible for children who speak them to learn to read and write rapidly in their own language since they understand what they're reading. This common alphabet opens the way for bilingual education which is one of the main secrets of the inter-group harmony that has replaced the discrimination and misunderstandings of pre-soviet years."*

*"How could Lenin have known the importance of bilingual education 58 years ago? It is one of the remarkable things about the man that he went to the heart of the multi-language problem even though he was not an educator. . . . Instead of saying to school children of local language groups: 'Learn in Russian or don't learn at all!', as teachers on Indian reservations in the U.S.A. had been saying about English, Lenin said in essence: 'Your languages are great. Learn to read and write in them and then you'll find it easier to learn Russian. You will need to do this in order to have access to great libraries and for the sake of unity. How else can we all become one and you become great scientists, educators and doctors?'"*

When the Townsends visited one of the 16 autonomous republics, along the western shore of the Caspian Sea, called Daghestan, it seemed almost as though a different language was spoken in each village. One linguist told them that there are some 60 different languages spoken in that little "sub-republic."

## Some Observations

*"The streets of Moscow and other cities are safe for men and women to traverse alone day or night. We had read this in Gunther's book on the USSR but could hardly believe it until we observed it ourselves. The crime rate is low. No one steals in order to buy liquor or drugs. Drunkenness however has increased to the point that the government and the Party are concerned. Drug addicts are nonexistent inasmuch as drugs cannot be imported or peddled and an addict would be picked up and effectively 'treated' so quickly his addiction would not be prolonged."*

*"A society that can rid itself of house rats and other pests as effectively as has been done in the USSR can clamp down on drug addiction, murder, thievery, pornography and obscenity."*

*"... there is more to the effectiveness of the law than just fear of punishment. 'What could it be?' we asked ourselves."*

*"Reading matter was part of the explanation. Novels are said to be more free from crime and moral filth than in many lands. Newspapers publish practically no scandal nor is it ordinarily reported over the radio or TV. If murders or suicides occur you do not read about them. Sex is not featured on the movie screen, in the theater, nor in literature. . . ."*

*"The persecution of believers that is reported so commonly must be a thing of the past in the areas we visited for we didn't hear it mentioned by either pastors or believers. . . . However, evangelical pastors told us on our third trip that the government had authorized the printing of the Bible in Russian though not in the large numbers that were needed. It was being printed in the Armenian language also when we visited Yerevan in '69. . . ."*

*"We made affectionate mention of the Bible in lectures or during conversations at the University of Moscow and other universities and never were criticized for such references. To the contrary, we found both students and teachers to be interested or at least understanding, and some enthusiastic, about what we had said and the Book to which we had referred. At times we would read and discuss the Bible with university professors and friends in restaurants and other public places at considerable length and were never rebuked by police or anyone else. Our one contact with a man who professed to belong to the so-called Underground Church was such that our confidence was not aroused."*

## The New Type of Human Being Emerging from Socialism

The Townsends expressed utter amazement at the tremendous accomplishments achieved by the Soviets in rebuilding their country in the 30 years following their victory over Hitler fascism

\* William Cameron Townsend and Elaine Mielke Townsend, Photography by William Crowell Townsend, *The USSR As We Saw It. From Armenia to Russia* (Waxhaw, N.C.: International Friendship, 1975).



# OLEG ROMANISHIN:

## A New Chess Threat

By International Master Mikhail Yudovich

in World War II, a victory that cost the Soviet people 20 million lives of their best citizens and the complete destruction of some 70,000\* towns and villages. What kind of people made this possible, they mused. This is how they describe the Soviet people as they observed them in their day-to-day lives:

*"Most places we went we noticed a spirit of drive on the part of the people in general. It permeated the atmosphere. One time, and one time only, we noticed a day laborer loafing on the job without showing any concern that the men and women who were on the same work crew might complain about him to the labor union. 'We have set goals and we're going to attain them' was the attitude that predominated.... With the children there was the enthusiasm about it that seemed contagious; with the adults it seemed as natural as the air they breathed. It seemed to be taken as a matter of course rather than as a passion."*

In a sober assessment of what they saw in the Soviet Union, the authors raise the question: "Must there be antagonism between them and us because of our different social systems?" They answer their own question with a resounding No. And they tell us why:

*"The one thing that can prevent mutual annihilation is mutual friendship. Mutual preparedness won't do it. That just leads to more bombs and someday someone will set them off. Why not give friendship a try? The USSR has stated that it wants friendly cooperation with us provided we don't meddle in its internal affairs. That makes sense. We don't want them to tell us how to handle our race problem either. True friendliness is the urgent need."*

*"Surely the time has come when we should recognize the hopelessness of the cold war and put friendly cooperation to work, not only in spacecrafts but also in everyday, down-to-earth matters such as trade, education, linguistics and in giving help to developing lands."*

From their day-to-day living experiences with the Soviet peoples, the Townsends discovered that they were actually testing in life, in a concrete situation, the validity of their belief in the Biblical admonition calling for treating one's neighbor as one's self if peaceful relations between peoples and nations are to become the norm on our planet.

This book is the thoughtful peace testament of two sincere North American religious scholars and linguists, based on the proposition that there is no alternative to relaxation of tension and the unconditional respect for the principles of peaceful co-existence if our earth is to survive in beauty and abundance for the benefit of all humankind. It deserves to be read widely.

\* 1,710 towns and 70,000 villages and settlements.

THE 1973 EUROPEAN junior champion Oleg Romanishin, a student from the Ukrainian city of Lvov, is still relatively unknown to the chess world. He displayed his very considerable talent at last year's national championship, which brought together very strong chess players. Though former world champion Tigran Petrosyan emerged victorious with half a point ahead of runner-up Romanishin, the Lvov student turned out to be the hero of the tournament.

Romanishin's games were so interesting, original and elegant that the young chess player won the audience completely. He outplayed the winner of the tournament, as well as the recent challengers for the World Crown, Yefim Geller and Lev Polugayevsky. As for Mikhail Tahl, the former world champion managed to save the game by a miracle.

The style of Romanishin's victories speaks for itself. Here is one of his games.

### QUEEN'S INDIAN DEFENSE

Romanishin	Petrosyan	Romanishin	Petrosyan
1. P-QB4	N-KB3	8. NxP	B-K2
2. N-QB3	P-K3	9. O-O	O-O
3. N-B3	P-QN3	10. P-QN3	N-B3
4. P-K4	B-N2	11. B-N2	P-QR3
5. B-Q3	P-Q3	12. K-R1	Q-B2
6. B-B2	P-B4	13. P-B4	QR-Q1
7. P-Q4	PxP	14. R-B1	Q-N1?

After quiet maneuvering, Black's 14th move is in error. Correct is 14. . . . NxN; 15. QxN Q-B4 seeking for a simpler position.

15. R-B3, P-N3; 16. N-Q5! . . .

Petrosyan seems to have strengthened all the approaches to his King. But by sacrificing a piece, Romanishin suddenly reveals the weak point of the abode of the opponent's King. The Black Queen's remote disposition suits White down to the ground.

16. . . . PxN; 17. P(k)xP . . .

Unfortunately, one brilliant move is not supplemented by another, 17. N-B5! In this case Black can be saved neither by 17. . . . PxN; 18. P(K)XP(Q) KR-K1; 19. R-N3ch K-R1; 20. PxN BxP; 21. BxP R-N1; 22. Q-R5! with irresistible blows; nor by 17. . . . PxP(K); 18. NxBch NxN; 19. Q-Q4 with a decisive attack.

17. . . . NxN 18. QxN R(Q)-K1 19. P-KB5 B-Q1 20. Q-R4 R-K4

Wrong is either 20. . . . NxP? because of 21. QxPch, or 20. . . . N-R4 because of the sacrifice of the Queen by 21. QxN! After Black's blocking the important black-squared long diagonal by his 20th move, it seems that White's attack comes to nothing. But Romanishin finds new ways for a future offensive.

21. Q-R6 Q-B2?

A natural wish to bring up his reserves to the point of breakthrough, but better is 21. . . . N-N5.

22. R-N3 B-B1 23. BxR PxP 24. PxP P(B)xP 25. BxP! . . .

A new thrust crushing Black's defense!

25. . . . N-N5 26. B-R5 R-B3 27. Q-Q2 . . .

Also possible is 27. BxN.

27. . . . R-B5 28. P-Q6! . . .

An original decision. Bad is 28. P-KR3, which looks very tempting at first sight. In this case Black plays 28. . . . B-N4!

28. . . . Q-N2 29. P-Q7! B-N2

This volley of threats on Black's position is upsetting the former world champion. More stubborn is 29. . . . QxP; 30. QxQ BxQ; 31. BxN RxB; 32. R-Q1 though in this case the advantage of White is also unquestionable.

30. QxR! Resigns.

Over all the long years of his tournament practice Tigran Petrosyan has very seldom sustained such crushing defeats!

This is the position after White's 34th move in a game between experienced Grandmaster Semyon Furman, coach of World King Anatoli Karpov, and Oleg Romanishin. Though playing on the Black side, Romanishin is again waging a violent attack which has emerged somehow imperceptibly.

The next moves are:

34. . . .	R-N5	38. K-R1	B-Q2
35. B-K2	R-N2	39. B-K2	N-K6
36. R(K)-B1	R(Q)-N1	40. RxP	Q-N4
37. B-B3	NxP	41. P-N3	. . .

There is no other way to protect the N2 point.

41. . . .	NxR	44. B-B3	Q-K4
42. QxN	Q-K4	45. B-N2	BxN
43. RxP	QxPch	46. PxP	R-K2

A few moves later White resigns.



# ARNOLD SEPPO: HE HELPS CRIPPLED PEOPLE WALK

Dr. Arnold Seppo, an orthopedic surgeon from Tallinn, Estonia, has discovered a remarkable new method for fixing fractures. His patients with a fracture of the neck of the femur spend only 20 days in the hospital compared to the average stay of 80 days.

By Mark Popovsky



**E**DWARD KENNEDY and Yuri Anisenko are about the same age, and although Kennedy was hurt in a plane crash, while Anisenko, a sailor on a Soviet fishing trawler, was run over by a streetcar in the Estonian city of Tallinn, American and Estonian physicians made the same diagnosis: fracture and dislocation of lumbar vertebrae.

You might expect that both would have been treated in approximately the same way, but the methods differed significantly. Edward Kennedy was placed in a strong orthopedic frame for six months. The sailor was brought to Tynismyae hospital in Tallinn, where he underwent an operation on March 10, 1966, and 40 days later, on April 20, was allowed to get up. A month after that Anisenko crossed the country to the Urals to visit his relatives. By then he was able to walk without crutches. He returned to the hospital only once after he was discharged—to ask the surgeons whether he could return to sea on his trawler. They confirmed that his spine was completely healed.

Yuri Anisenko's good luck was by no means unique. According to the East German medical journal *Zentralblatt fuer Chirurgie* (September 18, 1971) fractures of the neck of the femur take 84 days to heal in Dresden, while in Tallinn, according to an official report from Tynismyae hospital, the same fractures heal in 20 days. In Dresden a patient with a fracture of the shaft of the femur spends 70 days in the hospital, in Tallinn only 27.4 days. Infected compound fractures take four times as long to heal in Dresden as they do in Tallinn.

For the city of Dresden we could substitute any city in Western Europe or the United States since techniques for treating fractures are

Arnold Seppo exudes energy and confidence. His attitude is justified by his knowledge and expertise in orthopedic surgery. Above: His fixing apparatus consists of two pairs of curved rods that hold fragments of broken bone together. Above left: With engineers from the Tallinn Polytechnic Institute, where his devices are made.





Dr. Seppo discusses a case with his assistants. Below left: Using a lathe at the polytechnic institute. He designed and built the prototype of his fixing apparatus and often machines his own equipment. Below right: In surgery.

Photographs by Yuri Vendelin





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almost the same the world over. Accident victims have to spend days in orthopedic frames, in traction or wearing casts. Everywhere except Tallinn. In the capital of Estonia Dr. Arnold Seppo treats his patients in quite a different way. But before describing his discoveries, a few words about Seppo himself. I jotted down my first impressions of the doctor in my notebook:

Estonian peasant type. A thickset man with a high brow and graying auburn hair. Almost white eyebrows stand out on a broad reddish face. Small amber-colored eyes. Hands of a laborer. A strong masculine handshake. Exudes energy, confidence, self-assurance. Deliberate speech. He is tired of explaining his ideas to others. Probably often encounters indifferent people. Or maybe he does not believe that a journalist is capable of understanding what he does. In Seppo's deliberate speech one catches the echoes of past arguments and lack of acknowledgment. Such wounds take a long time to heal. I think the first impression strangers get of Seppo is unfavorable. His self-confidence annoys them. But as the conversation proceeds, he softens up. No, I shouldn't say softens up—he devotes himself to the problem being discussed and then the shell of unapproachability peels off. He is just a man speaking confidently of a job he knows well.

Arnold Seppo was born in an Estonian hamlet in 1917. Thirty generations of his ancestors were farmers. He was the first student in the family—before the war he entered the Leningrad Medical Institute. His professors Pyotr Kupriyanov and Yustin Dzhanlidze were both brilliant surgeons. Under their tutelage students not only mastered surgical techniques but also received a thorough background in general medicine.

When the war broke out, Captain Seppo was chief of the surgical department of the 86th medical battalion. The Estonian corps, which was formed in the Urals, moved from Moscow to the West, fighting the fascists along the way. The battles near Velikiye Luki and Narva were particularly severe. The young surgeon worked around the clock operating on the wounded under enemy fire. He saved many lives and received an official message of thanks from the Command.

After the war Seppo became an assistant professor in the orthopedic department of Tartu University, where he developed new methods for treating burns and setting fractures.

Seppo first broke with tradition in treating fractures when, 20 years ago, he read in a scientific journal about an experiment conducted by some English biochemists. The British scientists worked with volunteers who had an arm or a leg placed in a plaster cast for six weeks. Their blood was tested every day for calcium and phosphate, the chief components of bone tissue. In the second week of the experiment the doctors observed a shortage of these basic components. The body was rapidly losing the building materials of bone tissue. Neither a diet rich in calcium and phosphate nor intravenous injections of the scarce substances improved the situation. The imbalance corrected itself only after the cast was removed. The biochemists were unable to explain the shortage of calcium and gave up their experiments. And orthopedic surgeons? According to Seppo they disregarded this important scientific fact and continued to use plaster casts. Seppo had many opportunities to observe how an arm or leg immobilized in a cast grew thinner, and he was determined to find out why.

He discovered that because of the inactivity of the muscles, blood circulation is sharply reduced. The venous blood flow becomes particularly weak, which results in the accumulation of various organic acids in the affected limb. The broken bone is also affected by these acids, as they wash out all the calcium, and the bone crystals begin to dissolve.

Seppo discarded the plaster cast and after it the pins used in modern treatment. In order to expose the inadequacies of contemporary methods of setting fractures, the doctor studied mathematics, mechanics and strength of materials. He was able to prove that the materials presently used to fix fractures were often incapable of fulfilling their functions because they had to bear stress three or four times their capacity.

As a result, surgery often had to be repeated, and, even after many operations, a patient could remain crippled.

How then should broken bones be fixed if both casts and pins often do more harm than good? By applying his knowledge of the strength of materials, Seppo calculated the resistant properties of different sections of bone and then designed and built steel fixing devices that worked accurately and efficiently. His fixing apparatus consists of two pairs of interconnected curved rods, each of which is inserted into a bone fragment. The two pairs are interconnected to each other through a coupling which allows the distance between the pairs and their position to be forcibly changed and fixed. On August 1, 1972, Seppo received patent number 3,680,553 from the U.S. Patent Office on his invention.

Sailor Anisenko, like hundreds of others, recovered quickly because of Seppo's apparatus.

Seppo first thought of molding natural joints in the middle of the 1950s. He performed some experiments in the orthopedic department of Tartu University and discovered an important constant. If you break the bone of an experimental animal and let it knit without interference, the process of healing takes place in three stages: First the ends of the fragments are covered with fibrous connective tissue, then with cartilaginous tissue, and finally bone unites with bone. It is important to note that in healing, a bone passes through a cartilage stage: The opposing surfaces of bones constituting a joint are covered by a layer of cartilage. In the embryo, friction on the surfaces of bones that will be part of a joint causes the smooth hyaline cartilage to form. It took Seppo 10 years to apply his observations on the embryonic development of joints and the healing properties of bones to the design of an apparatus that could mold a natural joint in an adult. He began to use his device for the formation of joints in 1966. Based on his apparatus for fixing fractures, it holds two bones at a precise angle and distance from one another. When the bones move against each other they gradually create a new joint. Nature actually molds the joint; the physician only provides the necessary conditions.

For a patient with an injured or malformed hip joint the surgeon forms a new head for the femur as well as a socket in the pelvic bones. The bone is held into the socket with the same curved rods used to fix fractures, but the coupling device is articulated. Three or four weeks after the apparatus is inserted, the patient is allowed to walk. Strictly controlled movement does the rest, and the joint forms of its own accord.

Since I first met Arnold Seppo I have read many letters of gratitude addressed to him and talked to many of his former patients. But here is a letter which I received from Tallinn that I think is particularly interesting:

My name is Elma Omel. I am 56 years old and live in Tallinn. I am a therapist. I was born without a hip joint and therefore one of my legs was much shorter than the other. Many times I asked surgeons to operate on me, but they said that the necessary surgical techniques had not yet been perfected. Walking was always very difficult for me as my leg ached and tired very quickly. All my life I had to wear orthopedic shoes. In the summer of 1972 it got worse; sharp pain in the muscles of my right hip made walking impossible. Then I turned for advice to Arnold Seppo, head of the orthopedic department at Tynismyae hospital. "I can't understand how you walked at all," he said, after examining my X-rays. "Your leg has hardly any support." "What can you do?" I asked. "If you wish, we'll make you a new joint." "Plastic or metal?" "No, it will be a natural joint." "What are the risks?" "I give you a 100 per cent guarantee that the operation will be a success," replied Seppo.

On December 14, 1972, I was operated on. Two months later I could walk with crutches, and a month and a half after that I returned to work. Now I walk as much as I like and enjoy it tremendously. I wear ordinary shoes and do not limp at all. Doctor Seppo not only made me a new joint but also lengthened my leg by 16 centimeters (6 inches). It is easy to understand my deep gratitude to him as his operation has transformed my whole life.





# SUMMER

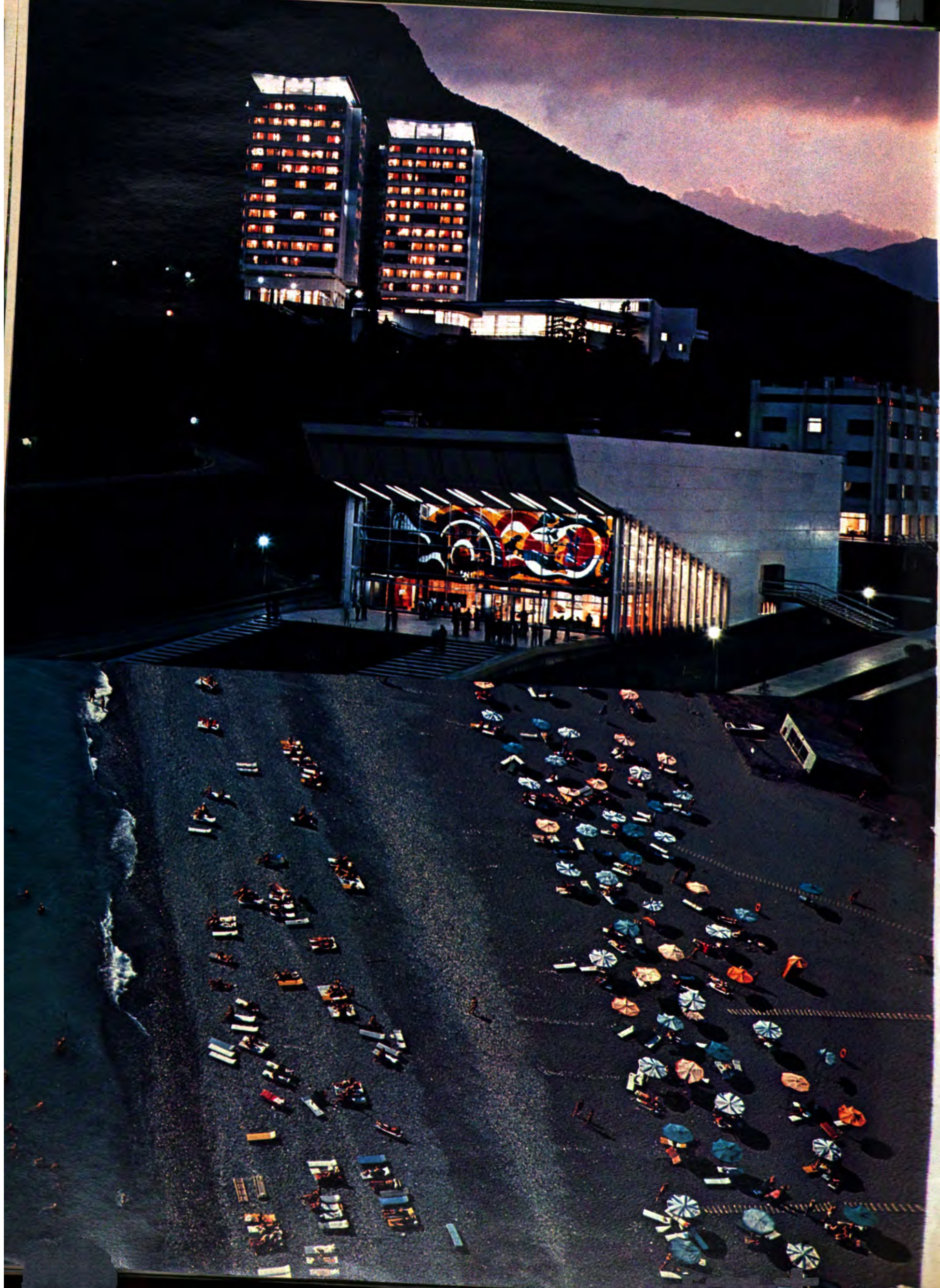
## HOLIDAYS

### WHERE TO GO?

By Yevgeni Smirnov  
Novosti Press Agency Special Correspondent  
Photographs by Mai Nachinkin









# SUMMER HOLIDAYS

Although more and more people are choosing to spend their vacations traveling around the country or camping in a national park, health and vacation resorts are still very popular, especially with older people. Their comforts and low cost combined with hot sun and a sparkling sea make them particularly inviting. Pictured on the opposite page are Alushta in the Crimea (top) and Pitsunda in Georgia.

**A** VACATION is welcome at any time of the year, but traditionally ours is taken during the summer—that's a carryover from our schooldays, with their long summer recess. There are other reasons, of course, but when we get a glimpse of summer beginning to turn the corner, we start asking ourselves: "Where shall we go?"

The question comes easily, the answer does not—there are so many places to choose from—more than 5,500 sanatoriums and holiday hotels, 6,400 tourist routes and countless roads to travel, from the Baltic Sea to the Pacific Ocean.

## The Pleasures of a Sanatorium

What is so attractive about a sanatorium? It's a place, first of all, where you can rest and build up your health, and under the eye of specialists in various fields of medicine. Although it is mostly older people who spend their vacations at sanatoriums, young people are just as welcome. There are special ones for children, for instance.

The word sanatorium conjures up a picture of a hospital, but sanatoriums are not hospitals, they are health resorts. Treatment is combined with sea bathing, walks in the mountains, interesting excursions and entertainment in the company of new friends who come from various corners of the country.

Naturally, a vacationer is not indifferent to the location of the sanatorium. Take Dzhetyoguz health resort, in Kirghizia, situated in a mountain gorge in the basin of Lake Issyk-Kul, 2,200 to 2,400 meters\* above sea level. Vacationers, especially people with minor disorders of the nervous system, are attracted by the warm summers and mild sunny winters, the pine forests and the mineral springs. They take long mountain hikes, work out in the sports grounds and amuse themselves at the club in the evenings.

Another popular resort is Arcadia, practically in the center of Odessa, on the shore of the Black Sea. Arcadia appeals to the

type of person who needs a rest cure but might get fidgety without the kind of entertainment that a typical large city has to offer. There are sanatoriums like it in the Crimea, in Novgorod, on the shore of the Baltic, in Kazakhstan, in Siberia and elsewhere.

A 24-day stay at a sanatorium costs from 126 to 220 rubles, which includes room, board, treatment and other services. That would appear to be a substantial sum, but most people who get vouchers to sanatoriums through the trade union committees at their work place pay only one-third of the cost, from 40 to 70 rubles. The trade unions cover the difference. Some factories, business offices and collective farms give their workers free vouchers and even pay their travel expenses. There is one hitch: It is not always easy to get the voucher for the place and date you want. Demand still runs ahead of supply.

Statistics tell us that in the past five years 42 million people spent their vacations in sanatoriums, boarding houses and resort hotels. An astounding figure, and it would have been even larger if everyone who applied for a voucher could have been accommodated. However, the number will increase substantially in the next five years. The social program for the period between 1976 and 1980, adopted in March by the Twenty-fifth Congress of the Communist Party of the Soviet Union, provides more than a billion rubles for the construction of trade union health resorts. More than that, various enterprises, ministries and departments are allocating large sums to expand their vacation facilities and sanatoriums.

## Wanderlust Has Developed

Having said all this, I have to make another point: An increasing number of people are passing up vouchers to sanatoriums even at a 70 per cent discount or gratis; they prefer other kinds of vacations.

Three days in Riga, five in Leningrad and then a week of fishing in the lakes of Karelia. Samarkand—Tashkent and ski-

ing in the Pamirs. A cruise down the Amur, with a call at Sakhalin Island. In short, there are about as many different vacation tours as there are people.

Soviet trade unions maintain a thousand tourist camps that can accommodate a total of 312,000 persons at one time, and offer vacationers some 6,400 tours. Judging by our statistics, more than 30 million hikers and 130 million tourists avail themselves of these services. The 130-million figure is a relative one because some travel enthusiasts manage to take short tours several times a year. But it does give some idea of the scale of organized tourism in the USSR.

Among the 6,400 tours, even very similar ones, there are no two that are identical. And all of them are interesting in their own way. Here are some examples:

Tour No. 102-99-04—the Gornyy-Altai tour—takes 22 days, getting around on foot, by rowboat, bus and motor vessel. There are forests to explore, lakes to fish and campfires for cooking and relaxing around.

Tour No. 126-99-01 begins in Teberda, a very picturesque spot in the Northern Caucasus. Tourists spend four days here, getting to know the town and its environs and making several trial ascents, guided by experienced mountaineers. After that they walk the path that winds along the ravine, then across the passes of the Greater Caucasus ridge and descend to the Black Sea. On the way they stop for four days at Dombay, a meadow surrounded by mountains and glaciers. The tourists make another stop—for two days—near the Klukhor Pass, where evergreen firs stand amid eternal snows. The windup of this tour is a week's rest at the Black Sea beaches of Sukhumi, the capital of the Abkhazian Autonomous SSR. The whole trip takes 20 days and costs 70 rubles. For those who have a trade union voucher, the cost is a mere 20 rubles.

I once visited the part of this tour in the Teberda and Dombay area. The ice on the lakes in the Moscow district was already melting, but on the northern slopes of the Caucasus (a two-

\*One meter equals 3.28 feet.



hour flight from the capital) it lay thick on the ground. In some places there is mountain skiing all the year round.

In the crowded lounge of the Mineralnye Vody airport piles of knapsacks are scattered over the floor. From here buses take tourists to the numerous mountain hotels, boarding houses and tourist stations.

The Northern Caucasus has been a resort for a long time. As far back as the 1830s, Mikhail Lermontov, the Russian poet, described with bitter irony the behavior of the vacationers there. Until the 1917 Socialist Revolution only the wealthy could afford to holiday in the Caucasus. Then the Soviet Government declared the resorts state property. The palaces of the czars and grand dukes, the villas of aristocrats and industrialists were converted into health resorts for the people. Construction of new resorts began and still goes on. There are hundreds of sanatoriums, resort hotels, tourist stations, boarding houses and alpine camps in the Caucasus now.

### The Vacationers

Who are today's vacationers?

I took the first bus out of Teberda that was going up the ravine. That gave me half an hour in the company of 30 vacationers at the Teberda mountain station. That day they were going to ski. Here were people from Moscow and Sverdlovsk, Petrozavodsk and Riga, Dnepropetrovsk and Rostov-on-Don, Leningrad and Omsk. They were industrial workers and engineers, tractor drivers and students, educators, government officials, researchers.

Alexander Kunitsyn, a railroad man from Dnepropetrovsk (the Ukraine), was getting his accommodations at the tourist station for one-third the cost, 20 rubles—a trade union voucher gave him the discount. As far as I could tell, one out of every three vacationers at Teberda and Dombay had vouchers like Kunitsyn's.

I asked Nelli Ivanova, a Moscow engineer, to tell me what kind of time she and the others were having at the tourist stations.

"Well, we ski on the slopes and go on hikes to the icefalls in the mountains. One of the nice things is that the station lends us skis and hiking equipment. Another is the instructors. They know the area and the customs of the local people—the Karachays and Circassians. And, of course, they show us mountain-skiing and hiking techniques." Ivanova paid 20-odd rubles for her stay.

### The Unorganized Tourists

Dombay welcomed us with bright sunshine and a riot of color. In the clearing where three mountain rivers merge into the Teberda rise three multistoried hotels that accommodate 1,500 persons. However, vacationers in Dombay are by no means just those staying at hotels and the tourist station. Every day, especially during weekends, thousands of people from the neighboring towns of the Stavropol territory come to Dombay. They are what we call unorganized tourists, or *dikary*. That translates into wild(!). These are people who have not bothered to make reservations.

Statisticians tell us that the tourist with accommodations is from 25 to 40 years old, usually married and with one or two children. They have even calculated the number of hours he or she spends daily out of doors (six), how much time at the theater, the movies and concerts (one hour and 20 minutes) and so on.

But what do we know of the unorganized tourists who go by the thousands to the beaches of the Black and the Baltic Seas, the mountains of the Caucasus and Central Asia, to the Siberian taiga and the lakes of Karelia? Very little. Setting out on their vacation, they crowd the resorts, make long lines at the restaurants and cafés, and inflate the prices at local markets and the cost of rooms that local people rent to vacationers. Bear in mind that the sale of cars is growing every year, which makes travel easier for these tourists who prefer to take their chances. Local trade organizations sometimes find it

difficult to provide for all the new arrivals.

Can we figure out how many there are?

For instance, on a sunny summer day about 200,000 to 300,000 of the residents of Riga, the capital of Latvia, come to Jurmala, the resort on the Baltic seashore. When the rainy season starts, they call an immediate halt to their visits. Everybody understands that, even the clerks who stand behind well-stocked counters.

In the interests of the *dikary*, the local Soviets keep open special accommodations bureaus in the resort zones. They are supposed to hold within reasonable bounds the price of rooms that the local people rent to unorganized tourists. But many of the *dikary* rent rooms without the help of these bureaus, simply because they don't want to lose time. Sometimes friends recommend places.

In recent years a growing number of camping grounds along the highways have offered the auto-tourist a minimum of comfort. But the auto-*dikary* stubbornly push on to places where neither man nor woman has ever set foot. They don't mind sleeping in tents and cooking over open fires. There is no one to say no to them since there isn't any privately owned land in the country, and a tourist can stop anywhere—in a wood, on the shore of a lake, a river or the sea. Everyone is welcome to do that, but isn't it likely to create environmental problems? That is something to consider.

In his book *The Unity of Nature* Academician Stanislav Shvarts writes that the four billion people now living on the planet have the same impact on nature as four billion cavemen might have. Our contemporaries set up their tents, wash their cars and light their campfires, which sometimes bloom into forest fires. Still, we can't stop or even cut down on unorganized tourism. Especially since more and more people prefer this casual way of moving around.

The person who likes comfort still goes to some familiar resort, but a *dikar* avidly reads news-

# SUMMER HOLIDAYS

For the period 1976-1980 the state has budgeted more than one billion rubles to build health and vacation resorts. This is in addition to the funds earmarked by many large enterprises for the construction of similar facilities for their own employees. Last year a number of new health resorts were built in the traditional vacation spots, like this hotel in Alushta on the Black Sea coast (bottom photo). But new resort areas are also opening up all over the country. The top photo shows summer cottages on Lake Issyk-Kul in Kirghizia. These young people are having fun on a Dnieper River beach in the Ukraine.







There are  
vacations to suit  
every taste.  
All you need is  
some  
imagination.

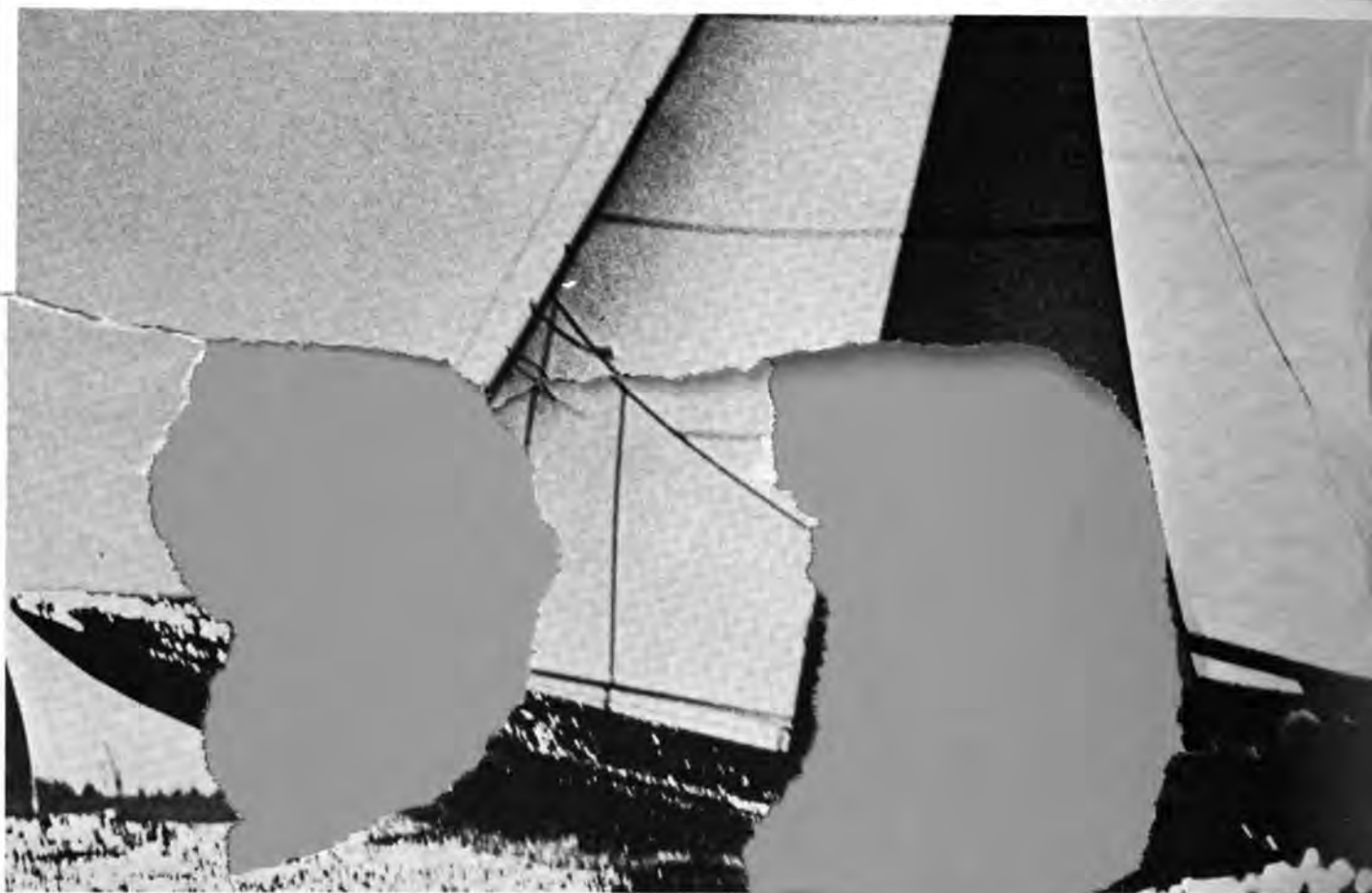
paper reports about Siberia's becoming the tourist mecca in the near future, supplanting the Caucasus. Apparently geologists have discovered around Lake Baikal a great number of springs with a high mineral salt content. The mineral spring discovered near Angarsk is the equal of the Narzan spring in the Caucasus, so medics say. Well, that is the opinion of experts, but people want to check on it in person.

A new film about the northern rivers is having a first run at the movies, but students are already making preparations to sail down the rivers in kayaks and on rafts. They can't wait till roads are built and camping grounds and hotels are provided for the tourist.

My friends Arvidas Beliusas and his wife Aldona, both doctors from Kaunas, Lithuania, could easily have gotten accommodations at a sanatorium or a resort hotel, but they like travel. They split up their month's vacation, spend two summer weeks at the beach and the other two, in the winter, in the mountains. And even when they do book a room in advance, they consider themselves "organized tourists" only for the night. They do not take routes planned for the tourists but travel as the fancy takes them, adding, of course, to the army of the *dikary*.

There is more than one reason for the current drive to establish national parks in all parts of the country. Each year there are more unorganized travelers. They go to the Kola Peninsula and the Caspian Sea, to the Carpathian Mountains and the Soviet Far East, to the Northern Urals and Central Asia, to the Crimea and the Altai. Sociologists explain it this way: Consider the longer annual paid vacations, better public transport, more cars, higher living standards. It is inevitable that the number of unorganized tourists will keep growing: According to the plans mapped out by the Twenty-fifth CPSU Congress for 1976-1980, passenger traffic will increase, so will the sale of cars to the public, and, most important of all, the real income of Soviet people will rise. Add to all of this a simple fact: Since Adam and Eve, people have been the most curious of the species; they are lured by new sights and they are always ready for one more adventure.

It is hardly surprising that skiing is one of the most popular sports in the Caucasus and that many people enjoy sailing in the Baltic republics.



# SUMMER HOLIDAYS

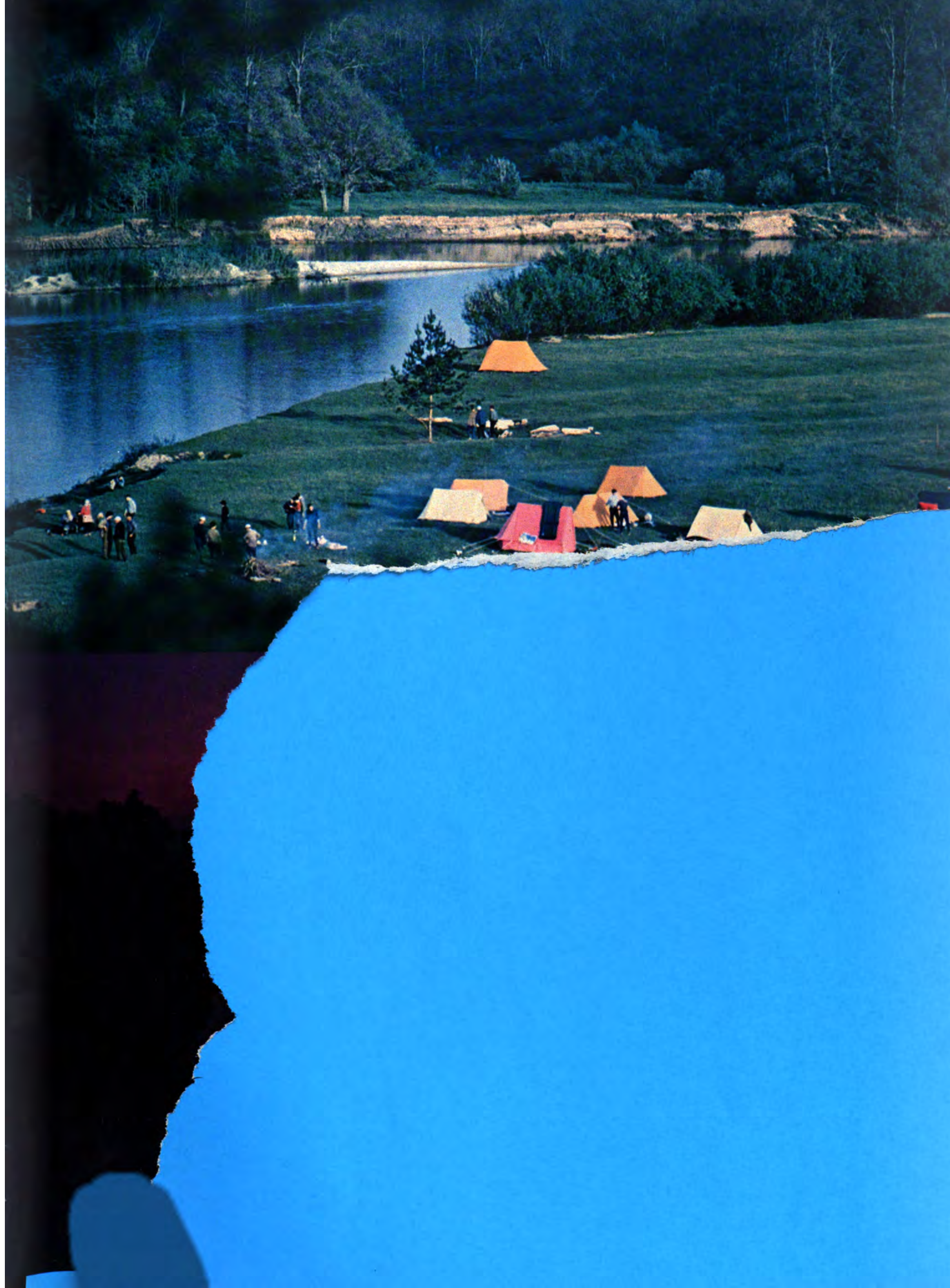
Camping is becoming increasingly popular. Many people prefer sleeping outdoors and cooking over open fires. There is no privately owned land in the Soviet Union so campers can stop in any secluded spot, beside a lake, in a forest, on the seashore. The photos on the opposite page show a campsite on the banks of the Desna River in Bryansk Region, Central Russia.



Scout you places you could never reach by car. Right: The famous beach in Pitsunda, Georgia.









# SUMMER HOLIDAYS

These vacationers look like they've had a good time. They chose to spend their holidays cruising on the Desna River, located in one of the most picturesque areas in Russia. They slept in tents and made fish soup over open fires, glorying in the natural beauty around them.





# FROM THE SOVIET PRESS

## Power Engineering in the Year 2000

EVERY THIRD RUBLE invested in Soviet industry goes into the fuel and energy complex. The power industry in the next two decades is the subject of an article by Academician Nikolai Melnikov, chairman of the Commission for the Study of the Productive Forces and Natural Resources of the USSR Academy of Sciences, published in the newspaper *Izvestia*.

He believes that thermal power stations will remain the basic generating plants. In the current five-year period alone (1976-1980) they will account for 60 per cent of the increase in generated electricity. The policy is to build large plants (4-6 million kilowatts); they are cheaper and faster to put up than small ones.

Thermal power stations, as a rule, are constructed in places where fuel is extracted—to reduce shipping costs. There are several such advantageous places: the Ekibastuz coal basin in Kazakhstan with its opencast mines, for example. Four large power plants will be built there to supply electricity to the European part of the Soviet Union.

The construction of large hydroelectric power stations will continue. They are expensive and take a lot of time to build, but they offer certain big advantages: low operating costs and "supplementary" functions (for instance, they make efficient use of spring flood waters and generate additional electricity in peak hours). Besides, we have tremendous water resources, of which we use only a fraction as yet. Hydroelectric power stations will be built at least until the end of the century.

At the same time, atomic power plants are increasingly important. Their construction costs and the cost of generating electricity, notes Academician Melnikov, are no higher than for thermal power plants, and they are more efficient. Fast reactors will soon be installed at most Soviet atomic power plants. Interestingly, after some months of operation they contain more fuel than was used to charge them. In the process of working, a new fissionable substance is produced from the uranium isotopes. That is why uranium is used in such reactors so much more efficiently.

By 1980, Nikolai Melnikov sums up, the total capacity of the country's power stations will have increased by 67-70 million kilowatts.

In the Soviet Union, concludes the writer, there are many possibilities for the development of the fuel and power complex. In any case, before the end of the century the Soviet economy will have solved the energy problem.

## Moscow—1980

ANYONE who has not been in Moscow for 10 years will have to get to know the city all over again: Two-thirds of the housing in the capital was built after 1960. Whole microcities for tens of thousands of people go up in Moscow every two or three years. Despite such large-scale building, writes Vladimir Promyslov, Moscow's mayor, in an article in *Pravda*, housing is still short. The population now is about eight million, and it keeps growing. Much has already been done to realize the general plan for the capital adopted in 1971, and more is to be done by 1980.

For instance, 10 large housing projects have been built, each for an average of 100,000 people. These new residential districts grew up around what were once neighboring villages: Chertanovo, Davydovo, Tropar'yovo and others. The builders are much concerned with preserving the natural environment near Moscow: They avoid cutting down the trees or polluting brooks and rivers.

Today, says the capital's mayor, construction in Moscow is comprehensive, meaning that new housing projects include not only apartment buildings but also movie theaters, cultural centers, shops, schools, kindergartens, garden areas, parks and stadiums.

There are shortcomings, however. The construction of community and shopping facilities is lagging behind housing construction. City authorities, says the mayor, must preserve a proper balance in town planning. Road construction and improved mass transport must get special attention. Travel time to and from work is an important consideration to people living in the new suburban residential areas.

In the next five-year period Moscow planners will not only continue housing construction in the suburbs but also reconstruct housing in the center of the city, a more complicated process. Dilapidated houses in the center will be pulled down, but all architectural and cultural monuments will be preserved and restored.

In four years Moscow will be welcoming the participants and guests of

the 1980 Olympic Games. By that time several Olympic complexes will have been built in the capital, which, incidentally, already has many sports facilities which will be ready, after small-scale reconstruction, for major competitions.

An Olympic Village will, of course, be built as well. It will be situated in a picturesque area (not far from the center), on Lenin Hills, in a big park on the bank of the Moskva River.

Hotels to accommodate 40,000 tourists will be constructed.

Olympic construction, says Promyslov, will not hold up our housing program. On the contrary, preparation for the Olympics will make Moscow a still better place to live in.

## Heart, Age and Occupation

CARDIOVASCULAR DISEASES have become one of the main killers of our time. An article in *Pravda* by Academician Yevgeni Chazov, director of the USSR Cardiological Research Center of the USSR Academy of Medical Sciences, describes the research being done in this field.

A whole complex of harmful factors cause cardiovascular ailments. Among them are insufficient physical activity, obesity, excessive drinking and smoking, and even the pressures of work and personal relationships. These risk factors, he says, must be taken into account in any public health plan to prevent heart disease.

The most difficult problem, says Chazov, is to eliminate, or at least minimize, stress situations at home and at work, to create relations among people that will spare their nervous system. This is an important problem whose solution depends largely on education in social relations.

There is a view that prevention of cardiovascular diseases should focus on people older than 35. Chazov disagrees with it. He says that the causes of these diseases can be traced back to adolescence. Here, for instance, is a research figure from the Institute of Pediatrics of the USSR Academy of Medical Sciences: Out of 10,000 schoolchildren examined, 670 had hypertension. To be sure, with many children this is a temporary phenomenon, but the researchers believe that almost 30 per cent of those having hypertension in childhood are certain candidates for chronic hypertension later.

The initial symptoms of cardiovascular diseases in teenagers seem to be connected with psychoemotional and nervous strain. The growing flow of information makes too many demands on children. Educators and doctors do not seem to be sufficiently aware of the fact. Educational methods must be revised so that children are not overworked. A special council to study the problem has been set up by the presidiums of the Academy of Medical Sciences and the Academy of Pedagogical Sciences. I hope, says Chazov, that it will serve as an active force in the prevention of cardiovascular diseases. The ministries of education and health must work out a comprehensive system of preventive measures.

As for adults, attention must be paid to occupational factors. Every occupation, by its very nature, has a specific effect on the psychoemotional and neuroregulative mechanisms. Prevention must proceed from that point.

It was believed until very recently that cardiovascular diseases largely affect intellectual workers. Now, however, they are common among manual workers as well. Automation makes their work less and less dependent on physical effort but sharply increases nervous strain. It is no accident that in recent years the incidence of cardiovascular diseases in the countryside has been greater than in the city—life in the rural areas is drawing closer to urban living.

Today scientists in many countries are alarmed by what they think is an inevitable rise in the incidence of cardiovascular diseases because of urbanization, the faster tempo of life and technological progress. But progress cannot be stopped. It is also true that the very advance of science changes our idea of human capabilities. Health care advances in our country prove the practicability of preventing cardiovascular diseases.

In an examination of 200,000 Moscow factory and office workers in the 1960s, those with early symptoms of hypertension and those prone to it were detected. It was possible not only to reveal contributing factors but also to suggest preventive measures. At present the USSR Cardiological Research Center together with the medical department of the Likhachov Auto Plant are working on a system that will prevent and limit the progress of hypertension. When perfected, this system can be used at all large industrial enterprises in our country.

It is probable, concludes the writer, that before long psychologists and doctors will be taking an active part in vocational orientation and occupational selection. Their opinion should also be taken into consideration when production problems at enterprises are being discussed.



# LEONID YAKOBSON: MASTER CHOREOGRAPHER

By Maya Plisetskaya  
Ballerina of the Bolshoi Ballet



The late Leonid Yakobson was famous for his choreographic miniatures. Among his last works were dances for the Soviet-American film, *The Bluebird*. Producer George Cukor was so taken with the dances that he expanded the ballet portion of the film.



Photographs by Yuri Rybchinsky



**T**HE CHOREOGRAPHY of Leonid Yakobson—always wide-ranging, sometimes controversial—has its many devotees among balletomanes, and also theatergoers, who have seen his work on the Leningrad stage. The fame and the respect Yakobson's name invariably commands are well deserved. He was a bold and impulsive master, who would not tolerate the slightest cliché.

Yakobson was the first to stage Aram Khachaturian's *Spartacus*. He also produced a ballet based on Vladimir Mayakovsky's comedy *The Bedbug*. He translated Alexander Blok's epic poem *The Twelve* into the medium of the dance and produced several other major works.

The characteristic sparkle, virtuosity and invention of this master are brilliantly expressed in his work with the Choreographic Miniatures Company of Leningrad. The importance of these productions for the ballet and for art in general cannot be understood unless they are seen. And not only because these ballet miniatures are tiny fragments of something larger yet to be revealed in

the company's future productions. No verbal description, no matter how skilled the writer, can convey the charm, beauty and emotional content of the dances or the choreographer's particular creativity.

The brief dances are necessarily sparing of plot or story, but in their ideas and impact on the audience, they go beyond many full-scale productions.

An expert on the history of the ballet, Yakobson made bold use of novel forms and angles, evolving fresh means of expression. Even choreographers and dancers are surprised by the number of movements that remain unexplored in the old and well-trodden ballet world, and by the way in which rhythms and lines they thought they knew backwards can be revitalized into something new. Composers like Glinka, Moussorgsky, Shostakovich, Prokofiev and Stravinsky, whose music invites experiment, gave scope to the choreographer to express a wealth of ideas. They may be politically trenchant, as in Yakobson's

miniatures based on Bidstrup's cartoons; or their concentration may focus on the special grace in the works of Rodin. His Rodin series is no mere repetition in dance of the attitudes in the well-known sculptures. Indeed, that is not the point of Yakobson's choreography. The intent is to reflect the great sculptor's spirit, thereby broadening and enriching our perception of his work.

These miniatures are based on a variety of the works of artists and sculptors, among them, frescoes of ancient Egypt, etchings by Frans Mase-reel, paintings by Fyodor Malyavin. As one critic said: "This is a dance panorama of different times and peoples."

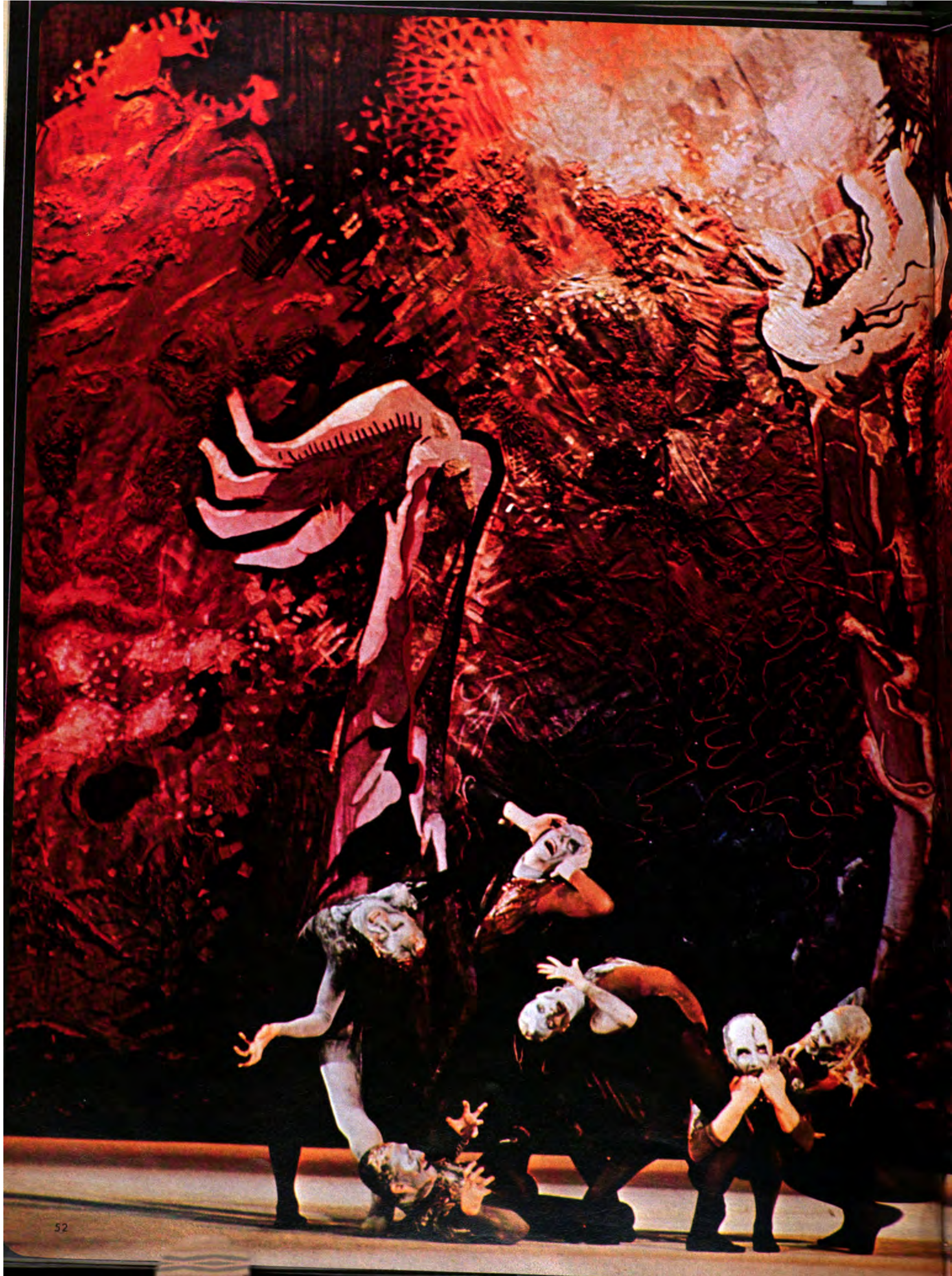
The Choreographic Miniatures Company presents a program that is bright, happy and intellectually appealing. The soloists demonstrate superb professional skill. I, for one, know how much goes into their effortless-appearing works of art.

*Courtesy of Sovetsky Soyuz Magazine*

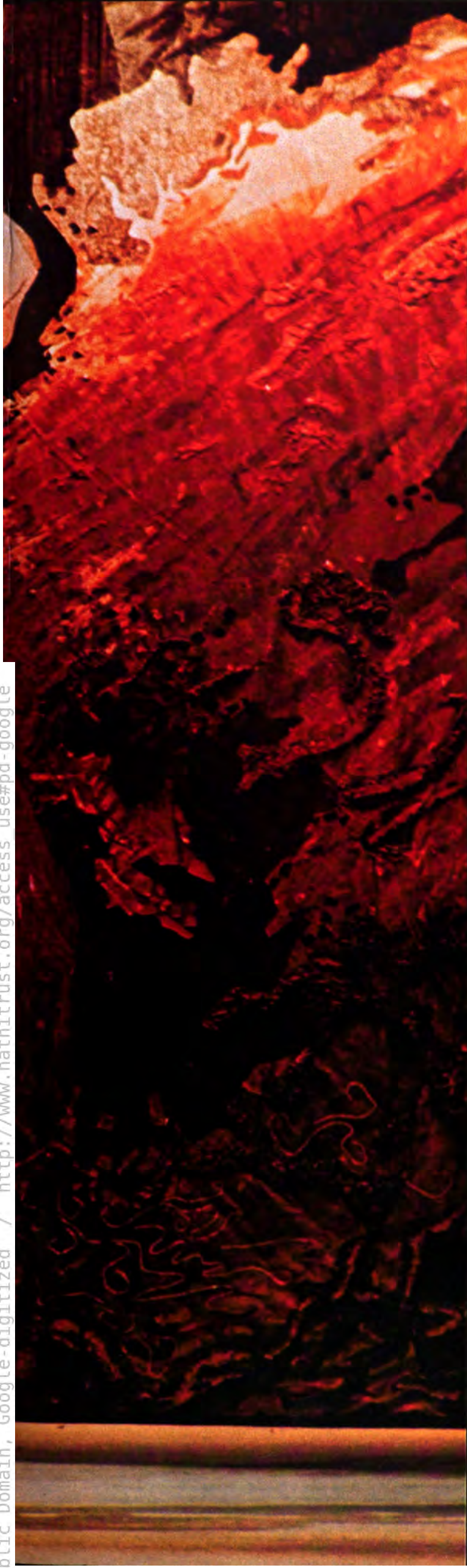
**Yakobson's  
Rodin series reflects  
the great  
sculptor's spirit  
through the  
medium of the dance.**











Yakobson's *Hiroshima*  
is pervaded  
by a profound sense  
of tragedy.



The miniatures vary greatly in character and tempo, reflecting the diversified sources of Yakobson's inspiration. *Cachucha*, for example, is based on folk dance elements.



# FOLK ART

IN GORKI, a village in Central Russia, there is a certain house you cannot pass without stopping. Even on gloomy autumn days it gladdens the eye. It is surrounded by painted wooden weather vanes on tall posts, depicting animals and people.

Vladimir Zlobin, whose house this is, was a collective farm carpenter. When he retired on pension at 60, he began to make toys. This folk art has a long and rich tradition in Yaroslavl Region, where Zlobin lives. The region is part of the Golden Ring, a tourist route that passes through places with unique examples of arts and crafts of old Russia.

Zlobin is now 75, but he is still in perfect health. He has shown his work at many folk art exhibitions, including the All-Union Exhibition held in the Central Art Studio in Moscow. His work is photographed for the local and central newspapers and for magazines. Moreover, art historians, photographers and other interested people come to Gorki to see his amusing sculptures and the house, which looks like a toy itself.

He also carves wooden figurines of literary characters. His favorites are the characters created by nineteenth-century poet Nikolai Nekrasov, who has left us beautiful verses about the Russian village. Zlobin has found them an endless source of inspiration for his wonderfully expressive figurines.



# EXHIBITIONS



THE ART SHOW *Glory to Labor*, dedicated to the Twenty-fifth Communist Party Congress, has opened in the Central Exhibition Hall in Moscow.

Paintings, sculptures, graphics and applied arts of all the union republics are on view. This is the tapestry by Maria Gondo of Leningrad, which she titled *In the Name of Peace*. It pictures the Soyuz and Apollo spaceships.

A SERIES of space stamps has been issued with these inscriptions: "April 12—Cosmonautics Day," "Cosmos Benefits the National Economy," "Research in Space" and "International Cooperation in Space."

# STAMPS





# TEACHING CHILDREN TO PLAY

By Vyacheslav Yankulin  
Science Commentator

Photographs by Boris Babanov

**What is play?**

**Why does a child play?**

**Does a child have to be taught how to play?**

ANY MUSCOVITE, regardless of age, if asked to list a dozen of the most popular stores in the capital, will include the Dom Igrushki (Toy House) on Kutuzovsky Prospect. And should the poll be limited to Moscow residents under 15, the only other store that could possibly compete with the Toy House is the Detsky Mir (Children's World) department store in Dzerzhinsky Square. Almost its entire ground floor is given over to toys. Here it becomes very evident that childhood is play.

There have long been two diametrically opposed theories of children's play. One says that children are born with the instinct to play and, if left to their own devices, will always find some way to amuse themselves.

The other, the point of view of such Soviet psychologists as member of the Academy of Pedagogical Sciences and dean of the Moscow University Faculty of Psychology Alexei Leontyev, Academician Alexander Luria, head of Moscow University's department of neuro- and pathopsychology, and Professor Pyotr Halperin, head of the department of child psychology, declares that a child is not born with a natural instinct or ability



*Children begin to understand the world around them through the games they play. Even with such simple toys as building blocks they can learn how to solve complex problems at an early age. These children in a Moscow kindergarten are obviously enjoying their learning experience.*





to play. The development of a child's natural and acquired abilities cannot be isolated from the processes of upbringing and education without a detailed analysis of the constantly changing conditions in a child's life. Since the days of Lev Vygotsky, founder of the Soviet school of psychology, this has been the basic trend of our investigations in child psychology.

### Getting to Know the World Through a Rattle

Of all the toys, let us take one that could probably be found anywhere in the world, the rattle. Practically every child grows up with one. As the researchers see it, the rattle is not quite as simple an object as it appears. In a child's hand a rattle becomes a sensitive instrument for cognition of the surrounding world. It teaches children that their hands have the wonderful ability to hold things, that they can manipulate their hands, bring them close to their mouth, eyes. The child discovers that the rattle has a certain shape, color, weight, taste and smell, that it can be soft or hard and make different sounds. The whole world of objects is concentrated in this little toy, and it enables the child to acquire skills in handling other objects.

Consider this experiment: The pebbles are removed from a child's familiar rattle, and the toy is then returned to its owner. A shake of the hand does not bring the expected effect. However, the desire to achieve that effect has already become the prime motive of the little person's actions. The child tries again and still no effect. That is when puzzlement, and then disappointment, turn into an indignant howl.

Children's building blocks are another international toy with which researchers can collect information on child psychology at an older age.

A two-year-old tries to build a tower of blocks. The construction hardly begun, the tower topples. Some older person shows the child that the blocks have to be laid carefully and squarely on top of each other. The builder resumes work, and everything seems to be going along when all of a sudden the tower again comes toppling down. Then a second suggestion is made: The base of the tower should be broadened—not just two, but four, blocks should be placed at the bottom. At first, success, followed by disaster. The young builder places nine blocks at the base but is soon faced with another problem, a shortage of blocks. How to erect a high enough tower using a minimum of material? Studies have shown that even children of preschool age can handle this complex problem.

### Why Do Psychologists Need Games?

In studying children's games, psychologists set themselves two main tasks. First, to get an insight into children, their abilities, aspirations, characters. To a certain extent, these are common to particular age groups, but with the qualification that every child is an individual.

The second task is to find out which games encourage quick thinking and creativity. In the course of play one can readily observe the development of dexterity, speech and verbal and arithmetical memory. It is during play that children memorize all kinds of nursery rhymes and songs.

While play for most adults is a kind of rest (not counting athletes), for children it is the principal form of activity.

It is also not compulsory. It can be interrupted at any moment, say, to go for a walk. That is what distinguishes play from formal study. As Henri Vallon,

an eminent French psychologist, noted, even adults at times prefer reading a more difficult book of their own choice to one that is easier but compulsory.

A child is slow to tire of playing. As soon as signs of fatigue appear, it means that the game has turned into an obligation, into work. Some 15 years ago, when the teaching of foreign languages was first being introduced in Soviet nursery schools, one of the teachers asked Alexander Anikst, an English language expert and Shakespeare scholar: "How long should a language lesson in a nursery school be?" "No more than five minutes at the beginning of the course and a maximum of 15 later on," Anikst replied. The teacher soon saw for herself how right he was.

### How Does One Play with Children?

Games can frequently serve as a kind of test for both teachers and parents. A child's abilities manifest themselves more fully in games than in any other purposeful activity. A child responds to a game if it answers his or her needs and abilities. However, it is wrong to think that the child will benefit from play independent of adult help, just as it is wrong to think that adults must not enter the child's play world.

There are numerous rules and descriptions of adult participation in children's games. Soviet educator Nina Linkova, for instance, suggests that a child should from the very outset be placed in a position where he or she lacks something essential for a game. Say, no material to make a roof for a toy house. An adult can then suggest that a square of plywood or cardboard could serve that purpose. Or if there is no chimney, the adult could unobtrusively place an empty spool near the child. According to Linkova, none of the most up-to-date toys can substitute for the home-

made things to which children themselves have made a tangible contribution.

Two years ago, Irina Nikitina, a young teacher, formed a literary club called Teremok at the Moscow Young Pioneer center. Unlike the other groups at this center, children of preschool age (as young as four) were invited to join. Today Nikitina believes that even three-year-olds can participate. The club's initial function was to develop children's speech habits.

Nikitina set herself the task of expanding children's perception through speech, drawing and music. She used the magazine *Kolobok*, a colorful children's monthly, which, besides conventional printed matter, has music inserts—records—as an instructional device. The results surpassed all expectations. The children drew pictures and then built stories around their drawings. The main goal, the development of speech, was achieved because the stories were always more interesting and richer than the drawings. They even staged Prokofiev's *Peter and the Wolf*, and the images they created on the stage were remarkably natural; it was hard to believe that they could develop such a feeling for the music.

At the end of each year a display of drawings with short stories is mounted. Some stories consist of no more than a single phrase. Children draw pictures on such adult themes as autumn, solitude, life. Academician Andrei Kolmogorov, a distinguished Soviet mathematician, once told me that when he taught school, in the twenties, he used to ask the children to draw happiness, and they had no particular difficulty with the assignment.

The Teremok club is to a certain extent an unusual experiment. But there are numerous art and drama groups in nursery, primary and secondary schools and in children's clubs at housing projects—there are hundreds of the latter in Moscow alone—where children's creative imagination is given full play.

Zinaida Novlyanskaya, a researcher at the Institute of Preschool Education, has said: "Children have a tremendous need for fresh impressions and very few opportunities to assimilate them. As a result, a conflict develops in the child's mind between the excess of external information and the inability to comprehend and explain it. Under these conditions, the child's brain must develop an instrument with which to recombine the external stream of information and so increase the volume of comprehended material. The child's imagination is that instrument. Apart from its cognitive function, it also plays an important role in adaptation."

According to a theory developed by Soviet neurophysiologist Pavel Simonov, a shortage of information when there is an intensive need for knowledge engenders negative emotions (worry, alarm, fear). By building up the

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*It is wrong to think children will benefit from play independent of adult help.*







I SPEND every Sunday with my dad. Always. No matter how busy I am, I put everything aside and go out with him to the park, or to the movies, or just to the garden down the street. Dad likes to take walks with me and never skips a Sunday.

Today, too, the minute I woke up, he was in my room.

"Good morning," he said. "Where do we go today?"

"To the zoo. O.K., Dad?"

He nodded. He likes to go to the zoo. We've been there umpteen times. To tell you the truth, I'm pretty tired of the animals, but not Dad. He likes to look at them.

While I brushed my teeth and dressed and Grandma gave me my glass of milk and mended the suspenders on my pants, Dad sat in my room and looked at my books. I could see him smiling at the pictures.

"I'm ready!" I called to him.

"Do you have a few buns for the swans?"

"Yes." I knew he'd ask.

At the zoo you are allowed to feed only the swans. Dad knew that. The first time we went there, he fed the monkeys candy and almost got fined. But you are allowed to feed the swans. They push each other in the funniest way and

catch the pieces of buns in the air.

We took the bus. I let Dad sit next to the window, because he likes to look out at the houses. I ate an apple. If you eat an apple in a bus, it doesn't seem to take so long to get where you're going.

"How are things at work, Dad?"

"As usual," he replied.

"Does Zvyagintsev bawl you out as usual?"

"I'm afraid he does . . ." Dad smiled, and looked a little funny. He tried to hug me, but I wasn't having any of that.

Zvyagintsev is Dad's boss. He always pesters Dad, and he's nasty to him at meetings. Really, I don't think much of Dad for being such a milquetoast.

We walked past the birdcages, then we watched the bears swimming around in their pool and had a look at the wild reindeer.

"Why do their tongues hang out like that?" Dad asked.

"They're hot," I explained.

"They need thermoregulation. Their moisture evaporates, understand? Besides, a reindeer has a bone in his heart."

"No!" cried Dad. He looked shocked.

"I read about it. Maybe it's not a bone, but some kind of hard

thing. That's why the reindeer are so strong."

He looked at me, and his eyes got so round. I thought he was going to cry.

"Oh, Dad, I was kidding."

We went to the grounds where the pony carts were. I wanted a ride and so did Dad, but grown-ups are not allowed to ride in pony carts. I tried to get the ticket seller to let Dad have a ticket, too. I told him Dad was awfully light, so the ponies wouldn't have any trouble pulling the cart, but the ticket seller said No. I went into hysterics then—I've tried that before and it works. I rolled on the ground and made terrible faces and screamed:

"Daddy! I want to ride with my daddy! Let my daddy ride too!"

A crowd gathered around us, and somebody picked me up and wiped my face. I went on shaking a little and sniffing. Somebody yelled at the ticket seller until, with a lot of grumbling, he sold Dad a ticket. We went around twice. The ponies ran fast. I can never get over how fast they go. Dad hugged me, he laughed, and at the turns he shouted, "Whoops!" When the cart finally came to a stop, it took him a few minutes to calm down. He looked

back at the ponies and then at me:

"Want to ride some more?"

I felt sorry for him, but I was very firm:

"No, that's enough for today."

I hate to be so strict with him, but Mom's right—she says there must be a limit to everything.

Next we went to a café and had some ice cream. There were a lot of flavors to choose from, so we got three scoops each—chocolate, fruit and orange. The orange ice cream tastes best if you just lick it off the spoon, or even better if you just put a spoonful in your mouth and let it melt away.

"How about the movies now," Dad suggested. "There's a new episode of *The Wolf and the Rabbit* playing."

"No," I said. "Let's go to the garden instead."

The garden is very beautiful and close to my house. It has a children's playground, with sand piles and a lot of benches. That's where we kids usually go with our parents.

Sasha Kulagin was there. He was leading his dad by the hand. His dad was wearing a pair of jeans with brass studs. Sasha is

*Continued on page 60*



## SUNDAY OUTINGS

*Continued from page 59*

pretty famous. He sings in the children's chorus at the conservatory. The chorus went abroad on a tour this year, and Sasha was so impressed by jeans that his dad wears them now.

"Sasha!" I called. "Come on over!"

He looked around at me and waved.

"Meet my dad," I said.

"This is my dad," said Sasha, pushing his dad toward mine.

They shook hands and kind of stood around.

"You two sit on a bench while we go off to play," Sasha said. We ran over to the playground. I looked back and saw our fathers sit down and light up cigarettes.

"How old is yours?" Sasha asked me.

"Thirty-three. How about yours?"

"Thirty-seven. Looks fine, doesn't he?"

"He sure does," I said. "But my dad isn't as strong as he used to be. See how pale he is. He doesn't eat enough."

Sasha dug into the sand with a spade, and I made a tunnel for a subway. A train would be going through soon.

"Careful! The doors are closing!" Sasha screamed, and I pushed the cars slowly through the tunnel.

It was 3 o'clock, time to go home for dinner. I got up, shook the sand off my clothes and went over to the bench. When he saw me, Dad jumped up and put out his cigarette.

"We have to go now," he told Sasha's father. "So long. I was very glad to meet you."

"Good-bye," said Sasha's father, and stood up. "Good-bye, kiddo. What a chubby little fellow you are!" He was going to pinch my cheek, but my friend Sasha looked at him, and he changed his mind.

We walked back home. Though it isn't far, we always walk slowly. I could see that Dad was sorry to leave me, but there was nothing we could do about it. . . .

"Good-bye," he said, when we reached the house. "Good-bye," and he kissed me on the cheek.

"Bye, Dad," I said. "See you next Sunday. We'll go to the Puppet Theater and see *Cheburashka*. They promised me seats for the show. You haven't seen it, have you?"

"No."

"So we'll go."

He smiled, waved his hand and walked off to the bus stop. Mom and Dad got divorced five years ago. I still don't know why.

Of course, I ought to go out with him more often, but I've got so many things to do! I have to paste up a lot of colored paper cubes for kindergarten tomorrow.

## TEACHING CHILDREN TO PLAY

*Continued from page 59*

picture of the world with the help of imagination and thereby filling in gaps in knowledge and experience, children can save themselves from the injurious effect of such emotions.

### The Role of the Collective

A few words about another aspect of play—the relationships of children among themselves and with adults. Soviet educators believe that play shapes the child's character and develops skills. It is while playing that children learn how to get along with one another—a complex art which will to a considerable extent determine their place in adult life. True, at such a young age allowance must be made for the fact that children, by nature timid and unsure of themselves and uncertain of their capacities, yield to those who are more pushy and aggressive. Soviet psychologist Lidiya Davidenko did an interesting experimental study in day care centers in a number of cities. The experiment involved some 200 children ranging from five months to two years of age. The purpose of the study was to determine certain peculiarities in relationships between young children and the effect of those peculiarities on their behavior.

The children were divided into experimental and control groups. In the first group, the researcher observed the influence of trained children on nontrained children while they were playing. The tasks were gradually made more complicated. The findings were interesting. For instance, children toward the end of their first year were reacting to the emotional state of their playmates, showing sympathy, giving help. Initially this is the result of mutual imitation: Children copy movements, actions, speech, emotions, expressions, gestures and even intonation. In time, imitation becomes a tool with which the child assimilates established norms of behavior. It is, of course, necessary to provide positive examples to follow, and then such relationships become genuinely educational. Negative forms of behavior were observed in less than a fifth of the children in the experimental groups and in 50 per cent of those in the control groups. All this shows that behavior in infancy is influenced by environment.

Play is therefore not mere amusement, but serious business that prepares a child for adult life. That is why the efforts of Soviet researchers in this field have more than theoretical significance. They serve as practical guidance for educators and teachers.

# NEXT ISSUE



## PHOTO CONTEST FOR TOURISTS

### First Prize: A Return Visit

If you have been in the USSR recently or are planning to go next year, an upcoming photo contest offers the opportunity for another tour with all expenses paid. The contest, to run through August 1977, will be announced in detail in October.



## CANADIAN HOCKEY MATCH

### Soviet Team Meets Old Rivals

In Philadelphia and five Canadian cities this month, the USSR national hockey squad is vying with teams from the USA, Canada and three other countries for a new prize, the Canada Cup. Our coaches recall some early encounters of the Soviet and National Hockey League players and discuss the strengths and weaknesses that were revealed.

## TWENTIETH ANNIVERSARY OF "SOVIET LIFE"

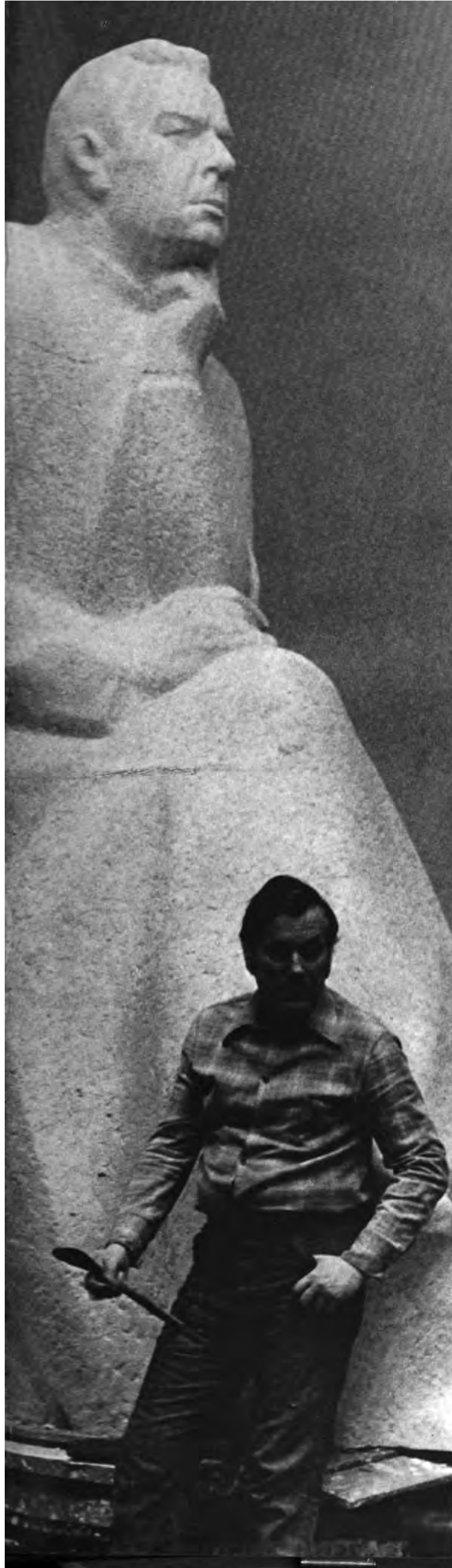
### Reviewing Some National Projects

The next issue, marking the magazine's twentieth anniversary, reports on programs we wrote about earlier: the development of Ust-Ilim, the Siberian industrial city that grew up around a vast electric power station; the 10-year-old Tyumen oil field in Western Siberia; the dam that saved Alma-Ata, the capital of Kazakhstan, from a devastating landslide.

# COMING SOON

Tractor Builders





Jokubonis with his sculptured portrait of the Lithuanian poet Maironis. It will be erected in Kaunas, where the poet lived. Above: For his war memorial *Mother of Pirčiupiai*, a farm woman mourning her children who have fallen in the war against fascism, Jokubonis was awarded the Lenin Prize in 1963. Right: Bronė Valantinaitė, with a sketch for a tapestry. Her graphics and carpets have been shown in Munich, Paris and other cities. They represented Soviet Baltic art at EXPO-67 in Montreal.





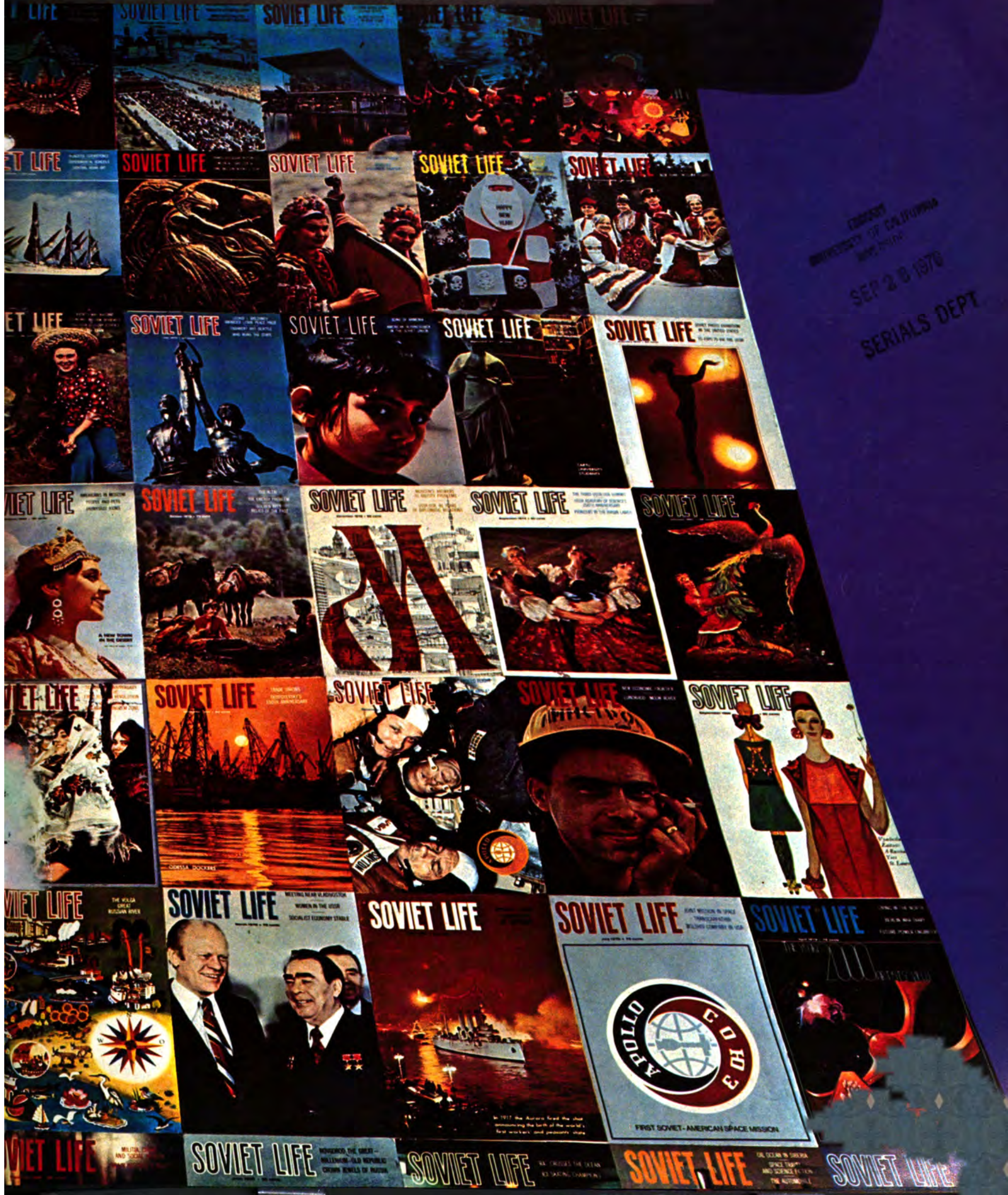




# SOVIET LIFE

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Front and Back Covers: A sampling of SOVIET LIFE covers. Our twentieth anniversary issue reports on people and projects we featured in other years. Design by Igor Nechayev.

## LETTERS TO THE EDITOR

An excellent publication: I teach Russian literature. . . . Have often used this magazine to orient students about geographical data related to the reading. The magazine serves to bring a closer relationship between the American student and the Russian people; it breaks down the vast distance between us; it is a pleasure to be a subscriber.

Mary F. Remillard  
Adams, Massachusetts

I learned via TV that the Soviet sailing ships which participated in the American Bicentennial event in New York harbor will not visit other East Coast ports. It seems that American citizens on boats which passed close by the Soviet ships made constant threatening, insulting and derogatory remarks to the Soviet crews on deck.

When I heard this information I felt embarrassed, ashamed and furious! It is hard to believe that in our own revolutionary bicentennial celebration a so-called most advanced nation in the world still contained a breed of people that would do such a thing.

I apologize for them. Those people don't know what they are doing and they certainly don't represent the consensus of opinion in this country. . . .

Eric P. Bosshart  
Watsonville, California

I have read SOVIET LIFE for many years and learned a good deal about the Soviet Union's history, economic and social system. In 1975 I toured your country and was tremendously impressed to see for myself the economic development in every city I went to.

Pasquale De Angelis  
Spencerport, New York

I was happy to read the article by I. Alexandrov, "Concerning Freedoms, Real and Imaginary," in the [July] issue.

This is the best reply I have seen yet to the frequent charges of harsh treatment of political dissidents in the Soviet Union. . . .

But I am still surprised that your government does not take a more dramatic way of bringing this denial to the American public. . . .

Obviously, our mass media are not going to take the initiative in bringing the statements made in the above article to the attention of the public. . . .

I wish to thank you again for this article; I have felt that in the past, you have tended to ignore something that could not and should not be ignored, if there were to be any real possibility of harmonious relations between our respective countries.

Robert Shillaker  
Sierra Madre, California

Visited the USSR for the fourth time. Everything you report is factual, and we were prepared for the changes that are taking place in the advancing rapid strides of Soviet life and living standards.

L. Wintner  
Los Angeles, California

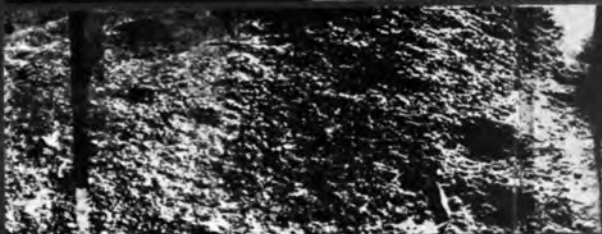




The carrier rocket of the Vostok spaceship. Below: The automatic probe Luna 9, which soft-landed on the Moon on February 3, 1966.



Placed end to end, these pictures give a full-circle panorama of the moon as seen by Luna 9. The top photo shows part of the station. A piece of the spacecraft discarded during the landing is visible in the center photo. The vertical band in the middle of the bottom picture is an antenna. On the right is a two-panel mirror which reflects some areas of the Moon's surface. The lack of atmosphere on the Moon results in very sharp contrasts of light and shade.



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## FIRST LUNAR SPUTNIK



1. Intermediate near-Earth orbit.
2. Correction of trajectory of the flight to the Moon.
3. Orientation before speed was reduced.
4. Braking and going into orbit around the Moon.

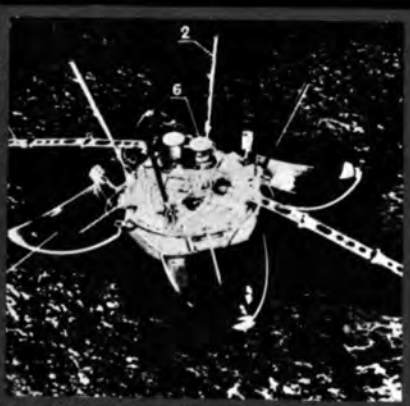


Venus 4 station.



## Artist's Conception of Venus

This artist's conception of Venus was on display in the Soviet Pavilion at Montreal's EXPO-67. It was what Soviet scientists thought Venus would look like to the traveler from Earth. Eight years later a Soviet automatic station was actually sending back data on the surface of that planet.



Arrow indicates Luna 13's landing site in the Ocean of Storms.

TV picture of Cosmonaut Georgi Beregovoi in the cabin of the Soyuz 3.

Left: Drawing of the Luna 13 automatic probe soft-landed on the Moon by the Soviet Union on December 24, 1966. Mounted on the outer surface were: 1) lobe antennas; 2) whip antennas; 3) the instrument extension mechanism; 4) a ground testing device; 5) a radiation density meter; 6) a television camera.



A cosmonaut who passes the centrifuge test will have no trouble withstanding the tremendous pressure during blastoff.





# space



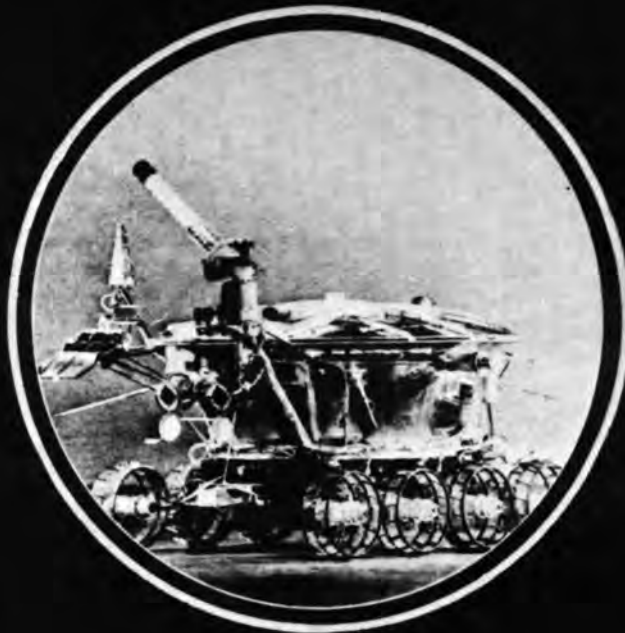
"Today we are still weak, yet we remake the surface of the Earth. After millions of years we will be so powerful that we will change the face of the planet, its oceans, atmosphere, vegetation and ourselves as well. We will control the climate and be as much at home in the solar system as on the Earth itself. We will break out of the solar system, reach other stars, and use their energy to replace our own dying sun. . . . Forge ahead, without hesitation, always ahead. The universe belongs to all people."

Konstantin Tsiolkovsky

Photo of Mars taken from Mars 3 orbital compartment (details are blurred by dust in the planet's

atmosphere). Insert shows the instrument capsule which made a soft landing on the surface.

## MARS



Lunokhod 1, the first traveling lunar laboratory. Below: Pyotr Klimuk (top) and Vitali Sevastyanov climbed aboard Soyuz 18 in the spring of 1975.



Chicago welcomed members of the joint Soviet-American space crew on October 14, 1975.



Hundreds of millions of people around the world watched the drama unfold on their TV screens as the Soyuz and Apollo spacecraft docked high above the Earth.

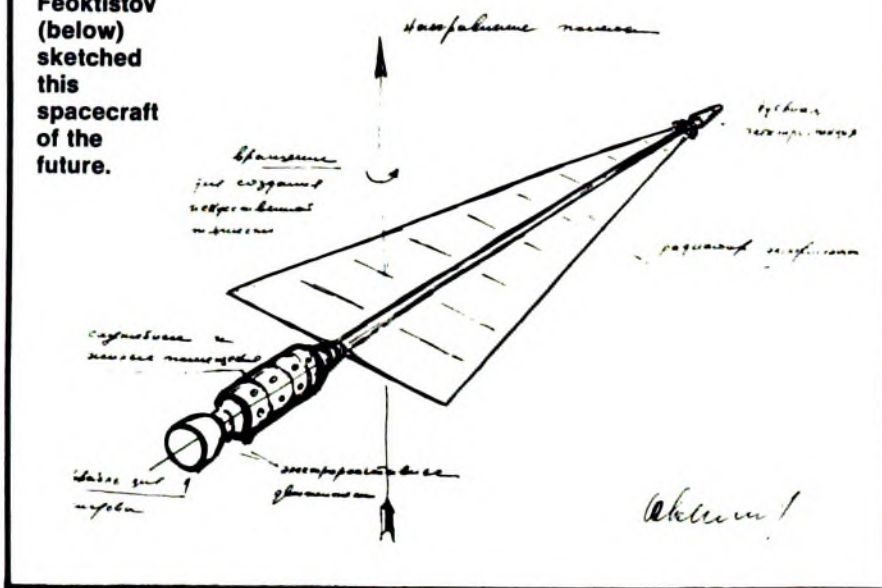




# HEADING FOR UNKNOWN WORLDS

Interview with Konstantin Feoktistov

Cosmonaut Konstantin Feoktistov (below) sketched this spacecraft of the future.



*Correspondent Lyudmila Yenyutina interviews Professor Konstantin Feoktistov, Hero of the Soviet Union, who piloted the Voskhod spaceship in October 1964, and Corresponding Member of the USSR Academy of Sciences Oleg Gazenko, director of the Institute of Medical and Biological Problems and winner of the 1975 Daniel and Florence Guggenheim Prize.*



**Q:** What do you think a twenty-first century spaceship designed for passenger transport within the solar system will look like?

**A:** I think it will be an electrical jet craft with a powerful nuclear plant that will contain a reactor and converters of heat into electrical energy—turbine generators or thermal converters. The electrical jet engines will be of either the ion or plasma type, in which a stream of electrically charged particles accelerated in the propelling device provides the necessary thrust. To keep the capacity of the on-board power unit within the limits of our technological possibilities, the engine thrust must be very small, with the result that the spaceship will accelerate very slowly, taking several months to get away from the Earth and the same time to decelerate near the planet it is headed for.

Another distinguishing feature of this spaceship will be gigantic surfaces for the dissipation of the excessive heat developed by the nuclear unit. Hence, the ship will look like a sharp-pointed triangle. At its apex will be the reactor, the radiator will be the wedge, and a considerable distance away will be the living quarters housing the instruments, control panels and crew cabins. In front of the radiator will be a shield to guard against radiation. And, finally, somewhere nearby will be a descent module for landing on the planet of destination, since the craft I am talking about will serve only for transport between planets. For landing, we need other devices of the Soyuz or Apollo type.

This spaceship is also capable of carrying research probes, putting them into planetary orbit and also landing them. You might ask why this has to be done with probes. Because it is still hard to imagine a person landing on, say, Venus.

**Q:** So people and machines will participate on an equal basis in further space exploration?

**A:** I would say so. For carrying out regular routine tasks—for example, collecting meteorological data, retransmitting it, taking pictures of the Earth's surface—it is simpler to use automatic devices. They can also easily land on a distant planet and do research on, say, Venus or Saturn. These tasks are easily algorithmed and programmed. People should be sent only on particularly complicated missions, for instance, laboratory research, observation of stars or the Earth in line with a selected program and to create laboratories and workshops in orbit. I think those types of projects will require the presence of human beings.

**Q:** What aspect of cosmonautics are you interested in today?

**A:** I've been thinking more and more about whether space research can be justified economically. Many people believe that there are too many unsolved problems here on Earth to spend huge sums on space research that, they claim, does not pay off. Well, on reflection, I've come to the conclusion that we can already prove that our activity does pay off.

First, some aspects of space research

work are already economically profitable. I mean the economic value of meteorological satellites, retransmission devices, TV and telegraph communication via sputniks.

Secondly, apparatus for observing the Earth from space in the interest of the economy makes better economic operation possible. For example, the two expeditions to our orbital station Salyut 4, according to the estimate of experts, saved us the economic equivalent of 50 to 70 million rubles.

Thirdly, space facilities make it possible to acquire fundamental knowledge—I mean information which cannot be obtained from the Earth—namely, about lunar soil, the appearance of Venus, characteristics of planets, electromagnetic radiation that does not penetrate the Earth's atmosphere. Thanks to space engineering, contemporary astrophysics and planetology are making considerable headway. All this helps to accumulate fundamental knowledge. And, as history shows, a purely quantitative accumulation brings about, in the long run, a qualitative explosion, a revolution in one or another field of our knowledge which, without question, will eventually turn out to be economically valuable.

And, finally, we are preparing a kind of reserve for the future. Let me take two concrete examples: the creation of economically rational orbital production and preparation for the gradual habitation of outer space.

What do we need orbiting plants for? Modern pharmaceutical and metallurgical industries need superpure compounds, metals, crystals, vaccines, and the like. Here on Earth the production of some of these substances is technologically impracticable because of the Earth's gravity; in outer space the conditions for it are ideal. For instance, it is possible to purify medical preparations with the most insignificant electrostatic forces. I think that by the mid-eighties we'll be able to provide profitable and regular production facilities in the Earth's orbit.


As far as cosmic settlements are concerned, I think these will probably be built in the future, but I do not regard outer space as an escape from the problems that humanity has not yet solved. I believe these must be solved here on Earth, although I do not rule out the possibility that in time the cosmos may become the second home of human beings. There are even a number of ideas on how to do it. One of them comes from an American physicist, Professor Gerard O'Neill of Princeton University, who is not an expert in the field of space but, as a physicist, has ideas that are both serious and imaginative about the creation of space settlements.

Gerard O'Neill suggests that artificial gravity be used in these space settlements and I, as an engineer, know that this can be done with modern technology. But it would be very expensive at the present time. Current studies and experiments are aimed at making these projects substantially cheaper and more feasible.

Another example. Academician Niko-

Continued on Cover III





"The expanses of the fifth ocean  
are boundless. We for centuries stood  
on its shore, but had no strength  
to lift ourselves more than a few feet  
into the air. We were chained  
to the Earth like Prometheus to the rock,  
and it was very difficult to break  
the chains. . . . What can I tell young  
people who dream of outer space?  
Fantasize, be daring, but remember that  
the road to outer space is  
not only for the brave, but also for  
the strong in spirit,  
in physique and in knowledge."  
Yuri Gagarin

space



**O**IL was first discovered in the northern part of Western Siberia in 1964. Some 10 years ago the Twenty-third Congress of the Communist Party of the Soviet Union set as one of the country's goals the development of a major oil-industry complex in Tyumen Region.

Today the region accounts for more than 80 per cent of the total increase in the country's oil production.

Quite a few problems have been solved over the past decade, and Siberia is now repaying the effort invested in it.

Dozens of enterprises and new towns and cities like Nizhnevartovsk, Surgut and Nefteyugansk have been built there.

A ramified network of pipelines has been laid to transport oil and gas from remote areas of Siberia to the Urals, the center of the European part of the USSR, the eastern regions and a number of European countries.

The high rate of development of the oil, gas, timber, woodworking and petrochemical industries has led to an acceleration of construction, which from 1971 to 1975 increased by more than four times over the previous five-year period.

This construction is continuing. The immediate tasks facing the area were set forth in the Guidelines for the Development of the National Economy of the USSR for 1976-1980: "In Western Siberia to continue the formation of the major territorial-production complex—the country's main base for oil and gas production. To bring the production of oil up to 300-310 million tons [metric]<sup>1</sup> and of gas up to 115-145 billion cubic meters<sup>2</sup> in 1980."

<sup>1</sup> One metric ton equals 2,204 pounds, or 7.35 barrels.  
<sup>2</sup> One cubic meter equals 35.31 cubic feet.

#### Giant Electric Plant on the Yenisei

The electric power industry is the key to the industrialization of Siberia. The hydroelectric plants already completed or now under construction on the Yenisei River and its tributary, the Angara, will play a major role in this development. The biggest plant now in operation in the Angara-Yenisei cascade is the Krasnoyarsk Hydroelectric Station, with a capacity of six million kilowatts. We have had several articles about it.

An even larger plant, with a capacity of 6.4 million kilowatts, is now being built on the Yenisei. This is the Sayano-Shushenskoye Hydroelectric Station in Krasnoyarsk Territory. At the end of the last century Lenin was exiled for his revolutionary activities to the village of Shushenskoye, which is near the site of the construction project. In the early years of Soviet rule, it was Lenin who advanced the idea that the basis for a socialist economy was the electrification of the whole country.

The Sayano-Shushenskoye hydroengineering project will include a dam 242 meters<sup>3</sup> high and about one kilometer<sup>4</sup> wide. It will hold 18 million tons of water. Its 10 high-capacity turbines will supply electricity to a large industrial complex.

"Building this station is a complicated business," says Yuri Grigoriev, director of the Leningrad institute that drew up the plans. "There is no precedent for many of the things we're doing. We'll have to pour at least 10 million cubic meters<sup>5</sup> of concrete for the dam, and this must be done so that each cubic meter

<sup>3</sup> One meter equals 3.28 feet.

<sup>4</sup> One kilometer equals .621 miles.

<sup>5</sup> One cubic meter equals 1.31 cubic yards.

works under a particular stress. Also, the station will have an unusually large capacity."

A hydroelectric station usually begins generating electricity when 85 per cent of the concrete dam is completed. The first two turbine units of the Sayano-Shushenskoye project will be placed in operation when only 45 per cent of the dam has been built. The number of operating generators will increase as the dam grows. The economic benefit from this innovation will run to 44 million rubles.

A number of major heavy-industry and light-industry enterprises will spring up near the power station. They will begin operating in the Tenth Five-Year Plan period (1976-1980), forming a territorial-production complex that specializes in metallurgy and machine building to be completed by the end of the century.

#### Nuclear Electric Station in the Arctic

Let us turn to another electric power plant, a nuclear one now under construction in the northernmost part of the country—at Bilibino on the Chukchi Peninsula. We reported on this project in the May 1968 issue, when it was just getting under way.

At the moment Bilibino has a population of 11,000. The town was named after a geologist who discovered gold in the area 20 years ago.

The construction of a nuclear station inside the Arctic Circle provides new opportunities for accelerating the area's economic growth.

The Bilibino nuclear station began generating electricity in 1974. It will reach its rated capacity in the Tenth-Five-Year Plan period. The plant's output will make it possible to step up present mining operations and to thaw

*Continued on page 15*

# siberia

## ONLY THE NAME IS THE SAME

### Building for the Future

By Boris Alexeyev

The vast area is experiencing construction boom of unprecedented proportions, with people coming from all over the country to develop the rich lands and harness the region's natural resources. The anniversary issue brings our readers these new sights to Siberia as they have been unfolded.





Victor Kitayev  
is an oil driller in  
Siberia's big  
Samotlor field.  
Left: Control panel  
of the Bilibino  
atomic power plant  
on Chukotka,  
the peninsula at the  
northeastern  
end of Siberia.  
Below left:  
Construction of the  
atomic plant began in  
the spring of 1966.





Siberia is being developed at an unprecedented rate. The area resembles a vast construction site.

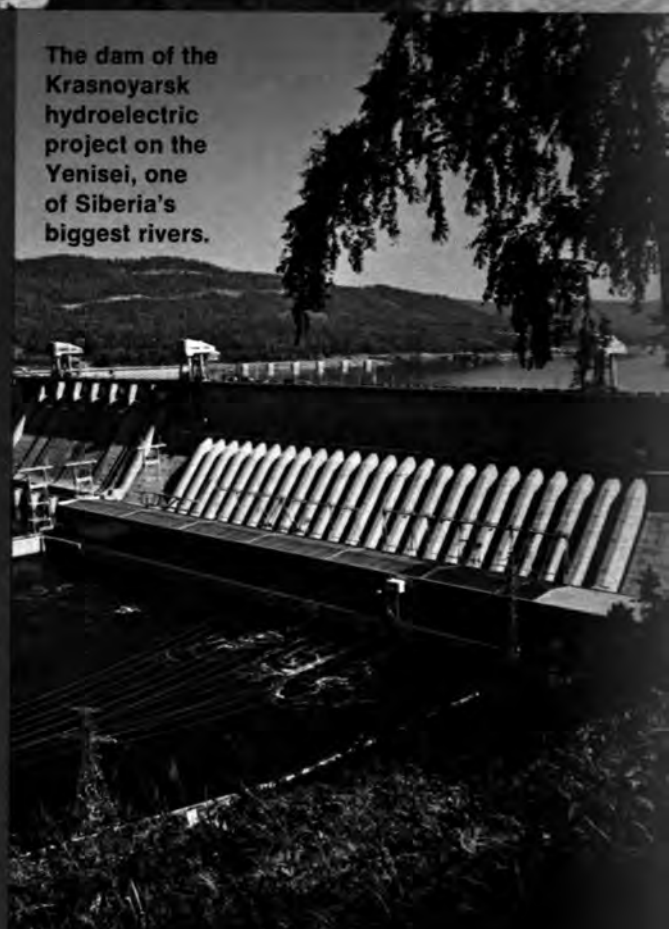
The Abakan-Taishet Railroad, one of the largest construction projects of recent years, is now completed.



Oil-pumping station at the Samotlor field in Tyumen Region.



The dam of the Krasnoyarsk hydroelectric project on the Yenisei, one of Siberia's biggest rivers.



The Baikal-Amur Railroad builders inch their way across the Siberian tundra.





## ONLY THE NAME IS THE SAME

*Continued from page 10*

ground in the permafrost zone for industrial use. By reducing energy costs, it will also facilitate the development of additional mineral deposits.

Besides electricity, the nuclear station will produce up to a hundred million kilocalories of heat per hour. About 40 per cent will go to the town; the rest will be used by greenhouses to grow strawberries, cucumbers and tomatoes. At present, fresh vegetables and fruit are brought by air from the south.

A journalist who recently visited the area noted: "In the past art and physical education were the favorite subjects of Chukchi school-children. Now there is a growing interest in physics. The atomic station has given them the chance to learn completely new trades, such as dosimetry, nuclear engineering and machine operation."

The average age of Bilibino's residents is 27 to 30 years, and children make up 40 per cent of the population. "The growing number of families is a sign that people have come here to stay," says Vladimir Gnatyuk, vice chairman of the Town Soviet. "This is very important for the North."

Is it practical to build nuclear stations in Siberia and the Far East, where water power resources are plentiful? According to Andronik Petrosyants, chairman of the USSR State Committee for the Use of Atomic Energy, the answer is Yes. Atomic stations, he says, "will generate electricity at a much lower cost than conventional stations do. Ten or 12 years ago some people had to be persuaded of the need for nuclear stations, but today a number of them are under construction all over the country."

### The Baikal-Amur Railroad

Not only electric power, but transport arteries that connect the outlying areas are transforming the vast territories of Siberia and the Far East.

An old photograph accompanying this article shows the construction of the Abakan-Taishet Railroad in the mid-sixties. A much longer rail line, the Baikal-Amur (Russian initials, BAM), is now being built across Siberia and the Soviet Far East.

Some two years ago, the first group of young volunteers left Moscow to start work on this second trans-Siberian railroad.

By now dozens of settlements and towns have been built in the taiga. A few hundred kilometers of track and more than a thousand kilometers of highway have been laid, and bridges span the Amur and Lena and their tributaries.

The Baikal-Amur Railroad will facilitate the further development of vast expanses of northern Siberia, including mineral resources. It will permit the cultivation of large tracts of fertile land in the river valleys of Siberia and the Soviet Far East.

In the territory traversed by BAM, 14 promising areas have been singled out for priority construction in the near future. Some are being developed simultaneously with the railroad. Also, a list of towns and settlements has been drawn up, containing estimates of population growth to 1990, and a BAM architectural service has been established.

The builders have enjoyed their first successes, but the main part of the job is still ahead.

One of the goals set by the Twenty-fifth CPSU Congress for the BAM project is a substantial increase in geological prospecting and in research on the development of the productive forces in the surrounding area. Another goal is the exploitation of natural resources as each section of the rail line is completed.

The scale of development in Siberia today far exceeds that of earlier years. This is the country's main construction site, and it is growing at an unprecedented rate.

Siberia has not yet been fully explored. "We have discovered a great deal," said one researcher, "but there is a lot more still to be discovered."





# ust-ilimsk

## A HOUSEHOLD WORD

**U**ST-ILIM, a small settlement on the Angara River in Western Siberia, was until fairly recently an unfamiliar name to most people. In 10 years it has mushroomed into the widely known town of Ust-Ilimsk, with a population of some 40,000.

"When designing Ust-Ilimsk, Leningrad architects did not repeat the mistakes made at Bratsk, where large areas of forest were cut down for residential districts," said the town's chief architect Vladimir Kochetkov. Blocks of apartment houses forced the taiga back only in some parts of town. "The architects made the town blend with the taiga. Not a single tree could be chopped down without permission."

Ust-Ilimsk will be a town of high-rise buildings. In the near future 24-story towers will go up on the banks of a reservoir that was created when a 4.3 million-kilowatt hydroelectric power station was built on the Angara.

The 250-kilometer<sup>1</sup> Bratsk highway ends in Ust-Ilimsk. The road was cut through the taiga to bring in supplies before the railroad line was built.

On Romantiki Street the sidewalk has a white pebble mosaic which reads "SBT-70 Eurika." This indicates that a student building team—they come to the area every summer—worked here in 1970.

Housing construction is speeding up. Last year 150,000 square meters<sup>2</sup> of new living space was turned over to tenants. The town's deputy mayor, Yuri Panasyuk, gives other details: "We have probably one of the highest birthrates in the Soviet Union. There are five day care centers with swimming pools and solariums in the town. People of 60 nationalities live here. We watch TV programs from Moscow."

Ust-Ilimsk is the site of one of the country's largest power stations. It generates electricity for the unified power

grid of Western Siberia. The Council for Mutual Economic Assistance countries are building an industrial complex here which is to produce 500,000 tons<sup>3</sup> of high-grade cellulose a year for quality grades of paper. The complex will also supply hundreds of thousands of cubic meters<sup>4</sup> of lumber, chipwood and related products. A single enterprise of the timber complex will cost 60 million rubles to build, but the government has a long-range objective: to find out whether it is worthwhile to build similar complexes in the Siberian taiga. Today Ust-Ilimsk serves as a testing ground for industrial construction in the taiga.

In September, at the beginning of the academic year, a notice was posted around the town inviting people to take a four-year course at an art school. A meaningful invitation: If a town needs artists, it must be thriving.

<sup>1</sup>One kilometer equals .621 miles.

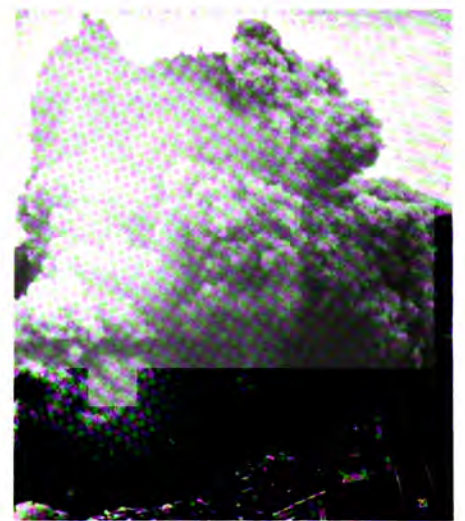
<sup>2</sup>One square meter equals 10.76 square feet.

<sup>3</sup>One metric ton equals 1.1 short tons.

<sup>4</sup>One cubic meter equals 35.32 cubic feet.



These photos were first published in **SOVIET LIFE** nine years ago. They show the birth of Ust-Ilimsk and some of the pioneers who took part in its construction. In those nine years they built the dam of the hydroelectric power station shown in the upper photo, as well as a new town with modern apartment houses, schools and day care facilities.





The Ust-Ilimsk hydroelectric power station, currently under construction, is the third of six that make up the Angara cascade.



—young industrial town today





# nurek

The Nurek Hydroelectric Power Station is a key to the economic development of Tajikistan and the other Soviet republics in Central Asia. Water and cheap electricity will play a large part in their future.





# GENERATING ELECTRICITY FOR THE CENTRAL ASIAN REPUBLICS

Two years ago we described the large-scale development of electric power and heavy industry in Tajikistan, one of the Soviet Central Asian republics. Correspondent Yuri Ivanov reports on current progress at the Nurek Hydroelectric Station and other projects of the South Tajik territorial-production complex.

The national policy of the Communist Party of the Soviet Union provides for the accelerated development of all the republics. This emphasis on equalization of economic levels throughout the country will continue.

**A**BOUT TWO-THIRDS of the runoff from the Pamir glaciers flows through Tajik territory, bringing water to Central Asia. A tenth of the hydroengineering resources of the USSR are concentrated in this comparatively small area, so that development here is greatly simplified.

The planners of the South Tajik territorial-production complex have taken into account the area's mountain rivers; its variety of minerals; the fertile land, which will yield two harvests a year if irrigated; the subtropical climate, and, finally, the labor resources.

Estimates indicate that the most effective way of developing this region is to gradually build up interdependent industries with a common electric power base and transport network. This is the principle, incidentally, on which all territorial-production complexes in the Soviet Union are built, and the South Tajik complex is no exception. It will include dozens of enterprises based on three big projects: the hydroelectric station on the Vakhsh River near the city of Nurek, the aluminum plant in Regar and the electrochemical complex in Yavan.

## **Nurek Hydroengineering Project**

Today the Nurek dam rises 150 meters,<sup>1</sup> as high as Cheops' pyramid. When it is completed, its height will be 300 meters.

The hydroelectric project will reach its full capacity of 2.7 million kilowatts in 1978. Some of its turbines are already operating though the storage reservoir has not yet been completed.

At the moment the station generates about 60 per cent of Tajikistan's electricity. Production costs are low. There was no need to cut down forests and build canals here since the water flows through gorges and valleys. Not a single

acre of fertile land was inundated by the storage reservoir, which fills the natural bowl of a valley some 70 kilometers<sup>2</sup> long.

Nurek electricity goes to other republics of Central Asia besides Tajikistan. Estimates indicate that about two million metric tons<sup>3</sup> of related fuels have been saved since the station began to generate electricity. Central Asia is a major supplier of the country's gas, so that Nurek power has made it possible to step up gas supply to the European part of the country. Nurek and the other hydroelectric stations of the Vakhsh cascade (several more are to be built on the river) will help regulate the seasonal runoff of the Amu Darya, into which the Vakhsh empties. The basin of the Amu Darya has more than 14 million hectares<sup>4</sup> of land suitable for irrigation.

## **Regar Aluminum Plant**

On the eve of the Tenth Five-Year Plan period (1976-1980), the Gissar Valley, to the west of the Vakhsh and the Nurek hydroengineering project, began to produce aluminum in addition to cotton for the first time in its long history. The aluminum plant in Regar has been built on rocky soil unsuitable for cotton growing. Its raw material now comes from the Urals, but eventually it will be mined nearby. Nurek supplies the electric power. In Central Asia, where timber and ferrous metals are not readily available, aluminum can find many uses in the construction of durable, earthquake-proof buildings.

In spite of the relatively high cost of aluminum production in Central Asia, it pays off because a substantial proportion of the metal will be used locally.

The factory's planners were aware that the natural balance of the area can

easily be disturbed. They used a fairly expensive metal production technology, so that there is no contamination from production wastes.

Several other similar plants will be built in Tajikistan later on.

## **Yavan Electrochemical Complex**

Yavan in Tajik means dead place. The reason for the name is unknown. At any rate, it is no longer appropriate. The Yavan Valley is now a major cotton-producing center. It has large deposits of sodium chloride and limestone. Low-cost Nurek electricity will make for relatively cheap extraction and processing.

The electrochemical complex being built at Yavan will produce chlorine and freon for the chemical industry and for industrial and domestic refrigerators, as well as other items needed in the republic. For example, drain pipes have a short life here—because of corrosion, they can be used for two or three years at the most. The Yavan complex will manufacture vinyl chloride, which can be used to make noncorrodible drain pipes. Vinyl chloride is also used for automobile parts, plastics, tableware and toys.

The complex will begin operating in 1977.

**T**owns and villages are going up simultaneously with the industrial enterprises of the South Tajik complex. What was once a difficult problem for the area has almost been solved: Roads have been built, and a large-scale construction industry is now in operation. The South Tajik territorial-production complex is the heart of the republic's economy. By now, the central government has invested more than 820 million rubles in the complex. Moreover, it has Young Communist League priority, which means that young people from all over the Soviet Union volunteer for construction work here.

<sup>1</sup> One meter equals 3.28 feet.

<sup>2</sup> One kilometer equals .621 miles.

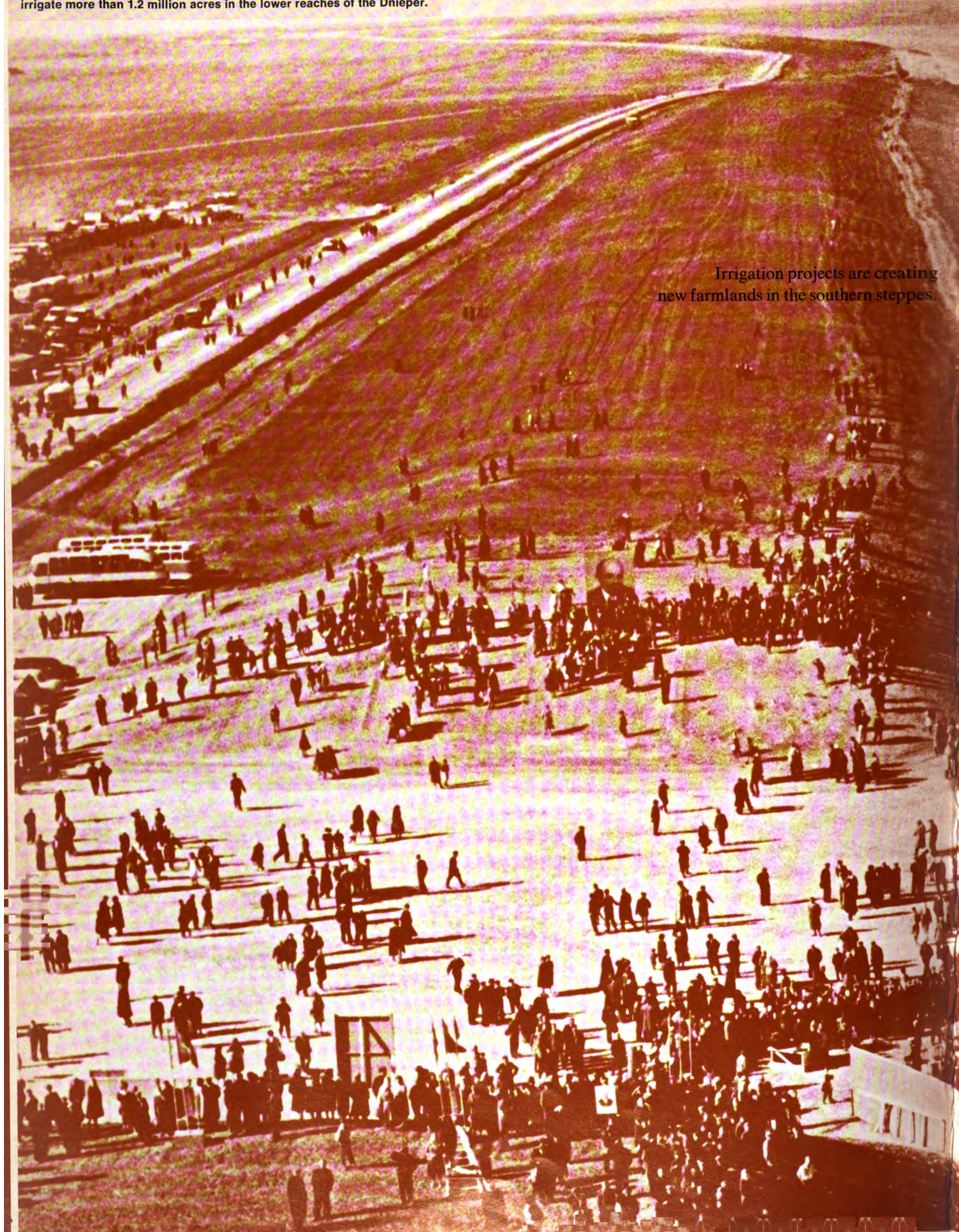
<sup>3</sup> One metric ton equals 2,204 pounds.

<sup>4</sup> One hectare equals 2.47 acres.




The Kakhovka irrigation system, now under construction in the Ukraine, will be one of the largest in the country. By 1980 it will irrigate more than 1.2 million acres in the lower reaches of the Dnieper.

Irrigation projects are creating new farmlands in the southern steppes.







IT TAKES about 500 tons of water to grow a ton of grain in the south Ukrainian steppes. This land was parched for centuries. A solution to the problem was found in the fifties, when the Kakhovka Hydroelectric Power Station was built on the Dnieper. Its dam impounded 19 billion cubic meters of water in a reservoir which then formed the core of an irrigation system. (A cubic meter equals 35.31 cubic feet.)

The two main canals, the Kakhovka and the North Crimean, originate here. In our May 1971 issue we wrote about the construction of the Kakhovka Canal.

# THE CANAL

We have also reported on the Ukraine's large-scale irrigation program, which is responsible for the rapid increase in agricultural output. Today Ukrainian wheat fields yield 42 to 43 centners per hectare as against 16.7 before irrigation. (A centner equals 220.46 pounds; a hectare equals 2.47 acres.)

"Some 503,000 hectares of irrigated land will be put to use in the Tenth Five-Year Plan period—between 1976 and 1980. Moreover, water will be brought to southern towns where it is now in short supply," says Ivan Ogurtsov, construction chief of the North Crimean Canal.



# kamaz

## COMES OF AGE

An interview with Lev Vasilyev,  
general director  
of the Kama Truck Plant (Kamaz)

**Q:** What has happened at Kamaz since your first interview with SOVIET LIFE in 1972?

**A:** A great deal. Over two million square meters\* of housing, schools, day care centers, stores and restaurants have been built in Naberezhnyye Chelny. The city has new residential districts and parks. Its population has shot up from 30,000 to 230,000.

The industrial area has also grown. Fourteen plants covering a total area of about two million square meters have been added. The repair and tooling plant, which has been in operation for more than two years now, will reach full capacity

\*One square meter equals 10.76 square feet.

**Last February  
the first trucks  
came off  
the assembly line  
at the Kama  
truck plant.**

by December. A forge plant is also in operation, and five other plants are about to begin production.

Last February the first trucks came off the main assembly line. The first section of the complex will attain an annual capacity of 75,000 trucks and 115,000 diesel engines late this year. Today the plant has 55,000 people on its payroll.

**Q:** The construction of such a large complex must have created all sorts of problems.

**A:** Of course. One was staffing. For the first time anywhere a complex of plants was being designed and a new truck developed parallel with construction. Against this background, many problems had to be solved in a hurry. We got help from the leading Soviet automobile plants.

**Q:** Now that the city is built, what has happened to the builders? Did they get jobs at the plant, or did they leave Naberezhnyye Chelny?

**A:** The city is still not completed. Our program, a far-reaching one, provides for the construction of another two million square meters of housing in Naberezhnyye Chelny in the Tenth Five-Year Plan period. We also have the second section of Kamaz to build. The plan calls for the construction of a large engine repair plant and a plant for spare parts. So you see, the builders still have a lot to do.

We are glad to give those builders who want them jobs at the plant. There are plenty of opportunities for those who want to learn a new trade at Kamaz.

**Q:** What are your immediate goals?

**A:** To have the first section of Kamaz operational by the end of this year and prepare the whole complex for the mass production of trucks next year.

**Q:** What contacts have you had with American businesses?

**A:** We bought some equipment in the United States. The Pullman Swindell division of Pullman Inc. designed a foundry for us that includes the latest technological advances in this field. Now that the job is nearing completion, I can say that the two sides have worked well together.

In my opinion, our orders have made Pullman Swindell one of the leading foundry designers. They now receive orders from many countries. As you see, the cooperation is beneficial to both sides.

**Q:** In an address to the Moscow automobile manufacturers who designed the Kamaz truck, Leonid Brezhnev said that if the Moscow truck, which currently has a good reputation, were not modernized, it would soon be unable to keep up with present-day requirements. Is this true for the Kamaz truck too?

**A:** In this period of technological progress it is true of any enterprise. To avoid that, we work on prospective models. Our truck is up-to-date in all respects, but we are working on new models and will do our best to keep pace with the country's needs.

**Q:** What do you see as the future of Kamaz?

**A:** First of all, it will be an enterprise that meets today's highest standards, with the best working and living conditions. We are not limiting ourselves to the manufacture of trucks, we will be concerned with their maintenance as well. We will be overhauling the diesel engines and other parts of the truck and supplying spare parts.

**Q:** In our view, Kamaz is a good example of the beneficial results of the relaxation of tensions in the international arena. Don't you agree?

**A:** I certainly do. To cite just one fact, we received offers for equipment from 800 major firms in various countries. We signed contracts with 253 firms; those with companies in the USA, West Germany and France were the largest.

Without the improvement in the international situation, such cooperation would have hardly been possible.







A brand new city, Naberezhnyye Chelny, has grown up around the huge truck plant. Its current population is 230,000 and demographers predict half a million by the turn of the century. In 1975 there were 15 nurseries and kindergartens for 6,800 children. The projected target for 1976 is preschool facilities for almost double that number, 11,760.



Forest park zones and green areas within the city are important elements in the master plan for Naberezhnyye Chelny.





# WE APPROVE AND SUPPORT THE STOCKHOLM APPEAL



By Ilya Gitlits

I WANT to find out what ordinary Soviet people think about the new Stockholm Appeal of the World Peace Council, so I am standing on Valeri Chkalov Street in Moscow. The street is named for a famous flier who made the world's first nonstop flight from the Soviet Union to the United States via the North Pole. In back of me is a bright poster with the words: "Support the WPC Appeal."

A slender fair-haired girl is the first to pass by. In answer to my question she says: "I haven't signed the Stockholm Appeal yet, but I know from the newspapers and radio that it calls for terminating the arms race."

Her name is Yelena Kabakova, and she willingly tells me about herself.

"I'm a nurse. My specialty is dental surgery, and I'm working in a district polyclinic. The most intense physical pain I have seen so far is a toothache," she smiles, "but I realize that there are much more terrible things in the world. It's a frightening thing to hear about the bloodshed caused by war."

"My generation wants to live in peace, and we feel that it's our job to defend it actively. We know we must not sit with folded hands. Perhaps my signature—it goes without saying that I'll sign the Appeal—won't change anything, but if the number of signatures comes to millions, then I think we'll be able to curb the ones who are set on fanning the arms race."

Pyotr Ancharsky is 70, but you'd never think so from his tall, lean figure. Despite his age, he has retained his military bearing. He has worn a military uniform for almost 50 years.

"It was the misfortune of my generation to witness several wars," he told me. "I myself fought in World War II. Believe me, my memories of those days are painful. When I watch little children playing, I can't help wondering what lies in store for them. I'd do anything to spare them the horrors of war. Twenty-six years ago I signed the Stockholm Appeal on banning atomic weapons. Today I have signed a new World Peace Council appeal."

"More than a quarter of a century ago people of good will succeeded in barring the path of nuclear war. I believe that they must now launch another, even more resolute offensive on the enemies of peace and relaxation of tensions."

"During World War II I met American sailors in Murmansk. They were nice, courageous fellows who, like us, were dreaming about the end of the war and about peace."

"We were loyal allies during the years of the war. We can and must cooperate in peace."

"I agree fully with the statement made by Leonid Brezhnev, General Secretary of the CPSU Central Committee, that everything must be done to deepen international relaxation of tensions."

"Soviet people know the cost of war. That is why we are so persistent in our fight for peace."

Margarita Grigoryan is a pensioner. She seems eager to stop and talk to me.

"At my age I don't have to hurry," she says. "I am 80 years old. I've lived a long life and have had many misfortunes. I have never held weapons in my hands, but I have seen men, women, children and old people hit by them. It was terrible. Now humanity is sitting on mountains of weapons. Can you explain why people need so many arms?"

"A few days ago a girl came to our place and said: 'Here is an Appeal for peace. Please read it.' I read the document very carefully. It said that it is necessary to stop the arms race in order to protect and guarantee peace."

"Of course, I signed the Appeal. I wanted to write in three signatures—for myself and my two great-grandsons—but the girl said each person can sign only for herself."

"The poster in back of you declares: 'Support the WPC Appeal.' I would add: 'Let us live in peace.'"

"The Appeal cannot leave anybody indifferent," said Abram Bromberg, engineer from the Ordzhonikidze Machine-Tool Plant. "The arms race is a crazy waste of resources that could be channeled to meet the vital

needs of humanity. My trade is quite peaceful. I help manufacture machine tools that are used by workers at enterprises all over the world."

"I am a member of the USSR-Great Britain Society. I have been to England and met people in a variety of professions there. We discussed all kinds of topics and had no trouble understanding each other. I think that mutual understanding is most important in our time."

"Serious steps have already been taken in this direction. I mean the Final Act signed in Helsinki. But we have to keep moving ahead and do everything we can to save the world from the threat of war."

I met Natasha Akimova, a student, when she was taking her two-month-old son for a walk.

"When I signed the new Stockholm Appeal, I felt very pleased," she told me. "It seemed to me that I was helping to solve the most crucial problem of our epoch—the establishment of lasting peace on the planet."

"Guarantee peace, remove the threat of war—these aims are precious to me and to millions of other mothers. I want to have more children. My husband and I are planning to. It is possible to look confidently to the future only when you know that no one will encroach upon the life of those you love."

"I am sure that the people will stop the arms race and that the process of relaxing international tensions will become irreversible. Too optimistic? But if I had not believed this, I would not have had the right to bear a child."

My last interview was with Vladimir Martynov, a 27-year-old factory worker.

"I belong to the generation that learned about the horrors of war only from their elders, books and films."

"I have signed the World Peace Council Appeal because I believe we must all take responsibility for safeguarding peace."

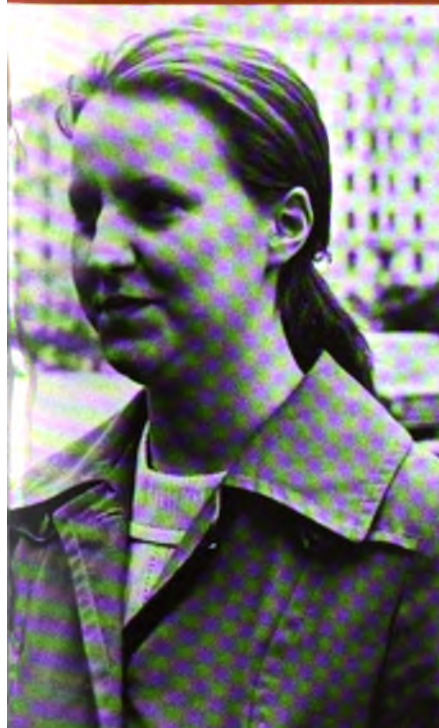
These are some of the statements made by ordinary Soviet citizens right on Valeri Chkalov Street. Had I put the same question to all Soviet citizens, I am sure they would have replied unanimously: "We support and approve the Appeal."

Every Soviet citizen  
knows the price  
paid for peace. That is  
why no one can be  
indifferent to the new  
Stockholm Appeal of the  
World Peace Council.





Muscovites were eager to talk to our inquiring reporter. World War II veteran Pyotr Ancharsky (left): "We [the USSR and the USA] were loyal allies during . . . the war. We can and must cooperate in peace." Vladimir Martynov: (far left): "The sky must be kept clear." Nurse Yelena Kabakova (below): "My generation wants to live in peace."



Everybody had signed or was going to sign the Appeal. Engineer Abram Bromberg (above) believes that "mutual understanding is most important in our time." Pensioner Margarita Grigoryan (far left) asked: "Can you explain why people need so many arms?" Natasha Akimova, a student, felt that by signing the Appeal, she would be helping to establish world peace.

# IT MUST NEVER HAPPEN AGAIN

## For the Thirtieth Anniversary of the End of the Nuremberg Trial

By Roman Rudenko \*  
General Procurator of the USSR

**T**HE NUREMBERG TRIAL of the major nazi war criminals was the logical outcome of the Second World War. After the countries of the anti-Hitler coalition routed Hitler Germany, for the complete triumph of justice it was necessary to punish the leaders of the Third Reich, those who made the gravest atrocities against humanity their state policy. To prosecute and punish the major nazi war criminals, by agreement between the governments of the USSR, the USA, Great Britain and France, an international military tribunal was set up which 19 states joined. Though it consisted of four members and their four assistants, it can be said without exaggeration that the nazi criminals were tried by the peoples of the world on behalf of the millions they had exterminated.

Almost the entire fascist leadership was put in the dock, except Hitler, Goebbels and Himmler, who had poisoned themselves with calcium cyanide; Gustav Krupp, who was paralyzed; Robert Ley, who hanged himself in his prison cell, and Martin Bormann, who went into hiding and was tried in absentia.

The peoples of the world saw the trial of the former rulers of nazi Germany as a historically important and just act of retribution. For the advocates of peace and democracy it was the continuation of postwar international cooperation in the struggle against aggression and fascism.

The attitude of Germans toward the trial is worthy of note. On August 15, 1946, the U.S. information office published polls showing that the overwhelming majority of Germans—about 80 per cent—regarded the Nuremberg Trial as just and the guilt of the defendants as indisputable.

The International Military Tribunal was in session for more than 10 months. In conditions of the greatest publicity it examined some 4,000 official documents from the archives of nazi General Headquarters, the German Ministry of Foreign Affairs, as well as the personal archives of Goering, Himmler, Ribbentrop and Rosenberg. The Tribunal heard more than 100 witnesses for the defense and for the prosecution, strictly and objectively assessed all the evidence, scrupulously examined the crimes of each defendant and on October 1, 1946, passed sentence.

Anybody who studies the materials of the Nuremberg Trial without bias agrees that it was conducted in an atmosphere of the strictest legality and that in no case was there any evidence that the rights of defendants were to any degree restricted or impaired or that the defendants were prevented from defending themselves against the accusations brought against them. The faultless legal development of the trial and the irreproachable legal substantiation of the judgment gave the Nuremberg Trial enormous validity.

You need only read excerpts from the German documents and the evidence to get an idea of the monstrous plans of German fascists and their atrocities.

Even before attacking the Soviet Union, their plan was to starve out the population of occupied regions. The records of the conference on May 2, 1941, to consider the Barbarossa Plan—the code name for the plan of attack on the USSR—read that "the war should be extended only when . . . the Wehrmacht is supplied with foodstuffs at the expense of Russia. No doubt, this will entail the death of dozens of millions from hunger."

Obergruppenführer SS Erich Bach-Zelewski, under oath, testified to the Tribunal that early in 1941, at a conference in Weselsburg, Himmler declared: "The aim of the crusade to Russia is to exterminate 30 million of the Slavic population."

This was not Himmler's personal declaration, Bach-Zelewski said, but a manifestation of the "Third Reich's

\* Roman Rudenko, born in 1907, was the Chief Prosecutor for the USSR at the Nuremberg Trial in 1945-46.

policy, of nazi ideology and the logical consequence of the entire National Socialist outlook."

In Oswiecim at least 2.5 million people were killed in gas chambers and no less than 500,000 died from hunger and disease.

The Nuremberg Trial exposed for the whole world to see the essence of German fascism, the criminal role of the German monopolies and brass hats in unleashing the Second World War. It revealed crimes unprecedented in their fanatical cruelty and scope, and unmasked the humanity-hating nazi ideology.

In full conformity with the irrefutable proofs, the Tribunal recorded in its Judgment: The war crimes were committed on a scale unprecedented in history. These were committed in all countries occupied by Germany and were accompanied by cruelty and terror on a scope hard to imagine. . . . In the war with the Soviet Union the plunder of territory and the brutal treatment of the civilian population was worked out to the most minute detail even before the offensive was launched. . . . Prisoners of war were subjected to brutal treatment, torture and murder. . . . Public and personal property was systematically plundered. . . . Towns, settlements and villages were purposelessly destroyed, without any military need.

German industrial and financial magnates took an active part in the nazi plot against peace. There would have been no Third Reich without their capital investments and political backing. Without them the plans of criminal aggression could not have been carried out. On April 25, 1933, Gustav Krupp wrote: "The course of political events fully meets the wishes which I personally and the members of the board have been nurturing for a long time."

The Nuremberg Trial showed that fascism cannot be tolerated in any form, either as a state system, a political trend or as an ideology. It is an international crime threatening humanity whenever and wherever it appears.

Never has any trial united all the progressive elements of the world so unanimously in their desire to put an end to aggression and racism. It reflected the wrath and indignation of the people over nazi atrocities and the conviction that those guilty should be punished so that such crimes are never repeated.

At the Nuremberg Trial it was established that the roots of the nazi plot against peace go deep into the past. Early in the twenties the program of the Nazi Party contained the seed from which the Second World War grew.

From Himmler's statements relating to October 1943 you can judge the ultimate goals of Hitler Germany in the war: ". . . The war is being waged to blaze the trail to the East and to make Germany a world empire." This was not Himmler's personal view. The intent of German fascism to dominate the world was confirmed by many documents, in particular, the directive Oberkommando der Wehrmacht No. 32, which contained the plans of nazi conspirators against Britain and the USA, their designs for the seizure of Egypt, Syria, Iran and Iraq. The implementation of these plans depended on the outcome of the war against the Soviet Union. It was the USSR that barred the way of German fascism to world domination.

The International Military Tribunal acknowledged aggression as the gravest of international crimes. For the first time heads of state guilty of preparing, unleashing and conducting aggressive wars were tried as ordinary criminals and the principle was applied that the official position as head of state or the fact that a defendant acted under the orders of the government, carried out criminal orders, will not be considered grounds to free them from responsibility or to mitigate their punishment. The principles of the Charter and the Judgment of the Tribunal, affirmed by the resolutions of the UN General Assembly, proved a substantial contribution to international law now in force and became its generally recognized norms.

Today the records of the Nuremberg Trial serve as a warning: Fascism succeeded once in cheating the masses of people and involving the world in a dreadful catastrophe. It must never happen again!





LOOKING up at FRIENDS

# TRIUMPH OVER DEATH

By Sergei Kharchenko  
Photograph by Stanislav Kryachko

Seventeen years ago a young mine foreman was badly burned when he grabbed a high-tension wire to save his comrades. After several operations and the loss of both arms, he began to write about his life. Since his first book, *A Challenge to Death*, was published, he has received thousands of letters from readers.



**V**LADISLAV TITOV of Voroshilovgrad, a city in the Ukraine, wrote his first book with a pencil gripped between his teeth. When it was published in 1967, he received more than 500,000 letters, and more keep coming. The book has appeared in dozens of editions in 30 languages.

What are the comments of readers?

Here is a telegram from a Soviet trawler crew:

"It takes a lot to impress sailors and miners. But what you did really overwhelmed us."

Danielle Clark of Toulouse, France, wrote: "Obviously your feat is possible in the country where you live. I want to say that there are people in the world who need you."

We wrote about this autobiographical novel in our July 1973 issue. Its title, *A Challenge to Death*, describes the content. In my opinion the reason for the unusual reader response (Titov's correspondents live all over the world, from the United States to Japan) is the authenticity and honesty that the author brings to one of literature's eternal themes—the triumph of the human spirit over the blind forces of fate.

Life had dealt harshly with the man who sat before me in his rocking chair. Seventeen years ago, 26-year-old Vladislav Titov tried to save his fellow miners by throwing himself on a short-circuited power cable that was aflame. When he realized that the only way to stop the fire was to turn off the electricity, he grabbed the knife switch with both hands. A 6,000-volt current went through his body.

He was operated on 12 times. Both arms had to be amputated, a last resort. The doctors said Titov was their second case of the kind. The former volleyball player and boxer now has to push the elevator button with his artificial limb to go downstairs for a walk in the park.

We began our conversation with mutual complaints of lack of time. Titov keeps to a strict schedule. From nine in the morning to one in the afternoon he writes. His second book, titled *Feather Grass of the Steppes*, is about village life. Titov grew up in a village in Lipetsk Region, Central Russia, during the difficult postwar years. He has also published several short stories. Poet Mikhail Isakovsky, who wrote the famous song "Katyusha," said of one of Titov's books, *Floodwaters*: "The people depicted here are very much alive."

After lunch, he takes a walk. His apartment house is next to a lilac garden. And in the afternoon he looks through his mail and reads.

A schedule like this should be very productive. But the telephone keeps ringing. One out of every three calls is an ordeal for Titov, who doesn't know how to say, "I'm busy."

He is a member of the artistic councils of the city's theater and the philharmonic society. He interrupts his work to consult with beginning writers, take part in literature and art festivals and assist the Ukrainian writers organization.

We sat in his office with huge bookshelves lining the wall. The apartment has an atmosphere of comfort and warmth.

Titov's first novel includes a scene in which the hero's wife exclaims: "Seryozha, we do have arms!" And she stretches out her arms to him. In his office I felt the invisible presence of hundreds of caring hands. Young Communist League members at one factory made a special typewriter for Titov. He uses a stick to hit the keys. Now he can work faster.

Uzbek hatworkers presented him with a *tyubeteika* (a Central Asian skullcap). Miners from Ostrava, Czechoslovakia, sent him coal samples. And Ukrainian miners gave him a lamp and helmet. By the way, Titov still goes down into the mines from time to time.

Young Communist League members in the city of Perm, more than 1,000 miles from Voroshilovgrad, used their overtime money to buy him an expensive telephone installation so that he could dial numbers without help. He gets calls from factory workers, writers, entertainers, doctors.

Every once in a while his good friend Alexander Silkin calls. Titov has been elected an honorary member of the youth brigade headed by this top miner. Titov misses the comradeship he experienced in the mines. Only his fellow miners can ask what would sound tactless coming from others: "Do your arms hurt?" And only to his friends can he admit: "They hurt. In my sleep." The story the author is now writing is about miners.

Titov's lectures draw big audiences. Whether he is talking at a diesel locomotive plant in Voroshilovgrad or traveling around the country, people listen with great interest.

He has been interviewed by scores of journalists, who have asked the same questions probably dozens of times.

"I don't blame anyone for what happened in the mine," he told me. "I don't feel the accident was caused by anyone's neglect. What would you say if, for instance, a plane with a triple control system crashed?"

There is something about him that prompts people to write letters like these:

"My son Valeri had his leg amputated. He is very upset. Please make him listen to reason. You're the only one who can help him."

"I have suffered a terrible tragedy that I will never get over. My only son was killed. I don't know why life is so cruel that sometimes mothers must bury their children. If you don't mind, dear Slava, I will think of you as my son and will write from time to time. I kiss you both. Yours, Anna Andreyevna."

"Slava, how strange! My experience has been so similar to yours! People tried to talk me out of going to an economics specialized secondary school, but I insisted. I'm disabled—eligible for a full pension—but I work anyway. I have never lost the desire to live. What about you? Please write. Irina."

"My father drinks. Will you write to him? I'm sure you can influence him."

"In our case 'a challenge to death' didn't work. My husband died. Where can I find the strength and the desire to go on living?"

Yakaterina Bychkova, a state farm worker in the Stavropol area, wrote: "Don't feel bad that you can't work in the mines. Conquering yourself is the hardest job of all. And no one gives medals for it, though it makes all the other victories possible. I wish you happiness. You've suffered a lot, but you're lucky!"

At first, when Titov began to receive letters commenting on his novel, he told his neighbors about them with naïve surprise. Then the mail started to come in large bags. He keeps all the letters, and everyone requesting an answer gets one. Titov says that he is neither a professional consoler nor a messiah, but an ordinary person who has known a good deal of sorrow.

Where does he find his answers?

"I write what my heart tells me. Sometimes I think about a letter for weeks. The most difficult questions come from the least expected places. For instance, recently some schoolchildren asked me if I'd mind their entering my name in a contest to name their Young Pioneer club. I felt awkward. What could I say? After all, I'm still alive."

He asks everyone for advice, chiefly his wife Rita, his indispensable secretary, but also his daughter Tanya, a seventh grader; his friends; the mail carrier; and an elderly woman who has seen a lot of joy and sorrow over the years.

For some of the difficult letters he cannot ask anyone's advice.

"I don't believe you," wrote a young man from Rostov. "I have lost one leg and my left hand. I've experienced all the 'joys' of being an invalid."

The young man was not talking about financial worries, since Soviet laws protect the rights of the disabled. The problem is more complicated. "Friends" who were too "busy" or too callous had doomed him to isolation. Here the law can't help.

Under similar circumstances Titov, who has

indeed challenged death, has never felt alone. He has found his place in society. Titov writes to the mayors of cities, principals of schools, directors of prosthesis factories, Young Communist League committees and Young Pioneer groups. He does not ask these organizations to spend money. Education, whether general or specialized, is free in the Soviet Union, and the cost of artificial limbs is small. His only appeal is to their hearts.

A letter from 18-year-old Tamara indicates how Titov helps others: "Thanks a lot. I'm in the eighth grade now. Tutors have been coming to my house, and I'm hoping to continue my studies."

The characters in Titov's stories are strong, self-reliant. "I sympathize with a working person. My enemy is the kind of person who tries to live off others," he said.

In Titov's latest story, "To Go Through Life," he quotes a real letter:

"We prisoners would like to inform you that your book made us feel terribly ashamed of our crimes against society."

Titov feels that his experience is only an isolated one, though it has some symbolic meaning. He does not believe that his stories can readily change people's attitudes or reform anyone.

"If a reader does not believe me, it's I who should be blamed: It means I was not convincing enough."

Many of the letters express doubt.

"The human body can't stand a shock of 6,000 volts," wrote Ramiro Guidinia of Spain. "The ideological leaders of the Communist Party who influenced your writing could have been more imaginative."

"It seems to me that Guidinia would not have been so hard on me if I had merely talked about an accident involving high voltage. I think he is annoyed by my moral message. I draw this conclusion from the final sentence of his letter. He said, 'Love is an egoistic emotion, and your book does not disprove this.'

"I decided to use my energies to tell about a woman's love rather than my own suffering," Titov went on to say. Rita—Tanya in the book—was 19 years old when she was faced with this tragedy. She waited up nights to learn the outcome of the operations and then found herself with a husband who had lost his arms. That was 15 years ago. What feeling besides love could make a person so self-sacrificing? I know that an attitude like hers is unusual. The first editor who looked at my manuscript returned it with the comment: "Where have you seen such love?"

Titov has letters from people who do not really believe he exists.

Edward Thomson of the United States wrote that there is no Vladislav Titov, that the book is "Soviet propaganda."

Says Titov: "It was difficult to begin my fight. Unfortunately I experienced only depression, despair and other people's indifference, until my 'awakening.'

"Sometimes people compare me to Nikolai Ostrovsky. [Ostrovsky was bedridden when he wrote the novel *How the Steel Was Tempered*, now a classic. It deals with the first Young Communist League members, who helped build the young Soviet republic.] I have also been described as a second Maresyev. [Alexei Maresyev was a legendary pilot of World War II who lost his legs but returned to the ranks of fighter pilots. The book about him is called *A Story About a Real Man*.] But neither of these people came to mind while I was having my operations. I began to think about them much later. Evidently literature has a more subtle influence than we think.

"People who have had an experience like mine need more than a pension and treatment at a sanatorium—more than government benefits. They need human contact and work they are capable of doing. This is what I will keep fighting for as long as I live. And, of course, I'll go on writing."



# FARM FAMILY: A RETURN VISIT

Country Living with City Conveniences

LOOKING up old FRIENDS





By Vladimir Zaretsky

**I**T WAS in the April 1972 issue of **SOVIET LIFE** that our readers met the family of tractor driver Victor Dmitriyev. They are members of the Rossiya Collective Farm, near Moscow. How have things been going with them in the four-year interval?

Dmitriyev, Sr., seems much the same: thickset, broad-shouldered, with the weatherbeaten face of the farmer. And his work hasn't changed, nor the hours—he's in the fields from early morning until evening.

We met him the first time, if you recall, at a district contest for best tractor operator. Several dozen demonstrated their skill in handling a tractor and their speed and efficiency in plowing and cultivating. That was Dmitriyev's first such contest, and he made seventh place. Since then he hasn't missed the annual competition. In the most recent, held this spring, he was right behind the winner. Next time, he says, he'll come through with first prize.

The team Dmitriyev heads continues to be one of the most productive in the district. They gather 10 tons per hectare\* more potatoes than the farm average. Their output is all the more significant when you consider that the Rossiya Farm's production is one of the highest in the Moscow countryside. Last year the government honored Dmitriyev with the Order of the Red Banner of Labor.

His average earnings for the season went up in the past four years from 2,800 to 3,500 rubles. The family's personal plot makes a substantial contribution to the total income. When they moved into a new apartment four years ago, they were able to exchange the old plot for a larger one.

The Dmitriyev's garden, roughly half a hectare, lies between the winding Istra River and the edge of a small forest bordering the village of Pokrovskoye. They have apple, pear, plum and cherry trees; tomatoes and cucumbers are growing nearby. Golden bumblebees hover over the blossoms.

In summer the Dmitriyevs spend all their spare time in the garden. While the added income from their orchard and vegetable

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\* One metric ton equals 1.1 short tons; one hectare equals 2.47 acres.



# GUSTAV ERNESAKS, FOUNDER OF CHORUSES

patch is no small consideration, as with most whose family background is in farming, they get a special pleasure from working the soil and making things grow. Twelve-year-old Andrei has set up his own scientific test plot here: He raises new flower species. Botany is a major interest; Andrei expects to go to the Timiryazev Agricultural Academy in Moscow after finishing school.

The elder son, Sasha, is now a technician, having just finished a specialized secondary school mechanical engineering course. The children may be getting a great deal more schooling than their father—the war made it necessary for him to leave school after the fourth grade—but the head of the family is trying to catch up. Just turned 45, he has plans to study at evening school. After all, the work of a farm-machine operator keeps getting more complicated, and he needs more technical know-how.

That's true for all the jobs on the collective farm. The trend to farm industrialization demands an increasing number of specialists. Four years ago 17 members of the Rossiya Farm were taking correspondence courses at various higher schools, today over 30 are. As a rule, after getting their diplomas, they remain on the collective farm.

When it comes to living conditions, farmers here see very little difference now between the country and the city. In 1972, when the Dmitriyevs got their apartment in a new house, it was the only urban-type building in the village, with steam heat, gas and running water. Now there are a dozen of these three-story buildings at the Rossiya Farm. More than 20 of the farm families move into new houses every year.

It isn't just the housing that has helped to transform life: There's a new building for the house of culture, a music school and a stadium, and a kindergarten and nursery. All were built in the last few years. Half the farm income is spent on construction. Total farm earnings have risen in the last four years from half a million to two million rubles.

The collective farm board provides its members with vouchers to health and vacation resorts at cut rates. When I visited the Dmitriyevs, Lyuba (she continues to work in the factory) and Victor had just returned from their annual vacation in Yalta, the famous Black Sea resort.

Estonians call Gustav Ernesaks the founder of choral singing. The conductor of the famous State Academic Male Choir, a Lenin Prize laureate and Hero of Socialist Labor, about whom SOVIET LIFE ran a photo story in the June 1972 issue, is interviewed by Karl Helemjae, Novosti Press Agency correspondent in the Estonian Soviet Socialist Republic.



An enthusiastic tribute to the chief conductor of the song and dance festival.



The site of the annual festival is a hill which commands a view of old Tallinn.



Q: What have you and your Male Choir been doing in the four years since we last interviewed you?

A: A great many things. To begin with, two national choral festivals were held in Tallinn, and I served as chairman of the organizing committee. We had groups from all the republics, Finland and the socialist countries participating; these included men's and women's choruses and mixed voices. The second festival—in 1975—was an outstanding demonstration of the very considerable progress that's been made in Soviet choral work.

The year 1974 was a milestone for us: It was the thirtieth anniversary of the Academic Male Choir. In the past few years we have performed in many places—in Italy, Finland, Switzerland, the Federal Republic of Germany, Czechoslovakia and the German Democratic Republic—and we made a most interesting tour around our own country, traveling as far as the city of Vladivostok. There is no question that we will go right on, the future looks good.

I was again chosen chief conductor of the 1975 song and dance festival. It was dedicated to the twenty-fifth anniversary of our republic and celebrated, also, the thirtieth anniversary of the victory over fascism. I think it was the most lively holiday of song we have ever had in the more than 100-year history of Estonian festivals. We had over 33,000 participants at Tallinn.

Q: What do you feel you have accomplished in recent years?

A: For a long time I depended largely on the younger generation of songwriters. Recently, however, I have had four collections of my own songs published: The books are titled *Bullfinch*—those are solos; *Skylark*, duets; *Swallow*, trios, and *Nightingale*, songs for mixed choruses. And quite recently I sent off to the publishers songs for women's voices.

Some articles I had written over the years were brought together in 1971 for a book titled *My Lips Are Singing but My Heart's Unquiet*.

I like photography and also shooting amateur movies. When our fine writer Yuhan Smuul died, I showed my amateur films about him on television and discussed them. I have a large collection of materials on figures in art and culture. Estonian publishers have shown some interest, so I decided to write a book of memoirs, *The Wheel of Time*, about Dmitri Shostakovich, the singer Georg Ots, chess player Paul Keres and some others.

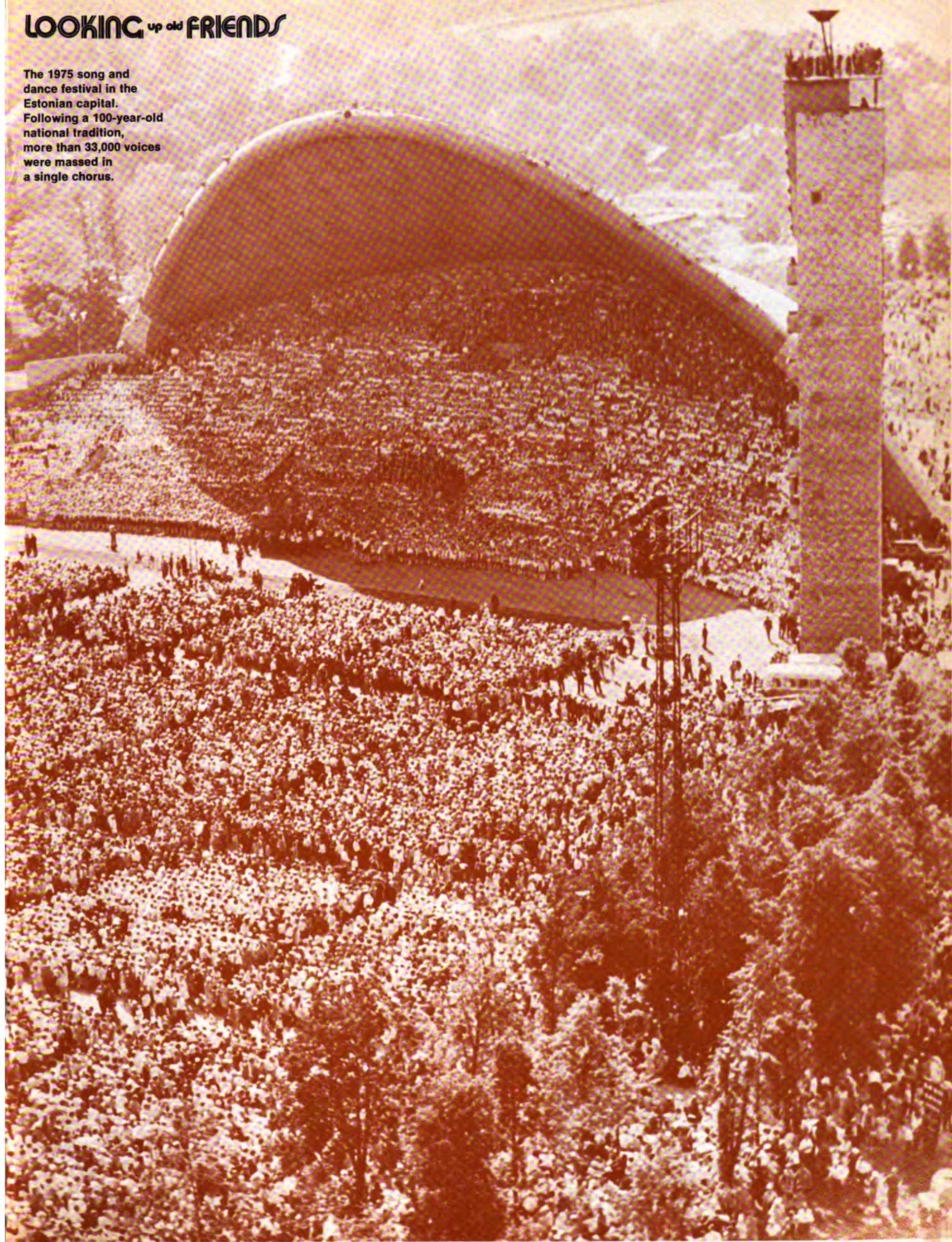
Q: With all that you have enumerated, dare I ask what plans you have for the future?

A: Of course. After all, the older you are, the more plans you have. When you're close to 70, as I am, you're in a hurry because you're afraid that time will run out. I intend to continue composing and conducting my men's chorus. I'm particularly anxious to write a book about choral conducting. I think the kind of book I have in mind—about successes and failures, triumphs and setbacks—would be very useful for young conductors.



## LOOKING up old FRIENDS

The 1975 song and dance festival in the Estonian capital. Following a 100-year-old national tradition, more than 33,000 voices were massed in a single chorus.







## DR. HAMMER GIVES A HOUSEWARMING PARTY

By Mikhail Bruk  
Novosti Press Agency Special Correspondent  
Photographs by Edward Pesov

Right to left:  
Vladimir  
Promyslov,  
Armand Hammer,  
Walter J.  
Stoessel,  
Mrs. Stoessel,  
Andrei  
Alexandrov,  
Mrs. Alexandrov.

**I**T WAS, perhaps, the most unusual housewarming in Moscow in recent years. To begin with, it was not in any of the new residential areas that keep cropping up on the outskirts of the Soviet capital. This party, given by Frances and Armand Hammer in their pleasant five-room apartment, took place in a nine-story house cater-cornered across the street from the Tretyakov Art Gallery and only a quarter of a mile from the Kremlin, in Moscow's old Zamoskvorechye District.

Dr. Armand Hammer, 78, chairman of the multibillion-dollar Occidental Petroleum Corporation of California, first came to war-ravaged Russia in 1921, fresh from Columbia University Medical School, with an offer of help in the form of a field hospital.

At the time, on an assignment from Lenin, a group of specialists left for the Urals to look into the condition of industry there. The group was headed by Ludwig Martens, former representative from the Russian Federation to the United States, and the American doctor joined it. On the way thousands of refugees from the famine area besieged the train. Great numbers of people were dying of cholera and typhus.

That year harvests in the United States were excellent, and the farmers were threatened by a surplus. Hammer offered to draw up a contract with Martens for the delivery of American wheat to Russia in exchange for Ural fur, lumber and semiprecious stones. The American's proposal was approved, and it was agreed, for a start, that 18,000 tons of grain would be sent from the United States to Petrograd by ship. Martens immediately wired the news to the Kremlin, and Lenin invited the American to come to see him.

It was then that Dr. Hammer had the meeting with Lenin that changed his whole life. It started a lifelong business career for Dr. Hammer in which his "Russian connection," as he likes to call it, plays a very special role, both morally—he has a soft spot in his

heart for Russia—and financially. Three years ago Dr. Hammer, who back in the twenties had been given the first commercial concession ever offered an American, concluded "the deal of the century"—a 20-billion-dollar mineral fertilizer agreement with the Soviet Union, plus various other projects. They ranged from the prestigious World's Fair Center to art exchanges between the two countries.

So it was not surprising that present at the Hammer housewarming in their Moscow apartment were distinguished Soviet guests, among them Andrei Alexandrov, assistant to Leonid Brezhnev, and Mrs. Alexandrov; Vladimir Promyslov, Moscow's mayor; Deputy Minister of Foreign Trade Vladimir Alkhimov; Deputy Minister of Culture Vladimir Popov; Chairman of the USSR Chamber of Commerce and Industry Boris Borisov.

The Americans were represented by Ambassador Walter J. Stoessel, Jr., and Mrs. Stoessel, and Dr. Hammer's business associates.

One of the Soviet guests presented the Hammers with a kitten, a traditional housewarming gift in this country. It is supposed, by legend, to bring happiness and luck to the new home.

"People say I am lucky," says the doctor, as associates call Armand Hammer. "But I'll let the cat out of the bag and tell you the secret of my success: It is working 14 hours a day, seven days a week." He releases the mewling charcoal black Siberian kitten and adds: "Besides, I never buy a cat in a bag and never offer one to my partners."

Is he in search of new profits for his corporation of 350,000 shareholders?

"Of course," he says, "otherwise I would be a dreamer without capital. But I am a capitalist who likes to dream." Indeed, the past three years have shown that in all its dealings with Soviet partners Occidental Petroleum has operated on the principle of mutual benefit.

"Let me tell you a story," Dr. Hammer says to his guests who gathered around a food-laden table in his dining room. "In 1961 I came to Russia for the first time in 30 years at the request of President John F. Kennedy. He asked me to explore the possibilities of widening trade and economic relations with the Soviet Union. I remember talking to President Kennedy in the White House soon after I gave him a report on my mission to Moscow. The President used a story as a symbol, recalling that once a French Marshal was discussing a tree with his gardener. The gardener objected because it was slow growing and would not reach maturity in a hundred years. The Marshal replied: 'In that case there is no time to lose. Plant it this afternoon.'

"Kennedy concluded: 'Today, a world of knowledge . . . a world of cooperation . . . a just and lasting peace may be years away. But we have no time to lose. Let us plant our trees this afternoon.'

"I am sure," continued Dr. Hammer, "he would be pleased to know that in the case of expansion of East-West trade, the tree has at last been planted. And now it is up to us to help it grow."

Toasting the host, one of the Soviet guests said:

"We appreciate what you have done to improve trade and economic relations between the United States and the Soviet Union and to bring our peoples closer.

"We wish you further success in your noble activities, which are a dramatic example of the benefits of relaxing international tensions. You can always count on our support. The Soviet people want to live in a world of peace and cooperation with all nations, including the United States."

Hammer with  
Alexandrov  
(right) and  
Vladimir  
Popov (left).





# LONG-TERM ECONOMIC COOPERATION

**The Final Act of the 1975 Conference on Security and Cooperation in Europe states that industrial cooperation between nations can "create lasting ties, thus strengthening long-term over-all economic cooperation." The 35 states of Europe and North America declared at Helsinki that they would "encourage the development of industrial cooperation between the competent organizations, enterprises and firms of their countries." East-West economic contacts since the end of World War II have demonstrated that our most successful business partners are those who think in long-range terms. More than 120 foreign companies and banks now have representatives in Moscow. Recently Felix Goryunov and Vladimir Rozen of *New Times* magazine interviewed some of the pioneers of East-West trade.**

ON OCTOBER 13, 1960, Enrico Mattei, founder and director of Italy's National Hydrocarbon Agency (ENI), concluded a deal between his firm and Soviet foreign trade organizations that made headlines all over the world. The largest contract ever negotiated by the Soviet Union with a foreign company, it called for delivery to Italy, over four years, of 12 million metric tons\* of oil. In return, Italy would supply 240,000 tons of pipe and other equipment for oil pipelines, as well as 50,000 tons of synthetic rubber.

Since 1960 our business contacts with Italy have grown tremendously, both in size and in variety. Italian state corporations, and particularly ENI, play a large role in this cooperation.

The ENI Moscow office is located in a modern building in an old business district on Sadovaya-Samotychnaya Street. Its director, Mario Bilotta, has been in Moscow for more than seven years. In a recent interview, Bilotta described some of his firm's major business contacts with the Soviet Union.

ENI, he told us, has a long-term agreement for purchase of Soviet oil running to four million tons annually. In 1969 ENI signed a 20-year agreement under which Italy would import natural gas in exchange for large quantities of pipe and other equipment for gas pipelines. Gas deliveries began in May 1974 and will eventually increase to seven billion cubic meters\*\* annually.

In 1974 AGIP Nucleare, the nuclear company in the ENI system, concluded a long-term agreement on the enrichment of Italian uranium ore at Soviet plants.

ENI also imports cotton and various chemical products from the USSR and sells us such items as chemical equipment, plastics and synthetic fiber.

Besides trade, there are other economic contacts.

"Soviet and Italian specialists are jointly investigating new technological processes for the chemical industry," Bilotta said. "Some good ideas have been put forward. Your researchers and other experts are strong in basic chemistry, while our people are engaged primarily in applied research. We are confident that their cooperation will produce good results."

Bilotta is highly optimistic: "As we come to know each other's requirements better and make a more thorough study of the market, additional opportunities and projects will emerge."

He is also pleased with the atmosphere in which contacts are developing.

"In all these years there have been no serious complaints on either side," he said. "Both sides have invariably shown good will. Of course, it is not always simple to do business with Soviet commercial experts, because they meticulously

\* One metric ton equals 2,204 pounds, or 7.35 barrels of oil.

\*\* One cubic meter equals 35.31 cubic feet.

safeguard their interests. This means that it often takes a great deal of time to work out the details. But once they have signed a contract, you can be sure that it will be carried out."

Bilotta's views are shared by many representatives of Western firms who either work in Moscow or come here from time to time.

Another Italian state corporation soon followed the trail blazed by ENI. Called FINSIDER, it consists of a number of metallurgical and metal-working companies.

In September 1974 FINSIDER concluded a five-year general agreement with the USSR. It provided for the sale to our country of some 2.3 million tons of pipe and the annual purchase of about one million tons of coking coal and two million tons of iron ore, as well as scrap iron. As part of this agreement a contract was recently signed in Rome under which FINSIDER will supply 750,000 tons of large-diameter pipe to the USSR in 1976.

"That large an annual volume is unprecedented," FINSIDER representative Marco Vianello said. "Our continuing trade cooperation has brought our annual transactions with Soviet organizations close to the 500-million-dollar mark."

## Since 1918

One of our oldest commercial partners is the Johnson industrial and commercial firm in Sweden. USSR Foreign Trade Minister Nikolai Patolichev mentioned Axel Johnson along with the well-known American businessman Armand Hammer in his speech at the cornerstone laying for Moscow's International Trade Center last autumn.

Patolichev described Axel Johnson as one of the capitalists who in the early years "believed that it was possible and necessary to enter into mutually beneficial cooperation with the Soviet state."

The Johnson firm signed its first contract with the USSR, on the purchase of seven million Swedish crowns' worth of flax and hemp in our country, back in 1918. Mutually advantageous trade has been going on ever since. Now the Johnson group consists of more than 30 companies with a turnover exceeding two billion dollars annually.

The firm opened a branch office in Moscow in 1972. It is headed by Tommy Arwitz, whom we interviewed in his well-appointed office on Kutuzov Avenue.

"We buy petroleum products, coal, coke, ores, metals, machines and other industrial equipment and a number of additional items," he told us in fluent Russian. "We also sell a good deal to the Soviet Union."

The firm has supplied equipment for pulp and paper mills in Kotlas, Bratsk and Syktyvkar, and is filling an order for the Ust-Ilimsk cellulose mill. The Soviet Union also buys Swedish wood fiber and chipwood machines. For more than seven years the Johnson transport subsidiary has operated jointly with Sovtransavto a highway freight link between Goteborg and Moscow, via Stockholm and Leningrad.

## Our Japanese Neighbors

We interviewed Kihee Deguchi, head of the Moscow office of the Sumitomo Shoji Company, and his assistant Toyohiro Kozuki in their headquarters on Pushkinskaya Street.

"Last year our turnover ran to 420 million dollars, which put us at the top of the list of Japanese firms trading with the USSR," Deguchi said. "And this was during a slump in the Japanese market. We sell the Soviet Union pipe for gas pipelines, cranes, communications equipment, chemicals, plastics and textiles, and buy cotton, flax, precious metals and machine tools. Not long ago we bought cold-rolling equipment from Machinexport and technology for the production of pneumatic conveyors from Licensintorg.

"In 1972 we concluded an agreement on scientific and technological cooperation with the USSR State Committee for Science and Technology, and in 1975 it was extended for another three years.

"Our company takes an active part in joint Soviet-Japanese projects for the development of coal fields in southern Yakutia, for the utilization of timber resources in the Far East, and oil and gas prospecting on the Sakhalin shelf. The Soviet Union's latest plans for the development of the productive forces of Siberia also offer broad opportunities for expanding our business ties.

"The credit agreement between the USSR Foreign Trade Bank and the Japanese Export-Import Bank has benefited Soviet-Japanese trade. In view of the growth in the volume of trade we asked our government for bigger credits, and the request was granted."

The Moscow branches of the Japanese Mitsubishi and other firms are also doing well.

## Banks

Present-day trade and, to an even greater extent, industrial cooperation are inconceivable without an adequate financial basis. This is especially true when it comes to large-scale arrangements. The scale of foreign trade transactions and the prospects created by the development of economic contacts with the USSR in general have naturally aroused the interest of leading foreign banks.

We visited the Moscow office of the big West German Deutsche Bank. In the late sixties it headed a consortium that provided credits for the first agreement to supply the Soviet Union with pipe and other equipment for gas pipelines in exchange for providing West Germany with Soviet gas. This agreement was concluded in 1969. A similar one, with a total value of 1.2 billion marks, was signed in 1970, and a third in 1972.

Negotiations are under way on other major projects, which means that the head of the Deutsche Bank office, Dr. Klaus Dintelmann, is kept busy.

In 1974 Deutsche Bank arranged for big credits to finance the sale to the USSR of about 9,000 heavy-duty trucks.

In 1975 it made a 350-million-Eurodollar credit arrangement with the International Investment Bank of the Council for Mutual Economic Assistance. Deutsche Bank also headed the consortium that financed West Germany's share in the project to pipe Iranian natural gas through the USSR to West European countries. Now credits are under consideration for a number of projects on a compensation basis.

"West German firms often turn to us for financial advice or help in establishing contacts in Moscow," Dr. Dintelmann said. "This is because in addition to the operations I have mentioned, we finance a number of smaller ones."

A somewhat different situation prevailed in the Moscow office of the largest bank in the U.S., and in the whole capitalist world, for that matter—the Bank of America.

So far it has had a hand in financing only a few deals, Moscow representative John E. Fitzgerald told us. One is the contract to build a mineral fertilizer complex in the USSR on a compensation basis, with the participation of the U.S. Occidental Petroleum company. The bank provided some of the credits for this project.

The other "Moscow" clients of the Bank of America include the Magnavox and Caterpillar companies.

While the bank's credit operations in Moscow are still not very large, Fitzgerald is confident that they will expand.

East-West business contacts are a fast-developing sector of world trade. Even more important than their steady growth from year to year is the promise they hold for the future, the fact that they are built on a solid, long-term foundation.

Courtesy of *New Times* Magazine





Stepan Vitchenko is a retired colonel who was in the army for 25 years. He served in the border guards, was decorated, and today is well known both in Leningrad, where he lives and works, and in other cities. What earned him this wide popularity was not his soldiering but a very ordinary and unglamorous peacetime job.

Vitchenko is a member of the Communist Party. In his younger days a metal worker, he was until recently in charge of a team of apprentices at the Elektrosila Plant in Leningrad. When he began working with novices, his team was made up wholly of youngsters who had problems at home or school. His idea was to help them make a new start. Today his team is mixed, with ordinary young men and women working along with the others and helping to reform "difficult" newcomers.

By Alla Belyakova

**S**TEPAN VITCHENKO of Leningrad was introduced to our readers in the March 1971 issue of SOVIET LIFE. To refresh your memory, we're reprinting a picture of him and giving you a little biographical background.

Vitchenko has had quite an unusual life. He was a retired colonel, a former combat officer who saw action in the war. No longer young, instead of retiring with a very substantial pension, he took a job as a rank-and-file worker at the Elektrosila Plant. But more important, when he became a foreman, he put together a team of youngsters, some of them so-called "difficult" juveniles, and ever since he has devoted all his time to these boys.

"I wanted to make them real men," he said. One of his charges Oleg Sinyakov, is a good example of what Vitchenko accomplished. The boy at one time had a record with the militia. His mother had brought him up all by herself and could not control her son. She begged Vitchenko to take Oleg into his team, and he did. The man and boy became friends. Oleg is a highly skilled foreman now at the Elektrosila Plant, well known, respected. He has organized his own team of youngsters, and it is Vitchenko's opinion that he is doing a fine job.

As many as 150 people have been through "Vitchenko's school." The first "graduates" are now adults, many have families, some have gone on to a higher education and become qualified specialists.

There were only a few boys like Oleg Sinyakov among them. The overwhelming majority were just ordinary teenagers. Vitchenko makes a point of this.

"Every novice," he says, "needs the support of senior workers, their attention and advice. It isn't enough to teach someone how to do a job. How to live requires a certain amount of instruction, too."

When he was creating his team, Vitchenko had no reason to believe that his idea would quickly be taken up by many enterprises throughout the country. It has also added a new term to the language: tutor-supervisor. This is a veteran worker who personally takes charge of one or more "wards." The tutor is not only responsible for their professional advancement, but is also involved in their character training.

Today there are about 30,000 tutor-supervisors in Leningrad alone, and a whole army of them all over the country. Many have earned the highest reputations in this new business. Still, a special place is reserved for Stepan Vitchenko, as one of those who initiated the movement. He has received 2,000 letters in the past few years, usually from people asking for advice. Parents want help in the education of their children. Some of his correspondents are young people who have problems they cannot cope with by themselves.

Vitchenko has visited many cities, sharing his experience with colleagues and talking with young people. A great many delegations have visited his team at the Elektrosila Plant, among them Senator Edward Kennedy.

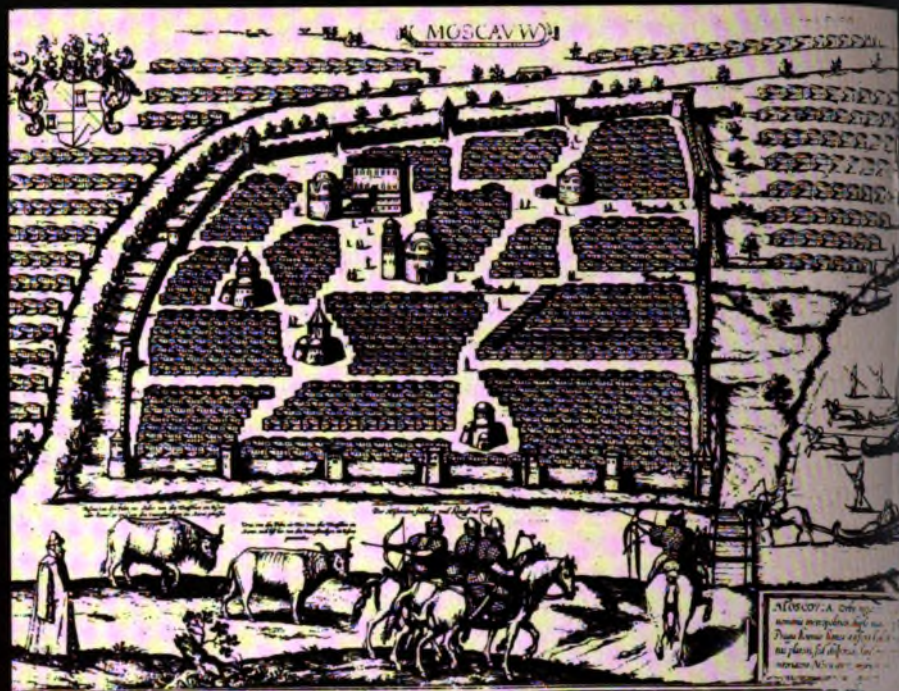
He has won high government awards for his services, in 1974 the title of Hero of Socialist Labor, the highest decoration given for labor achievements in the Soviet Union.

As a former regular officer, Stepan Vitchenko could have retired at 50. Just six months ago, at 67, he finally did, turning his team over to Vladimir Tseluyev, a team graduate, one of the best.

Now he can relax, devote some of his time to his five-year-old grandson. Especially since doctors have ordered him to rest after a recent stroke. I did spend a good deal of time trying to catch him at home, however. Could it be that he has found some new activity?

## Russian Art and Architecture

One of the earliest maps of the Kremlin from a book published in 1556.



## Kremlin treasures

By Marina Khachaturova

**M**OSCOW . . . The name speaks for itself. It says more than the volumes of books written about this 800-year-old city. Moscow is the heart of Russia and the Kremlin is the heart of Moscow. The Spasskaya Bashnya (Savior's Tower) has long been the symbol of the Soviet capital, as the Eiffel Tower is of Paris, Westminster is of London and the Capitol is of Washington.

What a pleasure to stroll through the grounds! What a treat to gaze at the golden domes and ancient architecture! Cross Sobornaya Ploshchad (Cathedral Square) and you find yourself at the belfry of Ivan the Great, once the tallest building in the city. For the foreign tourists in Red Square the Kremlin is an architectural curiosity; for Russians it is a page of history.

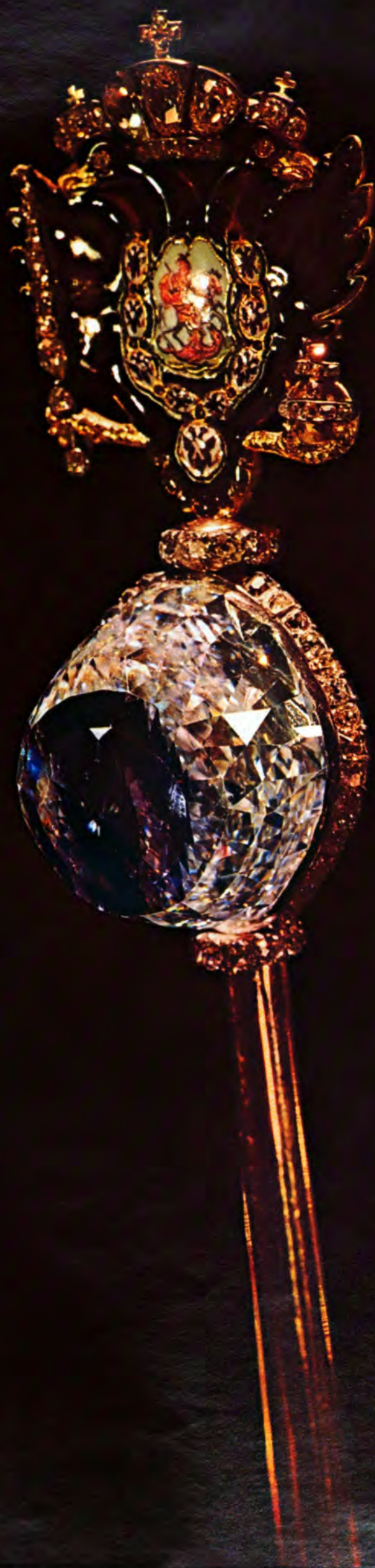
In Uspensky Sobor (the Cathedral of the Assumption), the Mother Church of Russia, czars were crowned. Blagoveshchensky Sobor (the Cathedral of the Annunciation) is a magnificent treasury of Russian icons. Arkhangel'sky Sobor (the Cathedral of the Archangel) was the burial place of Russian czars and grand dukes: Ivan the Terrible; young Czarevich Dmitri, mysteriously murdered in Uglich; Dmitri Donskoi, the great Russian hero of the Battle of Kulikovo. Russian



*The Imperial Globe, dazzling in gold,  
silver and diamonds, is  
crowned with a large sapphire.*







*Breast decoration, in enamel, with  
a miniature of Peter I*



*Miniature, Order of St. Catherine.*

*The Orlov diamond  
in Catherine II's scepter  
weighs 199.6 carats.*





Gold and jewel encrusted case for the Gospels presented by Ivan the Terrible to the Annunciation Cathedral, house church of the czars.



Monomakh's Cap, used in the coronation ceremony until 1724. Legend says it was a gift of Emperor Constantine to Prince Monomakh.



Russian Orthodox cassock worn by famed seventeenth century Patriarch Nikon, who tried to make the state subordinate to the church.



From the Armory collection of 15th to 19th century royal carriages. This coach, built for an empress, was pulled by six pairs of horses.



A collection of gifts from foreign sovereigns reflects the commercial and diplomatic contacts of Russia in the 15th to 17th century.

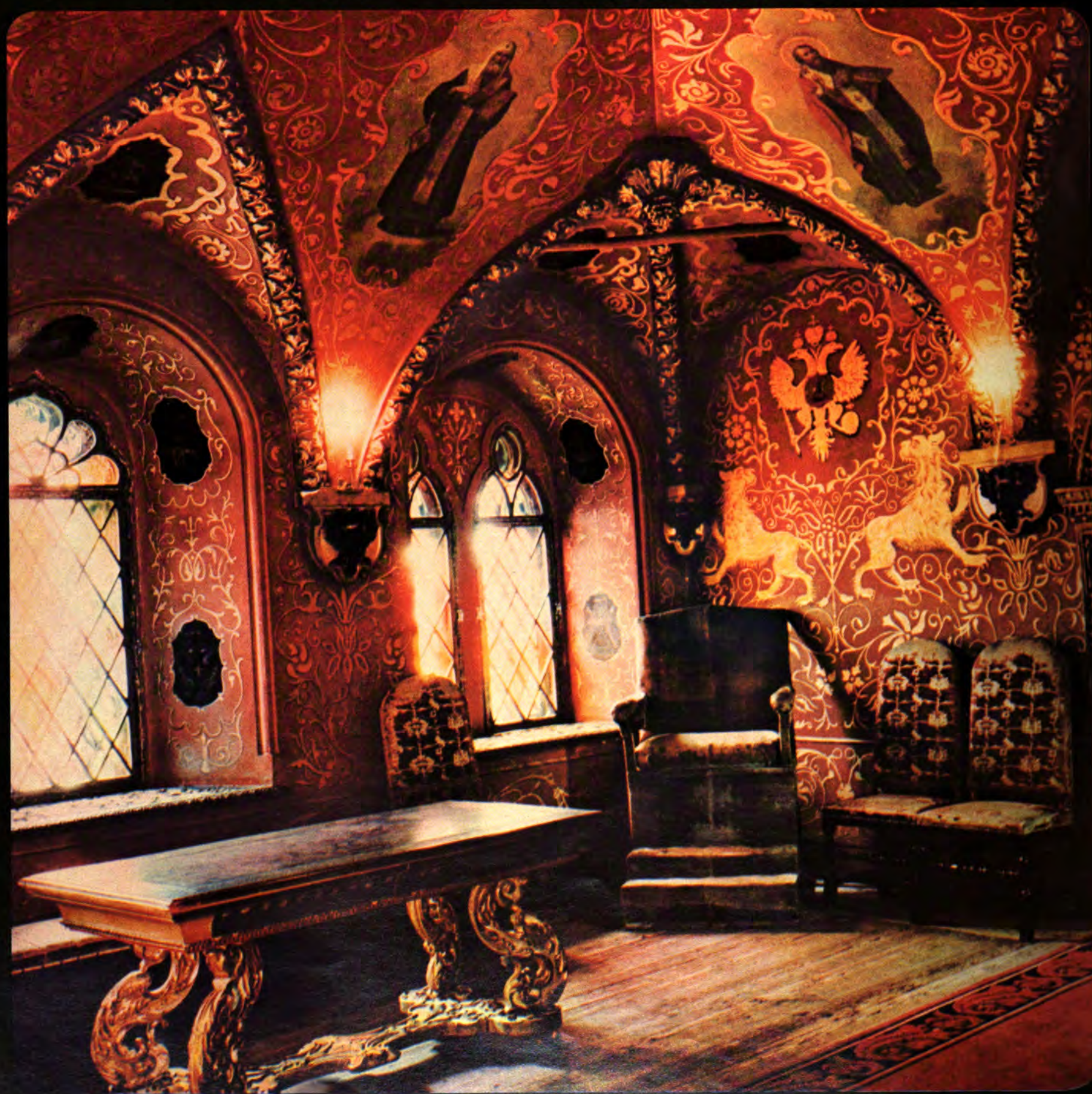


The chalice, gold set with precious stones, was given to Alexei Mikhailovich, the father of Peter the Great, by Patriarch Nikon.





The Assumption Cathedral, where czars were crowned, was used as a stable by Napoleon's cavalry. It is now a state museum. The walls and columns are entirely covered with frescoes from the seventeenth to nineteenth centuries. Below: The throne room in the Garret Palace was the private audience chamber of the czar. Windowpanes of tinted mica are responsible for the room's rosy hue.





# kremlin treasures

history faces you, the past blends with the present, an inseparable chain of events.

Nine years ago we carried an article on the Moscow Kremlin, with many pictures. Nothing has changed in the Kremlin. The ancient cathedrals are as elegant, Feodosi's frescoes as striking, the jewels on Monomakh's Cap as sparkling. . . . But to ensure that generations of people can admire these treasures requires the efforts and special skills of a great many caretakers. The staffs of the Kremlin museums see small changes taking place all the time. Unique icons are restored, domes are gilded, scholarly research is carried on, new monographs are written and published. Behind it all is the work and talent of people dedicated to their professions.

The Kremlin grounds are always crowded. There is something among the numerous and varied exhibits to interest everyone.

In the Cathedral of the Annunciation you could spend half a day just studying the rare collection of icons that includes works by the Russian master Andrei Rublyov. Information about his life is scanty, but the chronicles say that in 1405 he took part in decorating this great church. His works are ample evidence of the high cultural standards of that period in Russia. They have had an enormous influence on Russian painting.

The Cathedral of the Archangel, which stands next to the Cathedral of the Annunciation, is supported by four massive pillars. On its arches are portraits of princes from the northeastern part of Russia whose lands were incorporated in the centralized Russian state. The cathedral was built in 1505-1508.

The floor plan of the Cathedral of the Assumption shows that, like the Cathedral of the Archangel, it is a square supported by four circular pillars. In two years it will celebrate its 500th birthday. Today it is hidden by scaffolding while skilled artisans work to restore this unique structure to its original glory.

The domes, last gilded in 1895, are being restored by the best gilders in the city. Masons are meticulously replacing the cathedral's white limestone after consultation with scholars and architects.

And Moscow restorers have already spent 10 years on the iconostasis, with its rare collection of icons by the best artists of old Russia.

The Kremlin secular buildings are also interesting. The Granovitaya Palata (Palace of Facets) was built in 1487-1491 on Cathedral Square. Here foreign ambassadors were received, grand receptions took place and sessions of the Zemsky Sobor (National Assembly) were held.

The Teremnoi Dvoretz (Garret Palace) is renowned for the splendor of its interior décor, carvings and paintings. It looks like a fairy tale palace.

On Kremlin Hill stands the Great Kremlin Palace, overlooking the Moskva River. It was built in 1838-1849 and forms an architectural ensemble with all the ancient secular buildings: the Palace of Facets, the Garret Palace and the Golden Chamber of the Czarina. Prior to the Revolution the palace was the residence of the czars. Nearby stands the Armory (1851), a tremendous tourist attraction with its collection of gold and silver, crown jewels, weapons and armor, other ancient treasures, and the Diamond Fund, which is enlarged from time to time with fine gems found in different parts of the country.

Work is under way to strengthen the foundations of the Kremlin buildings. Who knows what will be found during the excavations! Despite the fact that the search for hidden treasures and underground passages has been going on for centuries, archeologists are always hopeful. They have reason to be. In 1959, when the Palace of Congresses, the youngest of all the Kremlin structures, was being built, traces of the chambers of Czarina Natalya, the mother of Peter I, were discovered at a depth of three meters. The Kremlin is definitely a promising archeological site.

It has inspired many writers. These lines by Konstantin Batyushkov, an early nineteenth century Russian poet, are a fitting conclusion to this article:

"Whoever has contemplated coldly the giant towers, the ancient monasteries, the panorama of Zamoskvorechye from Kremlin Hill, and felt no pride for his country nor desire to bless Russia, is blind to everything great. . . ."



*Chain mail made its appearance in Russia in about the 9th century and went out of use in the 17th with the introduction of firearms.*



*This arquebus was the property of Peter the Great. The fine detail on the lock bears witness to the artistry of Russian metalworkers.*



# LANDSLIDE PERIL BEATEN

Long-time readers may remember a photograph from our September 1964 issue: a newspaper photographer perched on top of a telegraph pole reporting a flood in Tajikistan.

The Central Asian areas are subject to more frequent natural disasters than perhaps any other part of the country. We cannot always avert a natural calamity, but we can, at times, moderate the damage it does. This article tells how, with adequate warning, the devastating effects of such a disaster were minimized in Kazakhstan.

By Valeri Povolnyayev and Vladilen Travinsky

**A**LMA-ATA, the capital of Kazakhstan, with a population of 840,000, lay sprawled right in the path of a mudflow that came plunging down from the mountains on Sunday, July 15, 1973. It started high in the Tien Shan, a region of glaciers, ravines and racing streams.

## A Killer Landslide

It becomes very hot in the Tien Shan mountains toward the end of June. Water collects along the edges of the glaciers, where piles of broken stone and debris have accumulated. The melting water seeps into these mounds or moraines, until pressure can force the latter to break up. No one knows exactly when a moraine will break up, but hydrologists have had certain bitter experiences on that score: When it finally does disintegrate, a mudflow can begin. Raging water carrying rocks and mud rushes down ravines, along river valleys, breaking down and eroding banks, uprooting trees and ripping off soil.

In the summer of 1973, a severe heat wave was thawing the glaciers, enlarging the pools of water that had built up behind the moraines. One station after another of the Mud Stream Danger Warning System reported the possibility of a mudflow. Helicopters from the meteorological service kept hovering over the menacing lakes. When the service broadcast its official warning on July 13, the reaction was immediate. Workers, shepherds, cattle herders and mountain climbers were hastily evacuated from the possible paths of the mudflow.

## There It Goes!

On July 15, at 6:45 P.M. local time, one of the lakes that had accumulated behind a moraine momentarily spread and immediately subsided. A sound like a hoarse sigh was heard, which very quickly grew into a sinister rumble. The

predicted mudflow began to hurtle down the mountain. A force of 120 million horsepower, in over four million cubic meters of water and rock, was about to descend on the city at the foot of the Zailiyskiy Alatau Mountains.

But when the mudflow reached the final stretch leading to Alma-Ata, it was blocked by the Medeo Dam.

## The Dam

In the six years since its completion people had come to see it as part of the landscape. It fitted right into the mountainous terrain around the city.

By the end of April 1967, two and a half million tons of boulders, earth and stones had been piled up at the base of the Medeo site. The idea for such a dam had originated with Academician Mikhail Lavrentyev, Vice President of the USSR Academy of Sciences. It was a bold but controversial idea. Different kinds of pits, barriers and traps to cushion the blow had been tried, but no one had attempted to stop a mudflow completely. "Crazy," said those who opposed the idea. "You can't lock up the mountains; a senseless waste of money." "The mountains can and will be locked up," the other side insisted. "Only mountains can stand up against mountains, in this case, artificial ones." The Kazakh Republic Government went along with Academician Lavrentyev's idea, and a dam was built according to plans drawn up by Gennadi Shapovalov, chief engineer of the antimudflow project, and Genrikh Gerasimov, chief engineer of *Gidroproyekt* (Hydroproject Planning Board).

## The Dam Withstands the Blow

From the dam you get a fine view of the area for miles around: the glassy oval saucer of the famous

<sup>1</sup> One cubic meter equals 35.32 cubic feet.

Medeo skating rink, the road leading to the nearby Kazakh capital, the giant bowl of the mudflow reservoir and the Malaya Almaatinka, a tiny stream of water that, under normal conditions, a bird could easily wade across.

"It was a very sultry day, very easy to doze off in that close quiet," motorcycle militiaman Nikolai Grinchenko recalled. He was one of the four Alma-Ata militia officers who happened to be on the dam that day.

"Suddenly a thunderous sound reached us, as if a jet was breaking the sound barrier beyond the mountains. The thunder stopped just as quickly as it had begun, but a huge reddish column of dust shot up beyond the pine-covered mountain slope. It shut out the sun and the sky. At the same moment the rumble and thunder started again. A big wave of mud came rolling from behind a turn. It dashed against the side of the pit, easily uprooting trees, then jumped back to the opposite slope, swallowing up a good half of it, pine trees, bushes and all. . . . And rocks, each one weighing a couple of tons, cutting through the torrent of mud, shooting upward as if thrown by a giant sling. The very earth seemed to moan. . . ."

Not counting atomic explosions, the Medeo Dam had received a blow more powerful than any human creation ever had to withstand.

## Man in the Mud!

They had hardly gotten a radio report through to the city, when one of the four militia officers cried out: "There's a man in the mud!"

Smashing against the dam, the stream of mud began to spread, filling up the pit, while fresh waves, weaker, secondary ones, kept pouring in from the ravine. Rocks sank to the bottom, while silt mixed with water seethed in huge bubbling eddies on the surface. Suddenly a human body appeared in the mid-

dle of it all. The stream flung the body toward a tiny rocky peninsula. In another minute the man would be sucked into the mud again and there would be no hope of saving him.

Two motorcycles, like arrows, shot off toward the peninsula, turned off the road and started jumping across the rocks.

At one instant it seemed to Grinchenko that the leap his motorcycle was making was endless, and that when they landed, the motorcycle would topple over, and neither he nor his partner would ever see the light of day again. But landing safely at the very edge of the mudflow, Grinchenko jumped off and, pushing the silt aside with his arms, walked into the mud, feeling the soft, slimy, slippery stuff seeping into his boots, into his pockets. The drowning man was some five meters<sup>2</sup> off . . . three . . . one meter.

The saved man's name was Musin. Fifty-year-old Kalyan Musin had been "swimming" in the mudflow for more than two kilometers<sup>3</sup>—more than two kilometers in the midst of a mighty mud torrent which could grind a nine-story building into dust in a matter of seconds. And yet he had survived.

## State of Alert Continues

The situation remained menacing. The dam had stood up against the first onslaught, but now it was being threatened by a siege. The mudflow had clogged up the overflow pipe, and the swelling Almaatinka was adding 10 to 12 cubic meters of water to the reservoir every second. The lake was rising. The water was threatening to spill over the dam or, worse yet, to dislodge the structure itself. It was too awful to imagine what would happen if the mudflow, reinforced by the million-ton mass of the dam, poured down on the city from a height of almost two

<sup>2</sup> One meter equals 3.28 feet.

<sup>3</sup> One kilometer equals .621 miles.

kilometers. Young Pioneer camps and day care centers were evacuated just in case.

The dam, soaked through with water and slime, looked as though it would start moving any minute. First a tiny rivulet pierced it at one spot, then at a second and a third. The rivulets began to widen, cutting canyons in the body of the dam.

Disaster seemed imminent.

The republic's government held an emergency session right there on the dam. Academician Mikhail Lavrentyev arrived from Novosibirsk; Academician Mikhail Sadovsky, Director of the Institute of Earth Physics, arrived from Moscow; and other specialists and experts assembled. All the computations were checked, every meter of the dam was carefully examined, and the conclusion was unanimous: The filtration was a normal development, to be expected. But everyone was still worried.

Trucks were moving along the road in a solid stream, bringing pumps, pipes, diesel engines, concrete, asphalt, mesh reinforcement, ferroconcrete piles. Everything was roaring and thundering, discharging smoke and gasoline fumes.

The water in the reservoir kept rising. Sixteen high-capacity pumps were being assembled; three pipelines were being laid to carry the water to the bed of the Malaya Almaatinka, empty since the dam had been built.

Dinmukhamed Kunayev, First Secretary of the Central Committee of the Communist Party of Kazakhstan, other party and government leaders, military leaders and engineers were there at the most dangerous points on the dam.

## Unexpected Attack

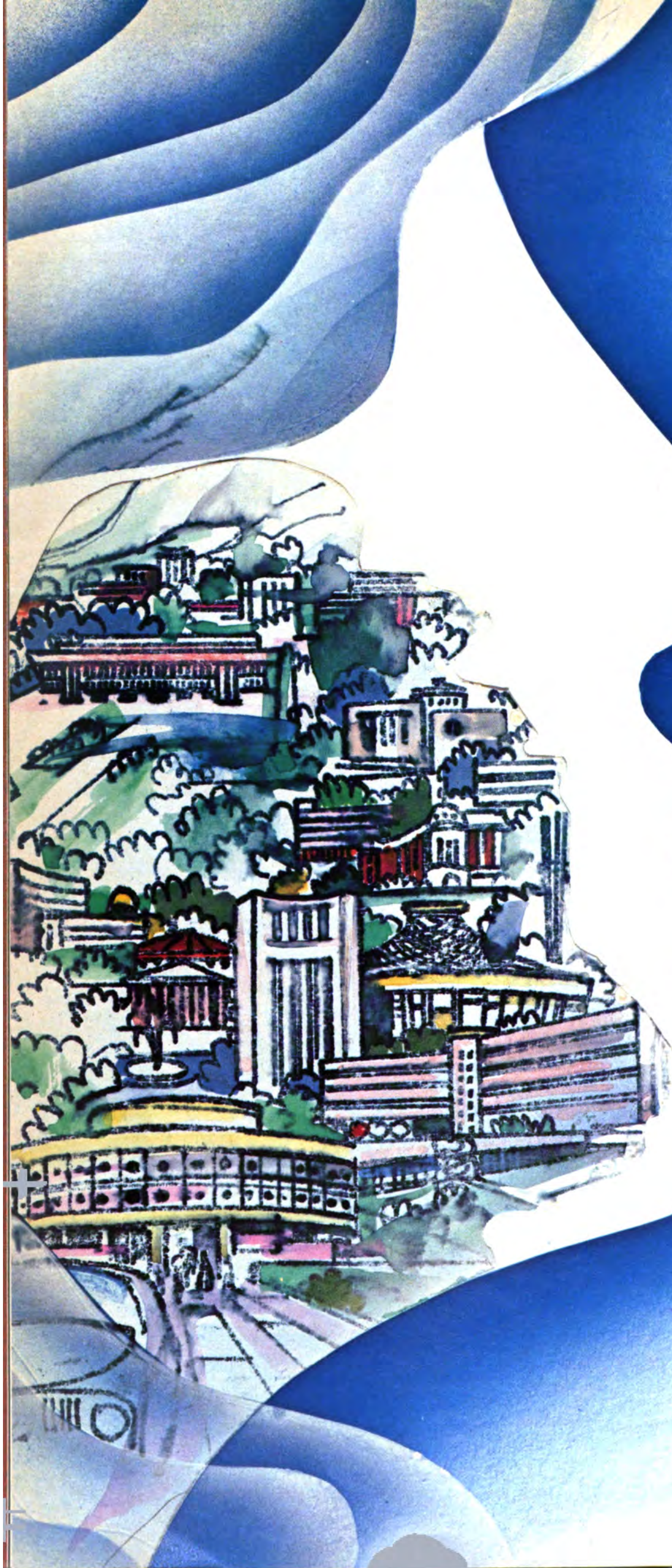
Late in the evening our car was carefully threading its way down from the dam when the driver braked sharply. We froze motionless in an almost suspended





Drawings by Nikolai Smolyakov





ed position. Up ahead, an invisible giant seemed to be breaking through the Earth's crust, lifting the asphalt. Then a thick slab of the road broke off before our eyes and began slipping sideways. A murky fountain gushed upward—water had broken through the dam at another point. The trucks at both ends of the damaged road began blowing their horns, spotlights went on, lighting up the area, a whole river, gurgling and bubbling, was rising to the surface.

All the men on the road armed themselves with shovels and picks; an air hammer even showed up from somewhere. And in a very short time the hundred or so men on the road managed to dig a trench across the highway, lay a pipe in it, and even dig a 100-meter drain-off canal. Fresh asphalt was laid, and the cars and trucks drove on over the still steaming road.

#### Taming the Mudflow

For the first time in the history of Kazakhstan and Central Asia a natural disaster had not only been predicted well in advance, but had also been planned for and neutralized.

But a disaster, even when predicted, is still a disaster and can be held in check only with tremendous effort. The people who fought the Alma-Ata mudflow showed real heroism. Not once did they panic, even during the most threatening minutes, hours and days. It was organization of the finest kind that triumphed on the Medeo Dam.

Operations at the mudflow reservoir were intelligent and well coordinated. Everyone knew exactly what to do and was aware of the importance of each person's contribution to the common effort. Headquarters was never behind in its strategic decisions, and the rear echelon functioned efficiently, meeting every demand of the rescue teams.

There is no worry now that the dam will be weakened by repeated mudflows. On the contrary, the brilliance of the concept lies in the fact that every additional mudflow makes the dam stronger. The three and a half million cubic meters of rock, earth and stone the last mudflow brought in are already being used to reinforce the entire structure. As a result, the dam will be twice as strong. That means that next time it will be able to block a mudflow twice as terrible and furious as the last one, and the next time ... twice as powerful again.



# ODESSA, BALTIMORE—SISTER CITIES



In June 1970 we ran a story about Odessa, the Black Sea port in the Ukraine. Five years later, on September 18, 1975, at a ceremony in Baltimore, Maryland, Odessa mayor Vladimir Shurko and Baltimore mayor William Donald Schaefer signed an agreement declaring Odessa and Baltimore sister cities.





Just bought  
at the Parus (Sail)  
Bookshop.



The very air and  
atmosphere of the city  
seem to lend  
themselves to romance.  
Below: Gossip is by all  
odds the favorite  
indoor and outdoor  
sport of Odessans.  
Gestures give the news  
heightened drama.



Till Night



Deribasovskaya Street is  
where the sailors—and the  
girls—do their sauntering.

in Morning



Miniskirts are the  
vogue on this  
Odessan Broadway.







**A monument to the revolutionary sailors of the battleship *Potemkin*, who mutinied in 1905, was unveiled on the sixtieth anniversary. It stands on tree-lined Primorsky Boulevard, near the centuries-old stairway leading down to the harbor.**

**Right: The city looks at you with a thousand eyes—black, brown and blue, young and old.**

**T**HE IDEA of making Odessa and Baltimore sister cities dates back to 1972, when the Soviet sailing ship *Tovarishch*, by then a training vessel, put in at Baltimore with a crew of cadets from the Odessa and Kherson merchant marine academies.

Baltimore and Odessa have many things in common. Both are major seaports; their populations are almost the same size; and the cities are nearly the same age. Both Baltimoreans and Odessans are eager for universal peace, and they would like to know each other better.

"What big things have happened in Odessa in the last few years?" Novosti Press Agency correspondent Yosif Pikarevich asked Mayor Vladimir Shurko.

"I can say that a lot has been happening. We've done pretty well in the past five years. We built new apartments for 100,000 Odessans and opened 18 new health centers and hospitals. We also built 13 new schools and 24 nurseries and kindergartens.

"We spent millions of rubles building new communications and sewage purification facilities.

"Odessa is famous for its mud baths. The demand is so great that people have to wait sometimes for accommodations. Many of the visitors are from abroad. Recently we began expanding the facilities—putting up a new resort center. Three 16-story buildings have been completed; each can accommodate 1,000 people."

"What are your plans for the next few years?"

"Our first priority is to keep building housing fast. This year we are planning to put up 30 per cent more apartments than we did last year.

"Another job is to plant more trees. Although Odessa is famous for its green boulevards, because the city is spreading, we need more trees. In the current five-year period we have plans for more than 40 parks and gardens, mainly in the new residential areas and in the coastal districts.

"Water supply is a serious problem for many southern cities. We are going to lay new pipes to bring water from the Dniester River. We'll then be able to increase water consumption from the present 720,000 cubic meters \* a day to one million cubic meters.

"On the whole, Odessa will change a great deal in the years to come. First, we are putting up multistory buildings. Second, we are planning a drastic reconstruction of our transportation system. We have plenty of funds. Fortunately, some 90 million rubles were allocated for urban development in Odessa in 1976. This is three times more than we had last year."

"What about contacts with Baltimore?"

"We are going to discuss our cooperation in detail with a Baltimore delegation which is coming here soon. Last year we agreed to arrange exhibits, sports meets and other exchanges."

\* One cubic meter equals 264.17 gallons.





It seems as if it were only yesterday when the graduates of Moscow's Ten-Year School No. 524 twirled in a waltz at their last school dance.

Three years ago I presented to our readers a collective portrait of the graduating class. Recently I went back to see these young people again.



**T**HREE YEARS AGO most of them were 17 years old, and looking forward to graduation from Moscow School No. 524. How have they done since then? Before I give a more detailed account of 3 of the 32 graduates, here is a general picture. Seven are studying and 10 are working. Ten hold jobs and are going to school at the same time. Two are in the army and three have just returned from army service and are getting jobs. These figures can be regrouped: Seventeen of the graduates are continuing their education at institutes and specialized secondary schools (some in the day division, and

## Graphic Artist

**B**ack in school Alexander Astakhov liked to draw and became the designer of the wall newspaper. This hobby of his took hold, and he decided to enter a graphic arts institute and major in book designing. But first he found a job. Here is what he wrote in his graduation theme three years ago:

"I've been thinking of getting a job in a printshop so I can learn the whole printing process. To become a book designer, I have to know everything about my future profession."

Astakhov went to work in the printshop of one of the biggest newspaper and magazine publishers in Moscow, Izvestia. After his apprenticeship he became a printer's assistant. He says about his recently achieved independence:

"The newness lay in the fact that I had become a worker and was earning my own living. I didn't have to depend on my parents any more. It's a wonderful feeling!"

Then came two years of army service. In his free time he drew, did pyrography and woodcarving. The army held an exhibition of his work.

Astakhov returned home with no worries about his future. He knew the printshop wanted him back. Besides, the law guaranteed his job. Though he had informed the management that he would be leaving eventually to attend a graphic arts institute, nobody was disturbed by the fact. On the contrary, the printshop helped him get a summer job as a woodcarving counselor at the Izvestia Young Pioneer Camp, at full pay.

Since it is not easy to pass the institute entrance examinations, he is preparing energetically, doing a good deal of drawing and reading up on art.

I wished him every success.

## Medical Student

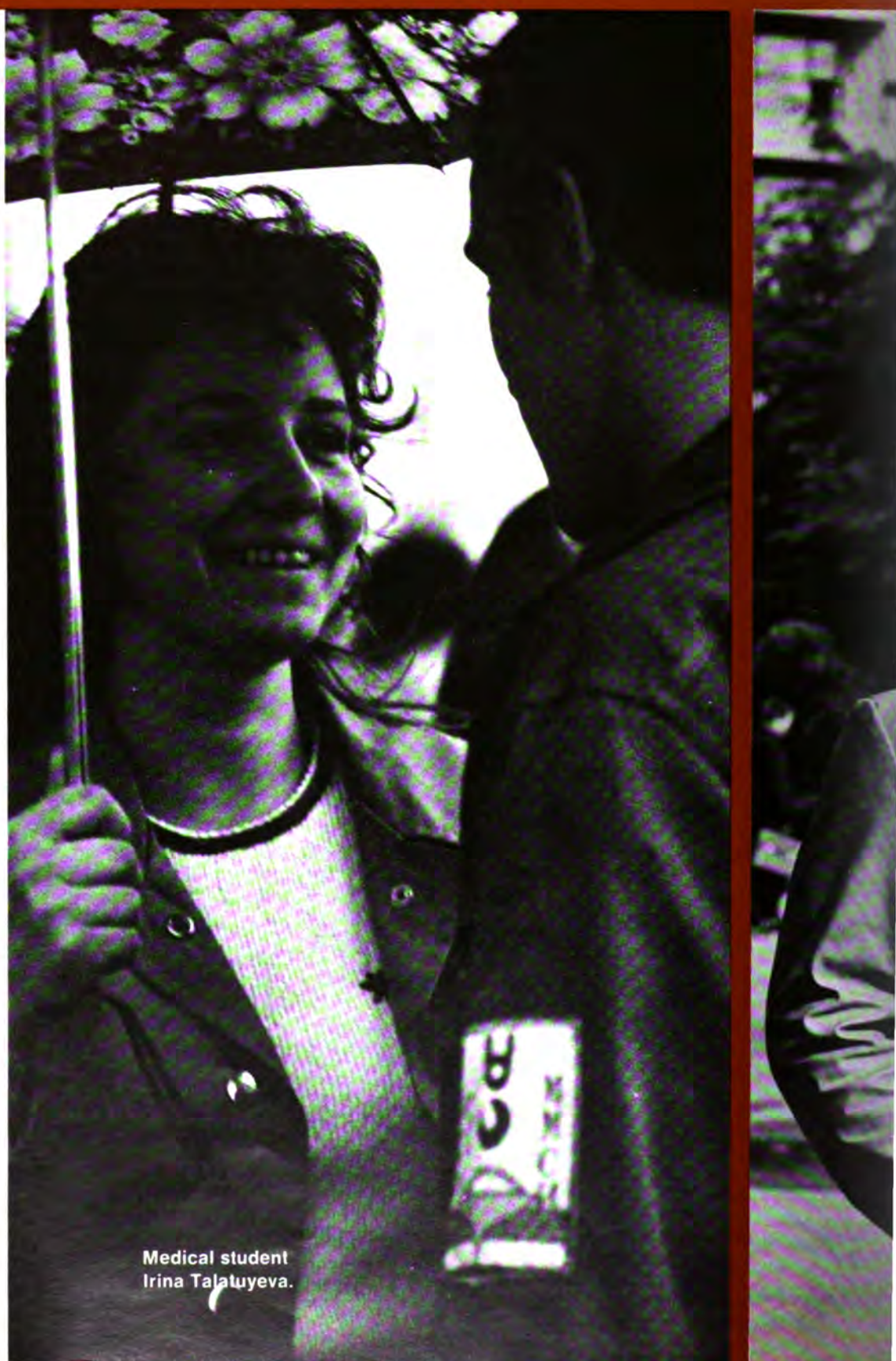
**T**he room was in disorder—stacks of books everywhere. Irina Talatuyeva was preparing for her summer exams. She welcomed the interview: "I'm glad to get away for a while from memorizing these awful medical terms!"

Talatuyeva is one of the six graduates of Class 10B who entered an institute right after school, in the summer of 1973. So, when we met again, she was finishing her third year at the Moscow Dental Institute, which is soon to receive the status of a general medical school. I reminded her that three years ago she intended to become a children's doctor.

"Unfortunately, the institute doesn't offer a specialization in pediatrics," she told me. "The future is up to me. When I get my diploma and become an intern, I'll be able to work in a children's polyclinic or hospital."

Altogether there are some 5,000 students at the institute. The course is six and a half years.

There are 12 young men and women her age in Talatuyeva's group, and their parents include doctors, an engineer, a history teacher, a glass blower and a bus driver.



Medical student  
Irina Talatuyeva.



# JUST OUT OF THEIR TEENS

By Stanislav Sergeyev

others in the evening or by correspondence). Six more intend to go on with their education. Of the two soldiers, one graduated from a radio communication trade school before going into the service, and the other had been taking an evening course at an aviation institute and will resume his studies when he is discharged. Seven still intend to work rather than study for various reasons—parenthood, finances, marriage plans. As for the schools where the young people are studying, these include Bauman Higher Technical School and the Dental, Aviation Technology, and Teacher Training institutes.



Printer  
Alexander  
Khov.

Talatuyeva's parents, an economist and a mechanical engineer, are highly paid, but she still gets a small scholarship. While she must rely to some extent on her family, the scholarship gives her a sense of independence. She can also earn a little extra money if she likes. Some of her fellow students work evenings or nights as hospital nurses.

"I want to be a nurse next term, too," she said, "not because I need the money, just for the practice. We have to make the rounds of a hospital if we want to be decent doctors."

Talatuyeva has some experience already. After her second year, she did practical work in the surgical department of a Moscow hospital. Injections, dressings, treatment—didn't the monotony of it all scare her away? Every profession has its dull side, I suppose. But that's not the important thing. What is important is that I found it could be useful. I remember a boy my age who was brought to the hospital with a duodenal ulcer. He was treated on immediately and was flat on his back for the next few days. We nurses looked after him as well as we could. By the time our practice ended, he was able to get out of bed, and on our last day in the hospital, he wrote in the hospital's Comments Book: 'I believe these young people will make good doctors.' "

...a bad reward for their work.

## Factory Worker on Maternity Leave

Lena Radivil of Class 10B is now Tatyana Anuchina. She was the first member of the class to marry, in January 1974.

Her husband Sasha, a former neighbor, is four years older than she. He was serving in the navy when she was married, and she waited for him to come home.

Last year their daughter was born. Little Lena has now begun to walk, and chatters all day long. Anuchina is still working—she wants to stay home with the baby. By law she is entitled to maternity leave until Lena is six months old (she got paid leave for 56 days before and 56 days after her child was born).

Anuchina says the baby is a full-time job, but her mother helps. The doctor and nurse of the district children's polyclinic visit at regular intervals. Like all medical care in the Soviet Union, these visits are free.

I asked Anuchina how she and her husband were doing. "We're getting along fine," she said. "The main thing is that our daughter is healthy. Though Sasha gets good wages, my parents help out all the same. Soon I'll be going back to work, and we'll put Lena in a day nursery. I've been home with her for more than a year now. My leave is up, and legally my job can be turned over to somebody else. But I've been told that I could come back to work any time. Before Lena was born, I had a job at a factory, copying mechanical drawings. It was hard on my eyes, so I'm thinking of learning some other trade, maybe grinding. As soon as the baby is big enough," she said with a smile, "I'll start thinking about myself."



# BICENTENNIAL REFLECTIONS:

## SOVIET HISTORIANS ON THE AMERICAN REVOLUTION

A scientific and theoretical conference, "The 200th Anniversary of the American Revolution. History and Present-Day Developments," was held recently in the Learned Council of the USSR Academy of Sciences that deals with U.S. economic and ideological problems. The following are some of the conference reports in abridged form.

### RECENT PUBLICATIONS

By Professor Grigori Sevostyanov

**I**N THIS YEAR of the American Bicentennial, the Soviet people pay tribute to Americans and their history. Our scholars, of course, have a special contribution to make.

They are publishing materials and documents on the history of the American Revolution and digging into questions relating to the emergence of the American state. An American year book published recently covers the various aspects of the War of Independence, including agrarian relations in the colonies and the democratic reforms of Thomas Jefferson, and outlines the life and work of the leaders of the revolution.

An extensive study on the evolution of political thought in the United States—from the revolution to our day—has come out, as well as a book on the economic and political development of the United States during its 200-year history.

The large number of articles and the diversity of subjects attest to the wide range of research undertaken by our scholars.

The articles dealing with the conditions and events that led up to the American Revolution and its social character are particularly interesting. In the opinion of Soviet researchers, the motive force behind the revolutionary struggle for freedom in North America was the popular masses: the farmers, the artisans, the workers on both land and sea. Without their active participation, victory over Britain, which was so strong a world power at that time, would have been impossible.

The questions of the anticolonial movement on the eve of the War of Independence and the formation of the state and the drafting of the first constitution of the young republic are the subject of a special study. The researchers point out that the Declaration of Independence, which proclaimed the inalienable right of man to life, liberty and the pursuit of happiness, was of great progressive significance. That historic document of July 4, 1776, for the first time formulated the idea of the sovereignty of the people and the recognition of the people's right to revolt.

Most fruitful are our studies on Russian-American relations of that period. We have published documents we had not known existed that throw light on Russia's position in the years of the War of Independence and the establishment and development of Russian-American diplomatic and trade relations.

A number of works by Soviet scholars examine the response to and effect of the American Revolution internationally, in particular, its influence on the countries of

Latin America and France, as well as on Spanish-American diplomatic relations.

I would also like to mention the biographical works on outstanding American political leaders of the revolutionary period. A biography of George Washington has recently been published; several books are devoted to the lives of Benjamin Franklin, Thomas Jefferson and Thomas Paine; and studies have appeared on James Otis and Samuel and John Adams.

Other authors interpret certain aspects of the Revolution.

A given aspect of the American Revolution is given a new interpretation in a book on the American Revolution and the American people.

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compelled to take its demands into account. At the beginning they were even interested in intensifying mass action, for this would help achieve success in the struggle against the mother country, which was restricting the activities of the young American bourgeoisie. Most of the adult male population, including those without the voting privilege, took part in the New England town meetings, which became an important weapon of political influence (decisions on many vital problems of the independence movement were adopted there).

"In the southern colonies, as in New York, the situation was more complicated, due to the clash of interests of the privileged strata on the Atlantic coast and those of the inland farmers, who demanded equal rights. The farmers' movement was one of the reserves of strength of the American Revolution, a very important force. It was precisely in the years of the rising independence movement that the action of the poor middle farmers against the colonial administration sharply increased. They organized the Regulator movement in North Carolina, resorting to violence in order to ensure their legal rights. In New York they participated in the Regulator movement. Although the farmers were directly connected with the pauper strata of the urban lower strata, they were an organic component of the movement of the American colonies for independence. After the outbreak of military action against the British, the petty and small farmers, who constituted about half of the population of the colonies, enlisted in Washington's army."

Jensen agrees with the American historian, who points out that the mass action of the people of the urban lower strata played a tremendous role in the revolutionary movement in America.

At the same time the question of the role of the mass organizations in the American Revolution is discussed by Western historians. Jensen points out, for the first, in the opinion of Furtak, that the mass organizations played a tremendous role in the revolutionary movement in America.

Jensen points out, further, that mass organizations—the Sons of Liberty, the Committees of Correspondence—came into being during the War of Independence. They became the organs of people's power. At the same time, the idea was advanced of the participation of the people in the legislative assemblies. After independence was declared, the state assemblies, which up to then had consisted almost entirely of representatives of the propertied strata, were substantially reconstituted



through the election of representatives of the people. According to the American historian Jackson Turner Main, representatives of the democratic strata usually made up two-thirds of the assemblies.

"The American people suffered greatly during the War of Independence. Washington's army underwent terrible hardships. The soldiers were half-starved, had little clothing and equipment. But nothing could crush the fighting spirit of the revolutionary forces. The soldiers and sailors fought courageously against the British troops and the counter-revolutionary detachments of the Loyalists. The representatives of the black population took an active part in the battles for independence. Separate Negro units were formed, and they fought successfully against the British.

"In dealing with the nature of the bourgeois revolutions of the eighteenth century, Karl Marx noted the ascending line of their development, determined by the active participation of the masses in the political struggle. Marx's point holds true also for the American Revolution, which advanced thanks to the people's efforts. This led to the sharpening of class conflicts, the intensification of social protest by the lower strata, the masses' demands for equality and armed uprisings."

Fursenko points out that the Constitution adopted in 1787 was an important step toward the consolidation of power after the war. The main task of the Constitution was to create a strong central power capable of exercising control over the country. Initially the Constitution did not even mention the elementary political freedoms. In this respect it was a retreat from the Declaration of Independence of 1776 and the constitutions of separate states previously adopted. In the end the Constitution was enhanced by the Bill of Rights, which was the direct result of mass protest.

## RUSSIAN DIPLOMATS ON THE AMERICAN WAR OF INDEPENDENCE

By Nikolai Bolkhovitinov  
Doctor of Science (History)

**R**ELATIVELY FEW documents in Soviet archives pertain directly to the American War of Independence—just a few files in the "Russian-American Relations" section on Francis Dana's mission in St. Petersburg in 1783. To provide a comprehensive analysis of Russia's position during the American Revolution, it is necessary to study Russia's extensive correspondence with nearly all major European capitals, including London, Paris, Vienna, Madrid and The Hague. It is also essential to go through the correspondence between the different departments of the Collegium of Foreign Affairs, reports to Catherine II, confidential notes on the talks with foreign diplomats, reports of Russian consuls abroad and other materials.

Reports by Russian diplomats concerning the development of the movement toward independence in the American colonies of Britain from 1763, about the American uprising against the rule of Great Britain and about the proclamation of independence in 1776 evoked considerable interest. The diplomats of czarist Russia did not, of course, make a thorough analysis of the revolutionary events taking place in that distant America. Nevertheless, their assess-

ments and observations proved to be quite objective and even foresighted. For example, the Russian Minister to London, Alexei S. Musin-Pushkin, wrote in February 1775 about the inevitability of "internecine" struggle of colonists against the mother country, which infringed "their natural and legitimate rights." He noted also that in "all ranks and offices" could be found "a spirit of enthusiasm" that was felt "in Virginia even more than . . . in New England itself."

Of particular interest is the high evaluation given to the Declaration of Independence by V. G. Lizakevich, Counsellor of the Russian Embassy in London, in his report of August 9 (20), 1776. He not only gave a detailed account of the content of this historic document, but also wrote that its publication testified to the "courage of their leaders." The Russian Minister to Paris, Prince Ivan S. Baryatinsky, also provided important information. Commenting in December 1776 on the visit to France by Benjamin Franklin, he said that it "would surely bring about some important development." Baryatinsky suggested, correctly, that one of the reasons for Franklin's coming to France was the desire of "the united provinces of America" to conclude a "treaty of eternal friendship with France if the latter would under present circumstances aid them against the English."

Reports of Russian diplomats from London, Paris, Madrid and other European capitals helped the country to get a more or less clear and objective idea of the causes of the uprising in North America and of the military operations against the royal forces. An example is the secret report made to Catherine II by Nikita Panin of the Collegium of Foreign Affairs, Vice Chancellor Ivan Osterman and the Bakunin brothers, members of a secret committee, who wrote in the summer of 1779 that the American colonies of Great Britain had turned into an independent and self-governing area "through the *fault* of the British Government itself."

There is ample material on Russia's famous Declaration of Armed Neutrality, adopted in February 1780. The greater part of this material was published in the *Naval Journal* from September to December 1859. However, it is high time now to recall the history of the declaration and to make the whole collection of Russian documents on this important international issue accessible to the broad public, both in our country and abroad. (This declaration has special political urgency, particularly in view of the discussions of the problems of the Law of the Sea now going on in the United Nations.)

I have recently found many important documents that show how Russia and Austria helped to bring about an end of the war. The memorandum of the Collegium of Foreign Affairs approved by Catherine II early in 1781, the correspondence first with Dmitri Golitsyn in Vienna and then with Baryatinsky and A. I. Morkov in Paris are of particular interest. These documents provide many new details on the history of diplomatic talks, which culminated in the signing in Paris of the final peace agreements in September 1783.

There is a small but valuable file on Russian-American trade relations maintained through A. Vitfott, a Russian consul in Bordeaux, on the contacts of Russian diplomats, including Golitsyn and Baryatinsky, with Benjamin Franklin, John Adams and Charles Dumas, and on the general stand of the czarist government on the question of recognizing the independence of the new republic in North America. Some of the documents mentioned here have already been published. This year we plan to finish bring-

ing together a special collection of all the documents so far discovered on Russia's position during the American Revolution.

## A LOOK INTO THE FUTURE

By Academician Georgi Arbatov  
Director, Institute of United States and  
Canadian Studies

**I**N THEIR WORKS Karl Marx and Vladimir Lenin described the American War of Independence, whose 200th anniversary is being observed now, as a great progressive and historical event. Lenin, incidentally, said that "the history of modern, civilized America opened with one of those great, really liberating, really revolutionary wars of which there have been so few compared to the vast number of wars of conquest."

But on the social plane the eighteenth century revolution in the United States, like any other bourgeois revolution, was of a limited nature, above all because it failed to eliminate class oppression, having only changed the forms of exploitation, and gave power not to the majority, but to the propertied minority. This was clear not only to the founders of Marxism. Adam Smith, the classic expounder of bourgeois political economy, witnessing the upsurge of bourgeois political revolutions, wrote that civil power, established as it was for the protection of property, was, in fact, protection for the rich against the poor, in other words, for those who had some property against those who had none.

This was a particularly prominent feature of the bourgeois revolution in the United States and of bourgeois democracy, born of this revolution. Having clearly manifested itself both during the revolution and in the struggle around the U.S. Constitution, it was amply elucidated not only in Marxist literature, but also in bourgeois historiography.

Of course, the recognition of this power of property by no means diminishes Marxists' respect for the American Revolution or for its outstanding leaders, and even less so for the real makers of the revolution, the American people, who rose against the colonial domination of Great Britain.

Since the victory of the independence struggle the United States has traveled a difficult path, full of contradictions. If we are to compare the initial and the final stages of this path, we will see striking changes. Once the neglected agrarian colonies of "civilized Europe," the United States today leads all the Western countries in economic development.

However, when speaking of the history of this big country and its great people, it would be wrong to confine ourselves to the mere statement of this fact.

There are pages in America's history that command particular respect. I am speaking not only of the country's economic, scientific and technical achievements, which are well known, but of the Civil War and the struggle of its people against slavery. American history has been developing along the lines set by Paine and Jefferson and later followed by Lincoln and then by the best representatives of the working-class movement.

The United States fought as our ally in the war against fascist Germany. The Soviet people treasure the best works of American culture and have great respect for the history of the American working-class movement: In the Soviet Union, May Day, born of this movement, is observed as a national holiday.



The attitude of the Soviet people toward the United States and its history is a complex one, explained not only by the attitude of America toward our country, with different stands being taken in respect to the Soviet Union over the years. This naturally evokes contradictory feelings in our people. It is also explained by the peculiar history of the United States, one of struggle between the two social and political trends. It began during the American Revolution, it has been going on to this day. The democratic ideals and aspirations of the best representatives of the American people have been finding their supporters in each new generation.

Moscow and Washington are far apart geographically, and even more so socially and ideologically. The USSR and the USA are, so to speak, the two political poles of the modern world—socialism and capitalism. Yet, there are things which unite our two powers. I have in mind not so much the obvious fact of their being the biggest and most powerful states of the present time, as their responsibility, stemming from this fact, for the prevention of a nuclear catastrophe, for safeguarding peace, and thereby creating conditions for the normal existence and development not only of the Soviet and American peoples but of all humanity.

To be able to shoulder this responsibility, the USSR and the USA, understandably, have to develop relations based on the principles of peaceful coexistence, for there is no real alternative in this nuclear age and there can never be one.

Much has already been done in this respect in recent years, such as the turn from the policy of the cold war and confrontation to one of easing international tension and of mutually profitable cooperation. Leonid Brezhnev in his Report to the Twenty-fifth Congress of the Communist Party of the Soviet Union stressed the point that this turn for the better in our relations with the United States is of decisive importance for reducing the threat of a new world war and for strengthening peace.

As we speak of the history of the United States, we must also look into the future. Much depends on developments in America itself—and not only for the welfare of the United States, but for the solution of international issues, including the main question of the day, that of war and peace. It is when we consider this question of war and peace that we appreciate the significance of the changes in U.S. policy at the turn of the sixties as a result of both internal and international developments (above all, the change in the alignment of forces on the world scene). Many of these changes are of a lasting nature. At the same time there are developments which require thorough study.

The Twenty-fifth Congress expressed its intention and firm resolve to keep the course toward the further improvement of Soviet-American relations in conformity with the spirit and the letter of the agreements that were reached earlier.

"There are good prospects for our relations with the United States in the future as well," said the Report of the CPSU Central Committee, "to the extent to which they will continue to develop on this jointly created realistic basis when, given the obvious difference between the class nature of the two states and between their ideologies, there is a firm intention to settle differences and disputes not by force, not by threats or saber rattling, but by peaceful political means."

The policy of peace and of the relaxation of international tensions enjoys the full support of the Soviet people. And we are deeply convinced that the future rests upon this policy.



# SNAP IT! YOU MAY BE LUCKY!

ever you find interesting; it may even be something that happened on your trip. But the limit for each contestant is one photograph. Just keep in mind that our contest slogan is a broad one: "Peace and Understanding Through Knowledge!"

Your photograph will be judged for technical excellence, originality and all-round interest and must have been snapped during 1975, 1976 or 1977.

Soviet cameras and samovars will be awarded for second and third prizes respectively, and there are a number of consolation prizes.

Even if you don't win a prize, you may find your photograph in a future issue of SOVIET LIFE. In 1977 our magazine will begin a regular section featuring interesting photographs taken by Americans visiting the Soviet Union.

*Continued on page 55*

**C**hances are, if you've made a trip to the Soviet Union, you want to go back again. Letters to the Editor tell us so all the time. We understand your feeling very well—it's such a big country, how can you expect to get more than a tantalizing taste of it the first time? And if you've never visited the USSR, you write us that you're hoping to.

Well, one of you out there is going to be lucky—because a two-week all-expense-paid trip around the Soviet Union is the first prize in our upcoming photo contest.

Every American tourist to the USSR is eligible to enter the contest, which is sponsored jointly by SOVIET LIFE, Aeroflot and Intourist. There are no strict rules for the subject of your entry—landscape, portrait, everyday life—what-

You will begin your tour of our country, like most foreign tourists, in Moscow. And the first pictures you take will probably be of Red Square.







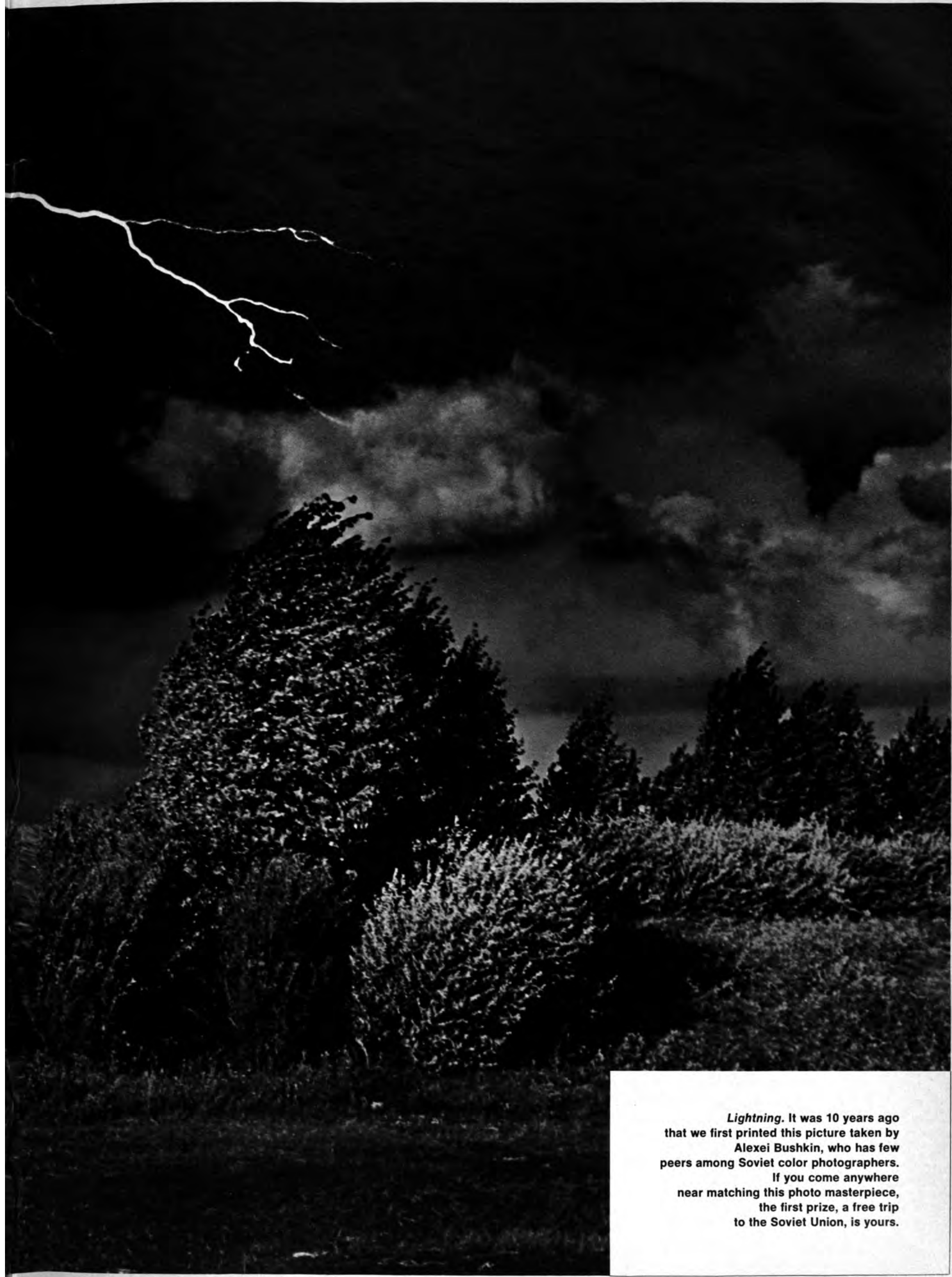
Moscow skyline. Turrets atop the roof of the Foreign Ministry are in the foreground.  
 Left: Mamayev Hill in Volgograd was once carpeted with shells as the Red Army pushed back the Nazis.  
 A Soviet TU-154 airliner flying above the Volga.







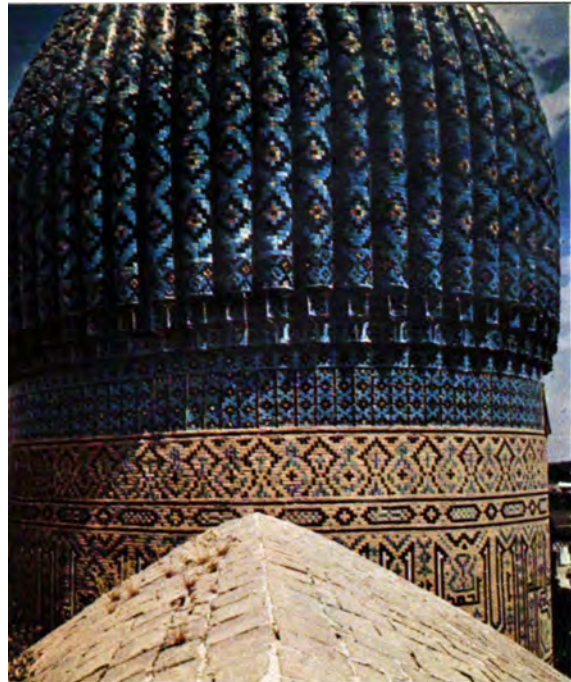




*Lightning.* It was 10 years ago that we first printed this picture taken by Alexei Bushkin, who has few peers among Soviet color photographers.

If you come anywhere near matching this photo masterpiece, the first prize, a free trip to the Soviet Union, is yours.





The sky-blue dome of Tamerlane's tomb in Samarkand, the fabled Central Asian city.

Right: a new building at Tashkent University in Uzbekistan.

A trip to Russia in the winter will give you the chance to photograph fairy tale scenes like the picture below.





# YOU MAY BE LUCKY!

Continued from page 50

## CONTEST RULES

1. Entries should be sent to:  
SOVIET LIFE  
Washington Editorial Board  
1706 18th St., N.W.  
Washington, D.C. 20009  
or  
SOVIET LIFE  
Moscow Editorial Board  
Pushkin Square 2  
Moscow, USSR
2. Entries must be postmarked no later than midnight, August 31, 1977. All winners will be notified by mail and the names published in the December 1977 issue.
3. Any American who visited or will have visited the Soviet Union in 1975, 1976 or 1977 is eligible to enter the contest except professional photographers and employees of SOVIET LIFE magazine and Fawcett Printing Corp. and their families.
4. Eligibility for the first prize is limited to persons 18 years of age or older.
5. The judges will be members of the staff of the sponsors of the contest and leading photographers of Novosti Press

Agency. All entries will become the property of SOVIET LIFE, and the decision of the judges will be final.

6. The subject matter of the photograph is up to the contestant; the only requirement is that it be taken in the USSR. Only one photograph may be entered.

7. The photograph must be a black-and-white or color print 18 x 24 mm.

8. Photographs will be judged on originality, interest and technical excellence.

9. Each photograph must be accompanied by a caption giving the place and date it was taken and, if it will add to the interest of the picture, under what circumstances.

10. First Prize: A two-week all-expense-paid trip around the Soviet Union to be taken in 1978.

Two Second Prizes: Soviet still cameras.

Three Third Prizes: Russian samovars.

Ten Consolation Prizes: A set of souvenirs from the Soviet Union and a three-year subscription to SOVIET LIFE.

11. This offer is void in states where prohibited.



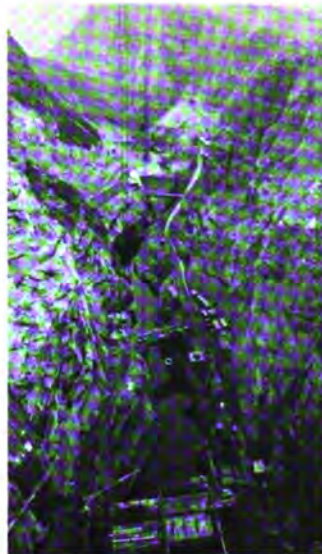
Candid shots are welcome, too. The internationally famous Beryozka dance company has delighted audiences around the world.







## Around the Country



### THE FIRST OF 17

The great depth of the Sulak canyon, the seismicity of the area and the unusual height of the arch dam—232 meters—make the Chirkeisk Hydroelectric

Power Station in the Daghestan Autonomous Soviet Socialist Republic, the Northern Caucasus, truly unique. Looking like a giant curved sail, the elegant arched structure dams the turbulent waters of the Sulak River, making it possible to irrigate some 300,000 hectares in the arid Caspian depression.

The power resources of the Sulak River and its tributaries are so rich that a cascade of 17 hydroelectric stations will be built here. The Chirkeisk station, with its one-million-kilowatt capacity, is the biggest of them. It will generate electricity not only for Daghestan, but for the adjacent regions of the Northern Caucasus.

Specialists and construction workers of 40 nationalities from all parts of the country have come to build the Chirkeisk station. Among them are many Daghestanians who are mastering the trades of concreters, tunnel builders, welders, electricians and excavator operators.

### HOW TO STOP SMOKING

The leafless hedgehog bush growing in Central Asia contains many useful substances. One of them is the medicinal salt anabazine that Kazakh scientists have extracted from it. In addition to its other virtues, anabazine has proved to be excellent for helping people to stop smoking.

According to inveterate smokers who took the medicine, they no longer feel the constant craving for a cigarette. Anabazine creates the same reaction in the body as nicotine but is completely harmless.

### OPERATION DZHEIRAN

The slender and shy gazelle ranging the deserts and semideserts of Central Asia is prac-

### AT THE FOOT OF MT. MASHUK

The construction of a new sanatorium complex with 2,000 beds will soon be started in Pyatigorsk in the Northern Caucasus, a health resort area famous for its medicinal springs. The sanatorium buildings will be situated in a picturesque spot at the foot of Mt. Mashuk. This will be the first stage of a new resort zone that will accommodate 14,000 people.

The complex includes four dormitory buildings, interconnected in twos by social centers consisting of dining rooms, medical treatment departments, a club, a motion picture theater and an outdoor swimming pool with a solarium.

The buildings will be erected on mountainsides, leaving the gently sloping area for a park. The lower area will be turned

into sports, walking and recreation zones.



### DACHA GOLD FIND

Georgi Matushkin, a Moscow institute engineer, arrived at his dacha in the town of Malakhovka outside Moscow intending to repair the terrace floor. He raised a plank and saw something

gleaming in the sand. When he tried to pull it out, he was surprised at how heavy it was. After clearing the dirt off it, he read the word "Gold." The bullion had a hallmark of a czar's crown and some illegible inscriptions.

The engineer turned the eight-kilogram gold bullion over to the state and received 25 per cent of the treasure's value, in accordance with a legal proviso.

### ASTRONOMY OF THE ANCIENTS

The inhabitants of the Armenian upland who lived some 5,000 years ago had a good idea of astronomy. This is confirmed by rock pictures discovered there depicting the constellations of the Zodiac. These ancient people de-



### MANUSCRIPT BOOK PUBLISHED IN 1976

The Georgian literary monument *Shushanika's Martyrdom*, the only comparatively complete written account of life in fifth century Georgia, will be 1,500 years old this year. The Tbilisi Helovneba Publishers will issue a souvenir edition which will be handwritten in eight languages, including Georgian, Russian, English, German and French, and illustrated by Lado Gudiashvili,

Sergo Kobuladze, Georgi Ochauri, Koba Guruli and Nikolai Ignatov, well-known Georgian artists. It will be printed on a special type of paper resembling parchment. The book is still on the press, but the publishers have already received many orders for it from Soviet and foreign book-lovers.

### ISOTOPE NEAR THE HEART

The pacemaker has saved the life of many people suffering from heart disease. Since the sixties more than 3,000 operations to implant these cardiostimulators have been done in Soviet hospitals. The electronic system of the pacemaker, however, works only for two and a half years, and then the batteries run down.

Recently scientists found a long-term replacement for the system.

It is a pacemaker using Plutonium-238, which works for about 10 years.

### HOW TO CURB AN AVALANCHE

An unusual-looking rig stands at the foot of an apatite mountain outside the city of Kirovsk on the Kola Peninsula, its eight-meter-high girders rising from a ferroconcrete foundation. The installation contains various gauges to record the impact force of a snow avalanche. During a recent avalanche it withstood the gigantic pressure of 110 tons per square meter. At the moment of impact the velocity of the snow mass was equal to the speed of a racing car—51 meters per second. The data obtained with its aid will help scientists to figure out the design of avalanche-protection devices.



tically extinct. This rare variety of antelope has been entered in the Red Book of the International Union for the Conservation of Nature and Natural Resources.

Dzheirant antelopes, which on Soviet territory are found in Transcaucasia and Central Asia, are naturally under the protection of the state in our country too. When the oil fields began to be exploited on Bulla Island in the Caspian Sea, not far from Baku, the capital of Azerbaijan, the republic's government decided to move the antelopes inhabiting the island to the special Apsheron state preserve.

The animals were evacuated with the participation of biologists, hunters and veterinary specialists.

## GRASS CARPET

A carpet ribbon made of perennial grasses and flowers,

rather than wool, stretches for hundreds of meters. This carpet was "grown" by a design institute in Lvov, the Ukraine.

The soils of the Western Ukraine are overmoist. To remedy this situation, hundreds of kilometers of drainage canals are built on the collective farms. But the problem is that the walls wash away and the beds become overgrown with weeds. This represented a tremendous loss to the farms because the only way known to keep the slopes intact was with concrete slabs. Now Lvov engineers have lent them a helping hand. They suggested a simple and inexpensive method of reinforcing the canal bottom and walls.

The special reinforcement mesh of a future carpet is stretched out on a concrete platform over which a layer of peat is spread. This becomes the bed for grass seed. When the seed germinates, the roots break through the mesh, reach the concrete and spread all over it, the blades thickly inter-

twining with one another. This fastens the reinforcement mesh to the peat layer, and the carpet becomes elastic. It is removed from the concrete base and stretched over the canal slopes. This turf takes root in a matter of days, and after that the drainage network can withstand water erosion even during floods.

## 70,000 ROSEBUSHES FOR ANNIVERSARY

Seventy thousand rosebushes, one for each resident, have recently been planted by the inhabitants of Chervonograd, a mining town in the Ukraine. Rose varieties from all over the country now adorn its squares, streets, parks and gardens, as well as the grounds of factories, schools and pit heads. This unusual decoration was chosen by the popula-



tion of the "capital" of the Lvov-Volyn coal field to commemorate its twenty-fifth anniversary.

## UNDERWATER PLANTATION

An experimental plantation to breed mussels artificially

was formed by the workers of the Arctic Institute of Fisheries and Oceanography in the Kola Gulf, in the northwest part of the Soviet Arctic.

Underwater mussel beds are also situated in the southern part of the country and in the Far East. This unpretentious mollusk, which forms colonies with a density of about 10,000 shells per square meter, lives and feeds on water, filtering out edible particles. But in the North it takes mussels twice as long to grow as in warm seas. The problem was how to make them grow faster in spite of the cold. Scientists came up with the solution.

The beds in the Kola Gulf are a large special float with 150 nursery ponds hanging like garlands at a depth of up to five meters. Each of them has two kilograms of shells. The mussels are thus fed throughout the day regardless of the tide. The result was soon evident from the weight of the mollusk.

vised calendars establishing a harmonious system of laws governing the movement of the Sun and the Moon. Each of the petroglyphic calendars, which consist of pictures symbolizing celestial bodies, correspond to the length of a day, a week, a month or a year.

## 200 YEARS OF GLASS CUTTING

The glassware factory in Dyatkovo, a small town in the Bryansk Region, Central Russia, has existed for almost two centuries. Many generations of its gifted artisans, glass blowers and glass cutters, have created thousands of decorative vases, jugs and goblets. The artistic perfection of the samples on display



in the factory's museum and the unusual sparkling brilliance of their multicolored facets are striking.

The traditions of the old masters have been preserved and developed. Many young people who study the art of crystal cutting in the factory's specialized secondary school are working now at the Dyatkovo Glassware Factory.

Articles made by Dyatkovo



workers are sold in many parts of the Soviet Union and in foreign countries as well.

## FRESH TOMATOES IN 60-BELOW WEATHER

The vegetable-raising section of the Prigorodny State Farm on the Kolyma River in Magadan Region (northeastern part of the

Soviet Union) is following the recommendations of the scientists of the Moscow Timiryazev Agricultural Academy. Many varieties of vegetables which have been successfully tested are now being cultivated out-of-doors. Even though Kolyma summers are short, the cauliflower yield, for example, comes to 20 metric tons per hectare.

When the thermometer registers 60 degrees below zero Celsius, which happens very often in this area, the state farm's hothouses produce up to 30 kilograms of cucumbers and up to 20 kilograms of tomatoes per square meter.

## BOMB IN THE AIRPORT

A bomb dropped by a Nazi raider 25 years ago that had failed to explode was dis-



covered by builders installing a heat pipe in a new building of the Bykovo Air Terminal. The terminal was cleared of passengers and all activity was suspended while the bomb, whose weight was estimated at 100 kilograms, was carefully extracted, loaded into a truck and carried to a safe place, where it was set off.

## MIRACULOUS OIL

In ancient times people considered the place sacred and the black glutinous liquid it yielded miraculous. It healed wounds, protected the skin after burns and scalds and relieved pain in the joints. In recent years the Naftalan Spa has been built in this unique area of Azerbaijan, the Transcaucasian republic where this valuable variety of oil is found. Every year about 40,000 patients receive treatment there for rheumatism, eczema, polyarthritis and nervous diseases.

According to the patients, a dozen naftalan baths helped them more than a long course of hospital treatment. The crutches, canes and wheel chairs left by former patients are the best proof of this.

Doctors attribute "the naftalan miracle" to the fact that this variety of oil is saturated with biostimulators. Drugs containing it make it possible to eliminate

effective courses of treatment not only in the sanatorium but also at home.



## BIRTHPLACE? A TRAIN

In the middle of the night the conductors went from passenger to passenger on the train traveling from Volsk to Saratov.

to find an obstetrician." Among the passengers were Volsk medical school students Olga Soloviyeva and Olga Ryzhova. In the cramped space of a compartment they assisted in their first delivery without their teacher's help.

The future doctors passed this unexpected test with flying colors. The grateful mother, Valentina Vatik, a resident of the city of Balakovo, named her daughter Olga in their honor.

## LOOKING FOR A TRADE

Once a week the schoolchildren of Moscow's Krasnopresnensky District go to the district's production training shops and for a few hours become fitters, drafters, electricians and shop assistants. More than 1,000 seniors from 23 schools are learning 10 trades there. The work is organized in such a way as to permit the children to see the

results of their efforts for themselves.

Professional orientation is one of the most important problems facing young people. The production training shops are a great help in this respect. They give youngsters an opportunity to acquaint themselves with a trade, not by way of heated discussions with their parents or by leafing through trade reference books, but by working at a lathe, over a drawing board or in an auto repair shop.

Production training shops have opened in many parts of Moscow and in other cities of the Soviet Union.

## SIX-YEAR-OLD TRAVELER

This happened in Chardzhou, Turkmenia. When the parents of six-year-old Stasik left him at

the kindergarten one day, they had no idea that it would be two weeks before they would see him again.

Slipping out of the hall, the child walked to a bus station to take a ride. Then Stasik went to a railway station and sneaked into the coach of an outgoing train.

In the evening, people noticed a little boy crying on the platform of Kagan Station, Uzbekistan. He persistently repeated that he lived in Ashkhabad. While they waited for confirmation from the Turkmenian capital, the boy vanished.

A few days later the young traveler was found in Kashkardarskaya Region of Uzbekistan. The officers of the children's room of a local militia station had to spend quite a lot of time before Stasik correctly named the city from which he had begun his trip.

"I just wanted to take a little ride," he explained to his happy parents.



# SURPRISES BUT NO MYSTERY

By Dmitri Ryzhkov  
Sports Analyst, "Sovetsky Sport" Magazine

SIX of the world's strongest national hockey teams, representing Canada and the USSR, Czechoslovakia and Sweden, Finland and the USA are vying this month for a new prize—the Canada Cup. Matches will be held in five Canadian cities and in Philadelphia.

This brings to mind the first contest, in autumn 1972, between Soviet players and members of the National Hockey League appearing for Team Canada.

Ken Dryden noted in his book about that encounter, *Face-off at the Summit*, that the Soviet forwards appeared to be having trouble distributing the weight of their bodies in shooting. The defensemen, he said, looked big and awkward, and almost fell when they had to veer sharply. The author also made the point that Bobby Orr followed goalkeeper Vladislav Tretiak's movements carefully, noting how he operated, and concluded that Dennis Hull, Phil Esposito and the rest of Team Canada would not have any problems. Dryden says that after watching the USSR squad work out, his teammates were convinced that the Soviet players didn't stand a chance.

It is easy to guess that Dryden was referring to our team's first training session in Montreal for the 1972 series.

I got to visit Montreal three and a half years after those memorable games. If I had been there in 1972, I probably would have had trouble getting tickets for the match. Colleagues who visited Canada in the mid-sixties used to complain to me that it was impossible to get into the stadium even for the NHL championships. But times change. The announcement "I'm from the newspaper *Sovetsky Sport*" was an open-sesame, and I was heartily received at the Montreal Canadiens press office. Even more surprising, before the Canadiens-Kansas game started, the Canadian sports writers showered me with questions about our hockey players. When it came to Yakushev, Kharlamov and Tretiak, I was up to snuff. But when someone asked, "How is Khatulev doing?" I faltered, since Riga Dynamo was not one of our best teams, nor was Khatulev the best player on it. And when the discussion turned to our youth team members, I was sorry that I hadn't brought my card file, because I didn't remember anything about them except their names.

In short, I lost the question and answer match. But I'm no longer embarrassed, because today even our junior teams, if they pretended to play poorly in a first workout in Canada, wouldn't convince anyone.

That shows how much the Canadian attitude toward our hockey has changed since 1972. There has also been a big change in the viewpoints of Soviet hockey fans.

Some 10 years ago our average fan knew, I would guess, the names of three Canadian hockey players. We had heard of Jacques Plante, a goalie against whom it was impossible to score, and a little about Gordie Howe and Maurice Richard, from whose sticks the puck flew at almost supersonic speed. Even our coaches who visited Canada described a player named Pete Mahovich, who looked like our Alexander Yakushev but played 10 times better. This was the kind of legend that surrounded professional hockey at the time.

Obviously, returning to the facts of life was much more pleasant for our hockey fans than for the Canadians. In the first encounter of the 1972 series, which wound up in a 7-3 victory for the USSR team, the Canadians' idols were dethroned

before their eyes while we learned that our hockey was stronger than we thought. And just as the overseas hockey fans discovered Kharlamov, Yakushev and Tretiak, we came to appreciate the drive and power of Phil Esposito, the assurance of defensemen Gary Bergman and Brad Park and the persistence of Paul Henderson. By the way, Phil Esposito is still one of our favorites.

The results of the 1972 series were so different from our expectations (the USSR team won three games, lost four and tied one) that the initial pessimism of many fans and players changed to boundless optimism. Perhaps that is why some of the Soviet hockey players trained for the 1974 games against the team fielded by the World Hockey Association with less attention than coaches Boris Kulagin, Konstantin Loktev and Vladimir Yurzinov would have liked.

Kulagin explained quite simply the complacency that infected some members of the national squad: "We knew Pat Stapleton, who is an excellent defenseman. We'd also heard a lot of good things about the former goalie of the Boston Bruins, Gerry Cheevers. But we knew that Bobby Hull was already 36 and Gordie Howe 46, which meant that they couldn't sustain 60 minutes of play at a fast pace. And after all, Howe, Sr., and Hull were the leading players of the WHA."

"Moreover, when we came to Canada, we were inundated by soothing forecasts. I even considered telling our interpreter not to translate complimentary articles for our players, because the Canadian newspapers seemed to be vying with each other to give the gloomiest forecast for the WHA team and the most favorable reports about our men. However, the very first games of the 1974 series—we tied the first by 3-3 and then lost by 1-4—brought our players to their senses."

"I must admit that the WHA squad was weaker in composition than Team Canada-72, but it prepared for the games against us much more thoroughly. As for Hull, and especially Gordie Howe, we couldn't help admiring them."

"The Canadians are never indifferent in the rink. Whether they are old or young, stars or average players (there were some on the WHA team!), they all give everything they've got. You might think, 'What can a 46-year-old do in modern high-speed hockey?' But whenever Gordie Howe appeared, it was hard to believe that his sons—not younger brothers—were playing alongside him. Though Howe, Sr., spent less time on the ice than his teammates, I wish our young people were able to pack as much into their play. And Gordie Howe, paradoxical as it may sound, helped our team without knowing it. Whenever anyone complained that it was hard going, I had an answer: 'Look at Gordie Howe! He's 20 years older than you and still playing!'"

"We won the 1974 series quite convincingly, winning four games, losing one and tying three," Kulagin continued. "But that's because 20 to 25 of our best players proved stronger than the same number of WHA pros. What if we had 50 or 100 hockey players on each side, and in the case of the Canadians, from both the WHA and the NHL? I'm afraid the result would not be in our favor."

This reasoning was to a certain extent confirmed in the series that matched the Central Army Sports Club and Krylia Sovetov teams against eight NHL clubs. Our hockey players won this supercontest: The Army team defeated the Rangers and Boston Bruins, tied with the Montreal Canadiens and lost to Philadelphia, while the Krylia Sovetov beat the Islanders, Black

Hawks and Pittsburgh, ceding the palm only to Buffalo (though by a big margin, 6-12). But again we saw a number of very impressive young Canadian players.

Shortly before our teams flew to Canada for the games against the eight leading NHL clubs, I mentioned to my old friend Konstantin Loktev, the Army Club coach, how impressed I was with the Montreal Canadiens. He told me scornfully: "Don't overpraise the Canadiens! Pete Mahovich didn't impress me in 1972, and Cournoyer is getting older. As for the young players you mentioned, Lafleur, Lambert and Lemaire, let's wait and see."

After the supercontest wound up, Loktev was the first to talk about the Canadiens. Rattling off the names of Lafleur, Lambert and Lemaire, he assured me: "These young Montreal players are excellent. And Cournoyer and Mahovich are much stronger in the club team than when they played for Team Canada in 1972. Fast, effective passing. You know what? Though the Philadelphia Flyers won the Stanley Cup two years in a row, the Canadiens appeal to me much more. The Montrealers play while the Philadelphians work. The Flyers are like robots. And too rough. I don't understand that kind of hockey, though I was hardly a sissy in the rink, as I'm sure you remember."

"Take, for instance, defenseman Jerry Korab, whom we saw in action against Krylia Sovetov on television. He's a powerful defenseman, tough but not rough."

"How did you like the Canadian goalies?" I asked. "Do you remember that until 1972 we considered them the best in the world?"

"The goalies were the ones who really disappointed me, because our goalkeepers are like any other players, and the discipline for them is the same as for everybody else. To the Canadians, though, the goalie is an idol. Like Caesar, he's permitted everything. As for our Tretiak, he's a hard-working man. That's the difference between them."

"All of us tend to idealize what we remember from our younger days. Still I'm sure that neither the NHL nor the WHA has a goalie like Jacques Plante, whom I saw in action in the sixties, when I played in Canada for the USSR team. There are excellent forwards and defensemen, but no goalie that can measure up to him. To be quite honest about it, though, Tretiak is the only one of his caliber in our country."

"Were the matches against the Canadians helpful?"

"Yes, unquestionably, especially for young players like Victor Zhluktov and Boris Alexandrov."

Head coach Kulagin of the USSR team repeats much of what Loktev said: "On both the national and club team level, the matches against the professionals are better training than any we can offer. We have something to learn from the pros. That's nothing to be ashamed of, especially since the professionals pick up a lot from us, too. Philadelphia coach Fred Shero, for example, said that he had learned a good deal from the Soviet school of hockey. We should work for the mutual enrichment of the two schools."

Obviously, much has changed since the 1972 series. It dispelled the myths, so that this time the Soviet and North American players will meet as old acquaintances. Their encounter will underscore the continued vitality of hockey, which started more than a hundred years ago in Canada and has caught on throughout the world.





16. Valeri Vasilyev, defenseman
17. Gennadi Tsygankov, defenseman
18. Victor Kuznetsov, defenseman
19. Yuri Detkin, masseur
20. Vladimir Petrov, forward
21. Oleg Belakovsky, doctor
22. Vladimir Yurzinov, coach
23. Vladimir Shadrin, forward
24. Boris Kulagin, chief coach
25. Boris Mikhailov, forward, captain
26. Konstantin Loktev, coach
27. Alexander Maltsev, forward
28. Victor Zinger, goalie
29. Vladislav Tretyak, goalie
30. Alexander Sidelnikov, goalie

Команда хоккеистов СССР  
 и тренеров поздравляет  
 читателей газеты  
 "Советская жизнь"  
 с наступающим Новым годом

"With best wishes to the 'Soviet Life' readers."  
 Boris Mikhailov, captain of the USSR national team





**M**UCH IS WRITTEN today about the urban environment, the interaction of nature, architecture and art. New monumental works have acquired special importance for the color they add to our cities. A case in point is the decorative compositions of Georgian artist Zurab Tsereteli in Adler, a health and holiday resort on the Black Sea coast. Earlier, Tsereteli had worked on the décor of many public buildings and the space problems of park zones, creating monumental mosaics, stained glass windows and panels. His skill and imagination are strikingly evident in Adler. When Tsereteli began his work, the main buildings of the hotel were already completed. With the local scene in mind, he created a whole

world of his own inhabited by fantastic decorative forms, all of which gives the ensemble a lighthearted feeling. The contrast between the ascetic architecture and the bright multicolored plastic art in combination with nature created an attractive, cheerful, relaxed setting.

The artist's talent has transformed the 3,500-square-meter children's zone into a magic land. The labyrinth walls with mosaics depicting fairy-land characters, the canal and playgrounds not only entertain, but are samples of fine decorative art. The pool in the photograph forms the center of the composition. Its tile basin consists of separate sections where children can wade, paddle and do whatever else they enjoy.

# Things Cultural

## EXHIBITIONS



**T**HE EXHIBITION "Soviet Russia" in Moscow is the product of five years of work by artists of the Russian Federation. Decorative art, particularly glass, took the spotlight this time. *Sokolniki* (right), done on sulfide glass with silicate paints by Lyubov Savelyeva, a young Moscow artist, evoked lively interest and many arguments. The same sulfide glass is used in quite a different way by Svetlana Beskinskaya in *My Field* (center). Beskinskaya's work has considerably influenced this kind of art. Adolph Ostroumov from Leningrad created *A Forest Fantasy*, consisting of three objects made of crystal glass. The fragment in the photograph (left) gives an idea of the play of light on the cut glass facets, suggesting sparkling hoarfrost and sun.



## ACTORS AND ROLES

**A**CTOR ANDREI MIRONOV has been in the public eye recently for his work in the films of such masters of comedy as Eldar Ryazanov and Leonid Gaidai. His expressive performance did much for the success of films like *The Diamond Arm* and *The Unusual Adventures of Italians in Russia*. It does the actor credit that he hardly ever resorted to doubles, even for the most difficult tricks.

But to speak of Andrei Mironov only as a film star would not be doing him full credit. He is a member of the company of the Moscow Satire Theater, where the range of his parts is much wider than in films. He plays Don Juan, Figaro, characters in Mayakovsky's comedies and in contemporary plays. A new facet of Mironov's talent was revealed recently and quite unexpectedly when he played the role of Grushnitsky in the TV production *Pages from Pechorin's Diary*. The play is based on the story "Princess Mary" in Mikhail Lermontov's novel *A Hero of Our Time*. His very subtle performance proved his abilities in a different genre, tragedy.



Continued from page 8

Iai Semenov proposes to saturate the Martian atmosphere with sufficient oxygen so that people can freely settle on this planet. Of course, this project sounds fantastic now, but only a while ago the thought of a person walking in space seemed just as absurd.

**Q:** Can we already create artificial gravity in spaceships?

**A:** This is quite practicable, although I, personally, hope that people will adapt to weightlessness without injury to their health. But this is as yet only an unsubstantiated hope. Therefore, we now have to deal with a spacecraft provided with artificial gravity. I think additional difficulties are likely to occur in solving this problem. A very un-

pleasant phenomenon will probably be the so-called Coriolis acceleration. For the near future the dimensions of spacecraft will remain comparatively small, and their rotation radius negligible. To achieve an artificial force of gravity equal to that of terrestrial gravity, a comparatively great rotational speed is needed. This acceleration has its bad effect. A person moving inside the ship will have the sensation of staggering. Similar experiments have been done here on Earth, and they tell us that people adjust to such conditions much less readily than to weightlessness. Thus, adaptation to living conditions in a rotary environment will pose its own specific problems, but it is quite realistic to assume that we can solve them technically.

## LIVING IN A WEIGHTLESS STATE

Interview with Oleg Gazenko

**Q:** One of the serious medical obstacles to space exploration is the reaction of the human body to long periods of weightlessness. Can you tell us what is being done in this field?

**A:** I am personally optimistic and believe that people will be able to live in a weightless condition for an indefinite period. However, I have no direct scientifically substantiated proof of that as yet.

In recent flights, for instance, we managed to fully control the cosmonaut's water and salt metabolism. Pyotr Klimuk and Vitali Sevast'yanov, the crew of the second expedition on the orbital station Salyut 4, returned to Earth with a normal level of liquid and salt in their bodies, but there is a calcium loss during weightlessness that we so far don't know how to stop. This is one of the serious problems.

Also there is a lot that we do not know about tissue renewal in outer space. Direct research has shown that the average life of red blood corpuscles—erythrocytes—decreases, and the number of cells that seem to be harmed in the early stages of their development increases. We also know that the immunity of various organs also changes in a definite way in outer space.

There are quite a number of questions we shall have to answer before we can predict the possibilities of people remaining in a state of weightlessness for prolonged periods of time. It will take a tremendous amount of research both on Earth and in flight.

**Q:** Our country is the only one that has put special biosatellites into orbit. What problems do they tackle? What, for instance, has the experiment conducted with the last sputnik shown?

**A:** In dealing with the effect of weightlessness on the body, I have mentioned only a few of the problems that remain unclear. Biosatellites are launched to get answers to them. We send living organisms such as microbes, fish, various animals, birds and plants into outer space. The research is conducted in stages: in the course of the flight itself, right after, and then at varying intervals of time. We are trying to find answers to practical questions and to those connected with fundamental biological problems, for example, the origin of life on Earth and the evolution of the universe.

The very first experiments provided us with a lot of interesting material. It turned out that flies can produce offspring in space. But the most interesting discoveries are expected to be made

after we have processed the material of the last biological sputnik, 782. It contains a centrifuge so that we can determine the effect of artificial gravity on living organisms. It is the first time that scientists from six countries have simultaneously taken part in preparing for an experiment and carrying it out. Experts from the United States, France, Poland, Czechoslovakia and Hungary worked with us.

American scientists investigated the process of the development of life in space, using the roe of the small fish fundulus. The Americans have been studying this small fish, which inhabits the Gulf of Mexico, since 1934 and know the laws of its literally minute-by-minute development. That is why we are impatiently waiting for the results of their research.

On Earth the geotropism principle holds sway: The seeds of any plant put into the soil produce shoots that will grow upward, toward the light, while the roots grow downward. In conditions of weightlessness there is a complete mixup. This is of great importance for future space greenhouses.

We conducted interesting experiments with rats on the last biosatellite. It turned out that not all the muscles of the animals react to weightlessness in the same way. The biggest changes took place in those opposing the force of gravity—the longitudinal muscles of the back and legs.

Miniature electrodes were implanted in the bodies of some of the rats, and for the first time on-board telemetry was carried out.

Also numerous investigations were made of radiation levels on frequent flight paths. We tested a system providing an electrostatic defense of the spaceship against cosmic radiation.

On the whole, we are of the opinion that the flight of this sputnik was successful.

**Q:** Does this mean that conditions can be created on a spacecraft that would do away entirely with the negative effect of weightlessness?

**A:** Unquestionably. The simplest way is to create artificial gravity. And it is not necessary to do that for the entire flight.

In principle, we can say that the undesirable consequences of weightlessness can be eliminated by various technical methods. But evidently, as it often happens, the future solution will include the harmonious combination of two factors—human biological possibilities and scientific and technological perfection.

**NEXT  
ISSUE**



### AT THE WALLS OF ANCIENT KHIVA

Old Capital Is a City-Museum

Archeological excavations show that Khiva existed in the sixth to eighth centuries. In the sixteenth century it was the capital of the Khiva Khanate. Thousands of tourists come here each year to see the architectural monuments, which are restored and protected by the state. A photostory in November about this beautiful place in Central Asia.



### THE FACTORY AND THE PEOPLE

More Efficiency, Less Monotony

The Byelarus tractor, produced at the Minsk Tractor Works and used all over the Soviet Union as well as in the United States, Canada and other countries, is considered excellent. But there is a lot more going on at this big plant than the production of tractors. Our articles describe how the workers decide production problems and participate in management, and the benefits they receive from the plant and their trade union.

### FIGHTING FIRES

Report from the Siberian Taiga

Our on-the-scene correspondent tells how a near catastrophe was averted by the quick and able action of the special fire-fighting air service.

**COMING SOON**

The USSR Constitution







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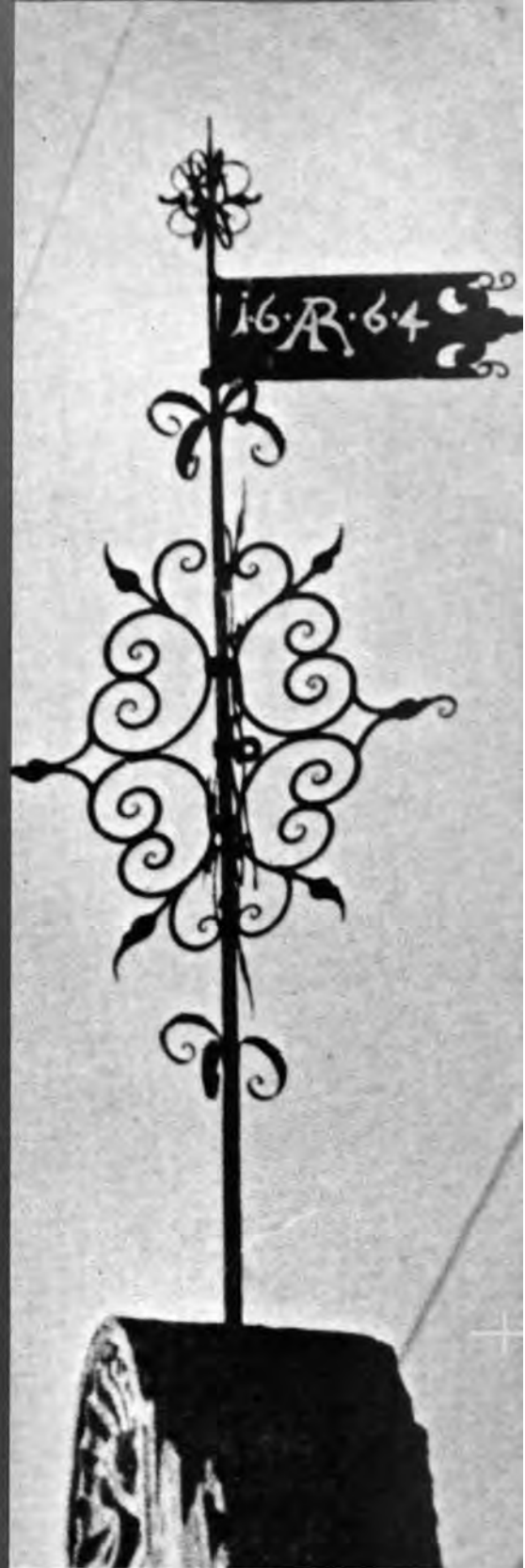








# *Saaremaa islanders: new life for old traditions*



The island of Saaremaa, located in the Baltic Sea, is part of the republic of Estonia. The islanders still pursue the traditional occupations of fishing and agriculture, but improved technology and education have brought new prosperity. (story on page 42)



# SOVIET LIFE

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## LETTERS TO THE EDITOR

My visit to cancer institutes in Leningrad and Moscow in 1959 completely convinced me of the friendly feelings of the average Russian for the average American.

SOVIET LIFE is a real help in cementing this feeling of mutual friendliness and respect because the editors seem to be imbued with the same feeling of friendliness. There is no reason why Russians and Americans can't be the best of friends.

F. Mohs  
Madison, Wisconsin

It is so refreshing to read a magazine with such a correct command of the English language. Your magazine does good things, besides being enjoyable reading. I have always had a spirit of fear and hate toward your country, instilled by our zealous history teachers. I hope that now, with a little more information, my perspective will continue to change. Even though I do not always agree with you philosophically does not mean that I should hate you. Please keep contributing and sharing SOVIET LIFE to promote this understanding.

David E. Hardy  
Tulsa, Oklahoma

SOVIET LIFE is a beautiful window looking into the Soviet Union, and it reveals in its photographs and articles in a simple, but truthful way, the progressive planned activities and development of the new life being created by the Soviet workers, farmers and scientists for the benefit of their people and the people of the whole world. Keep it up.

J. V. Roger  
New York, New York

Think the publication could be a little more realistic by elaborating on some of the problems Russia has. Everything is presented as being "peaches and cream."

Lyle K. Williams  
Fort Worth, Texas

I have just come back to the United States after my trip to the Soviet Union. I was very impressed with what I saw.

My heart went out to the heroic people of the Soviet Union as I visited many cemeteries. Each place I went I brought flowers to show my feeling as a human being, as a veteran of World War II in the United States Army.

May peace and friendship be our guiding light for many generations.

Joseph Small  
Bronx, New York

If it was feasible, I would rather travel throughout the Soviet Union, but I must content myself by poring over the pages of SOVIET LIFE. From the area of the Soviet Union that I have visited, I must say that your magazine faithfully depicts scenes and conditions as they actually are. We all enjoy your magazine very much!

Steven Barna  
Green Brook, New Jersey

SOVIET LIFE is an outstanding magazine. I would never want to do without it. It has consistently assisted in the clarification of my political belief and strengthened my affection for the Soviet Union and its victorious people.

C. Lohmar  
Kansas City, Missouri



## America Day In Moscow

The hall of the Moscow Art Theater, where the capital's public met to mark the two hundredth anniversary of the United States of America, was filled to capacity. On the platform were Walter Stoessel, the U.S. Ambassador to the Soviet Union, Sabir Niyazbekov, Vice President of the Presidium of the USSR Supreme Soviet, Nikolai Tikhonov, First Vice Chairman of the USSR Council of Ministers, prominent Soviet scientists, public personalities and representatives of the Russian Orthodox Church. The national anthems of the U.S. and the USSR were played.

The opening speech was made by Vasili Kuznetsov, First Deputy Soviet Foreign Minister:

"The record of Soviet-U.S. relations convincingly shows that the interests of the peoples of both countries, like the interests of the world as a whole, have always benefited when these relations were based on the principles of mutual respect, equality and desire for understanding and cooperation. This is confirmed by the results of Soviet-U.S. summit meetings."

The next speaker, Academician Georgi Arbatov, director of the Institute of United States and Canadian Studies of the USSR Academy of Sciences, noted that the positive

changes which have taken place in Soviet-American relations in recent years must be broadened and consolidated. The peaceful relations between our states, he emphasized, will greatly assist in removing the threat of war.

The platform was then mounted by Academician Nikolai Blokhin, a noted oncologist, president of the Institute of Soviet-American Relations. He described the society's ties with various U.S. organizations and spoke of delegation exchanges. He was particularly pleased to point out that cooperation in medicine had of late reached a new stage in the collective effort of scientists from both countries—they not only exchange delegations and compare notes, but have joined forces to develop new vaccines and build models of an artificial heart.

Cosmonaut Valeri Kubasov, a member of the Apollo-Soyuz mission

and vice president of the institute, said:

"Both we and the American astronauts were aware that we were not only carrying out joint scientific work, but were showing an example of friendship and harmony to the people of our countries and the whole world."

Walter Stoessel made the concluding speech. He said that the meeting was a good example of the common desire of our two countries to promote closer ties and cooperation. He stressed that our countries had never been at war with each other, indeed, during World War II they were allies. Both the USA and the USSR as two great powers, the Ambassador said in conclusion, feel their tremendous responsibility to the peoples of their countries and to the peoples of the whole world to prevent the danger of war and to preserve peace on our planet.

## PEOPLE AND EVENTS

### To the Victims Of Fascism

Babi Yar are two words with one meaning—they are synonyms for a horrible atrocity committed by the fascists. During the Hitlerite occupation of Kiev, the capital of the Ukraine, thousands of the city's inhabitants were shot in front of a deep ravine called Babi Yar. Whole families—Jews, Russians, Ukrainians—were slain mercilessly, the murderers spared neither children, women nor old folk. Here, too, more than 30,000 Soviet war prisoners met death at the hands of the hangmen.

Today a monument towers over this tragic ground. The bronze slab bears an inscription: "Here in 1941-1943 the German fascist invaders shot more than 100,000 inhabitants of the city of Kiev and war prisoners."

Steps lead up to the 15-meter-high sculpture, where 11 figures are grouped above the ravine. The partisan stands firm in the face of death, the soldier clenches his fists, beside him the sailor shields an old woman, the girl crouches protectively over her beloved, the boy—still holding his head high—topples into the ravine. Crowning the whole is the figure of a young mother and her baby.



### In the Arctic On Skis

In a mere 22 days after the start, the science and sports expedition sponsored by *Komsomolskaya Pravda*, the leading youth paper in the USSR, reached its destination, the South Pole-23 station. They had skied 300 kilometers over the drifting ice floes of the Arctic. The expedition members were Dmitri Shparo, Yuri Khmelevsky, Vladimir Ledenev, Vadim Davidov, Alexander Tennyakshv and Vladimir Rakhmanov.

It took the researchers seven years to work out a method of independent movement in the

Arctic. Seven seasons in a row Dmitri Shparo's group stormed the high latitudes, and now, finally, they have successfully ended their main trek.

Conditions were tough. The temperature was 30 degrees below zero Celcius. On their backs were rucksacks weighing 50 kilograms. The first kilometers were easy—each hour they skied 45 minutes, rested 15, before they moved on again. Every fourth hour there was a long stop for a meal, then another three-hour push. The men carried rubber boats (for getting across patches of water between the ice floes), theodolites, tents, a portable radio and scientific equipment.

They got to the finish in sound health and high spirits.





**Leonid Brezhnev, General  
Secretary of the Central Committee  
of the Communist Party  
of the Soviet Union and head of the  
Soviet delegation,  
addresses the Berlin Conference.**



# **BERLIN CONFERENCE OF EUROPEAN COMMUNIST AND WORKERS' PARTIES**

**By Lev Tolkunov**  
Chairman of the Board, Novosti Press Agency

**L**AST SUMMER a conference of 29 European Communist and Workers' Parties, including the Communist Party of the Soviet Union, took place in Berlin. Unfortunately most of the Western mass information media do not give, to put it mildly, a correct interpretation of its results. This makes it difficult to understand the situation emerging in Europe.

The final document of the conference, "For Peace, Security, Cooperation and Social Progress in Europe," is a comprehensive appraisal of the current international situation based on the collective opinion of all the participants.

This article will deal briefly with only two of the issues discussed in Berlin—how to prevent war, especially a nuclear war, and questions of solidarity among the Communist Parties of different countries.

The past, present and future of Europe are connected with Communists. This is a fact that is hard to deny. In some European countries Communist Parties have led socialist revolutions, in others they are at the head of the working people's struggle for their fundamental rights. That is why the prestige and influence of Communists over the past few decades have grown so much.

Another very important reason is the persistent effort of the Communists for peace. In Berlin, too, they reiterated their determination to overcome all obstacles to security in Europe, to stable cooperation among states with differing social systems.

The Communist Parties noted the progress made in relaxing inter-

national tensions. To put it briefly, an entirely new situation has evolved in Europe. Negotiations are helping to solve major problems that once poisoned the international atmosphere. The principles of peaceful co-existence are beginning to take hold. The 1975 Helsinki Conference on Security and Cooperation in Europe, in addition to approving these changes, worked out a wide-ranging code of peaceful coexistence for states with differing social systems.

At the same time the 29 participants called attention to the fact that universal peace is by no means guaranteed as yet nor is the relaxation of tension firmly established. There are still strong barriers obstructing the road to assured security and cooperation. Massive armed forces with a highly dangerous destructive potential are concentrated on the European continent. The arms race is accelerating, and the arms stockpiles are continuing to build up. Growing armaments expenditures are proving an increasingly heavy burden for the people. If these huge sums were spent on improving living standards, solving economic and social problems, supporting the developing countries and protecting the environment, all of humanity would benefit.

Speaking at the Berlin Conference, Leonid I. Brezhnev, General Secretary of the CPSU Central Committee, said, in part:

"Europe has entered a fundamentally new era, radically different from everything that went before. It would be a catastrophe for Europeans not to understand this. . . . The house of Europe has become extremely



small and can easily catch fire. There is not nor will there be a fire brigade capable of extinguishing the flames if the fire ever breaks out."

That is why the Communist Parties are resolved to curb and push into the background the forces that reject the results of the conference and try to scuttle the policy of relaxation of tension. They want to adopt practical disarmament measures, ensuring, through the efforts of all countries, effective security for Europe and the elimination of military blocs. The Communists are deeply convinced that Europe can and must set an example in implementing measures to ease military tensions, too.

The final document of the conference recommends a series of steps which, in the opinion of the Communist Parties, will make it possible to prevent the unleashing of a war, particularly of a nuclear missile war, not only in Europe, but also on other continents. Among them are proposals to end the nuclear arms race, including delivery systems of nuclear weapons; to ban all nuclear weapon tests in all media; to take effective measures for the withdrawal of nuclear weapons from the territories of other states and prevent their proliferation; to establish nuclear-free zones as a step toward general and complete disarmament; to reduce the number of nuclear weapons and their delivery systems; to outlaw and end the production of all kinds of nuclear weapons and to destroy them.

The call to prohibit the development and production of new kinds of weapons of mass destruction and new systems of such weapons, to work out measures designed to prevent an accidental occurrence of armed incidents and their escalation into international crises, to renounce any show of strength directed against any other state or people, is filled with deep apprehension and a clear understanding of how the possibilities for improving life, inherent in the scientific and technological revolution, can be misused.

So the Communist and Workers' Parties clearly realize that in our nuclear missile age there can be no other basis for relations between states with differing social systems than peaceful coexistence.

The course pursued by politicians who step up the arms race leads either to an armed nuclear conflict or to permanent nuclear brinkmanship. Since no rational person would want a nuclear holocaust, the logical alternatives are either to cooperate or to live in conditions of permanent confrontation, fenced off from each other by the tallest possible walls of nuclear missiles and opposing military-political blocs. In short, the choice is only between a policy of relaxation of tension and a policy of what was known as the cold war. I think, however, that the cold war is not an acceptable option for people who understand the national and political interests of their countries. The future of the peoples requires relations of peaceful coexistence, that is, a policy of progressive relaxation of international tension and growing all-round cooperation in the political, economic, scientific, technical and cultural fields. The Communist Parties, besides imparting a new and rather strong impulse to this policy, also put forward a program of seeking broad alliances with all forces working for peace and social progress. They outlined measures designed to extirpate fascism and to defend and develop democratic rights.

A few words about the solidarity of action of the Communist Parties. It is inherent in the very nature of the communist movement. As in any other movement of an international character, in the communist movement, too, there may arise differences between individual parties. It is important to find correct ways of resolving them. In present-day conditions bilateral and multilateral meetings between Communist Parties are essential. Even at the 1969 meeting of fraternal parties it was noted that since the international communist movement had no guiding center, it became increasingly important for them to coordinate their actions voluntarily.

This was also the case in preparing for the Berlin Conference. But it became the subject of much speculation in the Western press. What was the source of that speculation? The fact that the parties expressed different points of view and took their time in preparing the final document. But the authors of speculation either failed to see, or pretended not to see, the most important point: It was the deeply democratic methods of preparing for the conference that made possible a frank and principled discussion of the international situation. The collective discussion led to the collective elaboration of the document that reflects the major aspects of each party's international policy. It was precisely on this collective basis that the common political line was thrashed out. Is it wrong for Communist Parties working under different conditions to reconcile their positions? The Communist Parties have demonstrated once again their desire to respect each other's independence and to cooperate in a more constructive fashion, closely and harmoniously. This will benefit not only each party, but the broad democratic forces that see in the Communist and Workers' Parties a vanguard guided by a scientific theory. This will benefit the cause of peace, the security of the peoples, their cooperation, and the cause of social progress.

# A RIGHT THAT GUARANTEES FREEDOM

**Alexandra Biryukova, Secretary of the All-Union Central Council of Trade Unions, is interviewed by a correspondent for *Literaturnaya Gazeta*.**

**Q:** Undoubtedly the right to work is the most important social right of the individual. Besides creating all material and spiritual values and producing the means of existence, work enables people to realize their abilities, to feel useful and significant. That is why the right to work must be not only proclaimed, but guaranteed. How is this done in our society?

**A:** Your question can be answered briefly: in every way. The right to work is ensured by the entire social system—socialist ownership of the means of production; socialist organization of the national economy, which experiences neither crises nor production slumps; the steady growth of the productive forces, and the resulting increase in the demand for labor power. These factors also ensure the stability of people's lives and their confidence in the future.

During the past five years the volume of industrial production in the country has increased by 43 per cent. Some 2,000 large enterprises have been built, and new areas particularly rich in raw materials and fuel are being intensively developed. During the Tenth Five-Year Plan period, from 1976 through 1980, the output of industry is to rise by almost 197 billion rubles.

The only way to achieve our goals is by a rapid increase in labor productivity and in the over-all efficiency of social production. As the Twenty-fifth Congress of the Communist Party of the Soviet Union emphasized, the solution of this problem will become particularly important in the immediate future. It stems, of course, from the shortage of labor power. Help Wanted signs can be found at the entrance to almost every factory, and they usually include a long list of trades. For many years we have had no unemployment.

**Q:** Young people would probably ask: "Was there ever unemployment under Soviet rule?"

**A:** Yes, there was. The Civil War and the foreign intervention forced on the young Soviet Republic caused widespread devastation and, as a result, unemployment. It took a long time to heal the wounds, to restore the national economy and rebuild production relations. The 1926 census registered the last million unemployed in our country. Three years later the First Five-Year Plan period began, and in 1930 the employment agencies in the Soviet Union were closed for good. In 1936 the Constitution of the USSR guaranteed the right of Soviet citizens to work and to payment for their work in accordance with its quantity and quality.

To return to the present, let me add a few facts about the direct role of the state in planning the labor supply. What I have in mind, primarily, is the systematic distribution of labor resources among districts and within each district. For instance, jobs are reserved at enterprises for graduates. There is also a system under which workers are offered contracts for jobs in other regions. In addition, the availability of labor resources is taken into consideration when sites are chosen for new enterprises.

In the union republics there are state committees for the use of labor resources, while in the regions, national areas and cities there are corresponding departments for the centralized registration and planned distribution of labor power. This activity, too, is an important guarantee of the right of Soviet citizens to work.

**Q:** You described the political and economic guarantees. What about the legal ones?

**A:** The right of all citizens to work is protected by law. It is defined clearly and in detail in the Fundamentals of Labor Legislation of the USSR and the Union Republics, enacted by the USSR Supreme Soviet on July 15, 1970. This is the first national labor law. It was drafted on the initiative and with the participation of the All-Union Central Council of Trade Unions. Previously the various union republics had their own labor codes.

The law ensures the right to work, regardless of sex, race, nationality or religion, or social origin. This means that all members of society, men and women, young and old, have an equal opportunity to exercise this right. For certain categories of the population preferential working conditions have been created with respect to hours, extra pay or additional leave. These categories include mothers of small children, disabled workers, teenagers, people in hazardous occupations and workers in the Far North and Siberia, as well as people who have been working at the same enterprise for a long time.

*Continued on page 48*



# MINSK TRACTORS ITS PEOPLE-THEIR PROBLEM THEY PRODUCE MACHINES THAT

By Igor Osinsky  
Photographs by Vladimir





# TRACTOR WORKS: PROBLEMS AND AMBITIONS

## THAT ARE SOLD IN 68 COUNTRIES

and Yuri Sapozhkov

Mezhevich and Yuri Ivanov

Brand new Byelorussian tractors ready for delivery to customers.





# TRACTORS FOR FARMERS

By Pyotr Boikov

Pyotr Boikov, director of the Minsk Tractor Works.



The working life of the author of this article and the plant he heads began almost simultaneously. Construction of the Minsk Tractor Works began in 1946. A year later, having received his designer's diploma, Pyotr Boikov, one of the many thousands of specialists who volunteered to help the Byelorussian people rehabilitate their war-ravaged economy, arrived in Minsk, a city he had never been to before. The son of a peasant, he worked his way up from a rank-and-file engineer to top management. Today he is the general director of a tractor-building complex and simultaneously heads its main enterprise—the Minsk Tractor Works.

I heard the phrase "Give me specialists, and we will produce a new tractor" at one of the first meetings of tractor builders. People were sitting on makeshift wooden benches, encircled by a dense forest. Before the war, most of them had grown wheat in these parts, and during the three years the republic was occupied by the Germans, they went off with arms into the forests. (The Byelorussian partisan army numbered over 370,000 fighters.) Now they had gathered to build a tractor plant.

Many became builders, but not by vocation. The war had simplified the choice of occupation. Byelorussia was in ruins. There wasn't a single factory among the enterprises still functioning. The labor shortage—one out of every four of Byelorussia's inhabitants died during the war—made it difficult to repair the damage and almost impossible to build new projects like the Minsk Tractor Works.

Counting off available specialists on his fingers, one of the heads of the construction project, in a fit of anger, said those very words that were so reminiscent of Archimedes' famous utterance: "Give me a lever long enough and a prop strong enough, and I can single-handed move the world."

The help of all the Soviet republics was the lever and prop that made it possible to erect a plant from scratch and organize production. The state allocated funds for construction, and trains with materials and equipment started coming in from all parts of the country. Moscow sent machine tools; Leningrad, electrical equipment; Sverdlovsk, fittings; Magnitogorsk and Zlatoust, metal. Enterprises that had operated in the rear during the war and had therefore suffered no damage helped train specialists. Many, including myself, came to Minsk from other cities of the country. People of more than 30 nationalities work at the plant.

But most of the plant's personnel—workers, engineers and technicians—are natives of Byelorussia. Those who arrived at the construction project without any trade or profession learned one during these years on the job. First they built the plant, and then they operated the machine tools. Some continued to study evenings, received a higher technical education and worked their way up to designer.

Today the Minsk Tractor Works boasts over 4,000 engineers and technicians and close to 5,000 highly skilled workers, many of whom have quite a few inventions and rationalization proposals to their credit. Two-thirds of the working collective take an active part in the management of the enterprise. They discuss production and other problems of factory life at union and workers meetings, and frequently make concrete, businesslike proposals.

I am particularly pleased with our youth—we have about 7,000 young people. They are educated, inquisitive, energetic workers. Sometimes

their ideas anticipate the management's actions and plans.

## The Best Soviet Tractor

A tractor stands on a pedestal not far from the plant's entrance. It was made in 1953. That was our very own first model, and I took a direct part in its design. Today that tractor has 47 kid brothers.

The most outstanding event in the life of our plant after that firstling was the creation of a family of multipurpose row-crop tractors. These machines are exported to 68 countries, including the USA and Canada. Their service record lists three gold medals and one silver, won at various international exhibitions. All in all, Byelorussian tractors bagged 10 gold medals, one silver and one bronze.

Since 1974 we have been series-producing a model which successfully passed certification tests in Nebraska and was judged the best Soviet tractor in 1975.

This machine can work under any conditions, both in the north and the south. Its motor potential is 6,000 hours, and it is designed to operate with upwards of 200 different trailer attachments. The design incorporates automatic differential blocking, a pneumatic trailer braking system that switches itself off when the front wheels make a turn, and a reduction gear, thanks to which the tractor can operate at speeds of from 0.26 to 15 kilometers per hour. (Transportation speed is 35 kilometers an hour.) The tractor has front-wheel drive.

Conditions for the driver are considerably improved. His work is pretty much the same as in a passenger car. The upholstered seat can be regulated to suit any weight and height. A heating and air conditioning system ensures optimal temperatures. For instance, with the outside temperature 20 degrees below zero, a temperature of 26 degrees can be maintained inside the cabin. All instruments are positioned in keeping with ergonomics.

## We Stand for Cooperation

U.S. farmers have had an opportunity to judge the quality of our machines in practice, since we have delivered close to 1,500 tractors to the United States since 1974.

Noting this fact, *The New York Times* wrote that when spring plowing began in New York state, some farmers would drive out into their fields on small excellent Byelorussian tractors, machines combining all the qualities Americans value highly: low cost, economic fuel consumption and no smoke. According to the paper, the fact that the Byelorussian is in America is one of the results of the easing of international tension and the expansion of commercial contacts between the United States and the Soviet Union.

The businessmen I met during a visit to the United States in 1974 were of a similar opinion. I went to a number of tractor plants of the Case, International Harvester and

John Deere companies, as well as a big farm in the vicinity of the city of Racine, Wisconsin. I also checked the condition of the Byelorussian tractors that had arrived there. After making a few minor remarks of a technical nature, U.S. specialists said that they wished they could purchase more Byelorussian tractors.

For our part, we are ready to do our utmost to adapt our machines as much as possible to conditions of operation in the USA, Canada and other countries. In my opinion the possibilities for expanding export are good.

At any rate, in 1976 our plant will deliver more machines to the USA and Canada than last year—1,315 and 1,041 respectively.

## A Window on the Future

It took us 10 years to turn out our first 300,000 machines. Our most recent 300,000 tractors were produced in 3 years and 7 months. During the Tenth Five-Year Plan period (1976-1980), annual output will increase to 88,000 tractors.

There will be changes in the qualitative indices as well. A new group of tractors of up to 150-horsepower capacity are being designed. Their power-to-weight ratio (i.e., number of horsepower per ton of weight) will rise to 37.5. The range among the best foreign models fluctuates from 24.2 to 28. Driver facilities will improve, and we plan to introduce elements of automation.

To be ready for the production of the new models, we are now completing the reconstruction of our main plant and are also planning to reconstruct the branches.

Everything I mentioned earlier is part of the Comprehensive Plan for our enterprise's development for the next five years. We invited scientists to take part in working it out, and everybody in the plant, from worker to director, also took an active part. The party, union and Komsomol organizations made a thorough study of people's opinions, because their interests, concerns and prospects are the cornerstone of the plan. That is why, in addition to dealing with economic and production problems, the Comprehensive Plan includes a broad range of social welfare problems. It contains figures on changes in the professional structure of the plant's personnel, on further training workers and raising their living standards. The plan also stipulates improvements in management methods and increased involvement of rank-and-file workers in solving social welfare problems.

Housing and everyday amenities are also reflected in the plan. About 250,000 families will move into new apartments to be built by the plant during the Tenth Five-Year Plan period. A new rest and recreation center, new kindergartens, nursery schools and Young Pioneer camps will be opened.

Our plant's sociologists are also working on more distant targets—they are trying to anticipate the solution of problems we will be faced with 20 years from now.





Alexander Krolov is a tractor test driver. Above: Each piece of equipment is thoroughly tested before it reaches the assembly line. Top: Sergel Chevan is going to be a lathe operator.



# YOUNG WORKER: CHOICES AND OPPORTUNITIES

As told by Nikolai Voronov,  
a young forging press operator at the Minsk Tractor Works

I HAD HEARD a lot about the tractor plant and often read about it in the papers. So after graduating from high school and doing my two-year stint in the army, I decided to try to get a job there. But when I actually stepped inside the plant, I was afraid I wouldn't be able to find work that would interest me, especially since I had no experience in any field.

The Personnel Department advised me to walk around the shops and see what was being done there. I don't know why, but multiton hammer dies fascinated me, and I wound up as an apprentice in the forge shop. That gave me entry to one of the best youth teams in the plant, the one headed by Vasili Novikov.

At a special initiation assembly the plant's oldest and most experienced workers handed the novices, me among them, workers certificates and tools for the job. The following morning I started work.

It worried me that my inexperience in operating forging machines would be a liability for the other team members. When I mentioned this to them, they told me they had all been in the same boat when they began working. It made me feel a lot better.

I wasn't much use those first weeks. I just about made it through my daily assignment with the help of the others. But they never complained. Instead, they encouraged me in every way possible. After one of my worst days, when I messed up practically everything I did, the other fellows came around after work to cheer me up. In a few months the team topped its quota by 15 per cent, and then by 20 per cent. It was back to where it had been before I joined it, but my teammates congratulated me as though I were the only one responsible for this success.

Generally speaking, my story is not so typical. A new worker usually begins with the plant's free training courses. Young people also come to our plant after graduating from vocational schools, where they get a good grounding in their particular line.

I was inexperienced when I joined the forge crew. I began with the simple job of feeding blanks and gradually learned the tricks of the trade in the process of working. As I said before, it wasn't altogether smooth sailing, but now I'm regarded as a forging press operator of average qualifications. This isn't enough, of course, and I'm continuing with my education. The courses at our plant are not only for beginners. The whole system of technical education is arranged in such a way as to allow workers to study while they hold down a job. This means that they can perfect their skills and advance step by step.

The special courses that I attend are taught by the plant's top-ranking specialists and by teachers of the Minsk Polytechnic Institute. We also have what are called schools of advanced experience, where top workers share the secrets of their success.

At our plant more than 1,000 workers raise their qualifications annually. Many of the people who have not finished 10-year school attend evening general schools, the evening machine-building secondary school at our plant or evening and correspondence departments of the city's higher schools.

We also attend seminars on the fundamentals of economics and production management in order to get a better idea of our enterprise's problems and to be equipped to help solve them. Our workers today don't stop at merely doing a job and getting paid for it. They are interested in everything connected with their plant. They want to be involved in finding ways to improve production, to raise it to a new and higher level.

Incidentally, it pays off. The increase in our own wages and the plant's profits both depend on the success of the enterprise. Part of this profit is spent on our common needs. More and more apartments are built and turned over to the workers and their families free of charge. Excellent facilities are provided for the 9,000 workers of our plant who go in for sports. New medical equipment is purchased for the plant's polyclinic, and more money is set aside for us to take interesting trips in the Soviet Union and abroad.

As you see, it's all interconnected.



The Minsk Tractor Works advanced computer center. Opposite page: The bottom photo shows Nikolai Voronov (right) with his team leader Vasili Novikov. Top: The plant's management and union committee are very concerned about environmental protection.







# COMBATING ASSEMBLY-LINE MONOTONY





The Minsk team that assembled the first Byelorussian tractor. Right: Vitali Mamoiko. Below: Members of Mamoiko's team who work on the plant's main assembly line.



**E**ACH YEAR as many as 85,000 tractors come off the 250-meter-long main assembly line at the Minsk plant. The leader of one of the seven teams working on it—and, incidentally, the youngest of the 17 men in his group—is 25-year-old Vitali Mamoiko. He got the job after graduating from a technical school at the age of 20 as a fitter-assembler. A year later he was proficient in every operation required on the main conveyor.

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Minsk's Lenin Avenue.



The Sports Palace in Minsk.



## COMBATING MONOTONY

Continued from page 13

"When I was a kid," said Vitali, "I liked putting bicycles together. Now I can do the same thing with a tractor—in 340 minutes."

"How did you figure out exactly how long it takes?" we asked.

The team leader explained: "The amount of time set for each assembly job, without speeding up the worker, is 4.4 minutes. The time has been fixed by the plant's economists and psychophysicists, though experts in the field claim that 3.16 minutes are enough. This means that the assembler has 1.24 minutes free."

"Does the increase in labor productivity planned for the Tenth Five-Year Plan period erase this free time?"

"No, it doesn't. This remains the worker's reserve time. An increase in the productivity of labor will account for the extra thousand tractors planned for 1976. But it will be done by automating assembly operations. So that even the 3.16 minutes of actual work will probably be reduced.

"We're also tackling the age-old problem of strict specialization on the assembly line. Workers quickly improve their qualifications and earn more money this way, but they find the work monotonous and dull. That's why we keep changing the team members from one operation to another every week. They become proficient in all the jobs, and we hardly have any trouble with fluctuation of labor, even though some of the workers do change to different and more complicated professions. The many courses given at our plant encourage this."

We wondered out loud how Mamoiko was able to spend so much time with us at the height of work on the assembly line.

"I could invite three more of my men to join in this conversation while the conveyor moves on," Mamoiko told us. "We have a 'squad of substitutes,' to put it in sports lingo. These people are employed mainly on auxiliary operations but are ready to take over in case a regular assembler becomes too tired, suddenly feels ill, or in any other emergency."

Later, in the plant management offices, we were told that the idea of substitutes was proposed by sociologists of the Labor and Wages Research Institute. It sprang up after a thorough study of psychophysiological conditions on the Minsk Tractor Works' main assembly line, and it has fully justified itself.

The question of varying the rhythm of the conveyor in the course of a work shift, depending on "fluctuations of fatigue" of the workers, is now being dealt with. Using the present speed of the conveyor as the norm, scientists propose that it be reduced by 7 per cent in the first two and the last two hours of work and that it be slightly increased in the middle of the shift, when the workers are at their best and can easily cope with greater stress.

## AN IMPORTANT MISSION TO MOSCOW

The collective agreements between management and unions at Soviet enterprises, in addition to covering working conditions, include the provision of housing and day-care facilities and reduced rates at vacation hotels and sanatoriums for workers and their families.

Metalworker Yevgeni Klimchenko, a deputy to the Minsk City Soviet, was sent to see the Minister of Tractor and Agricultural Machine Building in Moscow by the management of the Minsk Tractor Works because the plant was expanding, but enough funds had not been set aside to build vacation and day-care facilities to accommodate the enlarged workforce and their children.





**W**E MET Yevgeni Klimchenko, a toolmaker at the tractor plant and a deputy to the Minsk City Soviet, on the eve of his departure for Moscow. He was going to see Ivan Sinitsyn, Minister of Tractor and Agricultural Machine Building, on a matter that concerned the plant.

In the past few years the Minsk tractor plant, one of the largest of its kind, has grown significantly, and the staff has had to be increased to keep pace. While this, of course, is good for Minsk and the Byelorussian Republic, the need of the entire branch of industry supplying collective farms and state farms with new machinery and equipment was the main impetus. It was in Moscow that the economic development plans for all the 15 union republics were coordinated and merged into the plan for the whole country. It was also in Moscow that the requirements of each republic were figured out. Finally, it was in Moscow that the ministry and the representatives of the Minsk tractor plant decided the extent of the plant's expansion.

The plant was enlarged gradually and according to plan. At first it seemed that all the details of the process had been carefully worked out, but as time passed, it was discovered that management had miscalculated in certain very important areas. It all came to a head when the plant's trade union organization began to receive complaints from workers whose children could not get into the plant's kindergartens and nurseries for lack of space and who also found it difficult to procure trade union passes to sanatoriums, vacation hotels and tourist camps for the same reason. Somehow everybody had forgotten that more places would be needed in these facilities to accommodate the growing number of workers the plant was employing. It must be pointed out that enterprises provide quite a number of benefits for their workers. For instance, parents pay only one-third the cost of maintaining their children at kindergartens and nurseries, and only 30 per cent for accommodations at vacation hotels and sanatoriums, with the trade union making up the difference. Sometimes the workers get free accommodations which are paid for out of the state social insurance fund or the enterprise fund.

It soon became clear that the development of production had jumped ahead of providing for everyday living and cultural needs. The management and the trade union tried to find a way out of the situation, and they actually didn't do too badly. The city authorities offered the plant several hundred temporary places in their day-care centers network. But the plant did not have the funds available to build enough additional day-care centers and health resorts of its own and wouldn't have them for a year or two.

The situation was explained to the workers, who were told that the management suggested they wait (since the disproportion had

occurred through its fault). But they refused to go along with that. Kindergartens and nurseries for children and passes to various health resorts are included in the collective agreement and must be provided by management. That was when management decided to send their deputy, Yevgeni Klimchenko, to the ministry in Moscow to apply for the necessary funds.

In a few days Klimchenko had gotten together all the documents he needed, and he left for Moscow. He told Minister Sinitsyn that his request was based on the joint opinion of the workers' collective, the trade union and other public organizations at the Minsk tractor plant. They all agreed that since the plant had expanded and had to increase its staff, additional funds were required to provide the workers with normal living conditions and recreational facilities. The deputy told the minister about the temporary measures undertaken by the plant to provide the workers' children with accommodations at city day-care centers. He also told him that he had been to the All-Union Central Council of Trade Unions where they promised to temporarily increase the number of passes to sanatoriums and vacation hotels allocated to the Minsk plant.

The minister asked for a few days in which to study the problem. "We shall try to take the funds from the ministry's reserves," he told Klimchenko.

When we met Klimchenko the second time, he was busy revising the plan for the plant's social welfare facilities for the next few years. A special committee made up of the representatives of the management, trade union and other public organizations had been set up for the purpose.

"The ministry has given us the necessary funds," Klimchenko told us. "We have started building five day-care centers for 1,400 children, and work has started on a new hotel that will accommodate a few hundred people. The plant will also contribute its share to a large sanatorium that several enterprises in Minsk are about to build. All of this will not only help us solve current problems but will provide for the future as well. For instance, when our own resort construction work is completed," continued Klimchenko, "we will be able to provide our workers with 1,000 passes free of charge or at greatly reduced prices to the sanatorium and with 2,000 passes to the hotel."

"And even this year the ministry's aid has made it possible to provide more than 1,500 workers with rest and treatment at our overnight sanatorium right on the plant's premises. A month's pass for prescribed treatment and diet costs the worker a mere 16 rubles (just a little more than 20 dollars)."

This was just one example of the diverse activities of Deputy Klimchenko. He straightens out most of the questions on the spot, in Minsk, of course. The case just described was an exception.











The plant's amateur folk dancers on their way to a concert.



# IN THE WORKERS' INTEREST



**Grigori Chukhnakov,**  
chairman of  
the Minsk Tractor  
Works  
union committee.

**G**RIGORI CHUKHNAKOV was past 20 when he first came to the Minsk Tractor Works. Until recently he worked in the foundry. We say "until recently" because his shopmates elected him chairman of the plant's trade union committee, and at an enterprise as large as this one, that's a full-time job.

"At present 99.9 per cent of the plant's workforce are members of the trade union," says Chukhnakov. "The remaining one-tenth are newcomers who are just getting the hang of things."

Trade union activities cover practically every area of plant life, from the development of production to supervising the observance of labor legislation, safety regulations and worker participation in production management. And, of course, the welfare of the workers.

For example, a special commission supervises the work of the plant's canteens and dining rooms. Another is concerned with the allocation of housing (the plant is building a lot of new apartments). Still another makes sure that the preschool facilities are adequate, arranges accommodations for school-age children in Young Pioneer camps and provides workers with vouchers to sanatoriums and vacation resorts at reduced rates.

## What One Per Cent Provides

The monthly dues paid by union members are one per cent of their wage. Not very much—but the benefits they enjoy are tremendous.

Last year, for instance, the trade union provided 8,000 workers with accommodations at sanatoriums and vacation resorts at a 70 per cent discount. The rest was paid for out of the state social insurance funds. The same funds also finance sick leave certificates, which are registered by the trade union. The amount paid for sick leave depends on the average wage of the individual and the length of time he or she worked, but it is

never less than 50 per cent of earnings, while after eight years of work it is 100 per cent.

Trade union money and some of the enterprise funds (these sums are spent only with permission of the factory trade union committee) are used to finance bonuses for the best workers (last year, they were given to 5,000) and to pay for all sorts of lump-sum grants, for example, to newlyweds and pensioners or for gifts to mark anniversaries. This money also subsidizes the plant's palace of culture and the palace of sports, enabling the workers to attend, at no cost, hobby and sports groups and to take part in amateur art activities.

## When the Union Says No

"Our rights," says Chukhnakov, "are rather extensive. We can nullify any management decision if it has been taken in violation of labor legislation."

Soviet labor legislation contains a special article forbidding overtime work without trade union permission. In spite of that, some shop superintendents last year tried to detain workers after their shift was over on the grounds that the plan was in danger of falling short of fulfillment and that there might be no bonuses. The workers appealed to their shop committees, and the union rescinded the decision of the administration. The managers who failed to organize production properly and tried to abuse their power were disciplined, and one was even heavily fined. The question had been examined by the technical inspectorate of the higher trade union body, which has the right to impose fines.

Even more complicated situations may occur when the trade union, in order to protect the workers' interests, has to oppose workers' proposals. For example, a group of lathe operators recently invented a device for speeding up the machining of components and asked the management to raise their out-

put quotas by 20 per cent. The management agreed. But the union protested vehemently: Calculations made by the shop wage commission showed that the quotas could be raised by only 10 per cent without reducing the earnings of the workers.

## Working in a White Shirt

In the opinion of Grigori Chukhnakov, one of the main problems facing the trade union leadership today is figuring out how to make work easier, on the one hand, and how to make it more interesting, on the other. In this, trade unions and management work together.

Thus, in the precision casting shop, 400 workers were exposed to high temperatures. On the suggestion of the trade union, the administration built a new shop with all the production processes fully mechanized. Now steelmakers are working in white shirts—something unheard of before.

Besides that, 19 mechanized transfer lines have been installed in other foundry shops, and the furnaces will soon be fully equipped with air-cleaning devices.

Measures to improve working conditions are included in the annual collective agreement. This year, for example, the management implemented a series of health protection measures, installing additional ventilation chambers, lighting fixtures and protective guards. A total of 300,000 rubles was allocated for these purposes out of the plant's resources.

To be put into effect next is another idea suggested by workers. The trade union has requested the Byelorussian Academy of Sciences to research the problem of eliminating job monotony, especially on the assembly line.

Scientists have already begun the project. Once the recommendations are made, the trade union will insist on their inclusion in the next collective agreement.



Stepan Shaumyan (1878-1918), one of the most brilliant figures in our Revolution, was born in the Caucasus. A noble and chivalrous man, he devoted his life to the Transcaucasian peoples and to his country.



TRIBUNES OF THE REVOLUTION

# STEPAN SHAUMMIYAN

FIGHTER AND HUMANITARIAN

By Ilya Mukhadze  
Historian





Stepan Shaumyan (right) with Ashot Khumaryan (center) and Gabo Sadatyan in exile in Astrakhan. Far left: Shaumyan during his student days in Riga. Bottom left: Shaumyan with his wife Ketevan Ter-Grigoryan and their sons Levon and Sergei. Below: The editorial staff of the newspaper Baku Worker with Shaumyan second from left.



**P**ONDER a good deal about myself, my personality, carefully follow the development of my spiritual and moral world and, observing myself, try to understand what man actually is, what the devilish mechanism we call life is."

"In answer to your question, 'Might it not be better to die than to live this way?' I can say without any equivocation: 'No, you must go on living. You must live, fight, win and lose, but go on living.'"

"When I begin a project, I completely lose myself in it. My entire body, to the very marrow of my bones, becomes full of what I am doing, and there is no room for anything else. This does not bother me in the least; on the contrary, it makes me happy."

These are excerpts from letters written by 18-year-old Stepan Shaumyan to his fiancée (later his wife) Ketevan Ter-Grigoryan. Even in these boyish lines you can detect his outstanding personality.

#### Development

Stepan Shaumyan was born on October 1, 1878, in Tiflis (now Tbilisi, the capital of the Georgian Soviet Socialist Republic) into an Armenian family. His father, who worked as hired man for the local shopkeepers, had four children and found it difficult to make ends meet. After completing the elementary grades of a technical high school,

13-year-old Stepan began looking for a job since the family could no longer afford to pay for his education. However, the school administration recognized the boy's ability and gave him a scholarship that permitted him to complete his secondary education.

He also studied chemistry at the Polytechnic Institute in Riga (now capital of the Latvian Soviet Socialist Republic) and attended a series of lectures on the humanities at Berlin University.

One of his closest friends later wrote about Shaumyan's student years:

"As a student, Stepan was always in great need, but I cannot remember a single instance in the two years of our almost daily meetings, of our studying together and constant and long talks, when material privation in any way overshadowed his scientific and social interests."

Shaumyan became involved in public activities at an early age. While at school he organized a group of his classmates, lovers of Armenian history and culture, into a club they called Tsitsian (Rainbow). The first paper he wrote for this club was "The Ancient Armenian State, Its History and the Burning Lessons Young People Can Learn from It."

Later, the sphere of Shaumyan's interests kept expanding rapidly. A search for answers to the most vital questions led him, as he himself said, "to study the social movement called socialism," to read Marxist literature. It became his principle

to apply the knowledge he acquired to action. His idea of a revolutionary was a person who thought and acted, acted and thought—every day, every hour. In 1899 he organized Armenia's first Marxist club, in 1900 he became a member of the Russian Social-Democratic Labor Party (RSDLP), which in 1917 led the Socialist Revolution in Russia.

Shaumyan's activity was truly amazing. In 1902 alone he was one of the leaders of the student uprising in Riga, he participated in the first all-Russia congress of revolutionary students held in Petersburg, he organized the Union of Armenian Social-Democrats and began publishing a workers' paper, *Proletariat*, in Armenian.

He first met Vladimir Lenin early in 1903, in Geneva. They had long talks and touched on many problems connected with the revolution in Russia. Lenin's optimism, his confidence in the success of the struggle, made a deep impression on Shaumyan and strengthened his belief that the road he had chosen was the only correct one. Subsequently, at any sharp turn the course of events might take, he invariably and firmly supported Lenin's ideas.

While studying in Riga, Stepan Shaumyan set up a student club they called Teoretik (Theoretician). One of its members later wrote:

"Stepan's critical and keen mind, his power of observation, his ready sympathy and sincerity made him the inspiring center and the favorite



of Teoretik. He almost always led the discussions and chaired the meetings. Invariably tactful and affable, he usually managed to prevent unnecessary disputes with a good-natured and witty remark. Though tractable and mild in everyday life, Stepan was firm and adamant when upholding a viewpoint he was sure of, a question of principle."

### Internationalist

In czarist times the peoples inhabiting the Caucasus were separated not merely by the mountains, but also by national prejudices. When Shaumyan first met Lenin he told him:

"There are so many national partitions, things that deliberately isolate us, so many hostile groups, large and small. National enmity is deadly for the proletariat. And we in the Caucasus consider it our duty to overcome it."

From the very beginning of his political activities, Shaumyan was a staunch advocate of the principle of internationalism in the revolutionary movement. One of the first leaflets he wrote, "An Appeal to the Armenian People," said:

"Whoever wishes to win bread and freedom, a home and a motherland, whoever is concerned about the future of his children and grandchildren, the destiny of the people must join with the Russian workers and prepare for the revolution together."

"Sons of the Caucasus—Armenians, Georgians, Azerbaijanians—unite under the banner of the approaching Russian revolution!"

In 1902, in the "Manifesto of the Union of Armenian Social-Democrats," he wrote:

"Being a branch of the Russian Social-Democratic Labor Party, which has spread out widely throughout the entire territory of Russia, the Union of Armenian Social-Democrats is in complete solidarity with it in its activities and will continue to struggle together with it for the interests of the Russian proletariat in general and the Armenian proletariat in particular."

Even in his early political works Shaumyan very clearly set forth the principles of solving the national problem in Russia. In a nutshell, they include granting full equality and the right to self-determination to all nationalities inhabiting the czarist Empire. He pictured the future Russia emerging as a federation of national states from the revolution he believed inevitable. Only in such a federation, he claimed, would the Armenian people, together with all the neighboring nations, be able to develop on the basis of their national characteristics.

In 1903 Shaumyan wrote in *Iskra*:

"As before, in organizational questions the Social-Democrats in the Caucasus stand for a single party defending and representing the interests of the entire proletariat of Russia."

Somewhat later, already on the basis of his personal experience in party work, he likewise wrote the following lines:

"The only socialist party in the Caucasus, whose banner rallies the workers of all nationalities, the only revolutionary party whose influence has awakened to revolutionary activity first the Georgian province and then the Armenian, is the Russian Social-Democratic Labor Party."

A vivid demonstration of the principle of internationalism was the composition of the social-democratic organizations in the Caucasus. Armenians, Georgians, Azerbaijanians, Abkhazians, Ossetians, Russians, Ukrainians and representatives of many other nationalities worked in them together. To the last tragic days of his life Shaumyan always upheld the principle of internationalism.

He was just as consistent in his recognition of the historical mission of the working class as the leading force of the socialist revolution. Early in the century he wrote:

"The entire power of the working-class move-

*Iskra*, the newspaper founded late in 1900 by Lenin, was published in Western Europe and illegally circulated in Russia. It played an extremely important role in the preparation, on Lenin's political platform, for the Second Congress of the RSDLP, which marked the actual founding of the Bolshevik party. From the latter half of 1903, after the congress, *Iskra* was in the hands of the opportunists (the Mensheviks).

ment, led by the Social-Democrats, lies in the fact that it advances the working masses historically as a fighting force." The main thing, according to him, "is not the individual heroes sacrificing themselves for the benefit of all, but the struggle of the working masses armed with the light of socialist consciousness and organized as a class."

### "We Are Laying the Foundation of the Future"

The first Russian revolution broke out in 1905. The fight against czarism took on an especially intensive character in the Caucasus. Stepan Shaumyan worked tirelessly. He organized political demonstrations and strikes, spoke at workers' meetings, wrote revolutionary leaflets, edited several newspapers.

In the autumn of 1905, Tiflis, like other large centers in the Russian Empire, was shaken by a political strike. The city actually found itself in the hands of revolutionary masses. The czarist authorities were paralyzed.

"The events that are taking place are so striking against the general background of the Empire's state structure that foreigners go to the Caucasus specially to see the new forms of statehood for themselves," reads a secret police report to St. Petersburg.

The strike in Tiflis was headed by the central strike bureau, one of the members of which—in addition to other prominent figures in the Russian Social-Democratic Labor Party—was Stepan Shaumyan. Only after long and difficult battles were the czarist troops able to take over the city.

During this time Shaumyan participated in two congresses of the RSDLP—the fourth (Stockholm, April 1906) and the fifth (London, April-May 1907). The new meetings and talks he had with Lenin added greatly to his political knowledge.

Shaumyan's activity for the next few years was connected with Baku, the city of oilworkers, at that time one of the largest industrial centers of the Empire. The multinational local working class was rich in revolutionary traditions. As distinct from the other regions of the country, the workers' movement here was active and full of energy even in the years of reaction that followed the 1905-1907 Revolution. "I feel myself drawn to Baku," Shaumyan said at the time, "as the main nerve of our day. The class struggle is in that city. When I think of Baku, I feel myself squaring my shoulders."

Under the leadership of Shaumyan and other Bolsheviks, the workers of the Baku oil fields and factories advanced economic and social demands and stubbornly fought to get them satisfied. In Baku, as in Tiflis, Shaumyan organized the publication of workers' papers and helped to consolidate the local RSDLP organizations. "We are at present laying the foundation of the future," he wrote in those days. "When we strengthen and expand our organizations, we will not have to be afraid of the opposition. We will be able to advance with confidence to new battles, including the total destruction of the chains of slavery fettering us now."

Exile for over two years (late 1911-1914) tore the revolutionary away from his work in Baku. On his return, Shaumyan took up his activities with redoubled energy.

The general strike of the Baku workers, which started in June 1914, was carried out under his leadership. The revolutionary Nadezhda Krupskaya, who was Lenin's wife, later wrote: "Stepan Shaumyan had tremendous influence on the Baku proletariat."

### "The Greatest Moment Has Come"

The February Revolution of 1917 overthrew czarism. State power passed to the bourgeois Provisional Government. However, other organs of people's power—the Soviets—appeared in the country at the same time. At the beginning of March 1917 a Soviet of Workers' Deputies came into being in Baku, too. Its chairman was Shaumyan, the man most popular among the city's working people.

By the end of the year, after the October Socialist Revolution, the Soviets took all state power in the country into their hands. In those

days Shaumyan wrote in the *Bakinsky Rabochi (Baku Worker)*: "The greatest moment has come. The destiny of the workers and peasants revolution is being decided. All those who wish well to the people of this tormented and suffering country must immediately stand up for the new government, the government of the People's Commissars, led by Lenin."

Shaumyan was soon to become the head of the first Soviet government in Transcaucasia—he was elected Chairman of the Council of People's Commissars of the Baku Commune. Many democratic transformations took place under his leadership: decrees on an eight-hour workday, on the full equality of all nationalities, on general school education for the children of all working people, on workers' control over the oil fields and factories. No excesses, no extremes. All decisions were arrived at after extensive consultations with the mass organizations of the working people. Lenin heartily approved of the way he handled the first tests of Soviet leadership.

Meanwhile, by July 1918, the situation in Baku had grown extremely complicated. The Caucasus was completely cut off from the other Soviet territories and from Moscow by the front lines of the Civil War. The food reserves in the city were practically exhausted. The Turkish and German troops were advancing on Baku from one side, the British interventionist army from the other.

In these critical conditions, the enemies of the Revolution—from the owners of the oil fields to the Menshevik opportunists—became increasingly active. Under the onslaught of internal counterrevolution and foreign intervention Soviet power was temporarily overthrown. Counter-revolutionary dictatorship took over the city, represented, according to a foreign observer, by "five impostors"—members of the reactionary nationalist Mussavat Party, which was supported by the foreign interventionists.

Shaumyan and the other 25 commissars in his government were thrown into prison. The Mussavatists did not dare to deal with them right on the spot, in Baku—they were too afraid of the workers' wrath. So the prisoners, under the false pretext of evacuation, were taken to the Asian coast of the Caspian Sea. There, in a lonely desert, they were shot in the dark of night on September 19, 1918.

The death of the 26 Baku commissars is one of the most tragic pages in the history of the Russian Revolution. All the men—among them were Armenians, Azerbaijanians, Georgians, Russians—were intellectuals in the highest sense of the word. They had deep trust in the ideals of social justice and were ready for any sacrifice.

As the leader of the Baku Commune, Shaumyan showed himself to be a true humanist, an opponent of violence, a real hero. In the days that passed between the fall of the Commune and his arrest, he had many chances to go into hiding. But his sense of duty to his comrades, his determination to stay with them to the end kept him from doing it.

In April 1920 the people, led by the Bolsheviks—among them Stepan Shaumyan's steadfast associates in the revolutionary struggle Armenian Anastas Mikoyan and Georgian Sergo Ordzhonikidze—once again established Soviet power in Baku, this time forever.

That same year the remains of the 26 commissars were brought to Baku and buried in the city's central square. A mausoleum was erected over their grave.

Our people revere the memory of the Baku commissars. They have become the heroes of novels, films, poems. Stepan Shaumyan's name has been conferred on three towns—in Azerbaijan, Armenia and Georgia—and on one region in Azerbaijan. Selected works by Shaumyan—his political articles and speeches, his research into literature—have been published in many editions.

Today Transcaucasia is made up of three union republics—Azerbaijan, Armenia and Georgia. Their successful development is a brilliant testimony to the noble ideas of socialist internationalism, which Stepan Shaumyan—that champion of freedom and liberty—held so dear.



# Your Questions on Communism

## GOALS COMMON TO ALL HUMANITY

"Do the interests and aims of socialism and communism coincide with the interests of all humanity, or are they widely divergent, as some Western sociologists assert?"

By Mikhail Mchedlov  
Doctor of Philosophy

**T**HE GOAL OF COMMUNISM—to achieve peace, work, freedom, equality, brotherhood and happiness for all the peoples on Earth—expresses the interest of all humanity.

The new, socialist society carefully preserves the values amassed in preceding epochs. Thus, in the sphere of morality it has accepted all the basic standards of human behavior that were created by the people in their fight against the inequities of the old society.

In the domain of culture, Lenin struggled against the nihilists, who, in rejecting bourgeois cultural values, renounced the entire previous development of human thought and advocated the creation of some special, "proletarian" culture. Lenin considered such slogans "theoretically unsound and practically harmful." He believed that the new culture must evolve from the old, assimilating and developing the best of the past. One of the main conditions for molding a new type of individual, Lenin said, lies in enriching people's minds with "a knowledge of all the treasures created by mankind."

Technology and material resources have been taken over by the new society without significant exceptions.

Finally, in the political organization of society, too, Marxism does not reject the advances of other social systems. The functions of even such a purely class-determined institution as the state have a number of common features derived, as Karl Marx pointed out, from the nature of every society. They include, for example, concern for the control of epidemics, prevention of natural disasters and protection of the environment.

Thus socialism, while rejecting in principle the antagonistic class society opposed to it, nevertheless retains all the positive contributions made to human progress by previous social systems.

But socialist society is characterized primarily not by what it assimilates from previous formations, but by its own principles. Briefly speaking, these boil down to the realization of the goal that inspired the advanced philosophers of all peoples and all times and was scientifically formulated in the classics of Marxism-Leninism. This goal is the emancipation and all-round devel-

opment of the working people. The relevance of this aim to all humanity, we think, can hardly be questioned.

For Lenin socialism meant prosperity and the free and harmonious development of all members of society. He stressed that socialism alone "will make possible the wide expansion of social production and distribution on scientific lines and their actual subordination to the aim of easing the life of the working people and of improving their welfare as much as possible." All the difficulty and strength of Marxism, observed Lenin, lies in understanding that socialism places all the economic, scientific and cultural achievements in the service of the people.

Under socialism, the principle of ownership of the means of production (land, factories, transport) is put into practice. This permits economic planning on a national scale and the avoidance of crises and unemployment. Economic problems are tackled in conjunction with social questions.

In recent decades planning has been gaining wider international acceptance, and countries with different political systems have, to some degree, even tried to incorporate it into their economic systems. Here, too, in foreseeing the necessity for universal economic development, socialism reflects the interests of all humanity.

For the first time in human history, socialism creates the conditions of life in which the principles of social organization correspond to the requirements of the individual. We mean the emancipation of labor, the removal of all types of social and national oppression, the establishment of political equality for all citizens, all social groups, classes, nations and nationalities, and their practical participation in the management of public and state affairs.

Socialism creates a new sociopsychological climate in which human activity becomes the co-operation of free and equal working people. The new social relationships foster a feeling of comradeship and human dignity, a conscious understanding of social responsibility.

The history of Soviet society shows that the Soviet Union has consistently pursued the course of raising the people's well-being and

level of culture. The recent period, when the Soviet Union has had larger resources than before for the satisfaction of the people's material and spiritual requirements, is evidence of this. We shall mention just three facts: Real per-capita income in the country has doubled approximately every 15 years. The transition to universal compulsory secondary education has, in the main, been completed. Each year the housing conditions of some 11 million people are improved, with the overwhelming majority of new apartments being built at state expense.

The perspectives of further beneficial changes are mapped out in the decisions of the Twenty-fifth Congress of the CPSU, which was held in February-March 1976. The activity of the party, General Secretary of the CPSU Central Committee Leonid Brezhnev told the Congress, is aimed at doing "everything necessary for the welfare of man, for the sake of man. It is this supreme and humane goal of the party that gives it kinship with the people, creates firm and indissoluble bonds between it and all Soviet people." The Congress oriented the country's development along the lines of the unity of scientific, technological, economic and social progress. And this unity is a key factor in the evolution of all modern societies.

To survive and develop, modern civilization needs stable peace. Socialism and peace are indivisible. Karl Marx wrote in 1870, in the days when Europe was enveloped in war:

"The alliance of the working classes of all countries will ultimately abolish war. The very fact that while official France and Germany are rushing into a fratricidal feud, the workers of France and Germany are sending each other messages of peace and good will; this great fact, unparalleled in history, opens the vista of a brighter future.

"It proves that in contrast to the old society, with its economic miseries and its political delirium, a new society is springing up, whose international rule will be peace, because its national ruler will be everywhere the same—labor!"

With the appearance and consolidation of socialist society Marx's prediction became a reality. The first official act of the first socialist

state in 1917 was the Decree on Peace. In this historic document the workers' and peasants' government of Soviet Russia, appealing to the governments and peoples of all countries, expressed the unshakable desire of our state for a just, democratic peace based on respect for the rights and interests of all the peoples. Since then our country has been consistently and vigorously pursuing the policy of peace.

The Soviet Union devotes much energy to the organization, jointly with other states, including capitalist, of collective actions in defense of peace, for ending the arms race and relaxing international tension.

Peace is not only security, but also the most important prerequisite for the solution of the major problems of modern civilization, which affects the future of all humanity. Among these are the conservation of energy resources, protection of the environment and the development of the riches of the World Ocean. The successful solution of these problems requires the collective efforts of states with different social and political systems and the all-round promotion of international economic, scientific and technological ties. Socialism sets an example of a constructive approach in all these respects.

Speaking of the peace-affirming mission of socialism in our epoch, it is relevant to recall the following words of Karl Marx, which he said over 100 years ago in an address to communist workers:

"On you, then, depends the glorious task of proving to the world that now at last the working classes are bestriding the scene of history no longer as servile retainers, but as independent actors, conscious of their own responsibility and able to command peace where their would-be masters shout war."

The consistent struggle for peace demonstrates the effective humanism of socialist society.

But recognition of the continuity and the general human direction of socialist society must not overshadow its fundamental differences from all preceding and existing social systems. Its historical uniqueness consists in that it creates the conditions for a worthy life, not just for a sector of society or a sector of humanity, but for all people and nations without exception.



# FIRE FIGHTERS

## IN THE TAIGA • IN THE OIL FIELD • AT THE AIRPORT

Here are three articles on the same subject: fire fighting. The first is a story about a real fire, a particularly dangerous one because it broke out in the taiga and could have spread over hundreds of kilometers. It was put out by the aviation fire service, which controls fires over vast territories in the country's remote taiga areas.

The situations in the other two articles are simulated, but with the greatest possible approximation to what the real events would have been like under the given circumstances.

An oil gusher, which can in a second turn into a flaming column, is a real hazard, especially when several wells are drilled directionally from one point. The new fire-fighting methods described in our article were tested at a special range in Tyumen Region, Western Siberia.

And the final article is about an experiment conducted at Moscow's Vnukovo Airport.

### JUMP INTO THE FOREST

By Pavel Antonov

A MILLION MATCHES can be made out of one tree, and a million trees can be burned down by a single match. That is why the country's forests are guarded around the clock from the air by patrols from forest aviation bases. There are 17 in the Soviet Union, and one of them—the West Ural Forest-Protection Aviation Base—guards the spurs of the Ural Mountains and, in particular, the forests in Perm Region.

One day a monoplane on duty reported a fire spotted in the 92nd square of the Polaznin Forestry. In 10 minutes bulldozers and machines with fire fighters and medical personnel had left the base for the fire area. In the meantime the patrol plane circled over the forest, looking for a place to land. When no open glade could be found near the fire, the order was given to jump into the forest.

Only a few minutes had passed since the fire was spotted, but a parachute landing force was already fighting it. At first there were only five people from the patrol plane, but soon the sky was filled with open parachutes, and wave upon wave of fire fighters were landing. One parachutist got caught at the top of a secular pine, but a special device enabled him to slide down quickly.

A flare signaled a one-minute alert before an explosion that would bare a strip of woodland to keep the fire from spreading. A black wall rose to the sky. The strip was bared, but now the tree crowns caught fire.

MI-8 helicopters moved in, carrying a continuous supply of water in rubber containers. A helicopter landing force joined the fight and, lowered by refractory cables, fought the fire raging in the treetops, dozens of meters from the ground.

Finally, a screen of water formed by several hoses from water tanks blocked the spread of the crown fire.

Many hours after the fire had been forced "to devour itself" and, enfeebled, went out, Anatoli Tveretinov, a landing-force member who had jumped hundreds of times into burning forests, was asked:

"Is it terrible to jump?"

"It certainly is. You see a fire rag-

ing over several square kilometers below you, and you're coming down right into the middle of it. But when you start the operation, you forget about the danger. And this," he concluded, pointing to his fire-fighting suit, "is reliable armor."

### BURNING OIL

By Yuri Lushin

MY HANDS were shaking as though I, myself, had been putting out that flaming oil, as though I, myself, had just returned from the center of the fire, where crossed water jets had been directed at me to protect me from the heat. But the real fire fighters were calmly heading toward their base car, lighting cigarettes, cracking jokes and sharing impressions of the recent battle. I couldn't detect the slightest shade of bravado or fear on their faces. I knew that in a few minutes they would again be summoned to a fire fiercer and more merciless than the one they had just put out, which was part of an experimental program. But I couldn't in my wildest dreams imagine a worse fire than the one I had just watched.

I think it had begun to rain at the very moment the lighted torch was flung in the direction of the wellhead. The fluttering and crackling flame seemed weak and harmless. But in a second, or even less, everything suddenly changed. A stream of black oil shot up with terrific force. Almost simultaneously I heard a pop, like the sound made by a party cracker, and the black gusher turned into a flaming column rising to the sky. Not just one well, but three or four, were already flaming, and from two a spraying stream of oil was spouting. It is much more difficult to extinguish such a flaming gusher. The giant black smoke mushroom seemed to be reaching the lower clouds. Curling and wailing, the flames rose to the sky, disappearing into the blackness. Not even the heaviest downpour could help this

holocaust. My eyes were glued to the fire. I looked and just couldn't figure out how this unbridled elemental force could be controlled.

But then the fire fighters moved in. In their fantastic silvery suits they looked like visitors from another planet. It's not hard to guess what they were experiencing over there, at the heart of that hell, if unprotected patches of skin could hardly bear the heat 40 meters from the fire. I saw them trying to beat down the flames with about a dozen water jets. But the fire wouldn't subside. Then gas-water turbojet units were switched on. The concentrated gas jets threatened to carry off everything in their path. Nothing, it seemed, could stand up to such pressure. But the flames wavered, bent down to the ground and shot up again with renewed force. However, this was the fire's final burst. The next minute the powerful gas and water jets tore the flame from the well and thrust it aside.

Suddenly everything was quiet. Only a rivulet of water, in which the remaining oil, now no longer dangerous, was spreading in iridescent splotches, murmured softly. It all ended so improbably fast.

"How much time did the whole thing take?" I asked Anatoli Smolensky, head of the test operation and chief of the Fire Control Board of Tyumen Region, and Igor Kimstach, a representative of the Central Fire Control Department of the USSR Ministry of Internal Affairs.

"All in all, less than five minutes," Kimstach replied.

"With the total discharge of the wells running into 3,000 tons of oil," Smolensky added.

"What will the next experiment be like?"

"The same as this one, but the oil discharge will be increased to 5,000."

"And what if you can't put the fire out?"

"Well, scientists say a negative result is also a result. We'll shut everything off and start all over again. After all, this experimental fire range was set up for the very purpose of finding out what we can and cannot accomplish," Smolensky explained.

"This range, by the way, is the first of its kind in our country," said Kim-

stach, "and we are going to create and solve all kinds of problems here. Multiple drilling is used widely in the swampy conditions of Tyumen, that is, four, eight, ten and even more wells are drilled directionally from one point. To what extent can the number of wells from a single point be increased? What if one of the wells needs repairs, and a fire breaks out there? Will it spread to the other wells? Can the rest of the wells be operated while one or more is being repaired, or must all of them be closed down? All these different situations are simulated at our test range."

"Who takes part in these experiments?"

"Fire fighters from all the oil-bearing districts of Tyumen Region. Scientists, too, come here, as well as representatives of fire control departments of 14 republics and regions. Specialists from Tyumen proposed an interesting innovation, a shutoff valve in each well at a depth of about 20 meters to automatically isolate the well in case of fire or any other accident."

"But that will put the fire fighters out of a job."

"That would be great, but then there is still the danger of blowouts during prospecting drilling, as well as innumerable other unexpected developments and accidents. So that a coordinated approach is essential."

### FOUR RISKY MINUTES

By Vladislav Yanelis

ENGINE FAILURE. Forced to make emergency landing," the commander of a TU-154 reported from his plane. He was ordered to land at Vnukovo, one of Moscow's airports. Forty seconds after the Central Control Board had received the message, the last engine shot out of the firehouse.

While the airport fire-fighting team was covering a reserve runway with foam, preparing a cushion almost one kilometer long, scores of red machines were racing toward Vnukovo from Moscow's adjacent districts. Passing the airport's gates and following a predetermined well-thought-out route, they semicircled and lined up along the concrete strip. No one could say for sure where the undercarriage of the damaged plane would touch down, so they had to be ready to render first aid instantly at any point.

A separate reserve group was stationed some 500 meters from the fire-fighting headquarters in case the fire from the plane should spread to some neighboring buildings, woods, machines or equipment.



It was hard to believe that anyone would be able to put out the raging oil fire, but within five minutes the fire fighters had it under control.





A 300-meter water trunk pipeline had to be extended up to the strip—15 hoses, which men from Nikolai Lapin's team were bringing in. They finished their job in three minutes.

And in another three minutes the TU-154, a gray tail of smoke in its wake, was already taxiing toward Lapin and his men.

It had hardly stopped when several foam jets hit it in the nose, cutting off the flames from the cabin. Turning, the mobile foam machine's powerful gun went into operation. By then other foamers had driven up and, blocking off the TU-154 from all sides, directed their foam jets at the red-hot engines and other parts of the plane.

Now Lapin's team had to get into the plane and evacuate the passengers—with every passing minute it was getting harder to breathe in the passenger compartments. Ambulances with doctors and medical aides were in readiness. Four men—Vladimir Novikov, Yevgeni Yastrebov, Grigori Timoshenko and Vladimir Tolcheyev—were the first to approach the plane. They tried to open the door to the passenger compartment from the outside. It had jammed during the landing, and they couldn't budge it. Then they tried from the inside.

Each man had an oxygen tank strapped to his back, and foamers directed their jets at them so that their fire suits wouldn't overheat.

Dragging a hose in with him, Yastrebov was the first to disappear into the hatch. The rest followed. We waited. At last Yastrebov reported over his walkie-talkie: "Passenger compartment filled with smoke, no fire; have located the door; starting operations." Muffled blows and grating confirmed his report. The door swung open, and black smoke billowed out. In a minute the first passenger slid down the emergency ramp, then the second and the third. While Yastrebov and Novikov were getting the passengers out of the first compartment, Timoshenko and Tolcheyev managed to open an emergency hatch over the port surface and, lowering rope ladders, began to evacuate the rest of the passengers.

The second rescue group was already working in the passenger compartment. All pockets of fire were extinguished and cut off from the fuel tanks. Slowly, as if reluctant to part with its victim, the smoke retreated from the salvaged machine. When it seemed that everything was over, a little wooden building some distance away burst into flames. The reserve team was called in. The machines sped across the airfield, and three thick white jets crisscrossed on the structure's burning roof, smothering the flames before they had a chance to get started.

Aides were checking the rescued passengers. Everybody's pulse was normal and so was their respiration. The "passengers," who were the mates of those who had today come to their rescue, went off to the waiting bus.

That was the plan of the fire drill. There was some risk, but an insignificant one, actually. Two emergency hatches could have been operated instantaneously at the slightest sign of real danger. That is, if the rescuers had failed to accomplish their job in four minutes.



Fire fighters race to the burning plane in special protective suits. Their most important task is to reach the cabin of the aircraft, where passengers are suffocating from heat and smoke.







Fire fighters are lowered from helicopter into the burning area. Suits like those shown in the photo below protect them from intense heat and flaming debris.





**D**URING THE NIGHT of October 25-26 (November 6-7), 1917, following the Red Guards and revolutionary soldiers and sailors who had stormed the Winter Palace, the residence of Russia's Provisional Government, four Americans—John Reed, Albert Rhys Williams, Louise Bryant and Bessie Beatty—entered the former Czar's chambers. They were the first to tell their compatriots the truth about the October Revolution, the Soviets, Lenin and the Bolsheviks.

That took courage—the American government was openly hostile to the world's first socialist revolution. The young Soviet Republic was not only refused recognition: In 1918 Allied intervention landed soldiers, including Americans, in Vladivostok, Murmansk and Arkhangelsk. Through 1920 they tried to strangle the new Russia by force of arms and economic blockade.

And, finally, attempts were made to isolate Soviet Russia politically and to brand the country as immoral. A barrier, later known as "the blockade of truth," was erected around Russia. The lords of the press in America and in other countries described the "horrors" of the Revolution and drew pictures of "chaos" in Russia. The term "Red terror" pervaded the media of the day. It was said that the Bolsheviks were nothing but a group of usurpers and extremists and that they were agents of Germany carrying out the orders of the Kaiser.

It was therefore of the utmost importance that the truth about the developments in the new Russia be brought to the outside world as soon as possible.

#### John Reed

Four Americans witnessed the storming of the Winter Palace. Best known is John Reed, of a well-to-do family, a Harvard graduate and a brilliant journalist (he was the author of widely read reports on the Mexican revolution and dispatches from the European fronts during World War I). Reed arrived in Russia on the eve of the October uprising.

He did not stand on the sidelines, but plunged into the intense political life of Petrograd, establishing close contacts with workers and soldiers. Reed became convinced, from personal experience, that the masses were supporting the Bolsheviks. For him October 1917 was not the conspiracy of a few but a genuinely popular revolution, to which he gave all his sympathy. Addressing the Third All-Russia Congress of Soviets in Petrograd in January 1918, he swore to tell Americans the truth about the Russian Revolution. And he did all the rest of his life. What Reed saw in Russia he summed up in the words "I saw the new world born."



# OCTOBER REVOLUTION OF 1917

## THROUGH THE EYES OF AMERICAN FRIENDS

By Professor Boris Gilenson

In the spring of 1918 he returned to the United States, where he spent the whole summer and autumn touring the country and making speeches, giving reports and lectures on the Revolution in Russia. The peoples of Russia, he drove home with every word, had the right to shape their destiny as they saw it, and the Bolsheviks expressed the will of the popular masses. Later, Reed was summoned to the Bolshevik Propaganda hearings of the Senate Overman Committee to testify about what he had seen in Russia. He continued his battle for the truth.

In the preface to Reed's book *Ten Days That Shook the World* (1919) he wrote: "No matter what one thinks of Bolshevism, it is undeniable that the Russian Revolution is one of the great events of human history, and the rise of the Bolsheviks a phenomenon of world-wide importance." And in his first report to the readers of *The Liberator* John Reed, just back from Russia, expressed the conviction that the Russian "masses of the workers are not only capable of great dreams but have in them the power to make dreams come true."

His book excited the attention of people of many different views, including those who did not share the author's political credo. Historian George Kennan said, for instance: "Reed's account of the events of that time rises above every other contemporary record for its literary power, its penetration, its command of detail. It will be remembered when all the others are forgotten."

Vladimir Lenin made a strong impression on John Reed. For him the leader of the October Revolution was the embodiment of the force, intellect and truth of the Revolution.

In the autumn of 1919 Reed again came to Russia to write a new book, which he conceived as a sequel to *Ten Days*. This time he traveled widely around the country, reaching the remotest

villages and seeing the widespread poverty, malnutrition and disease. In his last articles, written in the spring and summer of 1920, he told Americans how the new government was healing the wounds of the Civil War and the blockade. Reed had many plans for the future, but they were not to be realized. On October 17, 1920, five days before his thirty-third birthday, he died of typhus, a disease he had seen a great deal of just before he fell ill. He was buried in the Kremlin wall.

#### Albert Rhys Williams

John Reed and Albert Rhys Williams met in Russia in the turbulent autumn days of 1917. Working together, they wrote for the American press about the new Soviet country, and later they traveled together around the United States to bring people the truth about the Russian Revolution.

During the year that Williams spent in Russia, he lived with peasants, came to know many Bolsheviks and participated in the First All-Russia Congress of Soviets, where he addressed the meeting. He visited the front line near Riga and had long talks with soldiers in the trenches.

During the battle for the Petrograd Telephone Exchange, Williams acted as an intermediary at the talks between Red Guards and the cadets who were holding the building. When in February 1918 the Germans approached the city, Williams helped to form an international detachment to defend it. In those first days after the October Revolution Williams met Vladimir Lenin a number of times and talked with him.

Williams and Reed returned to America in 1918, Reed to write *Ten Days That Shook the World* and Williams, *Lenin: The Man and His Work*, the latter published in 1919 and reprinted several times since. The image of Lenin, whom he deeply respected and loved, preoccupied Williams all his life. The last time he returned to the subject of Lenin was in his book *Journey into Revolution: Petrograd, 1917-1918*, written when he was already gravely ill and published posthumously in 1969.

For Williams Lenin was, above all, "the supreme realist," sincere, democratic and unassuming in

*Reed's entry in the delegates' album of the Second All-Russia Congress of Soviets summed up his impressions of Lenin.*

*John Reed was one of four Americans who witnessed the storming of the Winter Palace in October 1917. He described the Revolution in Ten Days That Shook the World. Opposite page, far left: Raymond Robins, a wealthy businessman who headed the American Red Cross Mission in Russia, urged U.S. recognition of the Soviet Government.*

*Lenin Simplest, most human, and yet most far-seeing and invincible*

*Lenin - the locomotive of history*  
*John Reed*  
*Moscow July, 1920*  
*Communist Party*



his manner, a person who had great foresight and who was capable of profound analysis, who could face up to the truth and find a way out of the most desperate situation. Williams described Lenin in his study—quickly solving scores of complicated problems. Or he might be listening to a bearded peasant who had come from a far-off village to see him. He depicted Lenin sharing with his people all the hardships of the blockade.

In another book, *Through the Russian Revolution* (1921), Williams, who had traveled over 6,000 miles from Moscow to Vladivostok, spoke of the scope of the revolutionary transformations, which reached the farthest corners of the country and awakened millions of peasants. He said that Russia had "pioneered the way to a new society and made invaluable laboratory experiments in socialism on a colossal scale."

Williams was lucky: He not only saw "the new world born," but also witnessed its powerful and dynamic growth, visiting the USSR several more times and spending a number of years in our country. He went to the remotest villages—he was particularly interested in the fate of the Russian peasantry and became an expert on this question. These trips produced several books. The last, *The Russians: The Land, the People, and Why They Fight*, was published in 1943. In that book Williams described in great detail the famous Battle of Stalingrad. He told Americans about the "secret weapon" of the Russians that helped them smash the Hitler war machine. This weapon, as Williams saw it, was the new human being, who had grown up in socialist conditions.

#### Louise Bryant

Two of the four Americans who were witnesses to the historic changes in Russia were women—Louise Bryant and Bessie Beatty.

Bryant, a gifted journalist and the wife of Reed, threw herself into the middle of the revolutionary developments; later she wrote vividly about them in her book *Six Red Months in Russia*. Back in the United States in February 1919, she too was summoned before the Overman Committee. The journalist firmly and with dignity stood up to the questioning. The Russian Revolution, she said, was the expression of the deep-rooted aspirations of the masses for peace, bread and land. It was the masses on whose behalf the Bolsheviks had acted. Demanding that Russia be left in peace and given the opportunity to follow its own path, Bryant reminded the senators that the founding fathers believed in the right of any people to freely choose and institute their own government. She urged her government to withdraw all the American troops from Russia and establish friendly relations.

When she returned to Russia in September 1920, Reed helped Bryant obtain an interview with Lenin. That interview, on October 13, 1920, where Lenin put forward a plan for the normal-

ization of Soviet-American relations, is one of the first documents to call for a Soviet policy of peaceful coexistence between states with different social systems.

Later, Bryant wrote a series of articles on the leaders of the Revolution: Vladimir Lenin, Anatoli Lunacharsky, Felix Dzerzhinsky and Mikhail Kalinin.

#### Bessie Beatty

When Reed and Bryant first came to Petrograd, Bessie Beatty was considered an old-timer among the small group of American journalists. A beautiful woman of 30, Beatty had been in Russia from the spring of 1917 and had a good picture of the situation there. As a military correspondent for the *San Francisco Bulletin*, she had already been to the Russo-German front. With Williams she met revolutionary sailors in Kronstadt.

Beatty's reports and her book *The Red Heart of Russia* are sympathetic and honest insights into the revolutionary events in our country. The heroic spirit of the Red Guards, the Revolution's humanist ideals and the concern of the new government for children inspired the journalist's admiration.

In 1921 Bessie Beatty came to Russia for the second time. She accompanied the head of the Soviet state, Mikhail Kalinin, on his journey along the Volga on board the "agit-ship" *Sarapuletz*, and in December she interviewed Lenin.

#### Raymond Robins

When in the summer of 1918 Colonel Raymond Robins, head of the American Red Cross Mission in Russia, returned to the United States from there, reporters dubbed him "the millionaire who loved Lenin." Of course, Robins was neither a Bolshevik nor a Marxist. He was a wealthy businessman and staunch Christian. It was the impact of his own impressions that was responsible for his renouncing the anti-Soviet bias so typical of people of his class. Robins realized that Kerensky (head of the Provisional Government, overthrown during the October uprising) was a failure, that the Revolution was carried through not by a handful of conspirators, but by the masses of the people and, therefore, that the new power would be stable.

Robins had frequent visits with Lenin. They had long talks and heated debates. Lenin discerned in Robins a capitalist and no partisan of socialism, a man of great integrity and honesty. Though often disagreeing with Lenin the Marxist, Robins was won over by Lenin the man, his simple manners, his authority and his sincerity. These encounters had much to do with Robins' becoming a friend of our country.

Even when Soviet power was taking its first steps, Robins told Arthur Ransome, the English correspondent of the *Manchester Guardian*, that he could not feel unfriendly toward an infant beside whose cradle he had spent six months.

On his return to the United States, Robins said that Bolshevism was a serious and integrated philosophy and that it was not by means of military intervention, but rather in peaceful com-

petition that differences with the Bolsheviks should be resolved. When he again came to the USSR in 1933, he praised the changes that had occurred in the country.

To his last days Robins favored the promotion of cooperation between the U.S. and the USSR and actively worked for the establishment of diplomatic relations between the two countries.

#### Lincoln Steffens

America's No. 1 journalist and a friend of President Woodrow Wilson, Lincoln Steffens came to Russia in February 1919 with the mission of William Bullitt, a representative of the U.S. Government. Later in Paris, Steffens told his friend, the banker Bernard Baruch: "I have been over into the future, and it works." \*

Steffens was 53 at that time, an age when people are usually "set in their ways" and views. But for him the visit to Russia caused "a mental revolution." \*\* Previously a supporter of evolutionary reforms, Steffens began to admit the necessity for revolutionary changes.

In September 1923 Steffens accompanied Senator Robert La Follette on a six-week tour of the Soviet country. He saw the spectacular changes that had been effected in Russia since his first visit just four years before. "... Moscow is booming," Steffens wrote. "Russia is beginning to live bravely and smile. But the surest light ahead is the youth of Russia, the boys and girls from 16 to 28. They are the proudest human beings you ever saw."

Later, toward the end of his life, Steffens declared that he recognized the truth of communism.

The number of friends of the world's first socialist country grew in the United States from year to year. In 1933 the USSR and the USA established diplomatic relations. In World War II they were allies in the struggle against the common enemy—German fascism. In the seventies, with the policy of the relaxation of tensions and cooperation between states with different social systems, relations between the two countries have further improved.

Life has confirmed the correctness of the judgments of John Reed and other Americans who, at the dawn of the "new world," urged recognition of the Soviet state and that normal relations be established.

\*Lincoln Steffens, *The Autobiography of Lincoln Steffens* (New York: Harcourt, Brace & World, Inc., 1931), p. 799.

\*\*Ibid.

Robert Minor, an official of the Communist Party of the USA whose ancestors fought in the American Revolution, recalled Lenin's "faultless English." Below: Albert Rhys Williams with a Russian peasant.





# “FOR A JUST AND DEMOCRATIC PEACE”

Excerpts from *Ten Days That Shook the World*\*

IT WAS just 8.40 when a thundering wave of cheers announced the entrance of the presidium, with Lenin—great Lenin—among them. A short, stocky figure, with a big head set down in his shoulders, bald and bulging. Little eyes, a snubbish nose, wide, generous mouth, and heavy chin; clean-shaven now, but already beginning to bristle with the well-known beard of his past and future. Dressed in shabby clothes, his trousers much too long for him. Unimpressive, to be the idol of a mob, loved and revered as perhaps few leaders in history have been. A strange popular leader—a leader purely by virtue of intellect; colourless, humourless, uncompromising and detached, without picturesque idiosyncrasies—but with the power of explaining profound ideas in simple terms, of analysing a concrete situation. And combined with shrewdness, the greatest intellectual audacity. . . .

. . . Now Lenin, gripping the edge of the reading stand, letting his little winking eyes travel over the crowd as he stood there waiting, apparently oblivious to the long-rolling ovation, which lasted several minutes. When it finished, he said simply, “We shall now proceed to construct the Socialist order!” Again that overwhelming human roar.

“The first thing is the adoption of practical measures to realise peace. . . . We shall offer peace to the peoples of all the belligerent countries upon the basis of the Soviet terms—no annexations, no indemnities, and the right of self-determination of peoples. At the same time, according to our promise, we shall publish and repudiate the secret treaties. . . . The question of War and Peace is so clear that I think that I may, without preamble, read the project of a Proclamation to the Peoples of All the Belligerent Countries. . . .”

His great mouth, seeming to smile, opened wide as he spoke; his voice was hoarse—not unpleasantly so, but as if it had hardened that way after years and years of speaking—and went on monotonously, with the effect of being able to go on forever. . . . For emphasis he bent forward slightly. No gestures. And before him, a thousand simple faces looking up in intent adoration.

## PROCLAMATION TO THE PEOPLES AND GOVERNMENTS OF ALL THE BELLIGERENT NATIONS

The Workers’ and Peasants’ Government, created by the revolution of November 6th and 7th and based on the Soviets of Workers’, Soldiers’ and Peasants’ Deputies, proposes to all the belligerent peoples and to their Governments to begin immediately negotiations for a just and democratic peace.

The Government means by a just and democratic peace, which is desired by the immense majority of the workers and the labouring classes, exhausted and depleted by the war—that peace which the Russian workers and peasants, after having struck down the Tsarist monarchy, have not ceased to demand categorically—immediate peace without annexations (that is to say, without conquest of foreign territory, without forcible annexation of other nationalities), and without indemnities.

The Government of Russia proposes to all the belligerent peoples immediately to conclude such a peace, by showing themselves willing to enter upon the decisive steps of negotiations aiming at such a peace, at once, without the slightest delay, before the definitive ratification of all the conditions of such a peace by the authorised assemblies of the people of all countries and of all nationalities.

By annexation or conquest of foreign territory, the Government means—conformably to the conception of democratic rights in general, and the rights of the working-class in particular—all union to a great and strong State of a small or weak nationality, without the voluntary, clear and precise expression of its consent and desire; whatever be the moment when such an annexation by force was accomplished, whatever be the degree of civilisation of the nation annexed by force or maintained outside the frontiers of another State, no matter if that nation be in Europe or in the far countries across the sea.

If any nation is retained by force within the limits of another State; if, in spite of the desire expressed by it (it matters little if that desire be expressed by the press, by popular meetings, decisions of political parties, or by disorders and riots against national oppression), that nation is not given the right of deciding by free vote—without the slightest constraint, after the complete departure of the armed forces of the nation which has annexed it or wishes

to annex it or is stronger in general—the form of its national and political organisation, such a union constitutes an annexation—that is to say, conquest and an act of violence.

To continue this war in order to permit the strong and rich nations to divide among themselves the weak and conquered nationalities is considered by the Government the greatest possible crime against humanity; and the Government solemnly proclaims its decision to sign a treaty of peace which will put an end to this war upon the above conditions, equally fair for all nationalities without exception.

The Government abolishes secret diplomacy, expressing before the whole country its firm decision to conduct all the negotiations in the light of day before the people, and will proceed immediately to the full publication of all secret treaties confirmed or concluded by the Government of land-owners and capitalists, from March until November 7th, 1917. All the clauses of the secret treaties which, as occur in a majority of cases, have for their object to procure advantages and privileges for Russian capitalists, to maintain or augment the annexations of the Russian imperialists, are denounced by the Government immediately and without discussion.

In proposing to all Governments and all peoples to engage in public negotiations for peace, the Government declares itself ready to carry on these negotiations by telegraph, by post, or by *pourparlers* between the representatives of the different countries, or at a conference of these representatives. To facilitate these *pourparlers*, the Government appoints its authorised representatives in the neutral countries.

The Government proposes to all the governments and to the peoples of all the belligerent countries to conclude an immediate armistice, at the same time suggesting that the armistice ought to last three months, during which time it is perfectly possible, not only to hold the necessary *pourparlers* between the representatives of all the nations and nationalities without exception drawn into the war or forced to take part in it, but also to convoke authorised assemblies of representatives of the people of all countries, for the purpose of the definite acceptance of the conditions of peace.

In addressing this offer of peace to the Governments and to the peoples of all the belligerent countries, the Provisional Workers’ and Peasants’ Government of Russia addresses equally and in particular the conscious workers of the three nations most devoted to humanity and the three most important nations among those taking part in the present war—England, France, and Germany. The workers of these countries have rendered the greatest services to the cause of progress and of Socialism. The splendid examples of the Chartist movement in England, the series of revolutions, of world-wide historical significance, accomplished by the French proletariat—and finally, in Germany, the historic struggle against the Laws of Exception, an example for the workers of the whole world of prolonged and stubborn action, and the creation of the formidable organisations of German proletarians—all these models of proletarian heroism, these monuments of history, are for us a sure guarantee that the workers of these countries will understand the duty imposed upon them to liberate humanity from the horrors and consequences of war; and that these workers, by decisive, energetic and continued action, will help us to bring to a successful conclusion the cause of peace—and at the same time, the cause of the liberation of the exploited working masses from all slavery and all exploitation.

When the grave thunder of applause had died away, Lenin spoke again:

“We propose to the Congress to ratify this declaration. We address ourselves to the Governments as well as to the peoples, for a declaration which would be addressed only to the peoples of the belligerent countries might delay the conclusion of peace. The conditions of peace, drawn up during the armistice, will be ratified by the Constituent Assembly. In fixing the duration of the armistice at three months, we desire to give to the peoples as long a rest as possible after this bloody extermination, and ample time for them to elect their representatives. This proposal of peace will meet with resistance on the part of the imperialist governments—we don’t fool ourselves on that score. But we hope that revolution will soon break out in all the belligerent countries; that is why we address ourselves especially to the workers of France, England and Germany. . . .

“The revolution of November 6th and 7th,” he ended, “has opened the era of the Social Revolution. . . . The labour movement, in the name of peace and Socialism, shall win, and fulfil its destiny. . . .”

There was something quiet and powerful in all this, which stirred the souls of men. It was understandable why people believed when Lenin spoke. . . .

\*John Reed, *Ten Days That Shook The World* (New York: Random House, 1935), pp. 125-130.



# New Approach To an Ancient Art Form **PALEKH MINIATURE PAINTING**

Vera Melnikova  
works on  
her diploma  
project.  
Below:  
**Farmwork**  
by Ivan Markichev





**T**HE ANCIENT Russian village of Palekh, 300 kilometers northeast of Moscow, is famous for its black lacquered papier-mâché boxes decorated with artistic miniatures. Its products can be found as far away as New York, Paris, London and Tokyo.

The Palekh school of painting began in the seventeenth century, but its traditions are even older. They date back to antiquity, to Byzantine art and ancient Russian icon painting. In the 1920s a new type of Soviet folk art, original and intensely national, was created in Palekh on the basis of the old traditions. Today the village's lacquered miniatures have a unique reputation in the decorative arts. Over the past half-century the Palekh school has grown from a small artel of former icon painters into a modern factory uniting about 200 artists.

Palekh represents the continuity of Russian culture and popular tradition. Its products are more than decorative objects, they are poetic re-creations of the Russian village, both old and new, of Russian history and folklore. They are also a record of our time, from the first years of the Revolution to the present.

The works of the Palekh artists are characterized by distinctive poetic ornamentation, soft tones, delicate color combinations, intricate compositions, perfect draftsmanship and decorative tracery.

In the years after the Revolution, the village experienced an artistic renaissance. Mediocrity among Palekh artisans disappeared, and the number of talented artists grew. In 1924 the former icon painters founded the Palekh Ancient Art Association, which played a major role in the creation of a new style, completely revising the old traditions. The artists began to work with decorative objects, particularly papier-mâché boxes, and painted miniatures that were integral parts of these objects.

"Palekh art is one of the small miracles created by the Revolution, . . . proof of the awakening of the working masses' creative power," Maxim Gorky wrote in 1927. "Now they are producing simply remarkable things; it makes you wonder which clever demon taught them to leap so high! How talented our people are!"

The old, anonymous art of Palekh was replaced by a new school of painters noted for their individuality. Ivan Golikov (1886-1937) was one of its outstanding members. His brilliant, dynamic miniatures, expressive figures and original compositions have made him the most famous of the new Palekh artists. The Academia edition of *The Lay of Igor's Host*, the masterpiece of ancient Russian literature, was illustrated and designed by Golikov under the supervision of Maxim











Смирнова, А. Урожай. 1977 г.

Harvest Festival  
by Antonina Smirnova



## DRAWING ON ASPHALT

More than 10,000 youthful artists competed in local contests in Gorky and the vicinity for the best pavement drawings. Four hundred youngsters from three to seven years of age reached the finals, which took place in the central square of Gorky, a big town on the Volga.

## NEW MUSIC CENTER

Reconstruction work has been started in the old park on the bank of the Desna River near Novospasskoye village. Here, not far from the ancient Russian town of Smolensk, is the estate of Mikhail Glinka, the great Russian composer. The house is a relic of old Russian wooden architecture of the early nineteenth century. Experts are reconstructing the

main house and the outbuildings. They will restore the cascade of six lakes, and the lovely park, which occupies 20 hectares, will take on its original appearance. Bridges will be repaired and bath-houses replaced.

Novospasskoye will become one of the country's music centers and the restored Glinka home a tourist attraction. As a matter of fact, thousands of the composer's admirers even today flock to the annual music festival which pays tribute to the father of Russian classical music.

## ANOTHER HYDROFOIL

A new model of the hydrofoil motorship Vaskhod has successfully passed all the required tests. The hydrofoil, built in Gorky, on the Volga, is rugged, and can sail along when waves are as much as one and a half

meters high. There are 67 airplane-type easy chairs in the comfortable salons of the Vaskhod, which has a top speed exceeding 60 kilometers per hour.



## ICEBREAKER RESEARCH LAB

A new research center comprised of 14 laboratories will be set up on board an ice-

breaker now under construction at the docks in Leningrad. With a displacement of over 4,000 tons, the ship can go 11,000 miles before it needs a refueling stop.

All the scientific equipment on deck will be specially protected against water, wind and snow. The data obtained by researchers can be processed immediately, in a computer hall. Finally, the ship will have a comfortable conference room complete with all the necessary equipment.



## SPEEDY TRAIN

The new ER-200 express train—it will run at a speed of 200 kilometers per hour—is now undergoing tests in Leningrad. It has many novel features. The engines have a high revolution rate, which makes it possible to reduce their weight and size; in addition to springs the cars have pneumatic cylinders and vibration dampers that ensure a smooth ride.

## SNOW NO OBSTACLE

The new two-seater snowmobile, created by the Institute of Industrial Design for workers in the stormy north of the country, is provided with two skis and two caterpillar engines. It has a heated enclosed cabin and a big luggage compartment.

Siberia) has approved plans for a recreation area for the inhabitants of Ulan-Ude, the capital of the autonomous republic. It is to be located at a distance of several kilometers from the city.

Young Pioneer summer camps and kindergartens, tourist centers and sanatoriums will go up in a large, picturesque area surrounded by virgin forest. There will also be a sports complex, a hotel, a combination movie house and concert hall, as well as exhibition halls, a library, a shopping center and beaches.

## YOUNG PEOPLE'S ORCHESTRAS

Children's philharmonic society with a membership of 300 has been organized in the old Russian town of Tula. They

perform in accordion and Russian folk instrument orchestras and a violinists ensemble. Their concerts, which also feature illustrated lectures, take place in the town and nearby village schools and in the society's auditorium.



## BUMBLEBEES FOR BIGGER CROPS

Researchers from Akademgorodok, near Novosibirsk, have

proved that bumblebees, once looked upon as utterly useless, play an important part in agriculture. For instance, a field of red clover which attracts bumblebees in the summer is bound to yield a much bigger crop than one that these bees do not patronize. It doesn't make any difference how much fertilizer or special care may be provided a field that the bumblebees ignore: The bumblebees are a must for pollinating the plants.

A new bumblebee preserve has already been set up, and entomologists are looking for ways to domesticate the insects.

## 44 MINERAL SPRINGS

The largest intercollective farm balneological health resort in Tajikistan (Central Asia) has re-

ceived its first guests. Chiluchor-Chasma, which means 44 springs, is the sixtieth health resort in Tajikistan. Collective farm funds were used to build the living quarters, the doctors' offices and the library. Chiluchor-Chasma will annually accommodate over 1,000 collective farmers and state farm workers.

## MINKS CAN BREED IN HOT CLIMATES

Minks, which can breed in captivity, used to live exclusively in countries with a temperate climate. This is no longer true. Zoologists in Uzbekistan, a republic in Central Asia, have proved that minks can be raised in areas with high summer temperatures. Spacious cages, built on a riverbank and protected

from the direct rays of the sun, plus an abundant supply of fresh water in every cage make it possible for the minks to endure Central Asian summers with little discomfort.

One of Uzbekistan's mink-breeding farms reports that female minks give birth to a litter of four or five young a year.



long, 5.6 meters wide and 2.8 meters high.

All these boulders are interesting source material for historians, archeologists and ethnographers.

## KNIFELESS SURGERY

Scientists working at the experimental laboratory of Moscow's Clinical Hospital No. 50 have developed an ultrasonic scalpel. They discovered that sound dissects the skin with much less pain than a normal scalpel does. Moreover, it "welds" muscles, bones, tendons, bronchi and internal organs.

The possibility has opened up now for quick, clean and precise joining of vessels, nerves and glands. Experiments carried out by a group headed by Professor Valentin Polyakov have shown that an ultrasonic instrument can help to solve, in a completely

new way, the problem of repairing or replacing the heart valves, of treating aneurysm or thrombosis of the blood vessels.

Ultrasound helps even in those cases where traditional surgery is almost useless. For example, this is the only effective method for rapidly joining the edges of a lacerated bleeding wound on the liver.

## SIBERIAN ZOO

Very soon people will be visiting a new zoological garden, the largest in Siberia. Not far from Novosibirsk, on the right bank of the Ob, it will cover an area of 53 hectares.

The Novosibirsk zoological garden will have 73 species of rare animals that are registered in the Red Book of the International Union for the Conservation of

Nature and Natural Resources. They will live in conditions approximating those of their native habitat.

## HOW TO USE AN EXTINCT VOLCANO

Kazakhstan's poor water resources are holding back further development of agriculture in that republic. So scientists are hunting for ways of irrigating the arid land. Specialists have come up with an interesting idea. They are studying the structure of a volcano that was active millions of years ago on the territory of present-day Semipalatinsk Region.

Today the volcano is a huge bowl with an area of about 300 square kilometers. The edge of it, formed of hard volcanic rock, rises tens of meters high and resembles the shores of a dried-up

lake. The scientists propose to fill this natural hollow with water by damming several small rivers in the vicinity. Calculations have shown that the creation of a reservoir in the volcano will make it possible to irrigate a wide area of farmland.

## VOLCANIC ASH: GREAT FISH FOOD

Volcanic eruptions, it has been found, can have a singular effect on the reproduction of fish, particularly Pacific salmon.

Ichthyologists on Kamchatka, in the Soviet Far East, have discovered that the ash that drops out during eruptions contains various mineral salts which, 12 to 13 years later, cause a burst of growth in the numbers of fish. Scientists analyzed the biological processes taking place in Lake Azhobachye,

where a whole avalanche of ash fell in 1956, during the eruption of the Bezmyannaya volcano. Life in the reservoir, which seemed to have almost died out soon after the eruption, now blossomed. The amount of diatoms—the main food for small crawfish, which, in their turn, serve as food for the fish fry—multiplied hundreds of times over. Several years later Lake Azhobachye yielded an exceptional catch of fish. Nothing of the kind happened in any of the neighboring lakes, where no volcanic ash had fallen.





# U.S. THEATER COMPANY TOUR

Photograph by Galina Kmit

*The USSR-U.S. cultural exchange program brought to Moscow, Leningrad and Riga in May and June four weeks of performances by the American Conservatory Theater (A.C.T.) of San Francisco. SOVIET LIFE reporter Maya Gordeyeva interviewed members of the company.*

**T**HE TWO PLAYS that the American Conservatory Theater presented to Soviet audiences—Thornton Wilder's *The Matchmaker* and Eugene O'Neill's *Desire Under the Elms*—are classics of American theater. They differ sharply in style, concept and genre, and Soviet theatergoers reacted appreciatively to the contrast. Tickets were completely sold out, the theaters where the plays were running were literally besieged by audiences unacquainted with American drama and performance and eager for the experience.

But for the actors, as some of them confessed later, opening night at the new Moscow Art Theater was fraught with apprehension. Could they, through a simultaneous translation system, be understood quickly enough to overcome the language barrier? After all, *The Matchmaker* is a farce, depending so much on the quick reaction and laughter of the audience to give it stimulus and support. And would the tragedy of the O'Neill play strike deeply enough when the memory of the U.S. film version was still fresh in the minds of many in their audience?

These and other concerns about the tour had begun to fade before the final curtain at the first-night performances of both productions. The company, hailed for its ensemble work, artistry and acting skill, had made it—not only with the public at large but also with the Soviet theater community. That Soviet theater professionals approved their work was especially gratifying to the American actors: They pointed out that because the Stanislavsky method is taught in the A.C.T. school and because the Moscow Art Theater is the birth-

place of contemporary acting style, there is both an acceptance of, as well as a nostalgic feeling for, Stanislavsky in American theater generally. So, whenever they had a moment to spare during their tour, they rushed to Soviet playhouses to see what was happening in the world Stanislavsky had fathered.

Some of their comments ranged broadly over Soviet theater:

**William Ball, A.C.T.'s general director:** "All the productions I saw were brilliantly acted and directed. Soviet acting style is a wonderful combination of naturalness, sincerity and grandeur—very good on the large passionate emotions and the intimate realism of everyday existence. These are in every way the best actors in the world."

"All the theaters here were superb. You have a host of brilliant, outstanding directors, and their productions are extraordinary."

**Laird Williamson, actor in, director of, *The Matchmaker*:** "We found creative, adventurous and new work. Soviet people have a tradition of great respect for the arts and for the artist. The arts are important, because they define the human soul, which is essential. We are searching for it in America today, but here the soul is central, it is revered. Theater is a vital part of life. People wait hours for tickets. It's a very exciting atmosphere."

**Elizabeth Huddle, actress, teacher at A.C.T.'s school:** "I was excited by the range of theater within the Soviet Union—so many companies, theaters, actors and audiences! I've never seen so many people going to theaters!"

**Deborah May, actress:** "We've not been disappointed. The texture and breadth of theater here is a rare and a beautiful thing. The actors are highly trained. Their emotional range is incredible. I was amazed at so much weeping and at the realism on stage—it's very moving to see. And the people love good theater."

Contacts and friendships were made throughout the tour, and plans for more exchanges developed. One definite commitment was a Soviet play A.C.T. took back for production next season. The choice—Mikhail Roschin's *Valentin and Valentina*, to be

directed by Edward Hastings—they hope to open, appropriately, next February 14, St. Valentine's Day. "This is a play," says Irene Arne Vacchina, its translator, "in which everyone will find a place somewhere, in some situation or relationship. It's a wonderful study of love."

A.C.T. directors became interested in Roschin's work because of its broad range—from touching relationships to drama and humor. All of which, they believe, will appeal to an American audience. Hastings also finds "that the expression of the human heart" is very strong in other Soviet plays, too. In fact, as a result of this visit and at the suggestion of VAAP, the Soviet Copyright Agency, A.C.T. is planning to promote more contemporary Soviet productions for the American stage and American works for the USSR.

Members of the visiting company compared the training and working conditions of Soviet and American actors:

**Daniel Kern:** "In both countries the actors appear to work in very much the same way. What seems to differ are the working conditions. Americans do not enjoy the freedom that comes with the security of a lifetime position in a particular company."

**Anthony S. Teague:** "Self-confidence is essential for good acting. To know you are secure and that you are loved and they like your work—that gives you energy and drive to keep perfecting it. In America the arts are not subsidized. For learning your craft, this tends to make the road and progress rocky."

**William Paterson:** "Lifetime employment for the actor has many advantages, but one problem we do have in common is casting—all actors want good parts."

**Barbara Dirickson:** "We were all very surprised by the amount of time that is given here to rehearsal. It sounds like a wonderful luxury. We have much less time."

**Stephen Schnetzer:** "I learned a tremendous amount from a system of theater that I find to be a great deal more sophisticated than I had thought."





Artist-diplomat Pavel Svinin recorded his impressions of the USA in the early 1800s

# RUSSIAN PAINTER IN THE UNITED STATES

By Marina Khachaturova

**I**N 1930 a collection of reproductions of 52 water colors was published in the United States. The artist was Pavel Svinin, secretary to the Russian Consul General in Philadelphia from 1811 to 1813. The foreword to the book describes Svinin's work as an unrivaled re-creation of early American life.

Svinin arrived in the United States at the age of 24. He was born on June 10 (June 21, Old Style), 1787, and studied at the Nobleman's Boarding School of Moscow University, where he showed a talent for writing. His fables and verses and his translation of a French article, "Socrates Before His Death," were printed in the school magazine along with the work of Vasili Zhukovsky, who later achieved fame as a poet, and Nikolai Turgenev, who became one of the leaders of the Decembrist movement.\*

Svinin soon developed an interest in painting and enrolled at the St. Petersburg Academy of Fine Arts. His work was highly successful. In 1811, just before leaving for the United States, he was elected to the Academy for his painting depicting the great Russian General Suvorov during a lull following a battle with the Turks.

Evidently Svinin's job in the diplomatic service gave him time to tour the United States with album, crayons and water colors.

Svinin, kindhearted and sociable, made a number of friends in the USA. He had an observant eye though his enthusiasm sometimes bordered on naïveté. His drawings, water colors and books about the United States all express his admiration for the country and its "industrious and resourceful people," as he put it. Svinin was charmed by the Americans' energy, high spirits and hospitality.

His main assignment at the Russian Consulate was to strengthen economic ties with the USA. "Trade relations between America and Russia began in 1783 and have been increasing each year," he wrote. "In 1810 more than 10 ships left Boston, Massachusetts, bound for Russian ports. The cargo was usually sugar, coffee, pepper, cotton, paper, indigo, spices, wines, raisins, rum, tobacco or dyes from various trees." Svinin expressed the hope that when the United States had concluded its war with Britain, Russian-American trade would "make considerable progress," and he did his best to bring this about. In his first book about America he cited a list of products manufactured in Russia which, he wrote, "would always be sold very profitably and in large quantities." These were tarpaulin, homespun, Flemish linen, canvas, damask, raven's-duck, iron, candles and bristles. "Be-

**Pavel Svinin's water colors of American life, many of which he used to illustrate books and articles, are now on display at the Russian Museum in Leningrad.**

*Voyage  
Pittoresque  
AUX ÉTATS-UNIS DE L'AMÉRIQUE.  
Par Paul Svinine.  
En 1811, 1812, et 1813.*

*Pavel Svinin  
Engraving by D. Koch of a  
painting by Vasili Tropinin.*



sides," he added, "Russia has been supplying America with many other items, such as down, lard, wax and leather, and we shall continue to do so. It would be very profitable to export our manufactured goods, such as hats, boots, shoes, mirrors and morocco, but all this must be of the best quality." The list, based on information from the Russian Consulate, had been drawn up primarily for Russian industrialists and merchants. Svinin's notes on the various items are especially interesting:

"Tarpaulin. Must be thick, strong and glossy. Each piece must be 38 yards long and weigh from 58 to 60 pounds. The tarpaulin from the Batashov, Khlebnikov, Temeryazev and Bilibin factories is highly rated and is in demand in the United States. In 1811, 66,700 pieces of it were shipped from Kronstadt."

On the purchase of Russian iron, he wrote:

"The Americans usually import ore from Russia and Sweden. Though they prefer the softer Swedish iron, the fact that they have bought a large quantity of iron from us proves that they find our prices more attractive. In a typical year they import from Russia between 250,000 and 300,000 poods,\*\* and the American merchants say they would order twice as much if the strips were better manufactured. They want a hundred tons of iron, to consist of 70 tons of flat strips in various sizes, 10 tons of rectangular strips and 20 tons of round strips. It would be advisable for our factories to look into this—they could make a sizable profit and take over the market from the Swedes."

In 1813, to contribute to Americans' knowledge of his country, Svinin put out a small book in English, *Sketches of Moscow and St. Petersburg*. It was illustrated in color with nine of the author's drawings. The book, by "Paul Svinin," was published by T. Dobson of Philadelphia.

The author must have sent a few copies to Russia, because that same year it was reviewed in the magazine *Vestnik Yevropy* (*European News*). The reviewer, Professor Mikhail Kachenovsky of Moscow University, was an outstanding historian who was also editor of the magazine. While his comments were largely favorable, he could not resist pointing out a number of factual errors in the book.

Svinin sent his essays about America to the Russian press. At the end of 1814 the magazine *Syn Otechestva* (*Son of the Fatherland*) printed his "View of the Republic of the United States of America." This long essay, which was published simultaneously in a separate edition, provided a general picture of the republic across the sea—its geographical location, natural environ-

\*See "America and the Decembrists" in our December 1975 issue, p. 35.

\*\*One pood equals 36.11 pounds.





Water colors by Pavel Svinin: *Methodists in Philadelphia, An American Carriage* and (opposite page) *Inhabitants of North America*





ment, history, government, economy, culture, cities and even some of its outstanding statesmen.

The following year, the "View" was included, in somewhat abridged form, in the first chapter of Svinin's *Experiences of a Painting Trip in North America*. The book contained several other essays based on his recollections of the United States: "Religion," "Steamboat," "General Moreau in America," "Niagara Falls," "Indians' Entertainment"

ered by a cape, which hung in natural folds from his shoulders and was fastened with a silver buckle. He was shown sitting at the foot of Niagara Falls, sketching the beauties of American nature, but his thoughts seemed far away, and his eyes clearly indicated that his heart was in his fatherland. A breeze played with the leaves of his open album."

Svinin found that Russia aroused considerable interest abroad, and was proud of its strong position in Europe after the rout of

near Kostroma, he published *Otechestvenniye Zapiski* in magazine form. Svinin died in the spring of 1839. Soon afterward *Zapiski* became the best magazine in Russia, thanks to the contributions of Vissarion Belinsky, the brilliant literary critic and ideologist of revolutionary democracy. Several decades later it regained its former high popularity under the editorship of the eminent Russian writers Nikolai Nekrasov and Mikhail Saltykov-Shchedrin.

The year Svinin died, his book *Scenes of Russia and the Customs of Its Multinational Peoples*—the result of his travels through the country—came off the press. It was illustrated with 40 of the author's drawings and with Tropinin's portrait of him against the background of Niagara Falls.

Svinin was a pioneer in the development of cultural ties between Russia and America. He was one of the first artists to depict the early American scene. His drawings and notes formed a historical record of the young country, which seemed so exotic to the Russians.

Svinin's essays on America abound in interesting details. Like many present-day tourists, he was amazed by the roads, which, he wrote in 1814, "are repaired annually with the greatest promptness. Last year there were 37,000 miles of post roads, of which some 10,000 were paved. The cities maintain constant communication through a nationwide system of coaches, which vary in number according to their routes. For instance, six of these coaches run between Philadelphia and New York daily, and they start out at different hours." The Russian traveler was also impressed by the bridges:

"Many—like the Philadelphia, Trenton, Washington and Boston bridges—are real beauties—but the most remarkable of them all . . . is the one built in 1811 over the Schuylkill River near Philadelphia. It has a single span 340 feet long and is made entirely of wood. The bridge slopes gently and seems to rest on air. It's hard to believe that it is so strong, but you don't have to examine the structure to be sure of its solidity before you start across. A number of heavy carts drawn by 10 big horses travel across it every day."

Svinin's comments on American cities are also noteworthy. Washington, he wrote, was "still largely in the planning stage, since only Pennsylvania Avenue and a section out toward Georgetown have been built so far. In other sections the houses are so far apart that it's almost a mile's ride from one to the other."

The White House did not impress him at all: "A resident of St. Petersburg would not find the presidential palace very exciting." Indeed, the modest two-story building compared unfavorably with the sumptuous palaces of the aristocrats in St. Petersburg, which was known as "the Northern Palmyra." But Svinin did like the Capitol, then under construction. "Its grand architecture is perfectly suited to its name and purpose."

The steamboat interested Svinin particularly. Hoping to encourage Russian-American shipping, he studied models of U.S. vessels and sent information about them to the Russian Government. But while his reports were on the way, John Quincy Adams, the American envoy, asked the Czar to grant Fulton patent rights in Russia for a period of 15 years. Though disappointed, Svinin tried not to show it: "I am glad that this highly useful and great invention will be introduced in our country and that I was the first to give Mr. Fulton the idea."



and "Fishing in the Shallows of the New Land." It was illustrated with several of the author's drawings.

Within three years Svinin published five books on various subjects. His popularity soared. According to a report by the St. Petersburg Royal Public Library, in 1818 Svinin's books were more widely read than any others in the library's collection. The author was elected to the Russian Academy of Sciences. The famous artist Vasili Tropinin painted his portrait, which, unfortunately, has disappeared. A contemporary of Svinin's described it as follows:

Svinin was dressed "simply in a coat cov-

Napoleon. When he returned home, he began studying conditions in the guberniyas and the past of the Russian people. Following a national trend, Svinin turned to ethnography. In 1818 he published an almanac with the characteristic title *Otechestvenniye Zapiski* (*Homeland Notes*). A second volume was issued in 1819. Both of these books consisted largely of his own articles. Svinin traveled around the country, visiting the Volga and Don areas, the Crimea and Malorossiya, as the Ukraine was then called. He took long walks through Moscow and the old Russian towns nearby. From 1820 to 1830, when he retired to the family estate









# The islanders of Saaremaa

By Karl Helemäe  
Novosti Press Agency Correspondent in Estonia

Photographs by Yuri Rybchinsky  
"Soviet Union" Magazine  
and Yuri Vendelin

Saaremaa is Estonia's largest island (area: 2,714 square kilometers<sup>1</sup>). It is surrounded by clusters of small islands and shoals, more than 500 of them. The irregular shoreline is very beautiful and seems to be changing all the time. On the northern shore are ledges that fall steeply into the water, and smooth, sandy beaches and dunes make their gradual descent into the sea. So the natural setting of Saaremaa is unusual; the same can be said of the life of the people here.

<sup>1</sup> One square kilometer equals .386 square miles.



*On their fiftieth wedding anniversary this Saaremaa couple went to the seashore to reminisce about their life together.*



**T**HE TOWN of Kingissepp is Saaremaa Island's administrative center. It has a population of some 13,000. For 15 years now Erna Salumäe has been the mayor. She has come a long way—from hired hand in the pre-Soviet years, to chairwoman of the Executive Council of the Town Soviet.

During her tenure, and especially in the last few years, the town has changed a great deal, it looks younger. Kingissepp got its first paved roads in 1959, and a year later the first bus route in the town's history began operating. Since then a palace of culture, a post office, a shopping center and many new streets have helped mark the change.

But the people have been careful to preserve their heritage. The chief representative of the past, the thirteenth century Kuressaare castle, is being completely restored. The historical buildings in the old center of the town are also beginning to regain their original appearance as reconstruction proceeds.

The Town Soviet is housed in what was once the Town Hall. Now the spacious building is used for wedding ceremonies also, and it is booked solid for that purpose every Saturday through 1976.

Erna Salumäe believes that what has been accomplished on the island is due in large part to the efforts of the Town Soviet deputies. There are 50, 24 are women: among them, physician Aime Laul, teacher Ester Kalju, Eha Laantee, a worker at the local brewery, and pharmacist Anne Grepp.

I hasten to point out that on Saaremaa women always enjoyed special respect, but their life was not easy. In fact, there was a popular saying there to the effect that a woman is no wife who cannot provide for a husband and three children. To illustrate the point, Salumäe told me of an incident she remembers from her youth. At the time she was studying at an agricultural school. Two girl students who were from a fishing village laughed so much their first day at school that they could hardly speak. When they quieted down that evening, their roommates at the dormitory insisted on an explanation. It seemed this was the first time the girls had seen ploughing done by a man. Where they came from, only the women did the ploughing, because all the men went out to fish.

Which brings me to the islanders' chief occupation: It is still fishing. All who pursue it (about 700 families) are members of the prosperous Saare Kalur fishery collective. Their vessels fish in the Baltic Sea and go out into the ocean. Motorboats do the offshore fishing. Every day, the fishery takes its catch to the refrigerators or sends it in special trucks by ferry across the strait into the heart of the country. Almost half the catch is processed by the collective's fish cannery.

The young chairman of the collective, Aldur Pitk, comes from a long line of fishers. As far back as he can remember, all his relatives have made a living from fishing.

Today, naturally, it's quite a different operation. And we're not speaking of technical equipment only. The fishers talked very seriously to me about preventing depletion of the riches of the sea. Not only does the fishery adhere strictly to all the established limitations on fishing; it has plans, already begun to be implemented, to breed fish as well. The calm shallow gulfs of Saaremaa seem to have been created for that purpose. The fishery already has some experience breeding rainbow trout. Now it is experimenting to increase the number of eels. Carp must also be bred easily in the quiet waters around the island.

The fishery needs educated people: It has given 40 of its workers scholarships to higher and secondary specialized schools. These young people receive material assistance over and above the amount of their stipend if they need it and after graduation are provided with a job in their particular line in their own home area.

The fishery's seven units are scattered all over Saaremaa. Aldur Pitk maintains that the best one is on Muhu Island, which is joined to Saaremaa by a three-kilometer<sup>2</sup> dam. Skilled sailors and lucky fishers are traditional on Muhu, so many of the young people from that island study at the Tallinn Nautical School. Not all of them return to their native town to work, but without exception they pursue the traditional profession of their fellow islanders. There's Andrei Prii, for instance. He has become famous throughout the republic

as one of its best fishing captains. Muhu Island is also the birthplace of another well-known captain, Henn Noor, who is a deputy to the Supreme Soviet of the USSR, the highest body of state power in the country.

Speaking of government, I had a most interesting talk with another native of Muhu, Jüri Räm, who is chairman of the Executive Council of the Kingissepp District Soviet. In other words, he's the head of the Soviet government on Saaremaa. As a child he had also dreamed about going to sea, but he was too young to enter a nautical school after graduating from secondary school. Rather than lose time, he enrolled at a school of horticulture and apiculture and became a farmer.

No question about it, Räm says, the land on Saaremaa is not fertile, but the farmers are making considerable headway just the same. It's not easy—the plough clatters through fragments of limestone and granite, relics of the glacial period. Only in the eastern part of the island did the retreating ice leave a little bit of fertile soil. Nonetheless, this fishers island annually produces more than a ton<sup>3</sup> of grain, 1,250 kilograms<sup>4</sup> of milk and 273 kilograms of meat per capita of its population.

Yes, times and customs have changed, says Räm. Today, the men no longer consider labor in the fields something exclusively women's work—the profession of farmer has become quite popular with them. And fishers, too, are ready to help at harvest time.

Does that mean that the women are no longer the farmers of Saaremaa? Yes, it does. Even though today's farmer is a machine operator, the work is still not easy. The women prefer needlework, another traditional occupation of the island women. The Uku folk crafts association of Estonia has its branch office in Saaremaa, where the women have always been famous for their fine embroidery and colorful knitwear. These traditions are now being especially carefully nurtured and cultivated. The oldest knitter here is Kaissa Nairis, at 87 turning out mittens no one can equal.

Make no mistake about it, the women do not limit their activities to needlework. They are right up there with the men. I have already mentioned the women in the Kingissepp Town Soviet. There are, of course, women deputies in the Kingissepp District Soviet. Jüri Räm singled out the energetic Urve Villsaar, who works at the fish-processing plant. She's the one responsible for putting Tori on the map. It's a little place on the outskirts of Kingissepp. The fish plant's production shops were located there; at the same time it was a recreation area very popular with the people of Kingissepp. At a session of the District Soviet Villsaar recommended that the shops be moved to some other place. The deputies supported her, and now Tori is what it used to be—idyllic, a place for rest and pleasure.

No doubt about it, the women of Saaremaa are doing everything. I have, several years in a row, conducted republic-wide contests of young plasterers and painters. In the last few years two girls from Kingissepp participated, Helju Noot and Ellen Velve. An admiring jury applauded their excellent performance. In 1975 Noot won third place, leaving many men trailing behind.

With all that I have said about the women here, it will come as no surprise that bachelors in Estonia believe it is a very lucky thing to marry a girl from Saaremaa. Perhaps that's the reason why many of the young girls who go to college on the mainland get married there and don't return to the island. "We appreciate the compliment," says Räm, "but what about our young men here—the machine operators, for instance—who have a hard time finding a girl to marry? We mustn't lose them, too."

The district authorities have worked out one way to meet the problem—they are taking steps to develop branches of industry where women do the work better than men.

"There are so many changes here," I said to Räm, "that it's difficult for me to characterize present-day Saaremaa. How would you describe the island and the people?" Jüri thought a moment: "You know what, go to Randvere and find the Kirsses. I think they can answer your question."

So I set out for Randvere. I found a house, much larger than its neighbors, sheltered behind some tall trees. It had to be big—the family has



This seventeenth century building in Kingissepp is one of Saaremaa's oldest.

<sup>2</sup> One kilometer equals .621 miles.

<sup>3</sup> One metric ton equals 1.1 short tons.

<sup>4</sup> One kilogram equals 2.204 pounds.





Windmills are no longer used in Saaremaa, but these have been preserved by the state as part of the island's heritage.  
Below: Kingissepp  
Town Soviet deputies discuss  
a new construction project.  
Bottom: Memorial to islanders  
who fell in World War II.





eight children. The father, Villibald Kirss, is a vigorous 75, his wife, Melania, a sprightly 71. The head of the family still finds work to do at the collective farm.

This is the kind of family where work and a spirit of cooperation have always been paramount. Melania Kirss had worked for many years as a teacher, and it was she, her husband is sure, who instilled a love for learning in their children, with the result that seven of them have a higher education. Only Evi, the eldest daughter, who is a dispatcher at the Kingissepp transport depot, did not have this advantage. She had to help her mother bring up the younger children.

Daughter Urve graduated from Tartu University and is assistant principal at a secondary school in Kaarma.

Alexander, a veterinary surgeon, is a graduate of the Estonia Agricultural Academy.

Mari-Ingrid, who also graduated from Tartu University, is working at a pharmacy in Tallinn.

Helve is assistant director of the town museum in Parnu. She has a degree in history from the university.

Still another Tartu graduate (in medicine) is



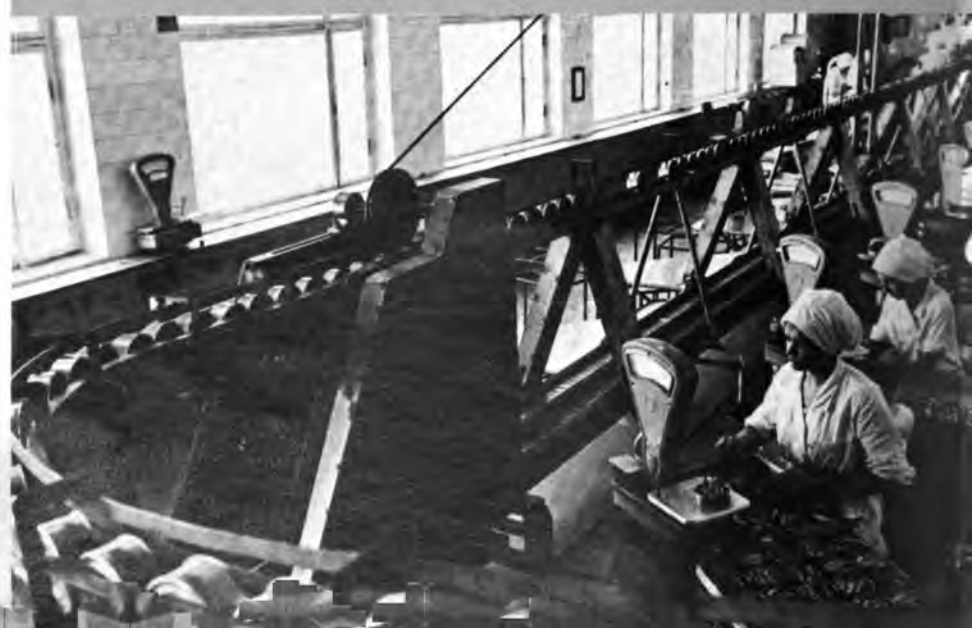
Jaan, head of a department of the Kingissepp Hospital.

Jüri Kirss is deputy chief of the Parnu Construction Board. He received his engineer's diploma from Tallinn Polytechnic Institute. And his brother Ants, chief superintendent of the intercollective farm building association, got his education at TPI also.

"Yes, their mother should take all the credit for their interest in going to school," said Villibald Kirss. "However, people must have the right conditions in order to study, and that is something we can thank the state for."

"It's a pity though, that I see the children so rarely now," said Melania Kirss. "We're happiest when all of them come together in our house. That's during the summer vacation. Then it's a picnic here—after all, 15 grandchildren is quite a handful."

Jüri Raim was right. Here was the answer to my question: The family mirrored the life of the island, holding on to the best of the past, moving ahead with the changes of the present and helping to build a happy and meaningful future.







"I'm certainly not going to retire," says 85-year-old metalworker Oscar Espol.

Opposite page from top to bottom:  
Saaremaa collective farmers can boast of the highest yield of grain crops in Estonia.

The islanders have always been fishers.  
Large trawlers are now used at sea, and small boats like the one pictured sail only the coastal waters.

Matti Petroff is the lighthouse keeper.

The fish cannery of the Saare Kalur collective farm.  
Baltic sprats are very popular in the USSR and abroad.

Far left:  
The old Town Hall now houses the Town Soviet and Wedding Palace.





# A RIGHT THAT GUARANTEES FREEDOM

Continued from page 5

The enforcement of labor legislation is the responsibility of a number of bodies, including the Soviets of Working People's Deputies, the courts, public procurators offices, specially authorized state agencies which are independent of management, ministries and government departments. The trade unions, through their staff of 6,000 technical inspectors aided by three million volunteers, also oversee the enforcement of labor law.

**Q:** Let us take a concrete situation: Someone is discharged from work. What can the central trade union or the factory or local trade union committee do about it?

**A:** Enterprises are prohibited by law from firing anyone without the preliminary consent of the trade union committee. This is a very important guarantee of the right to work. It applies to dismissals on the initiative of management.

The plant or local trade union committee can consent to a worker's dismissal only when there are legal grounds for it and only after thoroughly checking the materials submitted by management. The committee has the right to agree or disagree. If it decides there are no grounds for dismissal, it withholds its approval. In this case management may not cancel the labor agreement. The trade union committee's decision is binding.

**Q:** Do all managers respect the rights of the trade unions? Aren't there cases of evasion of the law?

**A:** Workers are seldom discharged when the local trade union committee has refused to give its consent. A dismissal under these circumstances would be considered a gross violation of the law, and those responsible for it would be punished.

Unfortunately, management sometimes discharges people without consulting the trade union committee. Then the worker appeals to the courts and is reinstated. In such cases the courts do not even try to find out whether there are grounds for dismissal—if the trade union has not consented, then management's action is illegal. Workers whose jobs have been restored receive up to three months' back pay (the reasoning is that anyone who is discharged unjustly will submit a complaint within that period of time). The courts may require the official responsible for the firing to pay the losses that the enterprise has sustained.

**Q:** Let us consider another situation—a reduction in personnel. This occurs from time to time as a result of the reorganization of factories and offices or improvements in production techniques. The administrative staff may be reduced, for instance. When people are made redundant by such a reorganization, how is their right to work ensured? What responsibilities does socialist society have to them?

**A:** As I pointed out earlier, the country's economy is developing rapidly, so that a reduction in the staff of an enterprise or organization is rare. However, it is sometimes unavoidable—for instance, when a plant is re-equipped, or personnel is redistributed among the sections, or the administrative staff is cut back in order to reduce costs or eliminate unnecessary jobs. Legislation protecting the interests of working people provides a number of guarantees for those who are discharged because of a reduction in staff.

It is the duty of management to place these people. If no jobs are available at the enterprise, management must take steps—with their consent—to find work for them elsewhere through district or city agencies. They also have the option of going to work in another area. In this case the costs of moving are covered, and housing is provided.

If a reduction in staff results from the reorganization of an administrative body, management must take steps to provide jobs in industry for the discharged workers. When the need arises, they must be helped to learn a trade.

In such cases special provisions are made to preserve the workers' continuous service record, which is very important later in determining the size of their pension. People who are transferred from an administrative body directly to industry retain their average earnings for a certain period of time while they learn a trade.

For some categories of workers the law provides additional guarantees against unjustified dismissal. Thus, pregnant women, nursing mothers and mothers of children under one year of age cannot be discharged.

In deciding which members of the staff shall be retained during a reduction in personnel, the size of the workers' family, their length of service at the enterprise and qualifications are all considered. If people's labor productivity and qualifications are equal, preference is given, for instance, to those who have two or more dependents, to workers enrolled at higher educational or specialized secondary schools, disabled veterans and people who have been injured on the job.

**Q:** If workers want to learn another profession, what rights and opportunities do they have in our society?

**A:** The need to change to a more highly skilled occupation, one that offers better prospects, usually stems from the introduction of new technology.

In the Soviet Union, as in other countries, scientific and technological progress has brought about the release of workers. But because of the dynamic, planned development of the entire economy, we continue to

have full employment. A tremendous amount of effort has been invested in improving the workers' qualifications and retraining them. This has enabled us to redistribute labor power within enterprises and between the branches of industry. As a result, every worker has a job.

Here is an example. The replacement of steam engines with electric and diesel locomotives resulted in the release of many thousands of workers in rail transport. However, there was no unemployment. The locomotive engineers, their assistants and stokers were retrained and got much better jobs driving electrical and diesel equipment.

Special courses are organized at plants and training centers to teach new trades. The improvement of workers' qualifications and their retraining are free, since expenses are covered by the enterprise for both on-the-job and full-time study. (In the case of the latter, the workers continue to receive their regular wages.) The following figures illustrate the scale of this program: About 24 million people, including 16.5 million workers, improve their qualifications in our country each year. Over 1.8 million people a year complete courses in which they learn a second or allied trade.

To be sufficiently informed to participate in the control of production, every worker needs a knowledge of economics in addition to professional skills. That is why schools of communist labor and economics have been organized, as well as people's universities run by the trade unions. In addition, there are departments of production organization at the economics institutes. Every third worker in the country engaged in material production is studying in the economics education program. This is also free, of course.

**Q:** From the Western press we know of many instances when a real tragedy occurs in some small town or settlement as the result of an economic crisis: An industrial enterprise—perhaps the only one in town—suddenly closes down or sharply reduces its production. Can this happen in our country?

**A:** It's impossible because, first of all, under our system of economic planning enterprises cannot go bankrupt or close down. Second, should it become necessary, for instance, to reconstruct a plant or change the character of its products, this is done in the interest and with the active participation of the working people.

**Q:** It is difficult for anyone over 40 or 45 years old to find a job in the West. What is the situation in the Soviet Union?

**A:** There are no barriers here to older workers. On the contrary, we want to keep experienced people in the labor force.

Special legislation has been adopted whereby people are paid a full or partial old age or disability pension in addition to their earnings if they wish to continue working.

The law effectively protects the rights of workers both when they take a job and when they are discharged. Age cannot be a reason for dismissal. The trade unions would never consent to that.

**Q:** I can see that arbitrary managers do not have the right to fire workers whom they dislike—the unions oppose that kind of injustice especially. What other decisions is the manager of an enterprise forbidden to make without consulting the trade union committee?

**A:** As the Twenty-fifth Congress of the Communist Party of the Soviet Union emphasized, the work of the unions directly promotes democracy in the area of production. The broad powers granted to the trade union committees are defined in the "Regulations of the Rights of the Factory, Plant and Local Trade Union Committee," adopted by the Presidium of the USSR Supreme Soviet.

We have already talked about dismissals. In addition, management cannot revise output quotas, establish wage rates or job grades, assign grades to people or determine the number of workers to be allocated to a particular section without the approval of the trade union committee. The union has the right to forbid work with certain equipment or in a particular shop, even a new one, if it decides that the working conditions present a hazard to people's health.

Management can act in such areas as work and vacation schedules, the use of its material incentive funds, social and cultural measures, housing construction and distribution, health protection and work safety only in cooperation with, or after consultation with, the trade union committee.

The union's opinion is also taken into account in the appointment of workers to executive posts. In fact, a director cannot be chosen for the enterprise without the approval of the union's Central Committee.

**Q:** Again, what if the director tried to bypass the trade union?

**A:** The union has the right to recommend to the appropriate organizations that they take action against officials who have infringed labor legislation and labor protection standards.

If individual executives violate the rights of the workers, the trade union—at not lower than the district level—can require management to cancel its labor agreement with these executives or discharge them from their posts. The trade union bodies make use of this right when, for example, executives refuse to comply with labor legislation or the collective agreement, or behave bureaucratically. Demands for the cancellation of labor agreements with executives or for their dismissal can be appealed only to a higher trade union body, whose decision is binding.

Courtesy of *Literaturnaya Gazeta*



**QUESTION:** I'd like to read about the city of Alma-Ata. (M. Susman, Cleveland, Ohio)

**ANSWER:** At the foothills of the Zailiysk Ala-Tau Mountains, in Kazakhstan, is a most picturesque valley covered with orchards, particularly apple orchards. In the middle of the valley is Alma-Ata, the capital of the republic and one of the most beautiful cities of the USSR. In translation (from the Kazakh) its name is The City of Apples.

A traveler is at once struck by all the greenery here. There are dozens of public gardens and boulevards in Alma-Ata and one of the largest botanical gardens in the world. Some 10,000 species of plants can be found in the city.

The capital of Kazakhstan, with its population of 300,000 people, is a center for big industry. The finished products of the Alma-Ata heavy machine-building plant, for instance, are imported by many countries.

Among the places of cultural interest in Alma-Ata one should mention the art gallery, the largest museum in the Asian part of the country, and the Central Scientific Library of the Kazakhstan Academy of Sciences, which has an extremely rich collection of oriental manuscripts. The library has ongoing contacts with 700 libraries of the world, including the Library of Congress in Washington.

Alma-Ata, a city of broad straight streets, is undergoing rapid development. Every year 50,000 residents move to new flats. A 20-story hotel was built here recently. For a modern city this would be an ordinary event, but not for Alma-Ata. The fact is that the city is in one of the seismologically dangerous regions of the country, and this situation has prevented the construction of tall buildings. But Kazakh architects and engineers have developed special springy foundations. As a result, buildings of more than 10 stories are piercing the sky for the first time in the history of the city. Now builders in the cities of other republics (chiefly in Central Asia), where earthquakes occur from time to time, are profiting from Alma-Ata's experience.

Still another problem, that of stone run, has been solved here. Old-timers remember the terrible catastrophe of 1921, when a giant stream of mud, water and stones that formed as a result of the melting of glaciers in the Ala-Tau Mountains rushed through the city leaving a lifeless desert behind. Stone run has always been a constant danger to Alma-Ata, but now on its main route in the Medeo gorge (one of the best high-mountain skating rinks is situated there, by the way) a powerful dam has been built which has successfully withstood a first test (details of the Medeo operation are the subject of an article on page 40 of the October issue).

But the residents of Alma-Ata are facing a new problem. Visitors to the city notice that there is hardly ever any strong wind there, and those who arrive from the steppe districts, where winter snowstorms and summer dry winds are native to the area, even envy Alma-Atans. But there is no cause for envy. If you take a walk along the streets during winter rush hours, you notice a bluish haze hanging over the city. And if you go into the mountains and look down upon the city, you can see a dark gray film covering it. All this is due to the absence of strong winds capable of carrying away smoke, gas fumes and dust. It is vitally important that Alma-Ata get a regular "airing." An interim, but inadequate, solution, put into effect by the city authorities, has

strengthened the control of air pollution, and already the atmosphere has shown improvement. To come up with a long-term solution, the scientists of the Kazakh Research Institute of Hydrometeorology have started testing special systems that will open the road for mountain winds to reach Alma-Ata. We hope that this difficult problem will be taken care of soon.

**QUESTION:** I would like to see an article on electrified railroads and locomotives. (V. Helgesson, Salem, Oregon)

**ANSWER:** About 40,000 kilometers\* of railroads are electrified, a quarter of our entire railroad network.

As we know, electric traction has many advantages over diesel traction—the lower prime cost of transportation, saving of fuel, no harmful exhaust released into the atmosphere. And if we take into account that nearly 80 per cent of all the freight traffic within the country is by rail, it is easy to understand how important further electrification is.

Hundreds of kilometers of railroad lines are switched over to electric traction every year. More than half of the Trans-Siberian Railroad (Moscow-Vladivostok), which is the longest railroad line in our country, has been electrified. The 2,000-mile-long Baikal-Amur Railroad, now under construction, will eventually be completely electric.

Dozens of plants, designing institutes and offices are engaged in creating new models of electric locomotives. For example, recently in Novocherkassk (in the southern part of Russia) they built an electric locomotive whose eight engines have a total capacity of 13,000 horsepower. And an even more powerful locomotive is being tested there right now.

Railroads are getting a virtually new rail bed—the rails are being replaced by heavier ones, and the wooden cross-ties by reinforced concrete pieces. Fast trains will run much more smoothly on rails without joints.

**QUESTION:** We are interested most in the rare animals and birds in your country and their protection. (C. R. Shoemaker, Philadelphia, Pennsylvania)

**ANSWER:** The Red Book of the USSR lists 126 species of animals and birds. These include some of the fauna mentioned in the Red Book of the International Union for the Conservation of Nature.

All the rare species are strictly protected by the state, and the public is extremely cooperative in this regard. As a result of these joint efforts the population of some animals and birds that were on the brink of extinction is noticeably increasing.

We should mention that the protection of rare species was legalized in our country a good while before the Red Book appeared. The markhor, for example, which lives in Central Asia, was shot for the last time as far back as 1936.

Of course we haven't space here to cover all the animals protected by law, so we will give you some detail about a few of the species.

The polar bear can be seen at a close distance from a ship moving along the coastline of the Arctic Ocean. Roaming about the Arctic ice deserts, it reaches the North Pole. However, the bear prefers to build its den on the islands or on the continent, where there are big snowdrifts. On Wrangel Island

\*One kilometer equals .621 miles.

there is even a special state preserve, a bear "maternity home," the polar explorers call it. A great number of she-bears gather here in winter, they make dens and sometime later produce cubs—usually twins. The family stays in the den for at least two months, and when the young bears grow bigger and stronger, they follow their mother tirelessly about the ice for a period of a year or more and learn to hunt the seal and the sea hare.

Polar bears have been known to plunder the food supplies of polar expeditions. However, the harm done by them is infinitesimal. Besides, this largest-in-the-world beast of prey (its weight sometimes reaches a ton) never attacks a human being first; sad to say, the reverse is not true. The splendid fur and enormous skin of the bear have made this animal the sought-for prey of hunters who seek record quarries. Several years ago the International Union for the Conservation of Nature included the polar bear in its Red Book. In our country we passed such a resolution in 1956.

Another big beast of prey under protection is the Amur, or, as it is also called, the Ussuri, tiger. The name comes from the place where it lives—the Ussuri Region and the middle reaches of the Amur River in the Far East. The animal—there are now about 100 in this area—lives in the taiga, choosing the remotest places in the gorges, the beds of rivers and streams. It hunts the boar, the deer, the roe deer and the elk. The tiger seldom attacks domestic cattle since it finds enough food in the taiga.

The red wolf is a little smaller in size than the common wolf. Its long red fur and bushy tail trailing on the ground make it look like the fox. It inhabits the border districts of our country—Central Asia, Kazakhstan, the Altai and the Sayan mountains, Tuva, the Transbaikal region and the Far East.

The red wolf is an alpine animal. It keeps to the mountain ridges near gorges where mountain goats and rams live and hunts them.

There was a time when the red wolf, like many other beasts of prey, was fair game, and prizes were even given for catching it. Today, however, the numbers are small, and it lives far from populated areas, so it has been found necessary to forbid hunting this animal, which has been included in the Red Book.

Not only rare animals but birds as well are protected by the state—cranes, for instance. There are seven species in our country. These big, watchful birds have always been one of nature's decorations; they were and are worshipped by many peoples.

During the last several decades, with the development of swamps, steppes and tundras, and shooting of the birds uncontrolled, there was a marked reduction in the number of cranes. Things are particularly bad with the black crane, the red-legged crane and the white crane. They are protected everywhere, but their number is so small that there is serious concern about their future. All are included in the Red Book.

In Transcaucasia there sometimes appears an unusual white bird with a black head and hooked beak. This is the sacred ibis, which was worshipped in ancient Egypt and Mesopotamia. Its red-brown relative is a constant summer guest in our southern regions. We are studying the problem of how to protect these two species. (The red-legged ibis, which inhabits the Far East, has already been included in the Red Book.)

## QUERIES FROM READERS



## BOOKS

THE MOST RECENT BOOK by the Armenian writer Grant Matevosyan (born 1935), titled "Bread and Word," is a collection of short stories published in Russian. This latest work meets the expectations of his readers, who recognized a fine talent in Matevosyan's early writing. His first story, "We and the Mountains," was



ГРАНТ МАТЕВОСЯН



published when the author was 30 years old.

As then, he is particularly interested in the poetic implications of the ordinary lives and relationships of people. He writes about his own village, as well as the remote Armenian countryside, dwelling on the beauty of the austere mountains, the fertile meadows, the turbulent rivers. Full of humor and original in style, the unhurried narrative gradually draws us into a world unfamiliar and gripping, holding our interest to the last page.

## sculpture



**B**ORIS SVININ has made his mark as a sculptor in a comparatively short time. Two years after his graduation from the Leningrad Higher Art and Industrial College in 1965 his grand and solemn memorial to the defenders of Leningrad in the Great Patriotic War was unveiled in Lembolovskiye Heights. It is in his monuments and decorative pieces that Svinin is showing individuality. He has the ability, moreover, to blend them into the landscape.

A good example is his sculpture complex for a sanatorium-spa in Sudak, the Crimea. Inspired by the ancient land of Tauris (Tauric Chersonese, the old name for the Crimea), Svinin incorporated into the three works that make up this ensemble—*Abduction of Europa*, *Apollo and Daphne* and *Iphigenia in Tauris*—that region's antiquity, its myths and its literature.

Svinin's most recent work, for the new Uzbek town of Navoi, draws upon his past experience, especially his decorative sculpture. The sculptor's first assignment was to create a square around the house of culture. The

temperature turned out to be a real problem—it can go as high as 40 to 45 degrees

Celsius. With the help of hydroengineers he worked out a complex system of 27 pools, creating a moist microclimate for the area. The water theme set the tone for the architecture of the immediate surroundings and was echoed in the decoration.

Much of Svinin's work has helped to make Navoi a very distinctive town, different from all others. The photo shows his sculpture for Navoi's shopping center.

**Through**

THROUGHOUT THE USSR there are countless amateur practitioners of every kind of art. Amateur ballet companies, however, are still quite rare. That is why the People's Ballet Theater in Novokuznetsk, an industrial center in Western Siberia, is so famous and so much admired. A quarter of a century ago a small group of balletomanes, workers and office employees of the city's industrial plants, founded the company. Today it is composed of 40 dancers, an artistic director and two rehearsal pianists.

Performances are accompanied by an amateur symphony orchestra, and the programs are made up of not only short divertissements, but such well-known and difficult ballets as Gounod's *Walpurgis Night*, Tchaikovsky's *Francesca da Rimini* and *Swan Lake*. After a long workday the exercise sessions and dance rehearsals would seem beyond the performers' physical capacities. The obvious rewards make up for all the hardships involved. Besides, Novokuznetsk has no professional musical theater, so that the ballet company feels a special responsibility to the community. Schoolteacher Yevgenia Novichenko and worker Vladimir Baimler are shown here performing a Spanish dance.







## EXHIBITIONS

AT A RECENT EXHIBITION in Moscow, "Jewelry Crafts of the RSFSR," two general trends stood out—even though the artists' individual creativity was strongly in evidence—the traditional and the modern in the art of jewelry design and craftwork. Three hundred pieces were shown. The more than 100 artisans, a third of them young people, were from the better known centers of jewelry making in the Russian Federation, including the autonomous republics of Karelia, Daghestan, Buryatia and North Ossetia.

Antique jewelry, some of which has folkloric themes, has regained its popularity in the seventies, and the reproductions range from exact copies of the classical styles and subjects to charming modern versions of the same pieces. While customary techniques are used a good deal—filigree, graining, and chasing, for instance—the old arts of lacquer painting, color enameling, tooling and bone carving, half-forgotten for many years, are again in vogue and widely admired.

Shown here is one of the works of Julia Paas-Alexandrova, of Leningrad, from her series *Ponds*. These are agate brooches framed in silver and enamel. The silver and malachite costume jewelry is by Vladimir Khramtsov, of Sverdlovsk.



## STAMPS

INTENSIVE DEVELOPMENT of the Russian sailing fleet began with the reign of Peter I, early in the eighteenth century. Appropriately, the first of the stamps reproduced here shows Peter's own boat, built in 1723. The other vessels, with the date of their construction, are the *Oryol* (1668), the *Poltava* (1712), the *Ingermanland* (1715) and the steam frigate *Vladimir* (1848).

## ACTORS AND ROLES

WHEN VALERI ZOLOTUKHIN played in the film *Master of the Taiga* six years ago, he was an immediate hit with filmgoers. A stage actor of some experience, working under director Yuri Lyubimov at the Taganka Drama and Comedy Theater of Moscow, the young actor had already played a number of interesting roles, including several in the adaptation of John Reed's *Ten Days That Shook the World*.

Zolotukhin hails from a village in the Altai Territory, where he grew up and went to school. In addition to his work on the stage and screen he appears in concert (he plays the guitar and sings) and also on TV. He dubbed Jack Lemmon's role in *The Apartment*, which has played on Soviet screens. At 35 this versatile performer has many successes behind him and, it would appear, a great future ahead.





AN EXQUISITE  
EXAMPLE  
OF ANCIENT  
ARCHITECTURE  
IN SOVIET  
CENTRAL ASIA

# KHIVA

By Stanislav Ilyin  
Photographs by Valerie Shustov  
and Nikolai Rakhmanov

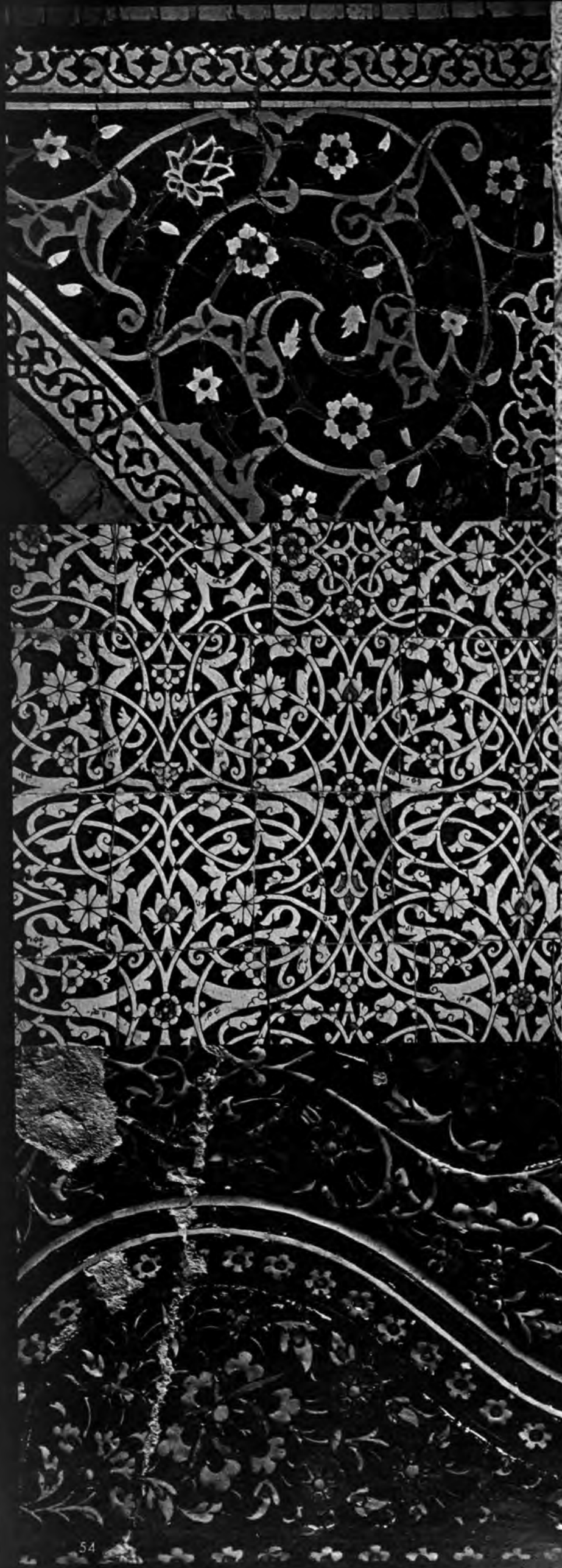
*The construction of this minaret was one of the projects undertaken during the nineteenth century expansion of Khiva. Building ceased abruptly in 1855, and thus it is called Qalta Minor, or the short minaret.*



The walls that were built in the nineteenth century to enclose the suburbs of the old city of Khiva were pierced by 10 gates. This photo shows the eastern gate, Parvan-darbaza.











*The tiles ornamenting the gates of Khiva have retained their vivid blue color over the centuries.*

*Left: Richly decorated faience tiles and intricately carved wood were used throughout the old city.*

**K**HOREZM, an oasis that stretches for 150 kilometers along the left bank of the lower reaches of the Amu Darya River in western Uzbekistan, for centuries welcomed the sun-scorched travelers who crossed the vast expanses of desert along the ancient caravan routes. As they rested in the shade of the caravanseries and drank with relish the cold water from the wells, the travelers exclaimed "Kheivak!"—"How pleasant!" And as legend has it, that is where the name Khiva originated.

#### An Oasis Within an Oasis

Approaching Khiva from the north, you enter a typical modern town. Only the fanciful silhouettes of the minarets that rise over the roofs of houses indicate one of the architectural wonders of the East is near. Through the arch of a fortress gate faced with blue tiles one enters the Dishan Qal'eh, or

During periods of peace, prosperous towns grew up in Khorezm, and science and art flourished. But the wars that plagued the region brought destruction to many of these remarkable fortress settlements. Khiva, which according to historians was founded in the third to fifth centuries A.D., was luckier than the others. It became the capital of the Shahs of Khorezm in 1598, and although this town, too, was seized and destroyed by conquerors, it rose from the ruins and was fortified again and again.

#### Ancient Architecture

The most ancient architectural monument in Khiva is the tomb of Sheik Sei Ala-ud-din, built in 1325. In six and a half centuries it has sunk deep into the ground, and restorers had trouble gaining access to the burial vault that lies below ground level today. The remarkably beautiful



outer fortress, built in the nineteenth century, when Khiva's population felt too cramped in the medieval town surrounded by the mud walls of Ishan Qal'eh, the inner fortress.

The oldest sector of Khiva has been declared a state-protected historical and architectural monument.

#### History

In the sixth to fifth centuries B.C. a patriarchal and slave-owning kingdom sprang up in the lower reaches of the Amu Darya, of which the town of Khorezm became the capital. Its history was a series of wars and invasions. The long-suffering land and people of Khorezm knew the Khushan kingdom, the Arab Caliphate, the rule of the Samanids, the mighty Khorezm Shahs, the Mongol yoke and Tamerlane's conquest.

The Khorezmites had a written alphabet of their own even before the advent of the Arabs. In the second century Khorezm already had large book repositories with works on history, mathematics, astronomy. The greatest scientists of the time lived and worked in Khorezm in the ninth to eleventh centuries: Muhamed ben Musa Khorezmi, the father of algebra; Abu-Reihan-Muhammed ibn-Ahmed al-Biruni, the author of fundamental works on mathematics, geography, astronomy, mineralogy, philosophy, who left a legacy that has not been fully studied to this day; Abu-Ali ibn Sina, the great physician, philosopher and poet, who was known for his medical treatises in Europe under the name of Avicenna.

tombstone with its wealth of ornament contrasts sharply with the unpretentious and modest appearance of the snow-white mausoleum.

The mosque built in 1788 is also one of the highlights of Khiva. Its flat roof rests on 213 richly carved columns. Specialists believe that these columns are the oldest specimens of wood carving in Uzbekistan.

One of the most beautiful monuments in Khiva, the Pakhlavan-Mahmud mausoleum, is the burial place of the legendary craftsman, poet and philosopher of that name who lived in the thirteenth century. In keeping with his will, Pakhlavan-Mahmud was buried in the workshop where he had worked all his life. Three centuries later a mausoleum was built over his grave, which was restored and richly ornamented in the early nineteenth century. Its large dome, crowned with golden spheres, is completely faced with green tiles. Blue glazed tiles cover the high portal which opens onto the sepulcher. The carved door is encrusted with ivory, and the interior (floor, walls and ceiling) is beautifully ornamented with mosaics and bas-reliefs. Lines of Pakhlavan-Mahmud's verse are interlaced with the mosaics on the walls.

Today thousands of tourists from all parts of the Soviet Union and other countries visit Khiva. The ancient town is especially beautiful at sunrise and sunset, when the sun's rays make the minarets sparkle, and at night, when the moonlight makes Khiva seem like a vision from the *Thousand and One Nights*.



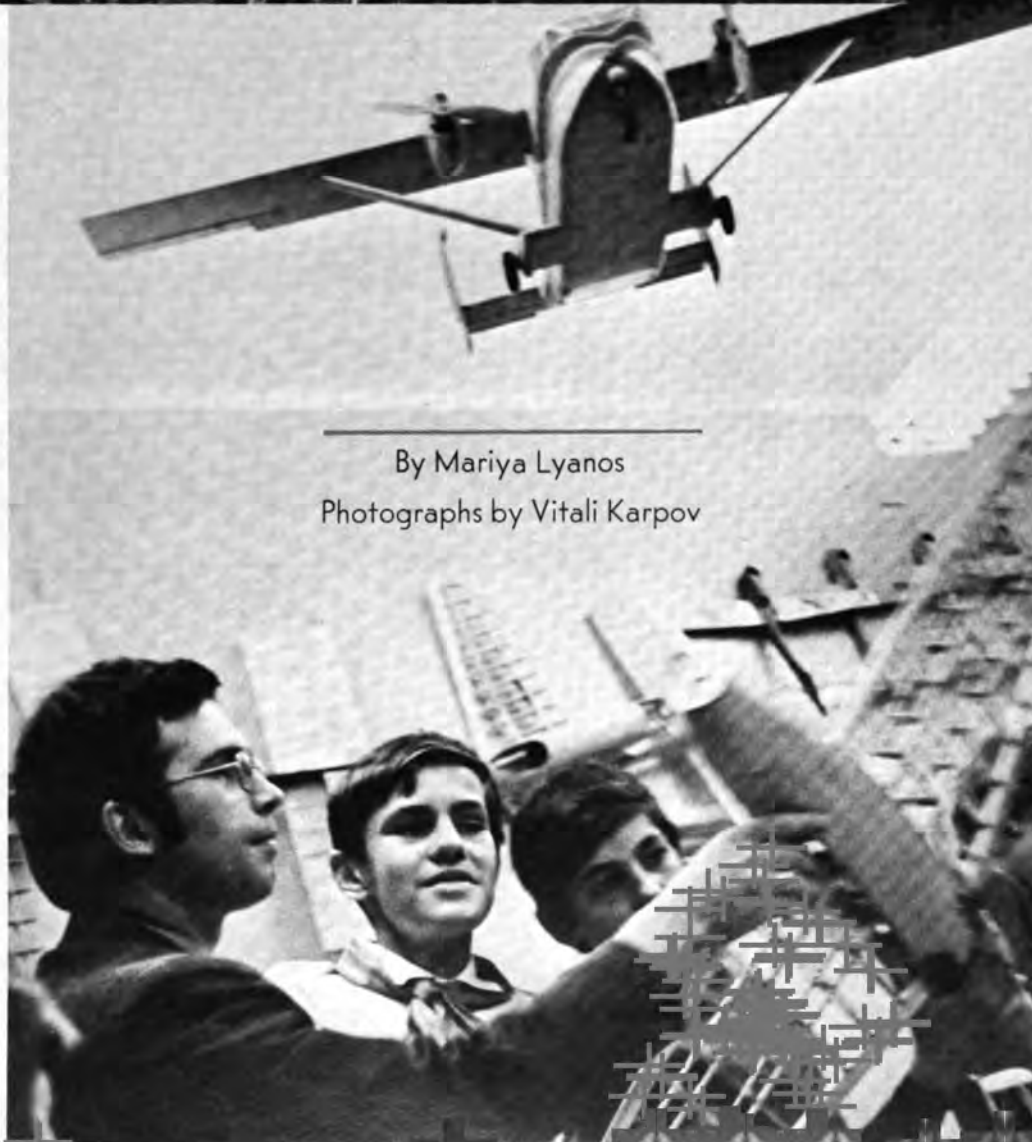
## Adults Help Children Reveal Their Talents



**T**HE COURTYARD of the house I live in is a world in itself. It has its own laws, its experts, its secrets and its leaders. Our courtyard educates, makes judgments, enjoys triumphs, is packed with excitement. How many births, weddings and sendoffs are celebrated here! And let's not forget the soccer games!

Like many others, our courtyard is shaped by large multi-storied apartment houses into a central rectangle, in the middle of which is a square, with flower gardens, swings and umbrella-dotted sandboxes for the little ones. The familiar things that give color and warmth to a neighborhood. Though the center of Moscow is not far away and one of the city's busiest streets—Leningradsky Prospect—runs nearby, our courtyard is quite secluded.

Again, as in any Moscow courtyard, there are many children here. In the evening they hurry over to the clubhouse built especially for them. Some are carrying a fencing foil and helmet in their sports bag. Others may have a frisky pinscher strain-



By Mariya Lyanos  
Photographs by Vitali Karpov

Aviation institute student Anatoli Pavlov helps his younger neighbors make aircraft models. Right: Leonid Moskal'ov, Master of Sports of the USSR, teaches them to ski. Bottom right: The tennis coach is Master Sports Ekaterina Kryuchkov







ing on a leash. Still others make a beeline for the rink, not surprising when you know that it's right under the apartment house windows.

The clubhouse is the center of the children's interests. The law requires that two per cent of apartment rent be set aside for the people's cultural and educational facilities, but the emphasis is placed on the youngsters' needs. Teachers and counselors on the house management staff help parents plan the leisure activity of their children and supervise the various groups and sections. All the necessary sports equipment, games, toys and even tickets to theaters and museums are purchased with money from the cultural and educational fund.

The clubhouse has an audi-



The doll and puppet workshop, supervised by Olga Molotoboyeva. Right: The puppeteers are taught by a professional actress.





torium, of course. You may find it full of youngsters engrossed in the adventures of Petrushka, an ancient Russian fairy tale character. A puppet production, the characters were all made by the kids themselves. An actress from a real puppet theater (she lives in our house) in her free time helps boys and girls master the sophisticated art of puppet manipulation and acting.

In one of the clubrooms an aviation institute student coaches future designers making complicated modern aircraft and rocket models.

Chess is a popular game in Moscow, and in another room chess club members, young and old, play—and sometimes compete. There are children here making their first timid moves,

others are courtyard champions.

Sports are a mass hobby of the yard. A track and field master works with the kids two or three times a week, and many of them, highly motivated by their trainer, eventually join children's sports clubs.

In the winter a rink is set up in the center of the courtyard, and sometimes you hear goalkeepers and forwards, aspiring to nothing less than Olympic triumphs 10 or 15 years hence, in verbal competition with figure skaters who see gold medals dangling in the frosty air. In the summer boys usually turn to soccer, with countrywide yard competitions taking precedence over most of the youngsters' activity. Our courtyard happily gives up its treasured seclusion so the

boys can mingle with the best.

The children are carried away by Jules Verne, Jack London and Alexander Green, a Russian romanticist. They dream of distant journeys and love to use exciting words like trade wind and southwester.

The Brigantine Club in the city opens its doors wide to them: In the winter they study navigation, radar and other maritime sciences; in the summer they set out on voyages, on Moscow rivers less tempestuous than the ones they read about—those will come later.

There are all kinds of children, of course. Some scorn everything but soccer. Then there are the avid stamp collectors. The latest mass passion of our courtyard's youngsters is bicycles. But other

activities attract more of the children. Boys and girls train dogs on grounds reserved for this interest or grow flowers under the guidance of an expert floriculturist. Anyone showing artistic or theatrical talent is welcome to enroll at children's studios, where there is an experienced teaching staff. And there are always adults around to discuss careers with youngsters who can't make up their minds about what they want to do.

Many of the old courtyard friends my age have left for jobs or schools in different parts of the country. But few will ever forget our courtyard and the people who opened their eyes to the beauty and diversity of their small world and the larger one to come.



Former bosun Vladimir Poluvyanov teaches navigation and other nautical arts. Left: The dance group is especially popular.



Artist Victor Khesin with the amateur painters group. Left: The youngest residents can usually be found in this quiet corner of the courtyard.



# BACK IN YOUR OWN BACKYARD

HOW DOES MODERN PEDAGOGY SEE THE PROBLEMS  
ARISING OUT OF AFTERSCHOOL FREE TIME?  
HOW CAN CHILDREN'S LEISURE TIME BE CHanneled  
IN A USEFUL DIRECTION,  
AND LIFE IN THEIR OWN BACKYARD BE MADE  
A PART OF THEIR EDUCATION?  
ELEONORA KUZNETSOVA, A CANDIDATE OF SCIENCE  
IN PEDAGOGY, DISCUSSES THESE QUESTIONS  
AND GIVES SOME PRACTICAL ANSWERS.

By Eleonora Kuznetsova  
Candidate of Science (Pedagogy)

IT IS NOT UNCOMMON to see some variation of the following scene in a neighborhood backyard: A little boy is running across the yard and kicking at an empty can. The noise attracts another boy, a 12-year-old, perhaps, who also has nothing better to do, and both take to hitting the substitute hockey puck back and forth. A third child joins in, then more. The yard gets noisy, there's excitement here, but it's all an aimless, fruitless game, a way of idling the time away.

A hundred years ago the well-known Russian teacher Konstantin Ushinsky said that boredom is the source of much of the mischief children get into, that it can be the reason for cruel jokes, and be responsible for laziness, slyness, dishonesty, hatred of school and studying, secret wrongdoing. Regular activity—of the right kind—is essential. Out of it, Ushinsky believed, thoughtfulness will develop in a natural way, and whatever roots of bad tendencies may exist in children or be acquired by them will probably disappear.

Let us stand back and look at another group of children. These I know. They live at 14 Dovator Street in Moscow. It's a different picture here. Two students from the Pedagogical Institute, Richard Sokolov and Yuri Berezkin, have made it their business to help these children find useful and absorbing things to do after school. Together with the youngsters, they have built a metalworking and a woodworking shop; all told, they have set up 30 groups, each pursuing some special hobby or interest. You will find budding artists here and builders of radio sets, with professional painters and engineers as their guides and giving them assistance. A real cameraman supervises a film studio, where the kids are making cartoons. And lots of the youngsters turn out for meetings with famous people—a recent visitor, for example, was the test pilot Vladimir Kokkinaki.

How can afterschool free time, like the usual school schedule—which is a scientifically based program—be so organized that the children are happily caught up in the activities and boredom is unknown?

For a long time it was believed that the problem had been solved in the Soviet Union by the extensive network of Young Pioneer houses, children's clubs and sports stadiums. As a practical matter, however, it has become clear that these facilities are not the complete answer. For one thing, in many cities the Young Pioneer house or Young Naturalists stations may be several Metro or bus stops from home; the distance is a real problem. Even the teenagers who do get to these places

can't go there every day; they spend a considerable part of their free time around home.

The situation got teachers to wondering what could be done to bring the backyard into the school's educational process or, to put it another way, to make the backyard something of an extension of the school. Backyard pedagogics is now an area of study at several institutes of the Academy of Pedagogical Sciences, in divisions of the Lenin State Pedagogical Institute in Moscow, where I am supervising the research, and at the Herzen Pedagogical Institute in Leningrad. A theory of this special branch of pedagogics has emerged, its principles similar to those upon which the activities of the Young Pioneer houses and camps are based, but, of course, different in form for application to backyard conditions.

In the discussion that follows, it should be borne in mind that in the implementation of the principles which have been developed, not only the teachers who are employed by house management committees\* are involved. To an even greater extent, volunteer adults commit themselves and their free time to organizing the activities of the children in their own neighborhood setting.

One of the major conclusions which has come out of our investigations and experience is that initiative must be encouraged. Children are by nature inquisitive and interested in a thousand things. They need the help of adults to sift out what they really want to do. With adult guidance, undeveloped resources can be brought out and direction given to the imagination and sensitivity of the individual child.

Soviet teacher Anton Makarenko maintained that it is necessary to encourage in children a sense of the responsibility of people for "decorating the Earth," and therefore they must learn, for example, to take care of roses just as they would learn to grow food. They should plant the flowers themselves, look after them, see to it that every corner of their yard is kept clean and full of the beauty of flowers. If, according to our teachers, this concept of responsibility linked with pleasurable activity does become naturally rooted, then the adults who have been involved in the process will have correctly applied a principle of backyard pedagogics.

A second principle has to do with creativity and the enjoyment and excitement that accompanies originality of thought and action. Here the adult can contribute ideas, but unobtrusively, perhaps throw out a suggestion which can catch the imagination. New games like the one called "Traveling to the Moon" can be initiated in this way. Schoolchildren have an opportunity in the back-

yards to play with younger children, stretching their own imaginations along with the little ones. Sometimes the ideas of adults and children alike turn out to be very impractical, but they still serve a purpose—they can start everyone thinking or rouse creative endeavor.

Another principle developed in our study is the building of self-respect. When children are encouraged to believe in themselves and given the opportunity to prove their abilities, the realization of self-worth takes on concreteness; they cannot help experiencing, little by little, a sense of their own place in the scheme of things.

Developing a sense of the adventure and challenge in life is a fourth principle. It enhances and ennobles every human endeavor.

And, finally, of the greatest importance is the principle of the collective spirit. A common and familiar "playground" is the most natural vehicle for developing this bond. Children playing, working at hobbies, competing in sports together can build up a closeness and sense of responsibility, one for the other, that can last a lifetime.

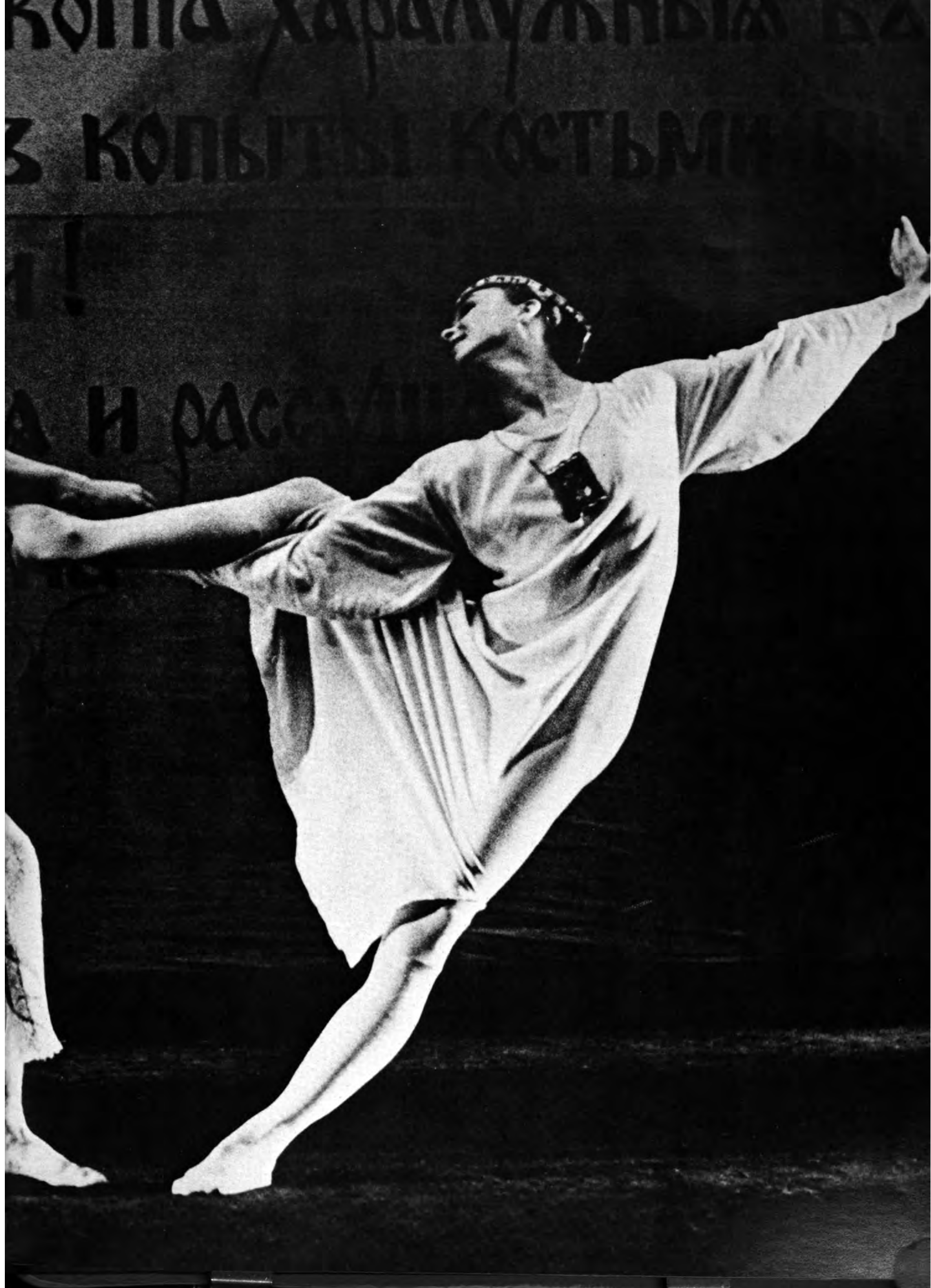
We are seeing the fruits of our pedagogical study and labors, as in Dovator Street. Another backyard in Cheryomushki, a new housing complex in Moscow, is proceeding the way the parents and teachers there decided they wanted to go. Every group in Cheryomushki has a broad age range. So older children play with younger ones, organize trips and picnics for them, help with homework. The adults—engineers, journalists, teachers and others—who live in the block of apartments are lending a helping hand.

Another backyard we are proud of is 10 Otkrytoye Shosse in Moscow. Radio engineer Alexander Mishle and his wife, a nursery school teacher, are earlybird group assistants. They put the backyards through their daily dozen before school begins. After school they all play games that are not only fun, but, say the Mishles, help develop resourcefulness, logical thinking and mathematical skills.

So backyard pedagogics, though still a new science, has taken the first steps. All of us—teachers, specialists, scientists—are convinced that what we are formulating and putting into practice can result in helping to solve a number of problems, for example, those of difficult teenagers, a phenomenon in all countries. We must be able to help adolescents, in the normally rough and tumble years, to change those years to happier ones, to years of purpose, of enjoyment and even of fulfillment.

\*Each house committee staff is responsible for some 10 to 12 apartment houses.









lar with both critics and audiences.

Its notable scenes include the battle between Igor's army and the nomads, and his capture. As the Polovtsians' arrows encircle him, he attempts vainly to escape, like a wounded bird trying to fly.

The women members of the company dance the roles of the nomads. Like riders they lash across the stage, embodying the dark forces that invaded Ancient Rus.

*Yaroslava* is a blend of classical ballet, pantomime and song. The company's leading dancers—Tamara Statkun, Svetlana Shirokikh, Nikita Dolgushin and Vasili Ostrovsky—have been charming audiences since the first performance.

As the composer Dmitri Shostakovich put it, "I was enchanted by the magic force and expressiveness of this very Russian music."



Ballet master Oleg Vinogradov. Left: Svetlana Shirokikh as Yaroslava. The hero's lament for the Russian soldiers is one of the ballet's most moving episodes. Right: Igor and his men encounter a solar eclipse.





**NEXT  
ISSUE**



## FRIENDSHIP VISIT OF SOVIET SHIPS

### Bicentennial Sailing Regatta

The Soviet vessel *Tovarishch* and the four-masted bark *Krusenstern*, the world's largest sailing ship, came to New York last summer to participate in the Bicentennial sailing regatta. *Krusenstern* captain Ivan Schneider is interviewed in December.



## A TRIP ON THE YUZHNI URAL EXPRESS

### Take Ivanov's Train!

We invite our readers to take a trip on the Trans-Siberian Railroad with Victor Ivanov and his crew. Ivanov is the leader of a conductors team made up of young women. He's not only their chief but a kind of mentor, a term we hear often these days. Our article tells how it applies to Victor Ivanov.

## REMEMBERING THE WAR YEARS

### Contest Winner in the USSR

"One of my most poignant memories is . . . the picture of GI Joes and Ivans sharing handshakes and bear hugs on the bridge. Last July I again saw handshakes and hugs, this time in the Apollo-Soyuz spacecraft. In 1945 we had conquered a common enemy and given freedom and peace to a world in danger of losing both. In 1975 our two great nations conquered space. . . ." We shall publish this letter and others from readers who took part in the last SOVIET LIFE quiz contest plus an article about the first-prize winner's trip to the USSR.

**COMING SOON**

Big Cities in the Soviet Union





A father said to his five-year-old boy:

"Son, you're grown up enough now to know—there isn't any Santa Claus. It was me. . . ."

"Dad, I know, I know," the boy replied. "And you were the stork, too."

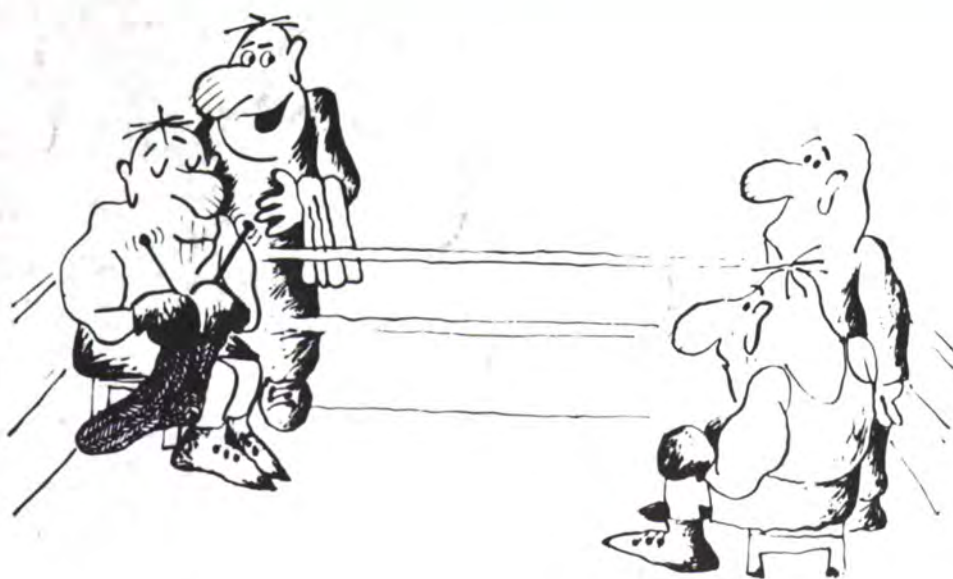
Time: the twenty-first century.

Two unhappy-looking pedestrians are standing on the sidewalk of the main street of a city, gazing at the unending stream of cars.

"How did you manage to get across the street?" one asked the other.

"I never have. I was *born* here."

## SMILES 'N' CHUCKLES





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LEONID BREZHNEV'S LIFE STORY



# SOVIET LIFE

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ment provides for the publication and circulation of the magazine SOVIET LIFE in the United States and the magazine AMERICA in the Soviet Union.

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## LETTERS TO THE EDITOR

We returned September 6 from two weeks in Russia. Our General Tour was excellent. We were so glad we had had the benefit of your magazine these past few years. It is interesting and most informative.

Mrs. Earl Morris  
Columbus, Ohio

I think your publication makes a real contribution to advancing Soviet-American understanding and friendship. I was particularly impressed with the coverage you gave to Leonid Brezhnev's speech at the last CPSU Congress in which he touches on the disarmament objectives of the USSR.

Joseph Clark  
Chestnut Hill, Pennsylvania

Our Board of Education recently unanimously passed my proposed Russian language course, and it was primarily due to the information contained in the article "Why Learn Russian?" (January issue), which lent wide support to presentation for implementation of my course.

I always enjoy reading SOVIET LIFE and will continue to have my students notice and read your magazine.

Lloyd H. Condit  
Montclair, New Jersey

We of the Assyrian Universal Alliance are very pleased with your publication.

We Assyrians are a small minority. We have many Assyrians who live in the Soviet Union, and the country and government have been very good to our people. We would be thankful if you would print something in your magazine about Assyrians living in the USSR. Thank you kindly.

Assyrian Universal Alliance  
Hartford, Connecticut

I find SOVIET LIFE to be an artistic and informative publication. However I would be interested in more articles on what problems the Soviet people have and how they deal with them effectively.

Susan H. Bittensky  
Pittsburgh, Pennsylvania

SOVIET LIFE magazine hardly could be surpassed for its scope and clarity of educational coverage of subjects, and its superb photography.

We are very happy to receive it since it takes us close to Soviet people and into the very heart of Soviet life. However, I feel that each issue should carry a page or at least half a page of folk songs and music in the language of the republic of origin (preferably with translation).

E. Manni  
Providence, Rhode Island

### SNAP IT! YOU MAY BE LUCKY

The photograph submitted for our photo contest announced in October should be 18 x 24 centimeters.



# NEW SOVIET PEACE INITIATIVES

By Sergei Volovets  
Novosti Press Agency News Analyst

**T**HE SOVIET UNION'S new peace initiatives—the Memorandum on Questions of Ending the Arms Race and Achieving Disarmament and the Draft of a World Treaty on the Non-Use of Force in International Relations—have become the main topic of the Thirty-first Session of the UN General Assembly. The USSR is thus focusing the attention of the international community on questions that must be dealt with as quickly as possible because the fate of humanity depends on their solution.

The two documents submitted for the UN's consideration by Andrei Gromyko, member of the Political Bureau of the Central Committee of the Communist Party of the Soviet Union and USSR Minister of Foreign Affairs, have met with the broad support of the delegates of many countries and with the appreciation of the public generally. It is the consensus that the speech of the head of the Soviet delegation was filled with the desire to patiently and consistently search out ways to advance and concretize the relaxation of tension, to make it irreversible. A special place in Gromyko's speech is held by an appeal—reasoned, detailed and comprehensive in its approach—to bring about, at long last, a turning point in the solution of the most acute problem of our time, the problem of disarmament.

The Memorandum places on a practical footing the accomplishment of such tasks as stopping the nuclear arms race, reducing and subsequently discontinuing and prohibiting nuclear weapons tests and strengthening the system of the non-proliferation of nuclear weapons. It aims at banning and destroying chemical weapons and at prohibiting the development of new types and new systems of mass destruction weapons. It substantiates the need to take measures to reduce armed forces and conventional armaments. It contains a provision for creating zones of peace in the Indian Ocean and other regions, points to the need for reducing military budgets and also makes concrete proposals concerning the holding of negotiations on questions of curbing the arms race and on disarmament.

Some provisions of the Memorandum in one form or another had already been submitted in different years for the consideration of the United Nations, and all of them were approved and backed with resolutions.

"But," Andrei A. Gromyko said in his speech at a plenary session of the General Assembly, "resolutions notwithstanding, the gigantic ma-

**"The arms race is inconsistent with the interests and the will of the peoples. It benefits only the militarists and the military-industrial complex. The arms race consumes vital resources of the countries and deprives the peoples of a considerable and ever growing proportion of the wealth created by their labor. According to UN data, about 300 billion dollars is now spent every year on armaments, or a million dollars every two minutes all over the world. This is considerably more than the aggregate national income of the developing countries of Asia and Africa. On the average, 60 times less is spent in today's world on teaching a child the science of creation than on training a soldier in the ABC's of destruction. And more and more states are being drawn into the arms race."**

**From the Memorandum of the Soviet Union on Questions of Ending the Arms Race and Achieving Disarmament, submitted to the 31st Session of the UN General Assembly, September 28, 1976.**

chine of arms production, in other words, of material preparation for war, continues to pick up speed. Figuratively speaking, the globe, or at any rate a sizable part of it, is girdled with assembly lines continuously churning out ever more destructive types of weapons for use on land, in the air, under water and elsewhere."

What is needed, therefore, is to turn the relevant UN resolutions into concrete actions by states. This is only one example: In 1973, the Soviet Union proposed a 10 per cent cut in the military budgets by states that are permanent members of the Security Council and using part of the funds thus saved to help the developing countries. In the past three years the Soviet Union has reduced its military budget (its proportion in the State Budget has decreased from 9.9 per cent in 1973 to 7.8 per cent in 1976).

The Soviet Union, in submitting its proposals for the General Assembly's consideration, proceeded not only from the need to again draw the attention of the international forum to the solution of acute problems of disarmament. In many respects it posed these problems in a new manner, which points up its flexible position, its desire to take into account as far as possible the interests of other countries and to use all approaches and possibilities for the achievement of

concrete results. For example, as regards this same question of cutting military budgets, the Soviet Union does not fix the percentage of reduction: As a first step for 1977, it may be more than 10 per cent or less.

Similarly, while advocating the prohibition and destruction of all chemical means of warfare, the Soviet Union is also ready to seek agreement, to begin with, on removing the most dangerous (lethal) types of chemical weapons from the arsenals of states.

Disarmament problems concern all countries, large and small, developed and developing, nuclear and non-nuclear. Therefore, the Soviet Union suggests that these problems should be examined at a world disarmament conference, a most representative and authoritative forum vested with the right to make effective decisions. A proposal concerning the convocation of such a conference was submitted by the USSR in the United Nations as long ago as 1971, but because of the objections raised, its implementation has been put off. The USSR, however, is ready to discuss questions of disarmament at a special session of the UN General Assembly if it will ensure, at long last, a turning point in this matter, so vital for all humanity.

Working for the solution of key problems of disarmament, the Soviet Union believes that of paramount importance today for lessening the danger of war is general recognition of the principle of the non-use of force in international relations.

This principle, recorded in the UN Charter and in the Final Act of the Conference on Security and Cooperation in Europe, held in Helsinki last year, must become an immutable law in international affairs in our time. It is precisely this aim that is advanced by the proposal concerning the conclusion of a world treaty on non-use of force in international relations. The draft treaty submitted by the Soviet Union for the consideration of the General Assembly urges all countries to refrain from the use of armed forces involving any type of weapon, including nuclear weapons, on land, on the sea, in the air or outer space, and from the threat of such use. The countries that are parties to the treaty shall reaffirm the commitment to solve disputes between them only by peaceful means so as not to jeopardize international peace and security.

This is not abstract pacifism, nor is it political vegetarianism. It goes without saying that the treaty would not limit in any way the right to administer a rebuff to an aggressor or the right to struggle against national or racial oppression for national liberation. It is aimed at preventing aggression. When there is no aggression, the use of force for repulsing it will be unnecessary.

The representatives of many countries speak from the rostrum of the United Nations of their striving to secure peace. It is not out of place, therefore, to recall Lenin's words to the effect that it is possible to test sincerity in politics through the correspondence of words and actions. The sincerity and consistency of the foreign-political line of the USSR proclaimed at the Twenty-fifth CPSU Congress in the Program of Further Struggle for Peace and International Cooperation and for the Freedom and Independence of the Peoples has been borne out by its practical deeds and proposals.

The people of the world are awaiting the earliest possible confirmation of the will to peace by the practical deeds of other states, too. Neither in the years preceding World War II nor in the early postwar decades did there exist such favorable objective prerequisites for ending the arms race and for disarmament as those existing today. But time is pressing.



# Leonid I. Brezhnev:

## A Short Biography

LEONID ILYICH BREZHNEV was born into a Russian worker's family on December 19, 1906, in the village of Kamenskoye (now Dneprodzerzhinsk), a large iron and steel center in the Ukraine. His grandfather and father both worked for many years at the local iron and steel mill, and Leonid Brezhnev was first a laborer, then an engineer and shop superintendent there. His brother and sister worked at the same plant. The family gave a total of almost 100 years to the mill.

Leonid Brezhnev started work in the early years of the Soviet state, born of the October Socialist Revolution of 1917. They were hard years: The young Soviet republic had inherited hunger, dislocation, poverty and ignorance from the czarist regime. The nation was faced with the task of reviving an economy virtually destroyed by the First World War, the Civil War and foreign military intervention. Led by the party of Lenin, the Soviet people set about transforming old, backward Russia into a new, socialist state. They restored factories, built power stations and set up the first collective farms. They also began eagerly to assimilate knowledge. This period saw the emergence in the Soviet Union of a generation of pioneers of socialist construction, Leonid Brezhnev among them.

At each important point in the country's history he appeared in the front ranks, where the going was most difficult and the responsibility the greatest.

At the age of 17 Leonid Brezhnev joined the Young Communist League, where, as he later recalled, he learned the complicated science of life, of class struggle and the building of a new society. In the YCL he found the source of the energy and optimism that he has retained over the years. At the age of 25 he joined the Communist Party, whose cause he has been serving ever since.

During the first five-year plan periods the Soviet people built new projects and studied. The young Communist Leonid Brezhnev worked as hard as the rest and continued his education. It was a difficult period, but a heroic and vitally important one. This era was to decide what the world's first socialist country would be like. Since a new society could not be built on an obsolete economic foundation, the Communist Party focused its attention on establishing highly developed industry in the Soviet Union. Only industrialization could bring about fundamental changes in the social structure, ensure prosperity, help establish highly productive socialist agriculture and guarantee the defense capability of the young republic, which was encircled by hostile countries.

Agriculture was collectivized—that is, given a socialist basis—in the face of fierce resistance from the kulaks, the rural exploiters, who stopped at nothing, including terror and arson, in their attempts to foil collectivization.

These were the times the Soviet state lived through and the complicated tasks that faced the Communist Party and the people. Leonid Brezhnev was among those who, at the bidding of their heart and conscience, devoted their energies to accomplishing those tasks.

In 1927 Leonid Brezhnev graduated from a land management and reclamation technical school in Kursk, Central Russia. He went to work in Byelorussia and then in the province of Kursk and the Urals, helping to organize the use of land. In 1935 he graduated from a metallurgical institute and took a job at a plant in his native city. His life among the factory workers, sharing their thoughts and aspirations, and his active role in the work of the party organization left an indelible imprint, molding his world outlook. This experience, he

said, has remained with him all his life. The young engineer was known for his outstanding energy and singleness of purpose, and was also active in civic work. The plant newspaper *Znamya Dzerzhinski* remarked at the time, "He is made of strong metal."

In 1939 Leonid Brezhnev was elected a secretary of the Communist Party Committee of Dnepropetrovsk Region, one of the nation's largest industrial centers. At that time the Soviet people were aware of the genuine danger of a war of aggression by Hitler Germany. The defense of the country became everyone's responsibility and, consequently, one of the prime objectives of the Communist Party. It was then that the Dnepropetrovsk regional party committee received an urgent assignment from the party Central Committee. It called for converting some of the plants to munitions production. To oversee this new branch, the post of secretary of the regional party committee for the defense industry was created. The assignment was so important that S. B. Zadionchenko, First Secretary of the regional party committee, made the following proposal at a hastily called meeting of party officials:

"For the post of secretary for the defense industry we need an energetic man with a technical education and a good background of production experience, and, most importantly, a person who is highly respected by our workers, supervisors and engineers. In short, we need someone who has all these qualities to an equal degree, and I believe that there is only one such person among us, the present secretary for propaganda, Comrade Brezhnev. I therefore propose that he be appointed to the new post."

The proposal was adopted unanimously.

Beginning in the early hours of June 22, 1941, when Hitler Germany treacherously attacked the Soviet Union, protecting the plants and factories of Dnepropetrovsk Region and making maximum use of them to meet the needs of the front became the permanent concern of the regional committee's secretary for the defense industry. Less than a month after the invasion by fascist troops, Leonid Brezhnev joined the army. He fought till the end of the war, from the first fierce engagements until the great victory. Soldiers and commanders who served beside him firmly believed that this radiant day would come—a faith instilled in them by the Communist Party and its members, by commanders and political officers like Leonid Brezhnev. They respected him for his self-control, calmness and courage, for the ability to see his way in a highly complicated situation, to sense the people's mood and inspire acts of heroism.

With the 18th Army, Colonel Leonid Brezhnev took an active part in a number of military operations, including the Battle for the Caucasus, one of the glorious chapters in the history of the war. He was a member of the heroic marine assault party that came ashore near Novorossiysk. In a sudden attack, Soviet landing troops captured from the Nazis a small bridgehead on the Black Sea coast—it went down in history as Malaya Zemlya (Minor Land)—and fiercely repelled the enemy attack for 225 days.

More battles lay ahead. Ivan Kravchuk, a veteran soldier who fought beside Leonid Brezhnev, recalls:

"On the night of December 11, 1943, a telephone message came from the front line area warning that the Nazis were attempting a breakthrough at the village of Stavishche—some 40 kilometers from Kiev! We all picked up our guns and rushed out. With us was Colonel Brezhnev, Chief of the Political Department of the 18th

"I had the good fortune of starting my own working career at a large factory. Being here with you reminds me of those days and of the people I worked with. They gave me my first profession, helped me figure out a philosophy of life, showed me the strength and nobility of spirit of the working people. Such 'universities' are not forgotten."

From the speech by Leonid I. Brezhnev at a meeting with workers at the Likhachev Auto Plant, April 30, 1976





*Leonid I. Brezhnev, General Secretary of the Central Committee of the Communist Party of the Soviet Union, opening the Twenty-fifth Party Congress in Moscow, February 1976, and (below) visiting with the Young Pioneers of Kazakhstan at Medeo, not far from Alma-Ata, the capital of the republic, in August 1973.*







The city of Novorossiysk, the southernmost point of the Soviet-German front. L. I. Brezhnev third from left. 1942.



Brigade Commissar Brezhnev is speaking to the soldiers of the Black Sea Army group. 1942.

In the hero city of Novorossiysk with veterans of one of the bloodiest defensive battles of the war. September 1974.

Bottom: Major General Brezhnev, commissar of the combined regiment of the Fourth Ukrainian Front (second from right) during the Victory Parade in Red Square Moscow, 1945.

Opposite page: The highest military rank—Marshal of the Soviet Union—was conferred on him in May 1976.

Army, who climbed into his jeep. I followed him. . . . The trench that we reached had become the front line of defense. We were swept with German machine gun fire, and the enemy infantry began an attack. We had only one heavy machine gun left. As luck would have it, even this went dead after a few seconds. Brezhnev made a dash along the trench toward the silent machine gun. I ran after him. We stepped over several motionless bodies. Brezhnev turned back to me: 'Ivan, see if anyone is alive. You've got a first aid kit—bandage them!'

"I stopped, felt two or three bodies in a hurry. All of them were dead. Covering their faces with soldiers' winter caps, I ran toward Brezhnev. At that instant I heard our only machine gun come to life with a staccato of loud bursts! When I reached it, I saw Brezhnev in place of the machine gunner, who lay in a pool of blood. . . . The Nazis were tearing their way forward. Their advancing waves had 30 or 40 meters to go before reaching our trench. . . . Brezhnev responded by firing short bursts, coolly aiming at the advancing enemy. He had kept his usual self-control but in the heat of the moment had taken off his cap and gloves. . . ."

In his reminiscences—also dating back to December 1943—K.S. Moskalenko, Marshal of the Soviet Union, wrote:

"I recall that I first met Brezhnev when we were allocating part of our line of advance to the 18th



"If you happen to be an immediate participant of an outstanding event of your time, an event which marks a vital landmark in world history, it remains in your memory forever. For the older generation of our party such events were the Great October Socialist Revolution and the Civil War. For you and me, for my generation, it was the Great Patriotic War. Superhuman exertion of all powers and complete forgetfulness of self—that was the state of all of us who took part in the greatest war in history. And it could not have been otherwise, because we defended and upheld our most treasured possession—our Soviet socialist motherland."

From the speech by Leonid I. Brezhnev at a meeting in Novorossiysk, September 7, 1974







Army, which had arrived from the Caucasus. . . . I liked his simple manner, his bold and determined opinions and actions. We saw in Leonid Brezhnev an excellent organizer of party political, ideological and educational work, with equal competence in military matters. He was also a good comrade and an intelligent person to talk to."

After driving the invaders from the USSR, the Soviet Army went on to liberate the peoples of a number of European countries from the fascists. One of the soldiers who fought to free Poland, Hungary and Czechoslovakia was Major General L. I. Brezhnev, then Chief of the Political Department of the Fourth Ukrainian Front.

In the summer of 1945, he was one of the most celebrated members of the Soviet Armed Forces in the Victory Parade, a triumphant march through Moscow's Red Square. "The scars of the war," Leonid Brezhnev once said, "keep us from forgetting our duty, the duty of the living, to those who are gone and those who are to come. . . ."

After the war the Soviet people directed all their energies to repairing the vast damage done by the nazi invaders. More than 1,700 cities and towns, 70,000 villages and thousands of mills and factories were in ruins. As head of the party organization of Zaporozhye Region and later Dnepropetrovsk Region in the Ukraine, Leonid Brezhnev worked long and hard to help restore the economy of these areas. To give an idea of the scale of the effort: Though the Nazis destroyed every blast and open-hearth furnace at the giant





Zaporozhstal iron and steel mill, within two years after the war ended this mill was supplying the nation with iron and steel again. In the same short period the workers restored one of the country's largest (at the time) hydroelectric power stations, the legendary Dneproges plant. (The whole nation had enthusiastically contributed to building this plant during the prewar five-year plan periods.) Leonid Brezhnev's work in those years revealed his talents as an organizer, party leader and statesman.

As head of the Communist Party of Moldavia, one of the 15 republics of the Soviet Union, in 1950-1952, he directed the work of developing its industry and agriculture and raising its cultural standards. At the Nineteenth CPSU Congress in 1952, he was elected to the Central Committee of the party. After the Congress he became an alternate member of the Presidium and Secretary of the Central Committee.

In 1954 the CPSU Central Committee decided to start development of the virgin lands in the East in order to boost Soviet agricultural production. Leonid Brezhnev was assigned to a party post in Kazakhstan. Twenty years later D. A. Kunaev, a member of the Politbureau of the CPSU Central Committee and First Secretary of the Central Committee of the Communist Party of Kazakhstan, said:

"In the memorable years of virgin land development, Leonid Brezhnev headed the Central Committee of the Communist Party of Kazakhstan. We know very well how much effort and energy he put into opening up the virgin and long-fallow lands. . . . And it would not be wrong to say that the virgin lands have become a symbol of our remarkable age! Without the developed virgin lands there is no complete portrait of the socialist epoch, nor can there be any—just as there cannot be one without the great victories of the Leninist nationalities policy."

Recalling those difficult days, Leonid Brezhnev said: "Veterans of the virgin lands remember that time: the biting wind from the steppe, blizzards and frosts, tents pitched on the snow, the first furrows in the fields and the first streets in new towns, days filled with work, and often sleepless nights. Two decades have passed since then. . . . But we cannot forget how we plowed our first hectares of virgin land and harvested the first tons of grain. You cannot forget something into which you have put your heart and soul."

In subsequent years, in leading party posts in Moscow, he worked on the development of Soviet heavy industry and construction and the strengthening of the country's defense capacity. The world's first manned space flight, made by Cosmonaut Yuri Gagarin in 1961, was a graphic illustration of the achievements of Soviet industry, science and technology. In that period, as Secretary of the CPSU Central Committee, Leonid Brezhnev was directly involved in organizing a number of space research projects.

In June 1957 he was elected to the Presidium (since 1966, the Politbureau) of the CPSU Central Committee, the party's highest guiding body between plenary meetings of its Central Committee. He also took a very active part in the work of the highest bodies of state power. For the past 25 years he has been a deputy to the Soviet parliament—the USSR Supreme Soviet. From 1960 to 1964 he was President of the Presidium of the USSR Supreme Soviet—the country's collective president. In this top state post he helped improve the functioning of the Soviets of Working People's Deputies, develop socialist democracy and strengthen the USSR legal system. He has

*Continued on page 12*



*Conversation during a break.*

*Opposite page: A vote for the candidate of the bloc of Communist and nonparty people for the Russian Federation Supreme Soviet and the local Soviets. Moscow, June 1975.*

*Center: With the workers of the Chkalov Aircraft Plant in Novosibirsk, 1972, and collective farmers in Turkmenia, 1970.*

*Far right: When President of the Presidium of the USSR Supreme Soviet, he presented the Pilot-Cosmonaut of the USSR badge to Yuri Gagarin, the world's first spaceman. Moscow, August 1961.*

*Right: Altaians welcome their honored guest with the traditional bread and salt. A meeting in Barnaul, August 1972.*



# INTERVIEW

## BY LEONID I. BREZHNEV, GENERAL SECRETARY OF THE CPSU CENTRAL COMMITTEE, FOR FRENCH TELEVISION

General Secretary of the CPSU Central Committee Leonid Brezhnev received Yves Mourousi, a commentator of the French TV company TF-1, in the Kremlin on October 5 and gave him an interview, which follows below.

**Yves Mourousi:** First of all, Mr. General Secretary, I should like to convey to you our thanks for receiving a representative of French television in this Kremlin study where you seldom give interviews. This is something like receiving France here. I am sure that French men and women will be very interested in the statements you'll make here, especially since they recall with great warmth your visits to France in 1971, 1973 and 1974 and, I would say, love you. You are a man who is loved in France.

There are many things we should like to know. First, then, let me ask you what you have to do as General Secretary of the CPSU Central Committee and what problems are now in sight for the Political Bureau of the Central Committee of your party.

Your outstanding role in international affairs is widely known. Therefore, I should like to hear your opinion on some of the current problems.

There have been rather wide discussions in the Western countries lately concerning the value of relaxation of international tensions. It is even said sometimes that the relaxation of tensions is beneficial first of all to the Soviet Union and other socialist countries. What do you think about this? What is now the Soviet Union's global approach, so to speak, on international affairs?

It is over a year ago that you, Mr. General Secretary, President Valéry Giscard d'Estaing and the leaders of other states signed the Final Act of the Helsinki Conference. Inasmuch as I know how close the idea of this conference is to your heart, I should like to hear how the Soviet Union assesses the progress of implementation of the accords reached, specifically those concerning the relaxation of tensions.

And finally, Mr. General Secretary, my last question. You are known in France as a definite supporter of the further development of Franco-Soviet relations.

**Leonid Brezhnev:** This is true.

**Yves Mourousi:** We know that you had to make no small efforts to improve our relations. At present you maintain contacts with President Giscard d'Estaing. It has been announced that you will pay a visit to France in the not too distant future and that opinions will be exchanged. Therefore, we are particularly interested in knowing how you assess now, in October 1976, the state of cooperation between France and the Soviet Union.

**Leonid Brezhnev:** You have asked quite a few questions. I shall try to answer them.

I should like, first of all, to greet the French television viewers as my old acquaintances. This is not our first meeting. This time, as you see, my dear friends, a French journalist has come to the Kremlin, and we are now in my study, at the height of a working day. Therefore, his question about what I do seems quite natural. I shall try to answer it although it will not be easy to do.

The character of my work and that of the entire Political Bureau of the Central Committee is determined, first of all, by the role played by the Communist Party in our country.

The party in our country unites the front-ranking, most active and politically conscious part of the working class, the peasantry and intelligentsia. It formulates its policy on the basis of a scientific approach, a thorough study of the real requirements of life and the needs of the people. It rallies together all sections of society, all nationalities, equips the people with the will, readiness and ability to fight for the ideals of communism, for the most progressive and just society.

The supreme principle of the party's work is everything for the people, everything for the welfare and happiness of the people. Therefore, the people regard the party's policy as their own and trust it to play a guiding role in society.

As far as I know, many in the West have no clear idea of our political

system. Wrong judgments are also voiced. It is asserted, for instance, that the party acts as a substitute for other bodies, both state and public. This is wrong, of course.

Our state organs—the Supreme Soviet of the USSR, the Council of Ministers of the USSR, republic and local organs of power—have a clearly defined competence, determined by the constitution. They work out laws, supervise their implementation, safeguard the functioning of the economy, the advancement of science, culture, public education, health services, etc.

Public organizations have their own field of activity: The trade unions, first and foremost, defend the interests of the working people, organize their labor and holidays; the Young Communist League looks after the education of the rising generation, etc. But, I repeat, our party is the inspirer and political organizer of the Soviet people.

As you see, our system is not similar to yours. Neither is the practice of leadership in the Soviet Union and in capitalist countries similar. The range of questions which concern the Political Bureau and myself as General Secretary is much wider than that of leaders in the West. We keep in our field of vision practically all spheres of life of the people, everything that happens all over our country. This includes the ideological life of the party and of society, the economy and social problems, and the development of socialist democracy. You cannot list everything. International affairs also take a lot of effort.

If one speaks of the main trend of our work at present, it is the practical implementation of the decisions of the Twenty-fifth CPSU Congress, above all, the safeguarding of the further rise in the material and cultural living standards of the people, improvement of their working and living conditions.

Our congress adopted, you will remember, the Guidelines for the new five-year plan, the tenth. This five-year plan period differs largely from the previous ones. We have set the task of achieving profound qualitative changes in the structure and technical level of the national economy, substantially modifying its entire appearance.

We are even calling our five-year plan period the five-year plan period of quality and efficiency. This means introducing the most advanced technology, raising the qualifications and ability of people, inculcating a more conscientious attitude toward work and safeguarding, on this basis, high labor productivity and better quality of goods.

Of course, we cannot forget the qualitative aspect of the matter either. Our country already accounts for 20 per cent of world industrial production, though only six per cent of the population of the world lives in the Soviet Union. During the five-year plan period, however, we want to increase the volume of industrial production by another 36 per cent. You can imagine what that means and what efforts are needed to attain this level!

Much is being done in our country to convert agriculture into a highly developed sector of the economy. It is well known that our climatic conditions are not easy ones. A substantial part of the country lies in regions of so-called critical agriculture, where the harvest is connected with risk. That is why tremendous efforts are needed for the current development of our agriculture.

Last year's harvest was bad, the year was very droughty. And the weather does not favor us this year either. But we coped with these trials. Millions of agriculturists, collective farmers, workers at state farms, which are called sovkhoz, responded with exceptional enthusiasm and initiative to the appeals of the party to counter the difficult meteorological conditions this year by working stubbornly and efficiently organizing all jobs. As a result we shall take in a very good harvest of grain crops.

We made a good beginning with the five-year plan period. We are much ahead of the plan for the main indicators. But there are also outstanding



problems and difficulties. We believe that our capabilities enable us to run the economy better, to accomplish great and intricate tasks confronting our society more successfully.

As you see, the Political Bureau and I have much to do. Notwithstanding all this, it is necessary to find time to visit republics and regions, to meet with people more often. For there is no substitute for personal contacts, for personal impressions. My entire experience confirms this.

Recently I visited Kazakhstan, where I met with many people and took part in a meeting of the leaders of the republic. Everything goes well there, the mood of the people is cheerful, they are elated, and it is always pleasant for me, as General Secretary of the party's Central Committee, to see this.

I cannot help speaking of something else, too. During this latest trip to Kazakhstan, just as many times before during visits to other regions of our country, I realized again and again that what is uppermost in the minds of Soviet people is concern for lasting peace. They all convey gratitude for the consistent policy of the party and the Soviet state in the defense and consolidation of peace, the development of peaceful cooperation between states.

Well, it seems I passed over to problems of foreign policy!

You say that the opinion is being voiced in the West that relaxation of international tension allegedly benefits only the Soviet Union and the other Socialist countries. Such a viewpoint seems strange to us, to say the least.

Of course, we did not conceal and do not conceal that the plans for the internal development of the Soviet Union rest on the expectation of the safeguarding of peaceful foreign conditions, and that is why we benefit from relaxation. But does peace really threaten something bad to other peoples? Is there really a country that can hope to win something from unleashing a world war using up-to-date means of mass annihilation?

Let us specifically consider what relaxation implies. It is the road from confrontation to cooperation, from threats and saber rattling to a negotiated solution of disputed issues and, in general, the reshaping of international relations on the sound foundation of peaceful coexistence, mutual respect and mutual advantage.

All this creates conditions for fruitful communication between states, the development of commercial and economic relations, the growth of scientific-technological and cultural exchange. It is true, this is also referred to as a one-way street, again supposedly benefiting the Soviet Union. It turns out that everything good, everything positive in international affairs benefits the Soviet Union alone. Thanks, of course, for such a flattering opinion, but, of course, reality is different.

Those who believe that we, more than others, need contacts and exchanges in economic relations, science and technology are mistaken. The entire volume of Soviet imports from capitalist countries is less than one and a half per cent of our gross social output. It is clear that this is not of decisive importance for the development of the Soviet economy.

It is quite obvious that relaxation is needed by all countries that take part in normal international relations. It is therefore no exaggeration to say that the attitude toward relaxation is today the factual criterion by which to evaluate the policy of this or that state, and it determines the personality of every political leader.

I should like to emphasize that we judge the development of the international situation, above all, by the extent to which it is possible to advance the consolidation of peace and the elimination of the threat of nuclear war. In our opinion, definite positive results have been produced in this matter in recent years.

Much has been done to recognize the necessity of peaceful coexistence of states with different social systems. Clear-cut principles on which it should be based have been worked out. A number of important agreements between states to this effect, both on a bilateral and multilateral basis, including the Final Act of the European Conference, have been signed. Constructive cooperation in economic, scientific, technical and cultural spheres is being established step by step. But to ensure that these sound trends become really irreversible, it is necessary to curb the arms race, to set a limit to it and then to scale it down. Otherwise, it is possible to lose one fine day much of what has been achieved as a result of great efforts.

Something has been achieved in recent years in limiting armaments. But this cannot be regarded as satisfactory.

We are surprised at the stand of the governments of a number of Western countries on this question. It seems that nobody denies in words the importance of the reduction of armaments, while in fact, so to speak, spokes are being put in the wheels. Some circles in Western countries persistently spread allegations about a Soviet menace, speculate on the fear which they themselves assiduously arouse.

The Soviet Union has impressive armed forces, indeed. But we declare clearly that the Soviet Union has never threatened and is not threatening anyone and is ready any time to reduce its armed forces on a reciprocal basis.

We have to perfect our defenses, have to, I repeat, since we are faced with the arms race. Voices sound now and again that NATO's leading power must be "the strongest one in the world," that NATO as a whole must build up its armaments and thus exert constant pressure on the Soviet Union and other socialist countries. This is what spurs on with such force the arms race in the world of today.

If someone is really worried about the level of the Soviet Armed Forces, then, it would seem, the other side must have ever more reasons for getting down in earnest to reducing armaments, for advancing step by step a great goal, general disarmament. We are ready to work out binding international agreements, and we have made specific proposals to this effect at the United

Nations at the present session of its General Assembly and at the talks in Vienna. I shall not repeat them. I shall only say that the struggle against the buildup of armaments has become urgent. Therefore, it merits the special attention of top leaders of states.

You mentioned the Helsinki Conference in your questions.

On the whole, we positively assess what has been done over the period that has passed since the European Conference. New good forms of cooperation are emerging. The Soviet Union, basing itself on the principles worked out in Helsinki, has concluded a number of important agreements with countries that participated in the conference. Specifically, we can mention the agreement between the USSR and France on the prevention of an accidental or unsanctioned use of nuclear weapons that was signed last July.

We have started notifying other states of major military maneuvers and inviting foreign observers to them. This has significant importance for strengthening trust among states.

Not everything, however, goes smoothly. Continued attempts are made to distort the spirit and letter of the Final Act or to doubt it as a whole. This is done by those who call for a return to the cold war, to tensions. Such forces exist in the United States, in the Federal Republic of Germany and other countries. Therefore, the struggle for bringing into life the provisions of the Final Act is at the same time the struggle against relapses of the cold war, against the intrigues of adversaries of the relaxation of tensions.

As for the Soviet Union, we respect and observe the agreements achieved in Helsinki in full. I repeat, in full. The main emphasis in these agreements is on everything that is connected with the strengthening of security and peace. But we, naturally, do not underestimate in the least the importance of cooperation in economic relations, science and technology, in culture and information, in the development of personal contacts and implementation of measures that build confidence.

The Soviet Union is for pooling efforts on a European basis to solve vital tasks in the spheres of energy, transport, environmental protection. Our proposals to this effect are well known.

So real facts show that the Soviet Union, displaying initiative and persistence, together with other socialist countries, is in the lead in the great work of implementing everything that was agreed on in Helsinki. And we shall continue doing so.

We remember that cooperation between the Soviet Union and France has played a noticeable role in the successful holding of the all-European Conference. And we think that the good relations between the Soviet Union and France can also serve in the future as one of the principal component parts in building lasting peace and security in Europe, and not only in Europe.

The course aimed at developing broad cooperation with France has steadily been pursued by us over many years; it was particularly active in the past decade. It was reaffirmed by the Twenty-fifth CPSU Congress.

Soviet-French cooperation has yielded tangible benefits to both countries and, at the same time, it has given much that is new and original for the practice of international life, for the relations between states with differing social systems.

Economic and scientific ties of the USSR and France cover such fields as space exploration, computers, machinery and equipment.

Marked changes have taken place in the field of trade exchanges. In recent years the annual growth rate of goods turnover between our two countries amounted to nearly 30 per cent. This, by the way, is more than the average growth rate of foreign trade both in France and the Soviet Union. Therefore it is quite possible to speak about good prospects in the development of trade contacts. This is also true of culture and other fields.

But there are, of course, many untapped possibilities for strengthening Soviet-French cooperation, first of all in the political field. We sincerely believe that the Soviet Union and France have great common interests, especially in such matters as eliminating the threat of war, curbing the arms race, turning Europe into a continent of lasting peace. And we are convinced that our countries, actively cooperating with one another, could make an ever greater concrete contribution in these vitally important affairs. The Soviet Union is, without a doubt, prepared for this.

I would like to dwell here on still another aspect of our relations to which we attach special significance. In the Soviet-French declaration of 1975, which we signed in Moscow with President Valéry Giscard d'Estaing, both sides spoke in favor of developing and strengthening feelings of friendship between the peoples of the Soviet Union and France. This is in fact a very important question.

We have steadily adhered and we will adhere to the understanding reached at that time. Not a single Soviet statesman, not a single press organ in our country has ever made an unfriendly gesture toward France, its people or those who act in their behalf. We value the growing friendship and cooperation between the Soviet and the French people; this is a very valuable common asset. I would hope that such an approach would develop in France.

Speaking about the future of our cooperation, the main thing, we are convinced, is consistency and steady advance along an ascending line.

The current Soviet Week sponsored by French television is a good example of how the mass information media can serve mutual understanding among the peoples.

I convey to you, dear television viewers, the entire French people, my warm, sincere wishes for happiness and prosperity.

**Yves Mourousi:** I thank you, Mr. General Secretary, for your answers and for your explanations. I think that all this will contribute toward a better understanding by the French people of the aims pursued by the Soviet Union.









*A traditional meeting of leaders of Communist and Workers' Parties of the fraternal socialist countries. From left to right: T. Zhivkov, N. Ceausescu, E. Gierek, J. Kádár, G. Husák, L. Brezhnev, E. Honnecker, K. Katushev, Y. Tsedenbal, A. Gromyko. The Crimea, 1973.*



*Leonid I. Brezhnev, head of the Soviet delegation, addressing the Conference on Security and Cooperation in Europe (right) the conference hall (above) Helsinki, July 1973.*

## Peace is a vital concern to us all.

When he visited the United States in June 1973, Leonid I. Brezhnev stressed the need for cooperation.







*During a visit to India. On the left is Prime Minister Indira Gandhi. November 1973.*

*In a Paris suburb with Valery Giscard d'Estaing, President of France. December 1974.*





## Leonid I. Brezhnev: A Short Biography

Continued from page 8

also devoted his attention to expanding the Soviet Union's friendly ties with foreign states.

At the October 1964 plenary meeting of the CPSU Central Committee Leonid Brezhnev was elected First Secretary (since 1966, General Secretary) of the Central Committee of the Communist Party of the Soviet Union. After assuming this highest party post, he continued to participate in the work of the USSR Supreme Soviet as a member of its Presidium.

His activities, particularly as General Secretary, embrace a wide range of problems. In accordance with the Soviet Union's collective leadership principle, he and his associates work out the guidelines of the country's domestic and foreign policy, and he takes the initiative in proposing major decisions which get the wide approval and support of the people. He oversees the solution of many practical problems of economic development and scientific, technological and cultural progress. Leonid Brezhnev approaches every question in the context of the well-being of the entire people—the central goal of the Communist Party. His name is inseparably linked with all the successes the Soviet people have achieved over the past 10 years under the leadership of the Communist Party. The party's policy and its practical activities, he points out, have always expressed the vital requirements of socialist society.

The Report of the CPSU Central Committee, delivered by Leonid Brezhnev at the Twenty-third CPSU Congress (March-April 1966), outlined new avenues for the country's socioeconomic development, defined the main goals of the Eighth Five-Year Plan and investigated a number of important questions—both theoretical and practical—on the building of communism.

A major event in the life of the party and the entire Soviet people was the Twenty-fourth Congress, which met in the spring of 1971. The Report of the CPSU Central Committee, made by Leonid Brezhnev, summed up the experience accumulated by the party and the country since the previous congress and dealt with long-term questions of Soviet economic and social policy under conditions of developed socialism. (These questions were further elaborated in the decisions of the Twenty-fifth CPSU Congress.) The Peace Program, advanced in the report and approved by the Twenty-fourth CPSU Congress, contained a number of proposals for implementing the policy of peaceful coexistence under present-day conditions. It set forth specific goals in the effort to end the danger of war and ensure peaceful cooperation.

In the period between the Twenty-fourth and Twenty-fifth CPSU Congresses, the Central Committee, the Politbureau and Leonid Brezhnev personally did a tremendous amount of organizational and political work to accelerate the country's socioeconomic development. A major new advance was made in the material and technical base of the economy and in the people's living standards.

The Communist Party of the Soviet Union, under the leadership of its Leninist Central Committee headed by Leonid Brezhnev, was more militant and united than ever before as it approached the Twenty-fifth Congress (February-March 1976). This was a congress of major achievements, characterized by a realistic, businesslike approach and confident of its strength. Its inspiration and standard-bearer, in the opinion of the delegates and the numerous foreign guests

(103 delegations of Communist, Workers', National-Democratic and Socialist Parties from 96 countries), was the General Secretary of the CPSU Central Committee. His report was the core of the congress. People throughout the world described it as a document of historic significance—the manifesto of developed socialism.

The report gave a detailed description of the country's economic and political system, social relations and cultural achievements. It also set forth (and the congress unanimously approved) the economic strategy of the CPSU and the Soviet state. This strategy is closely linked with the party's social policy and is aimed at accelerating the growth of the people's material and cultural standards. Its basis, as formulated by Leonid Brezhnev, is a further increase in the efficiency of production and the quality of work. This emphasis is one of the main features of the Tenth Five-Year Plan. The achievement of the goals outlined will further increase the general well-being of the Soviet people, their working and living conditions, medical care, education, science and culture. The report, in other words, defines the directions in which socialist democracy is to advance.

The principles of Soviet foreign policy, formulated at the Twenty-third, Twenty-fourth and Twenty-fifth Congresses of the Communist Party of the Soviet Union, are known to the entire world. This policy involves strengthening fraternal ties between the countries of the socialist community, consolidating the alliance with peoples fighting for national and social liberation, maintaining peaceful coexistence between states with different social systems, and a determined struggle against aggression. It is a policy of active, honest diplomacy and strict fulfillment of obligations. Leonid Brezhnev has made a large and varied contribution to its implementation.

The report to the Twenty-fifth CPSU Congress contains a thorough analysis of world economic problems and international relations.

The Soviet Union attaches primary importance to the development of its relations with other countries of the socialist community. It sees this as an entirely new kind of alliance, characterized by fraternal unity and cooperation on an equal basis. The joint efforts of the countries of this alliance result in closer ties between them, and increase the number of common elements in their policy making and in their economic and social system. The implementation of the Comprehensive Program of Socialist Economic Integration has helped make the socialist community the most dynamic economic force in the world.

The Soviet Union gives principled and selfless support to the just struggle waged by the developing countries. In recent years, many of the nations have experienced profound social changes, and their influence on world affairs has increased noticeably. At the Twenty-fifth CPSU Congress Leonid Brezhnev emphasized again that the Soviet Union fully supports the legitimate aspirations of the developing countries and their determination to control their national resources. The consistent class position of the Soviet Union and its support for the national liberation struggle of the former colonial peoples have contributed immeasurably to the world's respect for the first socialist state, for the CPSU and the General Secretary of the CPSU Central Committee.

The Soviet Union's role in improving the general climate of international relations over the past period is now recognized throughout the world. Relaxation of tension has become the major feature of the world political scene. The USSR is striving consistently to achieve further progress in this area and to make relaxation of tension

work. Leonid Brezhnev has made a tremendous personal contribution to this.

Over the past few years the General Secretary of the CPSU Central Committee has visited many countries in the interests of friendship and peace. His trips have done a good deal to cut through the encrusted layers of ill will that accumulated during the cold war in the USSR's relations with many Western countries.

Leonid Brezhnev played a direct role in preparing for and holding the historic Conference on Security and Cooperation in Europe. He initiated numerous constructive proposals for the limitation of armaments and for disarmament, which were welcomed by peace-loving people everywhere and became the basis for international negotiations.

The Program of Further Struggle for Peace and International Cooperation and for the Freedom and Independence of the Peoples, adopted by the Twenty-fifth CPSU Congress (February-March 1976), provided a major new stimulus for the struggle to improve the international climate.

Leonid Brezhnev's untiring efforts for peace have been duly appreciated. In 1973 he was awarded the International Lenin Prize for the Promotion of Peace Among Nations. In 1975 he received the highest peace award: the Frédéric Joliot-Curie Gold Medal of Peace. "The foreign policy of the Soviet Union," he says, "is the fruit of the collective thinking and effort of our Communist Party. I therefore regard the award of the Lenin Prize to me as an honor conferred on the entire party for its work—as international recognition that the policy pursued by the Central Committee is correct. And I am happy that as a member of the party, as someone who has been reared and steered by the party, I am able to participate in the struggle for the great goal of bringing about a durable peace and lasting security of nations—a goal which working people everywhere are striving to achieve."

Leonid Brezhnev is a noted Marxist-Leninist theoretician. His fundamental work *Following Lenin's Course* has been published in the Soviet Union (in five volumes) and in a number of other countries. It is a concise account of the collective thinking and practical work of the Communist Party, which has proved itself as the political leader of the working class and all working people. *Following Lenin's Course* also reveals the outstanding personal qualities of the General Secretary of the CPSU Central Committee as a party leader and statesman, and as the most authoritative leader of the world communist movement. Leonid Brezhnev's works show a truly Leninist approach to social phenomena: scientific evaluation; the simple, natural thoughts and feelings characteristic of all working people, and well-considered opinions on the major political issues.

His speeches give a well-substantiated, impressive picture of a society unique in human history. It is at the stage of development when the advantages of socialism as a social system and way of life—and its humanist nature and appeal—are fully evident. Addressing the Conference of Communist and Workers' Parties of Europe on June 29, 1976, Leonid Brezhnev said with justifiable pride:

"We have built a society of people who are equal in the broadest sense of the word, people who know neither class, property, race nor any other such privileges, a society which not only proclaims human rights but guarantees the conditions under which they can be exercised. We have built up a stable, dynamic and united society."

In discussing the specific features of the party's



# REMEMBERING THE WAR YEARS

economic strategy under conditions of developed socialism, he pointed out that both the Tenth Five-Year Plan (1976-1980) and long-term plans are built around the further development of the country's economic strength and the steady growth of heavy industry—the foundation of the economy. At the same time, the major goal of the country's economic strategy will continue to be a steady rise in the people's material and cultural standards.

Leonid Brezhnev has put forward an important thesis on the Soviet nation as a new historical community of people. "This means," he says, "that common traits of behavior, character and world outlook of Soviet people that do not depend on social and national distinctions are becoming even more marked."

His speeches and statements explain from a clear-cut class position basic questions of Marxist-Leninist theory and the exercise of power by the people. They describe the form and content of socialist democracy, its qualitative differences from and fundamental advantages over bourgeois democracy. Leonid Brezhnev shows that the chief characteristic of democracy in the Soviet state of the entire people, which grew out of the dictatorship of the proletariat, is the ever increasing involvement of the broadest sections of the working people.

In his speeches and articles he has thoroughly investigated the problem of proletarian internationalism—one of the main principles of Marxism-Leninism. Delegates from the fraternal countries to the Twenty-fifth CPSU Congress expressed their gratitude for his contribution to the unity and solidarity of Communists throughout the world.

Leonid Brezhnev's work as Chairman of the Defense Council is of major importance. No key question of increasing the defense potential of the Soviet state, developing and improving the Soviet Army and Navy, is resolved without his active participation. In May 1976 he was named Marshal of the Soviet Union, the country's highest military rank. This is a recognition of his outstanding services in defeating fascism, enhancing the combat strength of the Soviet Armed Forces, and reinforcing world peace and the security of the peoples.

For his contributions both in war and in peace, Leonid Brezhnev has been decorated with the highest awards of the motherland. He is a Hero of the Soviet Union and a Hero of Socialist Labor and has received five Orders of Lenin as well as other orders and medals. A bronze bust of him has been unveiled in Dneprodzerzhinsk, his native city, to honor a man twice awarded the Star of a Hero.

He is also a Hero of the Czechoslovak Socialist Republic and Hero of the People's Republic of Bulgaria. In addition, the highest state awards of the German Democratic Republic, the Republic of Cuba, the Mongolian People's Republic, the People's Republic of Poland and other countries have been conferred on him.

Leonid Brezhnev has very close bonds with the people. He often meets with workers, farmers, intellectuals and members of the armed services. In a discussion with the staff of Moscow's Likhachov Auto Plant in the spring of 1976, the General Secretary of the CPSU Central Committee showed his thorough knowledge of the interests and aspirations of working people. "The most important thing in my life," he said, "has been my continuing ties with the working people, with workers and farmers." His approach to all questions in his Communist Party posts has been: What does this mean to the working people? What impact will it have on their lives? What benefits will it bring them?

When we invited readers to enter our quiz contest commemorating the thirtieth anniversary of the victory over Nazi Germany (see the July 1975 issue), we asked that besides answering the questions, they write a brief essay. The subject: What news from the Soviet-German front made the greatest impression on the contestant. We asked that they give their own impressions or, if they had been too young, those of their elders.

THE ESSAY was not obligatory, but almost every second participant sent one.

Regrettably, we cannot publish them all in full or even in part, but here are a few examples.

**Jean C. Fowler** lives in Alaska. She therefore considers herself practically a next-door neighbor of the Soviet Union. This is what she says:

"... It was with horror and disbelief that we heard and read of the agony our Russian friends were undergoing as their armies and civilians resisted the onslaught of the Wehrmacht's seemingly invincible force as it pushed its way across the European continent, slowing up only as it reached the Russian homeland. ... As we followed the heroic defenses of Moscow, Stalingrad, Leningrad and many others, we thought that each one must represent the greatest sacrifice and the highest example of courage, but on and on the Russian armies fought, backed by a courageous citizenry, until they reached the Reichstag and demanded the unconditional surrender of a relentless foe."

The recollections of **K. G. Larsen** are also based on the discussions her family had:

"I was quite young at the time of the war. However, I do recall some of the comments relating to the early part of the war, that the Soviet Union must hold out against the Nazis because if they didn't, the United States itself would be next to be attacked."

"I recall discussions about the terrible sieges of Leningrad and Stalingrad in winter. Salt Lake City has very cold and snowy winters. Therefore, my family understood that it is hard enough to just live and work in such weather, let alone starve, be bombed and shelled and have to defend one's home with one's life on a continual basis."

The heroic defense of Leningrad is also the most memorable impression of **Carlton H. Nadolney**. He writes:

"One of the impressions I recall most vividly was the story of the young girl Tanya, who died in Leningrad during the 900-day siege of the city. I was able to identify with her and feel the impact of the war through her experiences. The story of this girl, as revealed through her entries in her diary, was a poignant and emotional experience for us youngsters who had to cope with concepts and details of mass destruction, war crimes, and the sheer immensity and brutality of epic war battles. Here one small life of a real person, one of us, endured and became endeared to us. For us, she represented all that we were fighting for ... for life with dignity and freedom and opportunity. She was overwhelmed by the war and never had the chance to fulfill herself in life. Yet she symbolized uniquely why we had to defeat the fascists. In recent times we again recalled dear Tanya and what she means for us all. She is a vital part of our memory and conscience and as significant as the armies, battles, heroes and hero cities. It is because of people like Tanya that we must dedicate ourselves and our actions to peace for all."

**Oscar A. Bilezerian** writes this about his war memories:

"My memories of the war are quite personal since I served with the American Army in Europe as a combat infantryman. Having been personally involved perhaps gives me a better insight into the terrible hardships the people of the USSR must have suffered during the German invasion. I remember my unit was near the Elbe when we

liberated a German concentration camp mostly full of Russian men and women. The stories they told of German atrocities on the Russian people were almost unbelievable. They told of how the Germans destroyed whole villages, pillaged and murdered men, women and children. Those who managed to escape joined either the Russian army or guerrilla forces. They spoke of the great courage of the Russian soldier who, despite being outnumbered and outgunned in many instances, fought to the bitter end. I believe it was this undying spirit of never giving up and believing victory would be theirs someday that filled me with such admiration for the people of the USSR."

The recollections of the last war suggested these thoughts to **W. H. Austin**:

"The war years were extremely different for the people of the United States than they were for the people of the Soviet Union. There was no fighting in the U.S. Not one enemy soldier set foot on our soil. Not one life was lost due to enemy action within our boundaries. The Soviet people suffered more torture, starvation, death and destruction of property than any other nation in the history of warfare."

"This is a question that I ask the people of my country, the USA, to contemplate. The question is: What makes the character of the Soviet people what it is? For instance, why did they succeed in their October Revolution when so many of their own countrymen and every major foreign power in the world opposed them with armed forces? Why would they not surrender Leningrad during the 900-day siege? Why would they not accept defeat at Stalingrad? Why are they persistent in their effort for peace? Why do they not involve themselves in other peoples' conflicts? What is the nature of that which inspires them? ..."

"I feel the sincerity and believe in the honesty of the Soviet people and their government. If détente between our countries can be maintained, I believe that people in the U.S. and in other countries, who have false notions of Soviet realities and can't see farther than their noses, will come to realize the overwhelming advantages and the absolute necessity of peaceful coexistence and complete cooperation between our countries."

Many of the contestants mention the linkup of the Allied armies on the Elbe as one of the most memorable events of the last war. Moreover, many of them draw a parallel with another memorable event of our day: the docking of the Soviet and U.S. spaceships. **A. L. Dieli** writes:

"One of my most poignant memories is the account of the linkup on the Elbe River. Engraved in my mind is the picture of GI Joes and Ivans sharing handshakes and bear hugs. ..."

"Last July once again I saw handshakes and hugs, this time in the Apollo-Soyuz spacecraft. In 1945 we had conquered a common enemy and given freedom and peace to a world in danger of losing both. In 1975 our two great nations have conquered space. Let us continue our progress together in peace and freedom."

Here is an excerpt from one more essay which—as we know after looking through hundreds of letters from contestants—expresses the feelings of many of our readers. **Evelyn Lubin** writes:

"The war has left a mark on us all. Our countries can and must work together for a peaceful approach to the many problems our complex world poses. Our peoples can and must be friends with the interests and hopes of the whole world looking to us for the future."

"President Franklin D. Roosevelt wrote, shortly before his death, words that have made a lasting impression on me, '... Today we are faced with the preeminent fact that, if civilization is to survive, we must cultivate the science of human relationships ... the ability of all people, of all kinds, to live together and work together in the same world, at peace. ...' These words continue to apply today."



**Q:** How do Soviet firms conduct experiments and develop new products? (Professor Delmar W. Karger, Ford Foundation, Troy, New York)

**A:** The first and most important organizer of research is the economic plan. The institutes and laboratories of the USSR Academy of Sciences, the academies of the republics and research institutes attached to ministries (all told, there were 2,778 research institutions in the Soviet Union in 1975, not counting the research departments of colleges and universities) conduct research under the state plan. Depending upon their importance, the results of the projects are sent to either the State Committee on Science and Technology of the USSR Council of Ministers, the relevant ministries or the local Soviets. Recommendations made on the basis of these projects are used to prepare yearly and five-year plans for the application of discoveries and inventions.

To avoid duplication of research, every sector appoints the head institution and the relevant council to deal with a given problem. Their recommendations go to the industrial or business enterprises. The plan for the economic development of the USSR, approved by the USSR Supreme Soviet, and the corresponding plans of the

republics and regions, approved by the Supreme Soviet of the respective republic, specify what findings and inventions should be applied in production, when and by whom. The necessary labor, materials and funds are allocated for the purpose.

The obligation to meet plan targets and schedules is probably as compelling as the pressure of competition in Western countries.

The scientific and technical societies (STSes) are the next most important research organizer. These are organizations in every subsector of industry, construction, transport and trade of people with the same professional interests, for example, building, power and medical workers. Their activities are coordinated by the USSR Council of Scientific and Technical Societies at the All-Union Central Council of Trade Unions.

Scientific and technical societies play a very important role in introducing new findings. They arrange meetings, seminars and symposiums to discuss the urgent problems of science and industry. They publish journals and collections of scientific articles, engage in research, work out pilot projects and finance necessary studies from the funds allocated by the trade unions.

There are no commercial or

technical secrets in the Soviet Union, and STSes have complete access to statistical and other materials. Whenever necessary, they make proposals and recommendations to government departments.

Equally important are the societies of rationalizers and inventors. There are millions of people in the country who like to work with technical drawings and plans as a hobby. In 1975 alone they made 5.1 million inventions and streamlining proposals. These production activists are encouraged by the trade unions and new technology departments at every enterprise. Inventors and rationalizers get substantial incentive bonuses. The amount depends on the effectiveness of their suggestions or inventions. Outstanding projects are also awarded medals of the USSR Academy of Sciences.

This does not mean that the Soviet Union has no problem with the application of scientific and technical innovations. The plan envisages a full load for every machine tool and blast furnace. The order books of design offices are filled for the foreseeable future. To put aside a reserve for introducing innovations seems simple. But in industry alone there are more than 400 sectors and subsectors, and how would you know when and

what reserves are needed by each of them?

The more effective method, used by the Soviet economy, is concentration of production. Small and medium-sized enterprises merge with large plants to form production associations and large industrial and commercial complexes, which have greater decision-making powers.

Price formation is being improved gradually. A Soviet enterprise that turns out a new product cannot fix its price. This must be done by a government agency. That is why a new item which is sometimes more difficult to manufacture has a higher price than an old product, but the price is not high enough to stimulate production. To eliminate this discrepancy, a higher rate of profit is set for new products. The manufacture of goods that meet or surpass the higher world standards brings additional incentives.

**Q:** Can you give me some information about the Soviet banking system? Are checks used in your country? (H. G. Doering, Box 38, Spring, Texas)

**A:** We have three types of banks, all owned by the state. The largest is the **State Bank of the USSR**. Its central office is in Moscow, and it has 15 branches in the capitals of the union republics, more than 130 in the

How does planned production stimulate scientific and technical discoveries? How do business enterprises and private individuals get credit? What part do taxes play in the USSR State Budget? These questions asked by readers are answered by Alexander Birman, Doctor of Science (Economics).

# THE SOVIET ECONOMY:

By Alexander Birman

# QUESTIONS AND



autonomous republics, territories and regions and over 4,000 in cities, industrial communities and district centers. It also supervises more than 75,000 savings banks.

The State Bank has over four million depositors and handles more than 5.5 billion documents a year.

The bank has numerous functions, its major one to supply credit to all enterprises and economic agencies with the exception of big building and foreign trade organizations. Loans are usually given for 90 days, but they can also be issued for a year. The bank also provides loans for up to five years, for long-term transactions exclusively. The interest rate ranges from 1 to 5 per cent per annum, depending on what the loan is for, its duration, and other pertinent factors.

Loans are also given to private individuals to build houses (15- to 20-year loans), to relocate in other parts of the country, to buy things on credit. One per cent per annum is charged for such loans.

To provide the money for loans, the State Bank uses, besides its own capital, the deposits of factories, business offices, collective farms, cooperative trade establishments, mass organizations, the state insurance system and the funds not in current use of the state and local budgets. There are more than 50,000 such budgets in the country. It also uses the deposits in savings banks.

The bank charges interest on loans. It pays interest to individuals who keep their money in savings banks (2 or 3 per cent per annum, depending on the type of deposit) and also to co-operatives and collective farms. The bank does not pay interest to state agencies and mass organizations because it does not charge them for its services. Some Soviet economists believe that interest should be paid on all deposits.

The State Bank serves as a clearing house for its depositors.

It also serves as the treasury—there is no formal USSR treasury—and is the cashier for the 50,000 budgets mentioned earlier.

The State Bank is the only bank of issue in the USSR. It puts money into circulation and sees to it that the necessary quantities of coins and paper money of all denominations are available throughout the country.

**The Construction Bank** credits and finances major construction projects. There are many thousands of such projects annually funded from the State Budget. The bank settles accounts with suppliers and checks the accuracy of the design, the cost accounting and quality of work of state projects. It has civil engineers on its staff for the purpose.

**The Foreign Trade Bank** credits and finances exports and imports. It has accounts with all the major banks in the world and has a good reputation with business people the world over.

Soviet banks make a profit because the interest they charge not only covers their business expenses but provides a surplus. Fifty per cent of the profit goes to the State Budget, the rest to the incentive fund for bank personnel, for modernization and the purchase of equipment and to increase statutory capital.

As for checks, they are used extensively in transactions between enterprises and government agencies, particularly for unscheduled ones, but play a minor role in the everyday life of the individual, who pays cash for all types of purchases. We simply are not accustomed to checking accounts. However, we plan to increase the circulation of checks. As a matter of fact, they are already being used to buy automobiles.

**Q:** Can you tell me about taxes in the USSR and their future. (G. R. Patalano, 15 Highland View, Bellows Falls, Vermont)

**A:** I am asked about taxes at every lecture I give on finance. There is no private industry in the Soviet Union. Everyone works for state, cooperative or mass organizations. People get their wages in full, taxes are not withheld. Why are taxes not withheld?

To answer this question we must explain the difference in the relations between an enterprise and a worker, and the

state and a citizen. If a certain monthly wage is fixed for a given job, the worker receives precisely that sum. The same applies to piecework. A worker receives a fixed sum for a particular operation.

A different principle governs relations between the state and a citizen. For tax purposes, the state is not concerned with the citizen's job but with the number of children in the family, marital status, physical fitness, place of residence and other such income-affecting factors. Some people pay no taxes at all, some pay low taxes, others higher taxes.

We have taxes because there are two types of relations in our society: between enterprises and working people and between the state and citizens.

This does not mean that Soviet people will always pay taxes. As other revenues of the state budget increase, the taxable income threshold rises, and this gradually will abolish taxes.

What taxes do we have at present?

The main one is on income. The rate is 8 rubles 20 kopecks for the first 100 rubles plus 13 per cent per every ruble above this sum.

Men in the 20 to 50 age group and childless married women up to 45 years old pay a 6 per cent tax leveled on childless persons. This does not apply if the absence of children is due to reasons of health.

The agricultural tax is levied on villagers who have personal subsidiary plots. This tax is not paid by individuals but by households, regardless of the size of the family. The amount of the tax depends on the size of the plot. The average rate per one-hundredth of a hectare ranges from 30 kopecks to 1 ruble 40 kopecks, depending on climatic conditions, the availability of markets and other pertinent factors. The family of a collective farmer receives a subsidiary plot of up to half a hectare (1.2 acres).

The bulk of a collective farmer's income comes from his collective farm, which pays an income tax to the state.

Small taxes are levied on private houses, automobiles, motorcycles, inheritances and the like. These are negligible, not even enough pay for maintaining notary offices or the

State Motor Vehicle Inspection.

The table below gives the share of taxes in the State Budget:

	1965	1970	1974
<b>Revenues (billion rubles)</b>	102.3	156.7	201.3
<b>Taxes from population (billion rubles)</b>	7.7	12.7	17.1
<b>Share of taxes in revenues (percentage)</b>	7.5	8.1	8.5

These figures show that taxes levied on the population do not play a very significant role in the national budget. The point is that all industry is state-owned, and the bulk of the profits is channeled into the revenues of the state, with the exception of deductions for bonuses, social services and other special funds.

The rise in the specific share of taxes in the revenues is due to a steeply increased average wage, which has gone up by nearly 50 per cent in the past decade.

In the Soviet Union taxes go to the revenue side of the State Budget. That is why it is useful to compare the sum total of the taxes paid by the population with the sum total of the benefits and services it receives from the state free of charge in the form of education, medical care, recreation, pensions, grants, stipends.

The following table shows the figures in billions of rubles:

	1965	1970	1974
<b>Paid by population in taxes (billion rubles)</b>	7.7	12.7	17.1
<b>Received by population from budgets (billion rubles)</b>	41.9	63.9	83.0
<b>By how many times benefits received by population exceeded taxes paid (round figures)</b>	5	5	5

I touched on the future of taxes earlier. Our tables clearly show that their present totals are insignificant. That is why logic suggests that as the income of the Soviet state grows, fewer and fewer people will pay taxes, and eventually they will be abolished. I think that the income tax will be the first to go, and somewhat later it will be followed by the childless tax.

# ANSWERS





# Fair winds,

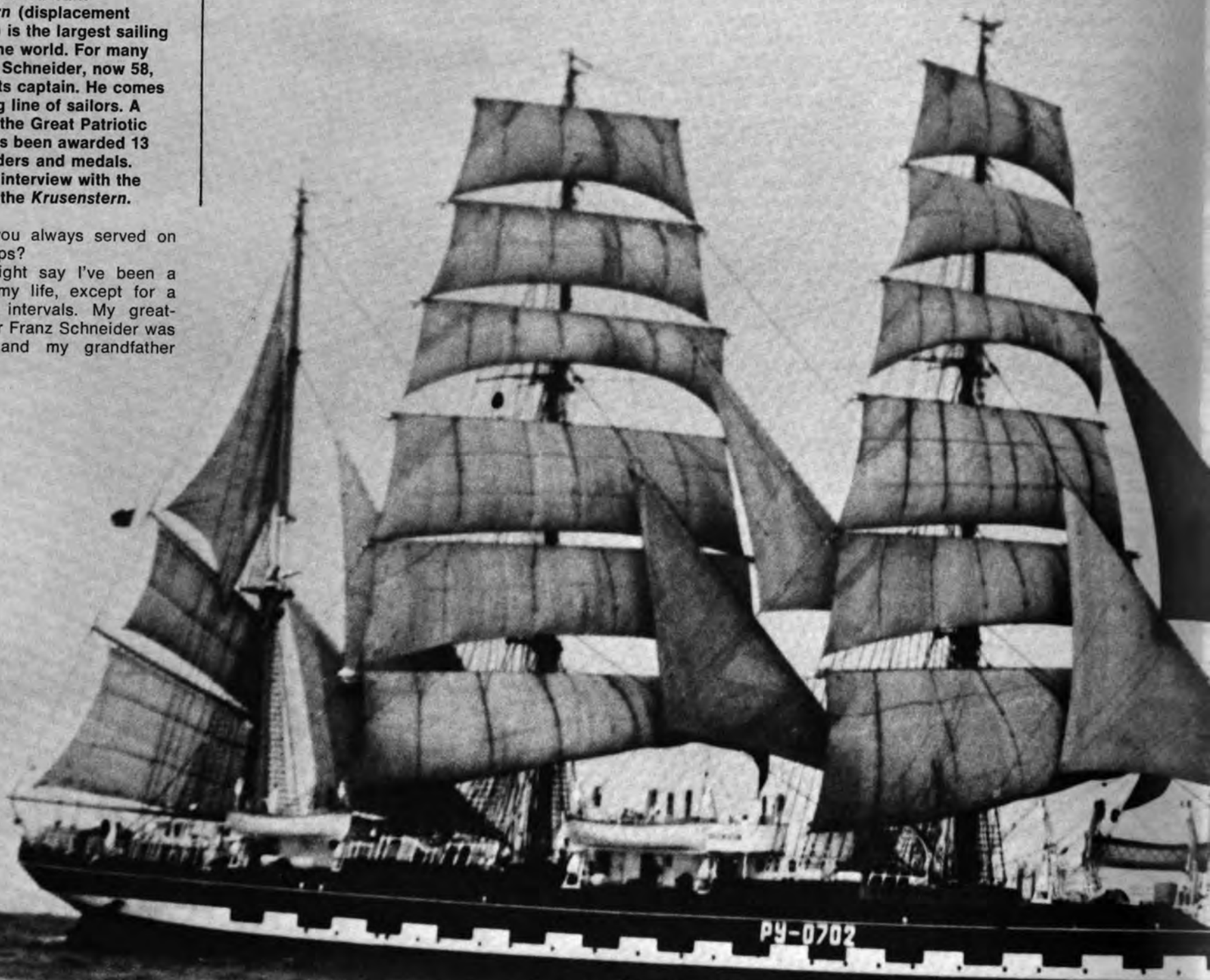
Interview with Ivan Schneider

**The four-masted bark "Krusenstern" is used as a training ship for cadets from navigation schools in Kaliningrad and Murmansk. In 1974 it won the Cutty Sark Challenge Trophy.**

Some of our readers must have seen the international Operation Sail 1976 arriving in Newport or New York last summer. More than 80 sailing vessels from various countries took part, including two Soviet ships, the *Tovarishch* and the *Krusenstern*. The four-masted bark *Krusenstern* (displacement 3,000 tons) is the largest sailing vessel in the world. For many years Ivan Schneider, now 58, has been its captain. He comes from a long line of sailors. A veteran of the Great Patriotic War, he has been awarded 13 combat orders and medals. Here is an interview with the skipper of the *Krusenstern*.

**Q:** Have you always served on sailing ships?

**A:** You might say I've been a sailor all my life, except for a few short intervals. My great-grandfather Franz Schneider was a fisher, and my grandfather





# KRUSENSTERN!

Vladimir and father Grigori fished on sailboats. I myself went to sea at 11. When I graduated from the Rostov Navigation School, I became pilot of the sail training ship *Vega*.

**Q:** But you weren't on a sailing vessel during the war?

**A:** No. Did you ever hear about the battle with the cruiser *Admiral Scheer*, the raider which got all the way to Dikson? Do you know what arms the island had to repel the heavy guns of that fascist raider? A few cannons—of the coastal gun crew and the steam icebreaker *Dezhnev*, which was armed during the war. With that we drove off the *Scheer*. In fact, it was hit and caught fire. I was at the helm of the *Dezhnev* in that battle. I also served on a destroyer and patrol boats. After the victory, I went back to sailing.

**Q:** Have you any engines on the *Krusenstern*?

**A:** We have two 800-horsepower diesels, but in these races you're not allowed to use the engines.

**Q:** And how big is your crew?

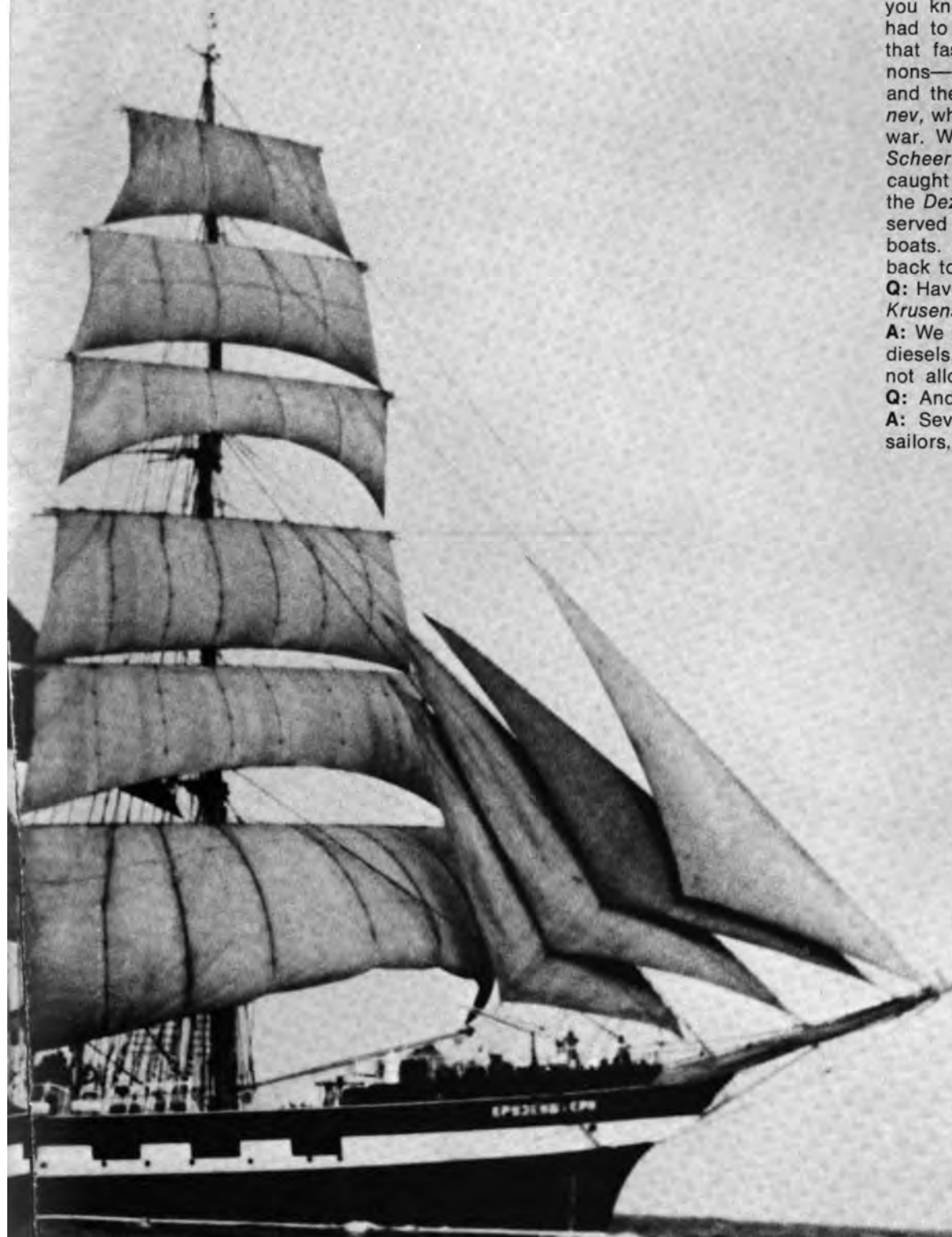
**A:** Seventy—pilots, bosuns and sailors, two doctors and more

supervisory personnel than any other ship—eight in all. Two pilots are always on watch at the same time. One charts the course while the other keeps an eye on the sails and the weather conditions. Those 70 make up the regular crew, but we also have on board 150 cadets from navigation schools.

**Q:** When they come to you, the cadets know nothing but theory. They must find it hard going at first?

**A:** Oh, yes. But that is as it should be if they want to become sailors. When I take new cadets on board, I line them up and look them straight in the eye. Believe me, you can read everything but seriousness there. But two and a half months later, when it's time to go home, their eyes are very different. Do you know what our morning routine is like on the *Krusenstern*? Climbing over the shrouds and masts from starboard to port. That's plenty of exercise for anyone!

Consider this example. In the autumn of 1973 we set out from Riga on the Baltic Sea for the Black Sea. Of the 200 cadets,





150 were under 18 years of age and 69 were just going on 16. Ahead were the grim November storms. A special commission had checked the ship and decided that we could sail. On the Baltic we were warned that a force 10 gale was blowing our way. With that warning, we headed into a hurricane of force 12. Our boys proved that they could stand up to a three-day unending battle with a real hurricane, and what that battle was like you can judge from the number of sails we lost. In three days 11 sails were torn, damaged or swept away. But the boys got their first taste of the sea.

**Q:** It must be very dangerous to work at a great height on a mast being rocked from side to side by a terrific wind. Have you had any accidents?

**A:** When they start to work on the yards, cadets or sailors have to fasten themselves to life-lines. In the many years of my service on sailing ships, I have had no accidents. To achieve this, I have had to be a pretty tough commander. They are so young, and if anything happened to one of them, I could never live with myself. How could I look the mother in the face? That is why I am pretty stern. Ask the officers! In critical situations, I am the only man in charge.

**Q:** You said that the storm carried away 11 sails. Where do you get new ones?

**A:** There's a workshop on Kronstadt, the only one in the country that has skilled sailmakers. The *Krusenstern* carries traditional

**The *Tovarishch*, a Soviet sailing vessel based in the Black Sea, is 73 meters long and 12 meters wide, with a total sail area of over 1,600 square meters.**



canvas sails. Most sailing vessels these days carry dacron sails, which are no good for our giant. If we had had dacron instead of canvas sails during that hurricane, we would have been left without masts. Dacron is a very strong material, but something has to yield to the wind; canvas is more pliable and easier to mend.

**Q:** When is the *Krusenstern* under full sail?

**A:** In a wind of up to force five. If it's a force six wind, we take in the skysails. In a hurricane wind of 29 meters per second or more, we leave only the storm topsails.

**Q:** What is your speed?

**A:** Sixteen knots.

**Q:** What is it I smell?

**A:** The lovely aroma of pitch on cables, clean-washed wood—our deck is floored with wood and the cracks filled in with pitch—and wax. The sails are sewn with waxed thread.

**Q:** What are bosuns really like? According to our landlubber notions, they ought to be giants, with hoarse voices and powerful biceps—and racy language.

**A:** I have a soft spot for bosuns. They know their business. Jacks of all trades, a modern ship would be happy to have them. But they are loyal to sailing. You have to be dedicated to hard work to be like our bosuns. But there is nothing old-fashioned about them. The cadets are crazy about them.

**Q:** How does your family feel about your sailing?

**A:** How can they feel about it? My wife Yevgalia comes from a long line of captains and studied at the Rostov Navigation School, majoring in hydrotechnics. I retired from the navy as a captain, on a pension, but I can't part with the sea even at 58. My family understands that. My son Alexander is an officer in the Northern Fleet. And my daughter Tatyana collects books on navigation. Ours is a very sea-minded family.

Courtesy of Nedelya



WHEN WE GOT OFF the escalator at Moscow, Leninskiye Gory Metro station, we didn't have to ask where the city palace of Young Pioneers was: Children were streaming to the handsome buildings from every direction. We soon understood why—the groups and clubs and activities are so varied and so interesting that even we adults would have a hard time deciding what choice to make: ballet or cosmonautics, puppetry or model shipbuilding, painting or singing.

That's where the popular Loktev Class meets. As we walk down the hall, we can hear a child's voice carefully singing a melody. We close the door softly behind us—auditions are going on. The youngest group of preschoolers want to join the Zyorunyshki Chorus, which is part of the Loktev Song and Dance Company.

All we can see of the young candidate standing on the other side of the grand piano is a big hair-ribbon bow. But we can hear her voice very well—it is so pure and clear. As we listen, the five-year-old girl easily passes the test given by teacher Yulia Dyachkova, who asks her to repeat the notes of a scale, clap her hands in time to an unfamiliar beat, make up her own ending to a suggested melodic phrase and, finally, sing her favorite song, which she does, and with great feeling. Then a very serious-looking first grader takes his turn, giving his all to a song from a popular animated cartoon. Following the boy, a girl steps out with the popular Kalinka folk dance.

Thousands like these have received training in the company during the 34 years of its existence. The Loktev Song and Dance Company was founded in December 1941, when the Hitlerite troops were rolling up to Moscow. Hardly a time for singing, one would think. But Vladimir Loktev, a Moscow Conservatory student, felt it was a good time—to organize a children's chorus. Thirty-seven youngsters, fired with enthusiasm, began to prepare their first program, a modest one, which they later performed in hospitals, at factories and over the radio.

After the war Loktev was given a staff of sev-



Anna Reznik is a soloist in the ballet group of the Loktev Song and Dance Company.



The children's company, founded during the war, has choral, orchestra and dance groups.



eral assistants, and his chorus became a company, with a dance group included.

The Loktev traditions are still alive in the company although the director died in 1968. Among the present schoolteachers—there are 48—are many who worked with him: the director of the 300-member dance group, Yelena Rosse, has been with the company 33 years; choir director Yulia Dyachkova, 23; a former soloist of the company, now Merited Worker of Culture, Zoya Zhukova, nearly 20.

As for the performers—prima ballerina Natalya Bessmertnova, leading ballet dancer Vladimir Vasilyev and singer Tamara Sinyavskaya, all of the Bolshoi Theater, began their artistic careers in the Loktev Company. His pupils can be found today in many orchestras, choruses and music schools.

The company that started out with 37 now has 1,300 members. There are five choral groups, for various ages: the Zyornyshki for the preschoolers; the Zvyozdochka for first graders, and the Kolo-kolchiki, Pioneria and Yunost for the seniors. There are several dance groups, too, and a folk instrument orchestra of 270 young people. The children's repertoire is all-embracing, from the classics and folk songs to works by contemporary Soviet composers, including those of Vladimir Loktev. His Young Pioneer songs and the dances for which he wrote the music are included in the programs of every concert.

Parents pay no fees. The instruments and the costumes, as well as the salaries of the teachers and concert directors, are all paid for by the palace of Young Pioneers.

**Sasha Gavrilenko, trumpeter. There are 1,300 children in various performing groups of the Loktev company.**

**Below: The members range from exuberant youngsters to dignified high school seniors. Bottom: Warming up.**





# SOVIET LIFE

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# WELL, WHAT ABOUT THOSE WHALES?

From time to time Western newspapers portray the USSR as an archenemy of the whale! What is the truth about whaling in general today and about Soviet whaling in particular? At the USSR Ministry of Fisheries we talked to Ivan Nikonorov, Chief of the Department for the Protection and Reproduction of Fish Resources and Fishing Regulation.

**T**HE USSR is presently carrying on whaling operations in two areas—the Northern Pacific and the southern seas. Generally they are being scaled down and conform in every respect to the International Whaling Commission's scientifically planned regulations for the preservation and conservation of the whale.

Thirty years ago the Soviet Union signed the International Convention for the Regulation of Whaling. Since then it has consistently conformed to all the conditions of that agreement.

It has been taking an active part in research on the whale and its conservation within the framework of the International Whaling Commission.

Soviet whaling fleets are given strict instructions regarding the size of whales to be taken, the species that must not be taken, the areas closed to whaling and the terms and duration of the whaling season.

The rules fix a season quota for whaling and impose severe penalties for any violation.

The Soviet Union strictly holds to the limit (200 head) set for gray whales of the Chukchi-California herd. Only the number re-

quired to meet the needs of the local population living on the coast of the Bering and Chukchi Seas are permitted to be taken. As a result of these measures the population of this species of whale has nearly doubled, from 5,000-6,000 to 10,000.

Since 1948 the International Whaling Commission has set quotas for the Mysticeti whales in the main fishing area, the Antarctic Ocean. From 1948 to 1959 this quota was 14,000-16,000 blue whales, but it was subsequently cut heavily, for example, to 2,300 in 1971-72. A great deal of the credit for this cut goes to Mikhail Sukhoruchenko, the Soviet representative on the International Whaling Commission, who was IWC chairman at the time.

In 1962 the Soviet Union's Antarctic whaling fleet consisted of four factory ships and 70 whalers. It was first reduced to three factory ships and 48 whalers and then cut still more. In the 1975-76 season only two factory ships and 33 whalers went to the Antarctic. The North Pacific Whaling fleet was similarly cut to two factory ships and 30 whalers.

The surplus whaling vessels, incidentally, are being used for

the protection of various bodies of water and for research on sea mammals. An example is the joint USSR-USA scientific expedition undertaken aboard the whaler *Vnushitelny* in the Central Pacific from February to July 1975.

To ensure that IWC regulations are not violated, since 1972 international observers have been exchanged by whaling countries under the supervision of the IWC secretary. During this period foreign observers have not found a single serious violation of the convention by Soviet whalers.

The Soviet Union has itself set up a national inspectorate to make sure the regulations are observed. Each base has two inspectors checking on the whalers.

In the Soviet Union a large group of experts from the institutes of the Ministry of Fisheries, the Academy of Sciences and other research facilities are studying whales and dolphins.

At national conferences on marine mammals, held once every three years, various aspects of the biology of whales and dolphins are discussed and protective measures worked out. One of the results is that all dolphin hunting has been banned.

In scale of research and funds allocated for the purpose, the Soviet Union holds first place among the countries that signed the convention and has made important contributions in the areas covered by the convention.

The Soviet members of the IWC have always supported scientifically validated proposals for the regulation of whaling. Moreover, in the interests of preserving specific species of whale, they have always shown flexibility and readiness to reach agreement.

In recent years some countries have called for a global moratorium on whaling. The IWC Scientific Committee, however, has not supported this proposal. This committee, by the way, includes experts from nonwhaling countries, among them Britain, Canada, France and the USA.

The Soviet Union agrees with the IWC scientists, who declare that there is no reason, on conservation grounds, for whaling not to continue for the time being so long as it is kept within carefully controlled limits. It must, however, be done scientifically and adhere to the recommendations of the International Whaling Commission's Scientific Committee.

Soviet scientists back all rational proposals and present many suggestions of their own aimed at the preservation of the whale.

## STUDYING RUSSIAN IN MOSCOW

By Mikhail Baklanov

**A**LTHOUGH many of the sponsors of a gathering in Moscow's Friendship House knew English, everybody spoke Russian at the request of the guests from the United States. Thirty-five American teachers of Russian from schools and universities in 23 states wanted to check their knowledge of Russian while speaking with Soviet writers, literary critics and translators.

The meeting of the American teachers with Moscow intellectuals and students was arranged by the Soviet-American Friendship Society.

The American teachers had spent two and a half months attending classes in Russian literature and seminars in modern Russian and methods of teaching the language. And in their free time they got to know how Soviet people lived.

The Americans visited such institutions and organizations as the USSR Academy of Pedagogical Sciences, the Teachers Institute of Foreign Languages and the Soviet Women's Committee. They went to theaters and art exhibitions, saw many Soviet films and socialized with Muscovites and residents of other Soviet cities.

It was the thirteenth group of teachers from the United States to come to the Soviet Union to improve their Russian. In exchange, Soviet teachers regularly go to the United States to improve their English. These study visits are part of the Soviet-American agreement on cultural exchanges.

There is a growing interest in the Russian language in the United States, said the Americans. According to David Lowe, a teacher at Macalester College in Saint Paul, Minnesota, Russian is studied by more than 100 of the 1,500 students in the college. By American standards this proportion is high, he believes.

Lon Grant from Arvada High School, Colorado, said that his department had set up a camp for 15- to 18-year-olds who study Russian. It is called Sosnovka, which means pine grove. Here children speak Russian, sing Russian songs and do Russian dances. His pupils also want to know about Soviet automobiles, popular songs, the subjects studied in Soviet schools, what students do in their spare time and innumerable other things. "That is why educational trips of American teachers to Moscow are so valuable," he said. "We want to teach our children both to speak Russian and to know your country, its people and culture, your way of life."



American guests at Novosti Press Agency.



# Covenants on Human Rights and Soviet Legislation

For years the Soviet Union worked for adoption by the United Nations of the International Covenants on Human Rights and for their subsequent entry into force. The ratification of these covenants by the USSR and other socialist states is a logical extension of the policy of ensuring rights and freedoms followed by the countries of the socialist community.

By Vladimir Kartashkin  
Candidate of Science (Law)

IN 1976 the International Covenant on Civil and Political Rights was ratified by the thirty-fifth state (Czechoslovakia) and thus became international law. Simultaneously the necessary quorum was ensured for the International Covenant on Economic, Social and Cultural Rights to become law.

As distinct from the Universal Declaration of Human Rights, approved by the UN in 1948, which expresses only moral obligation, the Covenants on Human Rights are international laws binding on the signatory countries.

It should be mentioned that the Soviet Union is the only great power which ratified both covenants before they went into effect (we ratified them in the autumn of 1973).

## Real Guarantees

An analysis of the International Covenants on Human Rights shows that the majority of their stipulations coincide, in one way or another, with provisions of the constitutions or laws of the socialist countries, even though these were formulated long before the covenants were adopted.

This fact is explained by the progressive and consistently democratic principles of the 1936 Soviet Constitution and the constitutions of the other socialist states.

Legislation in the socialist countries guarantees the political, legal and economic rights that these states proclaim and creates the necessary prerequisites for their implementation.

The International Covenants on Human Rights begin with the proclamation of the right of each nation to self-determination, including the right to freely dispose of its natural wealth and resources (Article 1). This right was written into the covenants on the initiative of the Soviet Union.

Articles 2 and 3 of both covenants prohibit discrimination on any grounds and, more particularly, require the states to provide men and women with an equal opportunity to enjoy all rights provided for in the covenants.

The rights of the peoples to self-determination, the principles of equality of men and women and prohibition of discrimination are the basis of all the provisions in the covenants. Cardinal hu-

man freedoms cannot be ensured unless these provisions are observed.

In the Soviet Union these rights were enunciated and applied in the first years of Soviet power. Just one week after the birth of the Soviet state the Declaration of Rights of the Peoples of Russia was adopted; it proclaimed their equality and sovereignty and the right to self-determination, including the right to secede and form independent states. The principles contained in the declaration are being consistently implemented. Today the Soviet Union is a federal state uniting 15 union republics. Each of them is a sovereign state with the constitutional right to secede.

In the Soviet Union discrimination was banned and equality of women was ensured in the first years after the October Revolution. Today women make up 51 per cent of the employed labor force. Nearly one-third of the deputies to the USSR Supreme Soviet are women. In local Soviets women account for nearly 50 per cent of the deputies.

The 1936 Constitution reaffirmed the equality of all citizens of the USSR and established legal penalties for any direct or indirect restriction of the rights of working people by reason of race or nationality (Article 123).

One of the most fundamental rights is the right to work. The Soviet Union proposed including it in the charter of the United Nations. The Western powers opposed this, and not until a quarter of a century later was it written into the Covenant on Economic, Social and Cultural Rights (Article 6).

The actual realization of the right to work means providing a job for everybody who wants one.

In the Soviet Union unemployment was abolished nearly 50 years ago. Since then the number of job openings has always exceeded the growing labor force.

Our Constitution, the Fundamental Law of the USSR, states: "The right to work is ensured by the socialist organization of the national economy, the steady growth of the productive forces of Soviet society, the elimination of the possibility of economic crises, and the abolition of unemployment" (Article 118).

The International Covenant on Economic, Social and Cultural Rights declares that the guaran-

tee of employment shall be supplemented by the right to just and favorable conditions of work, to a decent living standard, to social insurance and medical care. These requirements of the covenant are fully realized in the Soviet Union. A minimum wage has been set and is continuously being raised. The principle of equal pay for equal work has become law and is strictly enforced. All working people get an annual paid vacation. The improvement of living conditions, which is ensured by rising wages, stable prices and the absence of inflation, is a continuous process. The Soviet Union builds more housing than Great Britain, France, the Federal Republic of Germany, Italy and some other European countries combined. Rent is the lowest in the world. Medical care is free, the number of doctors and other medical personnel per 10,000 inhabitants is higher than in any other country. All citizens have the right to social insurance at state expense; it covers all industrial and office and professional workers. Upon reaching pension age, people can keep working if they wish and, more often than not, receive both wages and pension.

The Covenant on Economic, Social and Cultural Rights guarantees the right of every person to an education. Primary education, it declares, shall be free and compulsory (Article 13). In the Soviet Union the transition has been completed to universal compulsory secondary education. It is free, as is higher education. Not only is there no tuition, but students receive stipends from the state.

## Personal Freedom and the Interests of Society

Now let us turn to the Covenant on Civil and Political Rights.

Article 9 proclaims the right of every individual to liberty and inviolability of person. It states that people shall not be deprived of their liberty by arrest or detention except for reasons established by law. This right is proclaimed in Article 127 of the USSR Constitution. The right of the individual to liberty and inviolability of person is ensured by the criminal codes of the Russian Federation and the other union republics, which prohibit detention for more than 72 hours. Illegal arrest or detention by an

official is punishable by law.

Several rights and freedoms in the covenant, such as the right to travel freely; the right to choose one's place of residence, including the right to emigrate (Article 12); freedom of thought, conscience and religion (Article 18); the right of the individual to freedom of opinion and expression (Article 19); the right to peaceful assembly (Article 21) and to freedom of association (Article 22), may, according to this international document, be subject to certain restrictions.

These restrictions, the covenant indicates, are necessary in any democratic society in the interests of national security, public order, public health or morals as well as other people's rights and freedoms.

The Covenant on Civil and Political Rights and the Universal Declaration of Human Rights emphasize that restrictions on rights and freedoms may be established only by law.

In the Soviet Union the right to free expression of opinion, freedom of conscience and religion, freedom of travel, peaceful assembly and freedom of association is guaranteed by law and is consistently implemented in practice. The legislation of the socialist countries requires punishment not for political convictions or religious activities, but solely for criminal acts in violation of the law.

The Soviet Union has over 20,000 churches, including Russian Orthodox and Catholic churches, synagogues and mosques, and about 20 monasteries and convents. The clergy is trained at specialized theological secondary schools and higher schools. Eighteen such institutions, including Russian Orthodox academies and seminaries, Catholic seminaries, a Moslem academy and a Jewish Yeshivah, are in operation today. Religious publications include the Koran, theological works, prayer books, magazines and church calendars.

Religious groups hold their congresses and conferences to consider internal church problems. Discrimination or coercion of religious believers is prohibited by Soviet law.

Freedom of travel, including the right to leave one's country permanently, has also been ensured under socialism. However, the number of people who wish to emigrate from the socialist



cations from people desiring to go to Israel were presented to the authorities responsible for emigration. It is worth noting that in 1973-1974 approximately 1,500 Soviet citizens of Jewish nationality who received permission to leave for Israel revised their decision and refused to avail themselves of the right to emigrate.

In the Soviet Union propaganda for war and racial discrimination are prohibited by law.

The Covenant on Civil and Political Rights unambiguously prohibits propaganda for war (condemned in the Soviet-sponsored Resolution 110 [II] of the UN General Assembly, adopted on November 3, 1947) as well as any act of national, racial or religious hatred which incites discrimination, animosity or violence. The covenant demands that propaganda for war and racial discrimination be banned by law (Article 20), as is done in the Soviet Union, where penalties are provided in the Law for the Defense of Peace and by criminal laws.

Any propaganda of racial or national exclusiveness, enmity or disrespect is punishable by law.

The political rights listed in the covenant make it possible, in effect, for all citizens to participate in the administration of their country. Every citizen who has reached an age specified by law may vote in elections to all organs of power, be elected to office, participate in the activities of the executive branch and the management of the country's industry and economy, and work in state institutions.

In the Constitution of the USSR the right of citizens to participate in the administration of their country is regulated by the articles and chapters on the electoral system, the organs of state power and administration, and the rights and duties of citizens. This right is based directly on the socioeconomic and political system of the USSR, which gives power to the working people of town and countryside.

The Soviets of Working People's Deputies, which constitute the political foundation of the Soviet state, alone have over two million members, while volunteer assistants to the Soviets number over 30 million.

The further development of international cooperation will unquestionably promote human rights and freedoms.

The International Covenants on Human Rights are cardinal legal documents. Their ratification by an overwhelming majority and their actual implementation would be an important step toward realization of one of the main goals of the international community—guaranteeing universal respect for and observance of the basic human rights and freedoms.

The Constitution of the USSR reflects the democratic gains of the Soviet people.

Addressing the Twenty-fifth Congress of the Communist Party of the Soviet Union, Leonid Brezhnev pointed out: "Today, we know not only from theory but also from long years of practice that genuine democracy is impossible without socialism, and that socialism is impossible without the steady development of democracy. We see the improvement of socialist democracy as consisting above all of a steady effort to ensure the ever fuller participation of the working people in running all the affairs of society, of further developing the democratic principles of our state system and of creating the conditions for the all-round flourishing of the individual. This is the direction in which the party has worked and will continue to work in the future."

By Mikhail Krutogolov  
Doctor of Science (Law),  
Honorary Professor of Sorbonne University

**P**REPARATION of the draft of a new constitution has been under way in the Soviet Union for many years now. What changes in the country during the 40 years since the present constitution was made necessary? This, in the most general form, is the answer:

Socialism is a dynamically developing society. A great deal has been done in the affairs of the Soviet state, and the time has come to sum up what has been accomplished. Leonid Brezhnev, General Secretary of the Central Committee of the Communist Party of the Soviet Union, explained the need for a new constitution in his Report to the Twenty-fifth CPSU Congress.

The new Constitution will be the fourth in the history of the Soviet state. Each constitution was an ascending step in the country's development, a new stage in its history.

The first—the Constitution of the Russian Soviet Federative Socialist Republic of 1918—marked the birth of the state of the dictatorship of the proletariat created by the October Revolution.

The second—the Constitution of the USSR of 1924—was the first constitution of the Soviet state, the expression in law of the voluntary unification of the fraternal republics into a single state.

The Constitution of 1936, which is in effect now, reflected the fact that the experience of the USSR had been eliminated and that the victory of socialism had been consolidated.

In the four decades that have passed since the last constitution was adopted, fundamental changes have taken place in the development of Soviet society, in world development and in the role of the Soviet Union in the international arena.

What is the essence of these changes?

**First:** Instead of merely the foundation of a socialist economy, the USSR now has a well-equipped economic system both in town and countryside. This system was shaped by the experience of victorious socialism, after the Constitution of 1936 was adopted.

**Second:** While preserving the leading role of the working class, the USSR has made great progress in drawing together all classes and social groups; social homogeneity of our society is being created on an ever firmer basis. The process of erasing the distinctions between mental and manual labor, of improving working and living conditions in town and countryside is well under way. A new historical era, the era of the Soviet people, has emerged.

**Third:** Soviet society has made great advances in cultural development. The Soviet Union is now a country of complete literacy; two-thirds of those gainfully employed have a secondary education.

**Fourth:** The development of socialist democracy has enlarged the role and activity of the masses of people in the administration of the country.

All these radical changes have enabled the Communist Party to arrive at the important political conclusion that the Soviet Union has built a developed socialist society. The dictatorship of the proletariat, having fulfilled its historical mission, has gradually developed into the state of all the working people. The world's first country to achieve socialism is also the first country to achieve practical communist construction.

Big changes have taken place in the international position of the Soviet Union as well. The socialist revolutions were victorious in several countries of Europe and Asia, and the system of socialist states was established.

All these changes and tasks that faced the society in new conditions must clearly be reflected in the country's basic law—the Constitution.

Leonid Brezhnev pointed out, in his Report to the Twenty-fifth CPSU Congress, that the new Constitution should place on record not only the general principles of the socialist system, but also the class substance of our state, but also the basic elements of the developed socialist society and its organization.

The construction of the material and technical basis of communism is well under way. The nature of these tremendous tasks makes it necessary to reflect in the Constitution the changes in the management of the national economy. This is the second basic point made by Leonid Brezhnev.

Thirdly, the new Constitution must reflect the part played by the state in cultural development and in the conditions for the development of science, education and the arts.

One of the basic features of the draft of the new Constitution will be the further development of socialist democracy. The idea is to establish a stricter system of accountability of the executive agencies to the elective legislative bodies—the Soviets. Further, major drafts of all-LU laws and decisions are to be submitted for public discussion. This has already become regular practice in the Soviet Union.



# CONCERN FOR YOUTH'S INTERESTS

By Oleg Shibko  
Photograph by Yuri Rybchinsky

With full employment, Soviet industry must make jobs attractive to workers, especially the younger ones. When the Russian Federation's Minister of the Textile Industry overlooked this need, young people stayed away. A textile worker asked the youth affairs committee of the legislature to help solve the problem.

New headgear for textile workers, designed by labor psychologists.









Deputy Valentin Karpov opens a meeting of the youth affairs committee of the Russian Federation Supreme Soviet. It was called to consider a report by Pavel Sizov (top left), RSFSR Minister of the Textile Industry. The question to be discussed, "Why is the industry losing young workers?" was posed by committee member Valentina Pletnyova (top center), a weaver and deputy to the RSFSR Supreme Soviet. Thirty-one deputies, including cosmonaut Andrian Nikolayev, serve on the committee.

**T**HE MINISTER'S REPORT stirred up quite a few objections from the deputies to the Supreme Soviet. And their criticisms were well founded. They pointed out that young textile workers were dissatisfied with the state of affairs at many factories.

The deputies unanimously agreed that "the needs of young people must be met."

The minister agreed.

The above is a summarized account of a meeting of the RSFSR Supreme Soviet's Standing Committee for Youth Affairs. Pavel Sizov, Minister of the Textile Industry of the RSFSR, gave the report which drew the harsh criticism.

What practical steps could be taken? They were set forth in a special resolution the committee adopted.

#### Young Communist League Members Take the Initiative

The resolution summed up an extensive study that youth affairs committee members had made of the working and living conditions of young textile workers in the Russian Federation. In the textile industry a third of the work force is under 30. The study was proposed by Valentina Pletnyova, a weaver at the Lenin flax mill in Kostroma, who is a Deputy to the RSFSR Supreme Soviet and a youth affairs committee member.

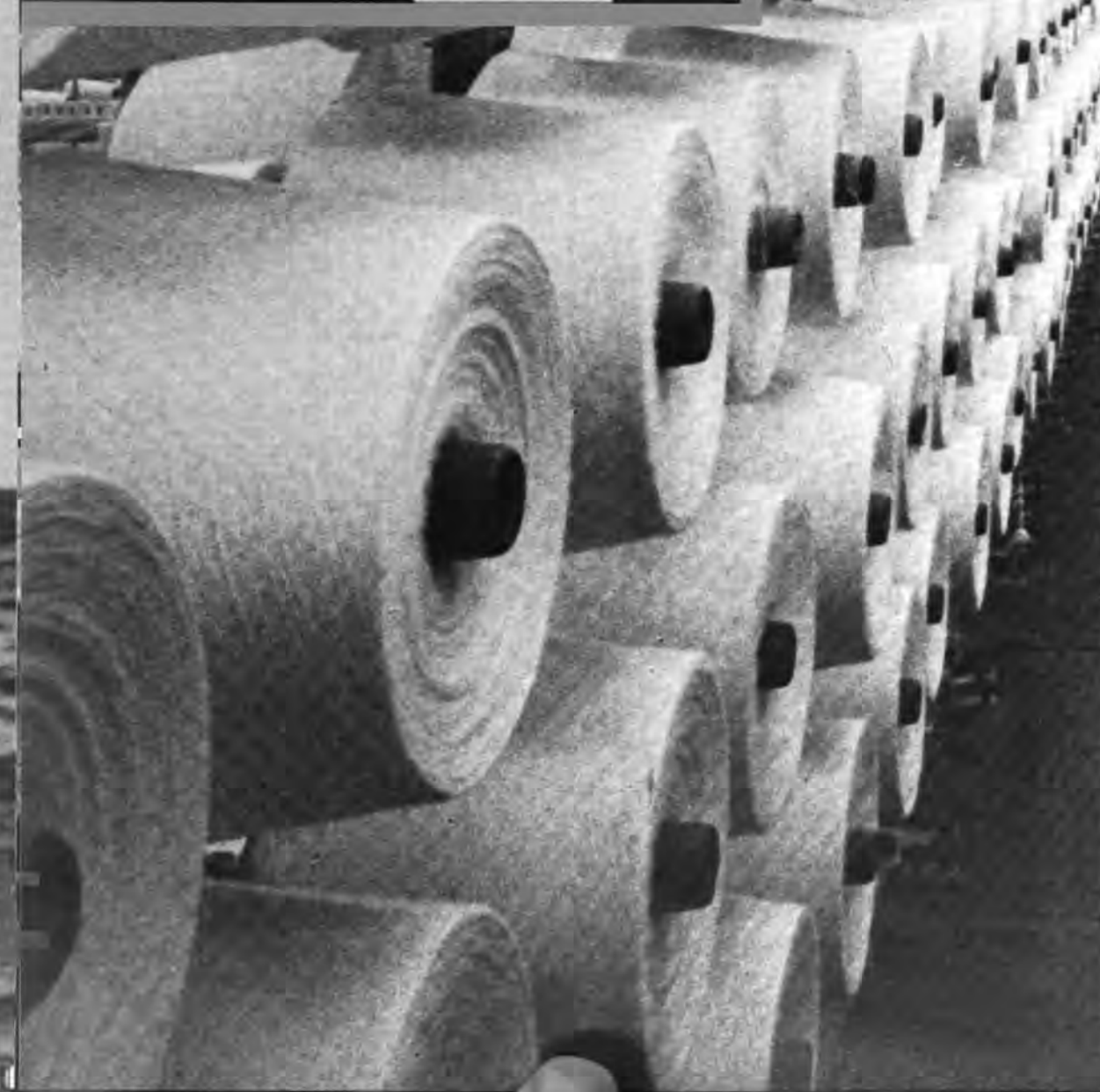
"Some time ago," she told me, "the YCL committee at our mill drew the management's attention to the fact that fewer secondary school graduates were taking jobs at the mill and there was an increasing turnover of young workers. This was because so many of the machines were antiquated and young people did not want to operate them. There were complaints about insufficient housing being built for the workers. The limited sports and leisure facilities did not suit the young people.

"The YCL warning helped," Pletnyova went on to say. "Management revised its housing program. More money was allocated for recreational facilities. But when it came to modernizing the workshops, we could not do a great deal ourselves because we depend on the ministry to supply new machinery. We approached the ministry, but they told us there was no early prospect of their being able to give us any substantial help. It was then that the YCL members asked me to see what could be done through the youth affairs committee.

"I went to Moscow several times, discussed the matter at the ministry, at the headquarters of the textile workers trade union, and at YCL headquarters. I found that textile factories in other localities had much the same problems of working and living conditions. The people I spoke to had noticed that young people were showing less interest in textiles and choosing other branches of industry.

"So I suggested including this problem in the committee's plans. My colleagues supported me, and a group of deputies were assigned to make an on-the-spot study.

"The group spent several months inspecting textile factories in about 10 different regions of the Russian Federation. Also participating in the study, at the committee's invitation, were officials of the RSFSR Supreme Soviet Presidium, of our textile workers union central committee, the YCL central committee, RSFSR Gosplan [the state planning committee of the Russian Federation] and the State Committee for Trade and Technical Education of the RSFSR Council of Ministers. Deputies spoke to young workers on the factory floor. They had meetings with YCL, trade union and management representatives. When the preparatory work was done, the committee met again in Moscow."





# CONCERN FOR YOUTH'S INTERESTS

## Extensive Powers

The 31 members of the youth affairs committee are people of various ages and professions. They live and work in different parts of the Russian Federation, the largest of the constituent republics of the USSR. The committee includes, for example, a shipbuilder from the Soviet Far East, Anatoli Belov; Leningrad University rector Valentin Aleskovsky; Raissa Demicheva, a collective farmer from Bashkiria in the Urals; the well-known film director Sergei Bondarchuk; Nikolai Khlistov, a student at the Irkutsk Polytechnic Institute, and cosmonaut Andrian Nikolayev.

Besides the youth affairs committee, the Supreme Soviet has 13 other committees, including the credentials, legislative proposals, planning and budgeting, and international affairs committees and several committees for particular branches of industry. These committees are composed of deputies to the Supreme Soviet. Altogether there are 460 committee members, a considerable number of them under 30. A balance of experience and youthful energy and initiative is sought in filling the committee posts.

The members' initiative is encouraged, and all questions are decided by open discussion. The committees work closely with the trade unions, the YCL and other public organizations. They also examine proposals from individual citizens—workers, farmers, professionals. They draft laws for the republic, lead preliminary discussion of various issues and check on the implementation of decisions taken by the Supreme Soviet.

The committees can call upon any of the deputies to the Supreme Soviet as well as representatives of state agencies, public organizations, specialists and scholars for assistance. Committee recommendations must be examined as a matter of duty by the bodies concerned.

## The Minister Reports

Education, vocational training, jobs, living conditions, the recreation and health of young people, their involvement in state, economic and social matters—this is the sphere of activity of the youth affairs committee.

In the present instance the committee invited to its meeting leading officials of the Presidium of the USSR and RSFSR Supreme Soviets, the leaders of several ministries and departments, and YCL and trade union officials.

The meeting began with the report from textile industry minister Sizov. He was naturally aware that the deputies were particularly interested in the social aspects of ministerial policy. So in explaining its shortcomings, he spoke of objective difficulties:

"We have opened several new automated factories over the past five years. A comprehensive program of mechanization has been carried out at 124 factories and complexes. But other branches of industry are still outstripping us in the introduction of new technology. Since there are always more job vacancies than workers to fill them, young people prefer factories where the work is more attractive because there is better machinery. This is the reason for our difficulties in recruiting labor. You yourselves appreciate that we are as interested as anyone in modernizing the textile industry. It is not so much a matter of new staff as of raising labor productivity. We have approached the state planning authorities for the Russian Federation, but they tell us that at the moment it's not possible to supply the industry with more new machinery. I think your committee could be helpful in finding a solution to this important question."

The deputies, while agreeing, nevertheless turned the discussion to the social problems in-

involved. Here, it turned out, the minister had several trump cards to play.

There had been a 20 per cent rise in textile workers' average wages during the past five-year plan period (1971-1975)—a respectable increase in view of the stability of consumer goods prices and the fact that fares, rent and charges for public utilities had remained the same. The textile industry had provided a total of 5.1 million square meters\* of apartment and rooming house accommodations for its workers. Another 20,000 places had been made available at nurseries and kindergartens, where parents paid only one-third the actual cost of maintaining their children. A total of 125 million rubles had been spent on health measures. Twelve new technical schools had been opened to train skilled workers. The students were given grants, free board and special clothing, and paid no tuition. The textile industry had 100 overnight sanatoriums where about 65,000 workers a year went to rest and receive medical treatment, either free or at no more than a third of the full cost. The industry also had 300 recreation centers—palaces of culture and clubs—as well as 118 sports stadiums and scores of tourist centers. Earnings would continue to rise in the current five-year plan period, during which 5.3 million square meters of new housing would be built, an additional 24,000 places provided at nurseries and kindergartens, and 19 more technical schools opened. "As you can see," said the minister, "quite a lot has been done and will continue to be done."

## Deputies Criticize the Ministry

The facts he cited made a good impression. But the deputies could not help noting that his report spoke mostly of achievements while shortcomings were attributed to "objective difficulties," for which Sizov and his ministry were seemingly not responsible.

The first deputy to comment was Vladimir Popov. He spoke for the group that had made a study of the RSFSR textile industry.

"Our on-the-spot study showed us that in most cases the young textile workers' demands, as regards both working and living conditions, were justified," he said. "The minister assures us that for the present all possibilities of modernizing production and improving living conditions have been exhausted. But is that really so? Not entirely. We found that at some factories there is a delay in carrying out plans for re-equipment for which funds have already been allocated."

"Our committee report contains a number of recommendations to various bodies which could help the textile factories, and we hope these bodies will take the necessary steps. But a great deal depends on the minister himself. Consider this, for example. In 1975 only 94 per cent of the capital investment funds allocated for housing in this branch of industry were actually spent. The money set aside for building nurseries and kindergartens was not fully used, either. In the past five years the total of funds allocated under these two headings but not used came to 45 million rubles. Here, Comrade Sizov, your ministry is entirely to blame."

Members of the committee spoke one after another. Besides adverse criticism, of course, they offered many suggestions. Victor Tretyakov, for instance, spoke of the experience of Arkhangelsk in Northern Russia, where the City Soviet was encouraging factories to take part in housing construction. Such a concentration of funds, labor and building materials made it faster and cheaper to build new apartments for workers.

Committee chairman Valentin Karpov sharply criticized the USSR ministry responsible for filling

\*One square meter equals 10.76 square feet.

textile factory orders for looms and other equipment. The ministry, he said, was often late with deliveries, thereby holding up the workers.

During a break in the committee meeting I chatted with Andrian Nikolayev. He had not taken part in the discussion but had looked over all the documents.

"It's a very important problem we're dealing with," he told me. "In fact, I can't help putting myself in the place of high school graduates of today starting out on their careers. Where would I rather take a job? Naturally where there's a higher level of technology, in instrument making, for instance. But the country needs textiles too! We must not allow such an important branch of industry to be left with an uncertain future, deprived of an influx of young blood. The solution is to raise the prestige of the trade. The committee is right to propose speedier modernization."

## Taking Action

In his closing statement Karpov told the committee members:

"The resolution we have adopted today is an important one. Now it's the task of each of us to help implement the steps we have indicated. We must use all our authority, all our abilities to this end. We cannot, of course, expect things to start moving by themselves and produce immediate results. On the contrary, quite a lot of time and effort will be needed. But we are confident of good results."

Shortly after the meeting I saw Sizov.

"We have already started doing much of what the committee's resolution called for," the minister told me. "For instance, we have really come to grips with the problem of training new young workers for the industry. In a few days our ministry will meet jointly with the RSFSR State Committee for Trade and Technical Education to discuss the questions raised by the youth affairs committee."

"Other agencies are also involved in carrying out the committee's recommendations. Steps have already been taken to increase the supply of automatic looms. In general, things are moving."

## An Organization with Influence

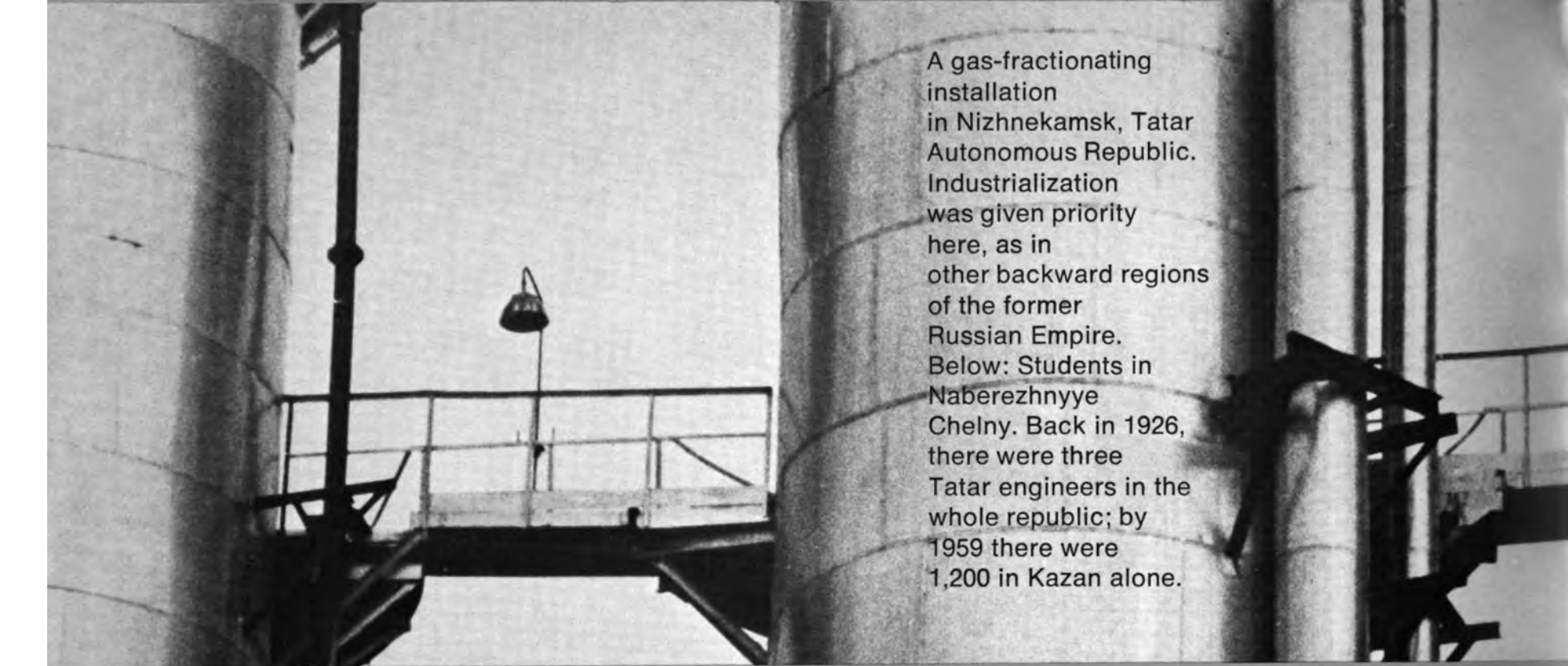
Zoya Novozhilova is the committee member representing the Young Communist League, the mass organization of Soviet youth, which has a membership of 35 million.

"It's no accident that it was the YCL that brought the question before the committee. This is a mobile and active organization. Its central committee has the right to initiate legislation and to take up with all state agencies, including the USSR Supreme Soviet, any matter that affects youth. Moreover, when it raises a question, it finds real support. Not long ago, for instance, the USSR Council of Ministers adopted a decree to raise wages and increase the number of vacation days for light industry workers. The YCL was one of the initiators of this decision."

"You could say that state agencies adopt virtually every decision concerning young people either jointly with the YCL or after considering its opinion."


"But it's not only a question of the YCL. The statistics will tell you that in the country's highest organ of state power, the USSR Supreme Soviet, almost one in every five deputies is under 30 years of age. In the Supreme Soviets of the constituent union and autonomous republics and in the local Soviets one-third of the deputies are young people. I don't need to tell you that the young deputies are deeply concerned with the interests of people their own age."





A gas-fractionating installation in Nizhnekamsk, Tatar Autonomous Republic. Industrialization was given priority here, as in other backward regions of the former Russian Empire. Below: Students in Naberezhnyye Chelny. Back in 1926, there were three Tatar engineers in the whole republic; by 1959 there were 1,200 in Kazan alone.

## DYNAMICS OF NATIONS TODAY



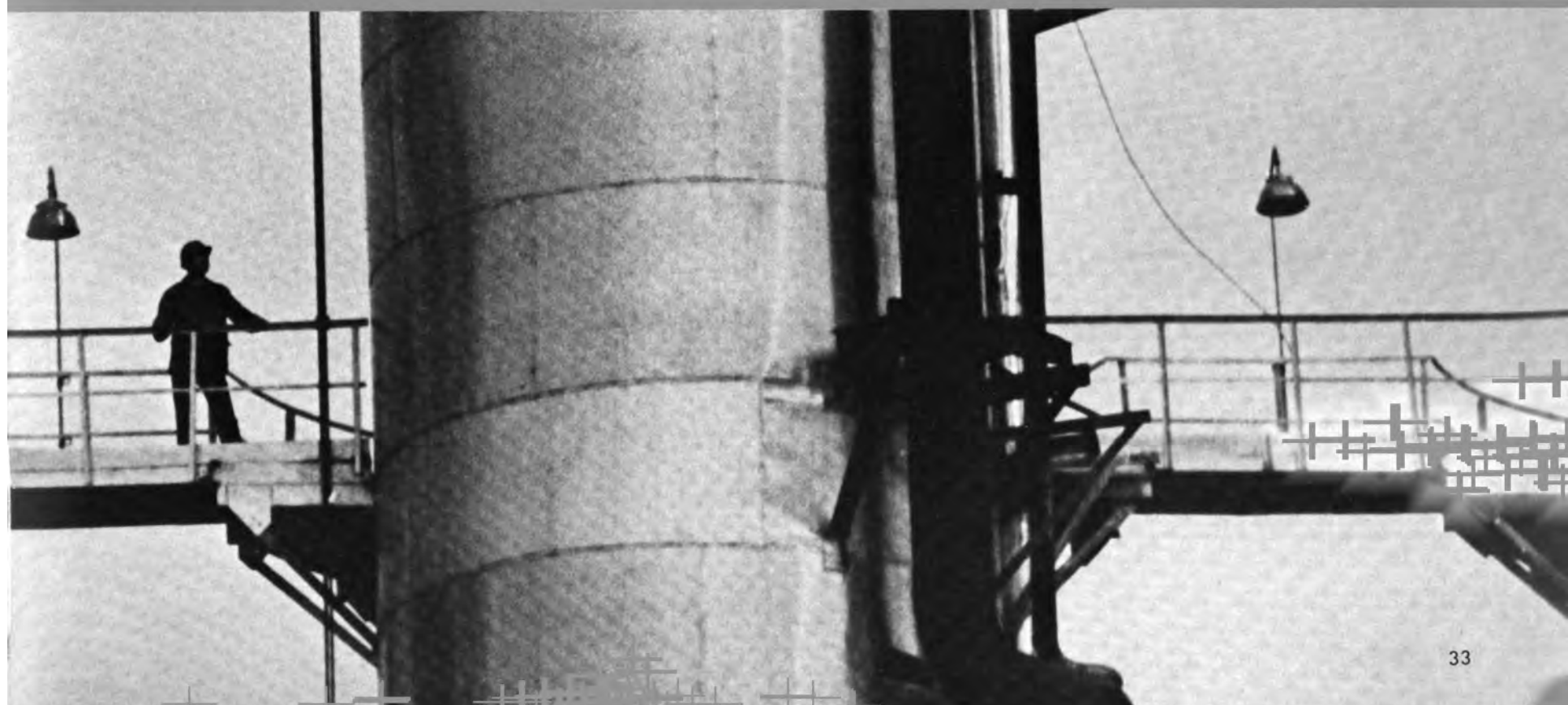
Two students in a classroom. The male student in the foreground is looking towards the camera, while the female student in the background is looking towards the left. A chalkboard with chemical formulas is visible behind them.

general





*The Social and the National* is the title of a monograph issued by the Nauka Publishing House—one of our first ethnosociological works. The ethnosociologists chose the Tatar Autonomous Republic, on the banks of the Volga, as the object of this study, which was conducted under the guidance of Professor Yuri Arutyunyan, head of the Sociology Department, Institute of Ethnography of the USSR Academy of Sciences, Moscow. Professor Arutyunyan directs the agrarian and ethnographic sections of the USSR Association of Sociologists. He was interviewed by SOVIET LIFE correspondent Alexei Flerovsky.







Waterfront of Kazan, capital of the Tatar Autonomous Republic.

# THE SOCIAL AND THE NATIONAL

## A Study in Ethnosociology

**Q:** The word ethnosociologist is becoming popular today. But more than likely not everyone knows what it means or the reason for the synthesis of these two fields of study.

**A:** This new science combines ethnography and sociology and widens the possibilities of each discipline. Ethnographers have sometimes been accused (maybe out of prejudice) of trying to preserve the past in the present and of paying insufficient attention to complex contemporary processes. In studying these processes, sociologists, in their turn, often miss what attracts ethnographers. Ethnosociology is indeed a special science synthesizing two distinct fields. It studies the problems tackled by the sociologist, but from the ethnographic point of view, and attempts to take into account social phenomena in all their diversity, analyzing the interrelation between the social and the national. Hence the title of our book.

**Q:** Obviously it is no accident that social is the first word in the title. The preface to the book states that at the outset of their research the scholars hypothesized that social conditions also determine the character of national relations. Did you expect this hypothesis to be substantiated?

**A:** Of course. I think this is an irrefutable proposition. But the subject itself had any number of nuances and scientific assumptions which had to be proved and checked by a great deal of factual evidence.

**Q:** Why did you choose the Tatar Autonomous Republic as the object of your study?

**A:** This region is a typical one in our country in respect to the level of its industrial and agricultural development and the ratio between its urban and rural population. In the Tatar Republic the urban population is 59 per cent of the total, while the index for the entire country is 60 per cent. Tataria is also typical in the growth rates of its economic and cultural development and the potential for social mobility.

Like many other big economic regions of the country, Tataria is multinational. But in this respect we were attracted by its peculiarity rather than typicality. From time immemorial this area has been inhabited by two large ethnic groups, Russians and Tatars, who make up nine-tenths of the republic's present population. Our job was to trace the background and current development of their relations. It was tempting to "check for intensity," as our sociologists put it, the process by which different cultures and languages influence one another.

**Q:** May I quote a statement in your book? "The Russians and the Tatars lived under common skies but at different levels of social development."

**A:** Yes, that was true before the 1917 Socialist Revolution: There were 120 persons with a secondary or higher education for every 100,000 Russians and only three for the same number of Tatars.

In the 113 years of its pre-Revolutionary history Kazan University graduated 10,000 Russians and only 71 Tatars. Those "running things" in society included about two per cent of the Russians and a little over half of one per cent of the Tatars inhabiting the then Kazan Province (I should remind you that the Tatars were the native population).

All these examples show that the economic and cultural development of the Tatars was deliberately held back.

Naturally, such a striking difference in the socioeconomic structures and the discriminatory nationalities policy of the czarist authorities spiritually dissociated the Russians and the Tatars, and this separation was aggravated by religious education and the long-standing animosity between orthodoxy and Islam. In the Koran, for instance, you can find the following warning commandment: "You will never please either Jews or Christians. . . . And if you follow their passions after the great knowledge has come to you, Allah will give you neither associate nor friend. . . ."

**Q:** But do people live so strictly by religious dogma?

**A:** We are speaking about pre-Revolutionary Tatar villages, where there were six times as many mullahs as teachers.

Another detail is that you rarely find mention of mixed marriages in old books on life in the Tatar village. Such marriages could have taken place, but only if the Russian bride or—what is absolutely unbelievable—the Russian groom agreed to convert to Islam. Or, of course, if the Tatar principal in the marriage converted.

**Q:** That was in the countryside. What about the town?

**A:** At that time less than three per cent of the urban population was Tatar.

**Q:** And today?

**A:** About 34 per cent. Accelerated urbanization, the migration of many thousands of Tatars from the countryside to the towns, giving the settlers access to urban culture—all this helped to raise them to the social level of the Russians. But it was a long and difficult process.

**Q:** Were the difficulties due to the age-long separation of the Tatars and the Russians?

**A:** Yes, but only to a certain degree. The Socialist Revolution broke down all the national and racial barriers and did away with national discrimination. Therefore the ideas of the Revolution and the first efforts of Soviet power were strongly supported by the broad masses of the Tatar people. Quite a number of Tatars headed the Soviets of Workers' and Peasants' Deputies, were Red Army commanders and passionate propagandists for the Revolution. It took more than 20 years to achieve actual equality between the Tatars and the Russians, since a firm economic basis was the first requisite.

Prior to the Revolution, Kazan Province was a

typical agrarian region with a weakly developed industry. So industrialization there, just as in all other economically backward regions of the former Russian Empire, was given priority. Thus, figures show that in the period from 1913 to 1940 Tataria's annual industrial output increased 13 times over, while the average increase for the entire country was 8.5 times.

After the war, large oil deposits were found in Tataria, which further helped to accelerate its economic development.

**Q:** How did the republic's economic progress affect its social structure?

**A:** In the first place, the professional composition of the population changed radically. In 1926 only six per cent of Tataria's population was engaged in manual work and three per cent in mental work; but, according to the 1939 population census, the figures had climbed to 34.2 and 15.5 per cent respectively. It is significant that at first the better educated Russians had a higher level of professional qualification than the Tatars, but the proportion was gradually changing. In 1926 Tatars constituted 22 per cent of all manual workers; in 1957 this figure was 36.5 per cent, with the total number of Tatars working in the newly established branches of the economy having increased by more than 11 times.

**Q:** You said "the better educated Russians." Does this difference in the educational level still exist?

**A:** The Tatars had caught up with the Russians by 1970.

The Tatar intelligentsia—which was practically nonexistent before the 1917 Revolution—developed particularly fast. Back in 1926 there were three Tatar engineers in the whole of the republic; according to the 1959 population census, there were more than 1,200 of them in Kazan alone. In the same period the number of Tatar teachers almost tripled, and the number of Tatar writers and artists increased by 700 per cent.

Today the Russians and the Tatars are equally represented in all the socioprofessional groups.

**Q:** What criteria did you use to determine these groups?

**A:** The character and level of the work. For instance, in Almetyevsk, a new industrial town with approximately equal numbers of Russians and Tatars—that's important for the ethnosociologist—we singled out the following groups:

unskilled manual workers (Tatars—4.3 per cent, Russians—5.1 per cent);

skilled manual workers (Tatars—67.4 per cent, Russians—62.2 per cent);

skilled mental workers (Tatars—1.4 per cent, Russians—2.1 per cent);

highly skilled specialists, production managers (beginning with shop superintendents) and leaders of public and state organizations (Tatars—26.9 per cent, Russians—30.6 per cent).

**Q:** What are the limits and what are the possibilities of social mobility for city dwellers, both Tatars and Russians?



From the Report of the Central Committee  
of the Communist Party of the Soviet Union  
to the Twenty-fifth CPSU Congress

## THE LAW PROTECTS NATURE



*There is still  
time to  
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# NATURAL RESOURCES AND STATE POLICY

**S**PRING 1921. The Civil War is still raging. Factories are idle—there is no fuel. At such a time, it would seem, no cost would be too great if the young Soviet republic could step up the extraction of oil from the just restored oil fields near Baku in Azerbaijan, start every well there pumping.

But that spring Alexander Serebrovsky, president of the board of the state oil agency in Baku, received an urgent message from Lenin.

"... Is there a correct approach in Baku to the question of oil from the standpoint of coordinating the various aspects of the national economy? After all, the territory is very rich: forests, fertile land (given irrigation), etc. We are pumping water (with oil) but not using the water for irrigation, which would yield great crops of hay, rice, cotton? Not making use of the 'north wind' to run windmills? But, of course, foodstuffs and irrigation are the main things. Is it possible to develop the oil industry without developing irrigation and farming around Baku? Is anyone thinking about this and working on it properly?"

Even in those hard times, Lenin was thinking about comprehensive, rational utilization of the country's natural resources. And this laid the basis for later conservation policies.

## First Steps

Important steps to protect nature were taken soon after the Soviet state was established in October 1917. The young republic inherited a devastated economy and desolate lands. World War I had taken a toll of more than a million lives and ruined fertile farmlands in the Ukraine,

Byelorussia and western Russia.

The Decree on Land, drafted by Lenin himself, was one of the first laws adopted. It abolished private ownership of land for all time and made mineral, forest and water resources the property of the people. All the landed estates were broken up and given to the peasants. This was one of the main demands of the masses and one of the principal slogans of the Revolution.

Another significant aspect of the nationalization of land and natural resources was that it enabled the state to begin its conservation program and adopt such legislation as the Fundamental Law on Forests, the Law for the Protection of Apiculture and the Law for the Protection of the Natural Heritage, Gardens and Parks.

The program was interrupted in 1918 by foreign intervention and the Civil War. Despite that, the first Soviet nature preserve was set up in the Volga delta in 1919. It is now called the Astrakhan Preserve.

In May 1920 a decree was adopted establishing the Ilmen mineralogical preserve in the Southern Urals.

A number of government decrees provided for the protection and restoration of rare animal species which in the 1920s were on the verge of extinction: the saiga, European bison, beaver, sable, polar bear, among others.

Visitors to the Soviet EXPO-74 pavilion in Spokane may remember the panorama of the Voronezh State Preserve, showing the unpolluted expanses of Central Russia. It was in that preserve, organized in 1923, that beaver and deer got a new lease on life.

After the formation of the USSR in 1922, Lenin's conservation decrees were used as the frame-

work for legislation in the field. At that time, too, the All-Russia Society for the Protection of Nature was organized. It now has 30 million members, who cooperate with official agencies.

## Industrialization and Nature

The conservation movement continued to grow during the period of industrialization in the 1930s. Problems studied included the protection of fish resources, soil fertility and preservation, the creation of sanitary zones around water reservoirs and the prevention of atmospheric pollution. Violations of the conservation laws were penalized. Poachers were taken to court. In 1937 the State Sanitary Inspection agencies were authorized to fine enterprises that polluted water reservoirs. Such government agencies as the Preserve Committee, the State Forest Inspection and the State Mining Inspection were created.

## The Afforestation Drive

The Soviet people suffered enormous losses in World War II. Twenty million people died, thousands of villages and cities were leveled, tens of millions were made homeless, and enormous damage was done to natural areas in the Ukraine, Byelorussia and Russia.

In the years after the war, factories were rebuilt and villages and towns restored. The scorched earth began to recover.

In the late 1940s, it was decided to create networks of forest belts to protect water reservoirs and the soil in the southern European part of the country. The plan called for the planting of trees along riverbanks and ravines, and the construction of

reservoirs. Today hundreds of miles of these wooded belts reduce erosion and retain moisture.

## Environmental Protection and Planning

Important among the legislative acts of recent years are the decrees adopted by the USSR Supreme Soviet in 1972. While considering a wide range of conservation questions, the country's highest legislative body emphasized individual responsibility for protecting the environment. Specific measures for conservation and use of natural resources were worked out in late 1972 by the Central Committee of the Communist Party of the Soviet Union and the USSR Council of Ministers.

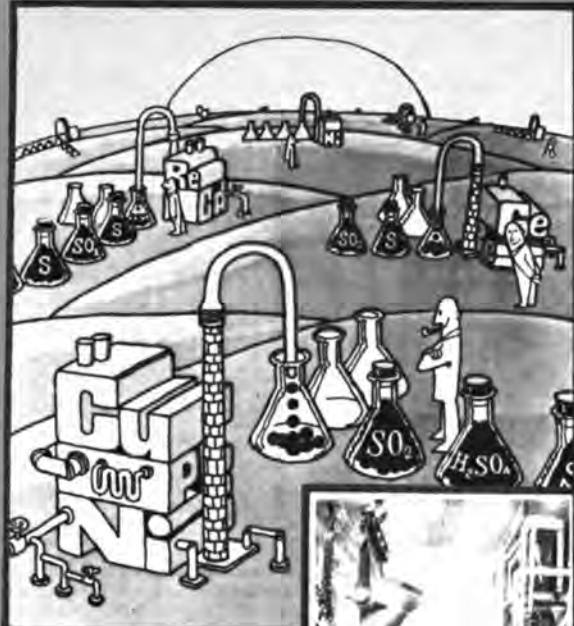
Also important were the following acts: Fundamentals of Land Legislation of the USSR and the Union Republics (1968), Fundamentals of Water Economy Legislation of the USSR and the Union Republics (1970) and Fundamentals of Mineral Resources Legislation of the USSR and the Union Republics (1975).

As of 1974, conservation measures have been included in national economic plans. Large sums are allocated to finance these measures. The Twenty-fifth Congress of the CPSU, held in February-March 1976, cited environmental protection as one of the principal goals of the country's economic development for 1976-1980.

During the current five-year plan period 11 billion rubles have been budgeted for conservation, primarily for the building of gas-cleaning, dust-collecting and water-purification installations.

Large-scale land reclamation will continue, with 41 billion rubles budgeted for the purpose.

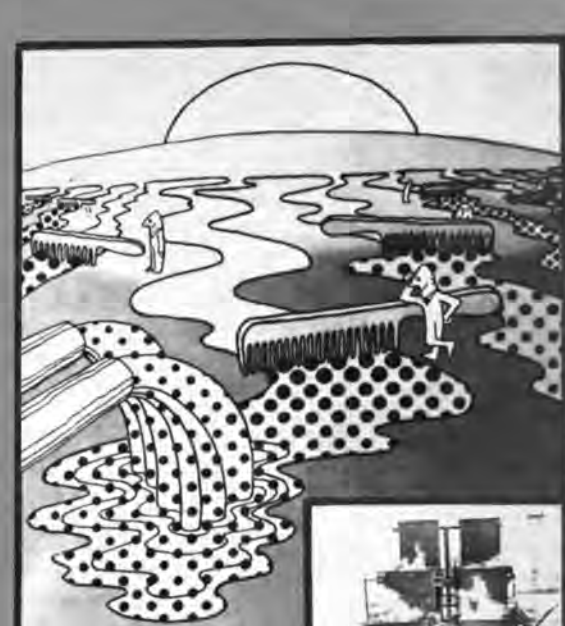




Gas purification is profitable since even the waste can be used.



Dry quenching produces better coke and cheap heat, and is smoke-free.



Waste treatment installations are required for all industrial plants.

## PROTECTING THE ENVIRONMENT: FACTS AND FIGURES

**D**URING the current five-year plan period (1976-1980) the Soviet Union will spend 11 billion rubles on environmental protection. The money will be used to build the necessary engineering facilities and to replenish, establish and maintain, for example, fishing grounds, tree belts, animal preserves.



Laws to safeguard the natural environment were adopted in the very first years of Soviet power. The Fundamental Law on Forests, for instance, was signed in May 1918. It was Lenin who laid down state policy on the rational utilization of nature. Since his time 200 laws have been passed in this area. These decrees spell out concrete economic measures and the legal basis of environmental protection. For example, they deal with the establishment of a number of state preserves and the protection and reproduction of certain rare species of animals.



In the USSR as much as 16 per cent of the total cost of an industrial plant goes for construction of purification installations. During the Ninth Five-Year Plan period (1971-1975), for example, the pulp and paper industry—a major water polluter—spent 300 million rubles to build purification installations. By 1980 every plant in the industry will be equipped with a highly efficient purification system.



The Institute of Biology of the Southern Seas of the Ukrainian Academy of Sciences has developed a hydrobiological method for purifying waters polluted by oil products.

Today, oil is perhaps the most dangerous threat to the ocean. Carried many thousands of miles from the discharge spot, it accumulates on the ocean bottom and then rises to the surface, killing off plant and animal organisms.

Can this be prevented? "Yes," say Ukrainian scientists. They have isolated a number of microorganisms that decom-

pose and "eat up" oil, learned how they grow and spread, and determined their biochemical character.

The Ministry of the Merchant Marine of the USSR has also established a service to clean up oil spills at sea. The Far Eastern, Azov-Black Sea and Baltic Sea basins now have this protection. The service is equipped to pump oil from shipwrecked vessels and collect oil spills from the ocean surface.

Large sums are spent in the Soviet Union for environmental protection, not only to implement existing legislation but also for research in the field. A good example is the 34.5 million rubles budgeted in the current five-year plan for research projects related to diverting part of the flow of the European North and Siberian rivers to the country's southern areas.



One of the best ways to prevent environmental pollution is to create a closed production cycle in which all wastes are put to use. The number of Soviet plants so organized is increasing every year, and industrial wastes are being turned into new products all the time. Thus, the nitrogenous fertilizer plant in the Siberian city of Kemerovo, thanks to improved technology, extracts more than a million rubles' worth of alcohol, acids and brake fluid from its wastes. The titanium-magnesium combine in Zaporozhye (the Ukraine) modernized its shop—at a cost of seven million rubles—and now makes 700,000 rubles a year by utilizing what were previously waste products. One of the results is factory grounds that have been beautified with poplar walks, lawns and flower beds. The factory shops themselves are also decorated with greenery.



The Soviet Union now has more than a hundred preserves, occupying a total area of about 8 million hectares.\* In the next few years the network of preserves

\* One hectare equals 2.47 acres.

will not only be expanded, but will also be better systematized. These "laboratories of living nature" make it possible to save the genetic fund of flora and fauna. Besides, scientists watching natural growth in areas closed to economic use are able to create prototypes and also determine the most effective methods for reproducing biological resources, as well as forecast changes in nature that are the result of a variety of factors.



Garbage disposal, which consumes so much time and labor, is a problem facing the major cities of the world. Leningrad is processing its garbage. In 1970 the first big plant for processing refuse was built outside the city limits. At present, 22 per cent of the city's refuse is coming out of the plant as organic fertilizer, fuel briquettes and chemical by-products. Similar plants are being built in many other Soviet cities.



How can the air in big industrial cities be kept clean? Purification installations do not always solve the problem. That is why we move factories that do the most polluting beyond the city limits. Under the master plan for Moscow's reconstruction, for instance, about 200 industrial and warehouse projects are to be shifted to the suburbs.



In the last decade the Soviet Union has carried on a nationwide land improvement program adopted in 1966. About 6.5 million hectares of irrigated land and over 8 million hectares of reclaimed swampland have been put to farm use. Agricultural output on these lands has doubled. Tangible results have been achieved in combating water and wind erosion.

Today the Soviet Union has more than 25 million hectares of irrigated and swamp-reclaimed land. During the tenth five-year period (1976-1980) another nine million hectares will be added.



**WE** ARE CITIZENS of a small planet, Earth. We must get to know each other better. So the major purpose of this journey was to listen and to learn, to exchange knowledge and experience in the fields of history, education, management, youth programs and the arts through study of the USSR. We were happy to learn from various representatives of Soviet society—from youth, adults, men and women, professionals, artists, educators and various other representatives whom we were happy to meet here." That is what the coordinator of a YMCA tour, Dr. Nicholas T. Goncharoff, Executive Director, International Education and Cultural Affairs, the National Board of YMCA, said at the end of his visit to our country.

A group of 47 Americans, members of the YMCA, made a month's trip this year (from June 2 to July 7) through five of the Soviet republics: Uzbekistan, Georgia, Azerbaijan, the Ukraine and the Russian Federation (including Siberia's industrial centers). "It has all come so fast and been so intense that I am still dizzy," said William E. Schneider, head of the group and Chairman of the National Board of YMCAs of the USA.

The YMCA was assisted in arranging this busy program by the Committee of Youth Organizations of the USSR, the Institute of Soviet-American Relations, the Institute of United States and Canadian Studies and the Soviet Academy of Sciences.

This was not the usual tourist junket. Besides the traditional sightseeing tour, the program was planned to serve special purposes. In Moscow, for example, Alexei Shitikov, Chairman of the

Soviet of the Union, one of the two houses of the USSR Supreme Soviet, explained for the American visitors the structure of the Soviet legislative bodies and the principles of socialist democracy. In Novosibirsk, scientists of the Siberian branch of the Soviet Academy of Sciences acquainted them with the progress of the scientific and technological revolution in the Soviet Union and the contribution of scientists to the development of the country's economy. Staff members of the Limnological Museum in Siberia and of the research center on Lake Baikal described how environmental protection is being handled in the Soviet Union.

This was a first visit for most of the group members, and it helped to set right some of their misconceptions about the country.

John R. Fisher, Deputy Executive Director, Urban Action and Program Division, National Council of YMCAs of the USA, said the group had the opportunity to meet and talk with Soviet people at every level, in both formal and informal meetings. Mr. Fisher was interested, among other things, in the work of municipal authorities. "Some of your municipal administrators have the same problems we do—traffic control, utilities construction and seeing to it that people in urban areas get the kinds of services they need. We talked with some people about juvenile delinquency, and we were told what high schools and the militia are trying to do to stop it. We Americans feel this problem is much more acute in the USA."

Dr. Goncharoff said in this connection, "The streets in your cities are absolutely safe. I speak from my own experience. In Kiev or Tashkent,

Bratsk, Leningrad or Moscow I walked by myself or with a group. I could go anywhere at any time of the day or night. And in Leningrad during those beautiful white nights when half the city was walking, it was a sheer delight."

Dr. Goncharoff brought with him to the Soviet Union his sons, both students—Paul, in college, and Nicko, in junior high. Paul, who is 21, speaks Russian quite fluently and didn't need an interpreter. He said he had learned a great deal about our country, so that he was getting a more accurate picture of it. "I've traveled a lot. To get through college seems to be almost a slogan over here, and the country itself is geared to raising the educational level of the people," he said.

William Schneider talked about what he had found. "My childhood feeling about Siberia was that it was a vast, icy wasteland. Instead of which I find a booming economy, people working hard to develop the resources of the area. I come from a part of the United States, the state of Washington, where we ourselves have big hydroelectric developments. We had much the same problems, and now we are a major timber producer and wheat producer. So I am fully aware of the difficulties involved in recruiting qualified personnel and of the scope of the investments being made. It is an awe-inspiring sight. The scope of the construction and the vision of it for the future are so tremendous that it had the greatest impact on me."

John O. Root, President, Metropolitan YMCA of Chicago, also spoke of the impressive rate of our country's economic development. But he thinks that insufficient utilization of computer technology and management information systems acts as a

## "WE MUST GET TO KNOW

**A group of YMCA leaders recently toured five Soviet republics.**

*Visit to Leningrad.*





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Karl Amelang, investment builder and Chairman of the International Committee of Greater Houston YMCAs, pointed out that even though their program had been thoroughly worked out for the whole tour, the members of the group were given the opportunity to decide what else they wanted to do and where else they wanted to go. As a builder, Mr. Amelang was most interested in housing construction. He commented on the sameness of the new housing communities in some of our cities. "I understand that you need to solve the housing problem fast and you choose the most economical and speedy means. But we in the USA feel at the moment a certain nostalgia for small country-type houses. And for me it's a pity to see you clearing space for big prefabricated buildings. Of course, as a builder myself, I have to recognize that this is the most efficient way to solve the housing problem."

Mr. Amelang is right—industrial methods of construction, with all their standardization, have been a great help to us. That is their advantage. As for the sameness, our architects are successfully beginning to combine standardized designs with variety of architecture and a harmonious blending into the landscape.

The Americans were much interested in the life of people in the Soviet republics they visited. "We certainly knew that there are many national republics making up the Soviet Union," said William Schneider, "but I was a little surprised to see a

different flavor in each part of the USSR, a different type of people, one national aspect and background predominating in one part of the USSR and then something entirely different in another. And I am awfully happy to see that you maintain your historical landmarks. I thoroughly approve of this. You are doing an excellent job."

For Catherine Rowe, a professional singer and artist-in-residence at Sarah Lawrence College in New York, the wealth of music, reflecting the diverse traditions of our union republics, was a revelation. "I am taking back many recordings from everywhere. All this wonderful variety of fine music that you have in every one of your republics is absolutely unknown to us."

Dr. Marcia Brown Hall, President of the American Association for Art Historians, who teaches the history of art at Temple University in Philadelphia, said: "What I have found very exciting are the restored monuments of the past that we have seen everywhere. The love and attention and the expenditure of money must be very gratifying. Your Ministry of Culture is to be commended for this kind of attention to these great monuments of the past."

Communication between generations has always been a problem in every country and every society. Naturally, the Americans were interested to know how it was being tackled in the Soviet Union. John Root had paid his first visit to the USSR in 1962. "I was then already most favorably impressed with the strong emphasis that you were placing on youth—youth education and youth training and the role of youth in the leadership of your country. I am very pleased to see that this

continues. You have expanded even beyond what you were doing in 1962 in your over-all approach to youth, to education and educational opportunities and involvement of youth in your economic development."

"Your youth programs are excellent," William Schneider added. "Children seem to thoroughly enjoy what they are doing. The Komsomol program is undoubtedly quite important. In general, your young people seem to be happy. They seem to be very much concerned with the future, not only with the future of the USSR, but also with the future of the world. That speaks for itself."

The American visitors said that each of them received sufficient information in their own specific fields. But all of them were interested in what the Soviet people are like, and remarked on their similarity to Americans.

"The first thing I noticed," Dr. Hall commented, "was that your people are very warm, very straightforward, very outgoing, very sincere and very open. And this is just what is always said of Americans. That's another proof of our similarity. We have been deeply impressed by the friendliness, warmth, exuberance, the outgoingness of the Russian people, and I think there is a quality there which we share and which makes us very compatible."

"People," Schneider said, as the group left for home, "don't have to have the same political beliefs, the same ideologies. They can have completely different ones. But they can and they must learn to live together in peace. And I was a witness to what there seems to be here—a very, very strong commitment to peace in the world."

## EACH OTHER BETTER"

By Lyudmila Yenyutina  
Photograph by Vladimir Tselik





# VICTOR POPKOV, ARTIST

By Oleg Butkevich

The work of this twentieth century artist reflects a number of influences while maintaining strong individuality.

FOR MORE THAN A DECADE, the paintings of Victor Popkov (1932-1974) have captivated visitors at exhibitions all over the USSR. They are known in other countries as well. Many have hung in international shows, and his canvases *The Two*, *The Team Rests* and *Midday* were awarded honorary diplomas at the biennial of young artists in Paris in 1967.

But it took a show devoted exclusively to Popkov to make us realize the extent of his contribution to Soviet pictorial art. Such an exhibit is always a test of talent. It reveals the true measure of an artist's gifts. Victor Popkov's posthumous show helped to determine his place among his contemporaries. It seemed the artist was still alive, the paint hardly dry on the canvas.

The exhibit begins with *The Builders of Bratsk*, the picture that brought him to public attention. Executed in 1961, it reflects the traditions of our leading painters who made a name for themselves in the late fifties and early sixties. The painting shows the people whose hands built this great project. They stand in the searchlight's beam against the night sky and the river they conquered, personifications of the heroism and romanticism of creative labor. With this very first work the young artist joined the more realistic school which characterized some of the searching in art of the early sixties. Popkov's picture is very natural; it has neither the hard lines nor the oversimplified schematism of many "program" works of the time—the body of work that was the artist's credo—that served as models for imitation in the so-called severe style. His images are full of spirituality, of a restrained inner beauty; there is a winning honesty and lyricism here that nourished his talent and became his hallmark.

The years 1965 and 1966 were milestones in the painter's career. The pictures of those years aroused heated discussion among critics and art experts, for these were paintings not only of a talented artist, they were new, with an approach to reality all their own. We may say now that with the pictures *The Team Rests* (1965), *Sleep* (1965), *The Two* (1966), *Reminiscences*, *The Widows* (1966), an artist was born whose every painting aroused expectation and never left the viewers neutral. All had a certain mysterious quality that invariably attracted and disturbed not only the admirers of his work, but those most opposed to it.

And now at the exhibition, the result of truly unselfish labor (one only has to take a look at the thick catalogue to see that is no exaggeration), a retrospective glance at Popkov's works will move people, if not to try and penetrate his mystery (since every visitor will see him differently), at least to ask two questions: What did the artist want to tell us and how well did he succeed?

These questions, which might seem irrelevant in the case of other artists, have special meaning in the study of Popkov's works. When *The Team Rests* was first shown at a Moscow exhibition, I was struck by a strange incongruity—the elaborate treatment of the prosaic subject. The beautiful circular composition, the almost icon-like gold of the background, the insistent, emphatic rhythm appear to be in deliberate contrast to the depiction of everyday working lives, a subject much in vogue at the time. Still the picture was undoubtedly attractive and had a special authenticity.

The profound humanism of Popkov's talent manifested itself with particular force in the triptych called *Mezensky Widows*, dedicated to the tragic fate of thousands of women whose husbands and children fell in the battlefields of the Great Patriotic War. The inconsolable grief only emphasizes the strength of the people's soul, as beautiful as the northern night in *Northern Song* (1969). The painter pursues a similar theme in his last work, *Grandma Anisya Was a Kind Soul*.

It is the assertion of the moral value in the simplest things and in life's most tragic events that is the core of Popkov's work. The artistic conflict that invariably results from this statement reveals in its own way the real conflict of the transitory and the eternal, and this is what makes Popkov's work so poignant.

Highly receptive to all the trends of the time, he was sensitive to many influences and enthusiasms. I even feel that he did not always clearly comprehend what he was asserting at a given moment. But I repeat that his humanism and talent, his innate propensity for what is real, his purity and love for humanity gave his work the moral significance that permeates this exhibition. The duality of artistic outlook, when the inner harmony of his soul broke through the exterior irony, which at times turned to the grotesque and even to fury, had to trouble Popkov. In several of the exhibited works the painter seems to be trying hard to overcome this duality, for example in the self-portrait *Work Is Over* (1972) and *Autumn Rains* (1974), from the Pushkin cycle. The latter is, perhaps, Popkov's best painting.

Among his works that were awarded the USSR State Prize for 1975 I must mention *Father's Greatcoat*. It shows the artist wearing the greatcoat of his father, who was killed in the war. In front of him lies his palette of different-colored paints, and the characters of the *Mezensky Widows* stand around him, telling him something. We may interpret the picture in different ways, but I feel the painter could have called it *My Duties*, that is, his duty to his father, to his people and to art.

Courtesy of Sovetskaya Kultura





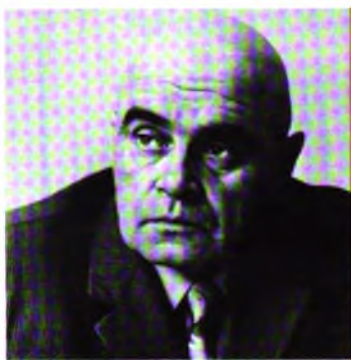




Below  
of







By Yuri Feofanov

# ROBINSON CRUSOE AND THE LAW

**T**HE LAW, almost by definition, rejects extremes. While protecting individual freedom, the right to live according to one's tastes and inclinations, it sets certain limitations, and is justified in doing so. Holbach said that the law is an expression of social reason which counters the unreasonableness of the individual.

His reference was to those individuals of all times and countries whose behavior, captivating though it may have been, could hardly be called reasonable.

Recall Alexandre Dumas' famous musketeers, who whipped out their swords or pistols at the slightest provocation.

It took lawmakers much time and energy to spread the idea that murder is always murder, whether it is committed from around a corner or in a duel. Centuries passed before people created more or less reliable legal mechanisms for protecting life, health, honor and dignity, thus relegating swords, rapiers and dueling pistols to museum collections.

Extremes and extravagances may be attractive, but it is better to read about them in novels. Soviet law strictly limits the arbitrary behavior of some individuals: It restricts the "freedom" of those who ignore the freedom of others. Our law proceeds from humanist principles. The Program of the Communist Party of the Soviet Union says: "Communist morality encompasses the fundamental norms of human morality, which the masses of the people evolved in the course of millenniums as they fought against vice and social oppression."

The social morality of socialism and communism is antagonistic by its very nature toward violence, cruelty and discrimination. Child rearing, education, the concepts taught by literature and art, the way of life of millions of families—all are based on respect for human rights and dignity, for the right to live one's life as one chooses, within the framework of the law, of course.

Benjamin Franklin wrote, "Sin is not hurtful because it is forbidden, but it is forbidden because it is hurtful."

In the Soviet Union, for instance, owning a gun without a permit is prohibited. Pornographic films may not be shown on our screens. Prostitution and literature extolling violence are banned. Nor do we intend to discontinue any of these legal prohibitions. Far from considering our laws too puritanical, we are proud that they are aimed at protecting people's health and morals, that they provide stability and discourage wrong behavior.

We might note that the laws of every country set forth prohibitions and limitations. The International Covenant on Civil and Political Rights provides for restrictions on the exercise of rights "to protect national security, public order, public health or morals. . . ." The USSR ratified this covenant in 1973, and Soviet legislation lists a number of limitations on personal rights, which are necessary to prevent infringement of accepted standards of public order, public health or morals.

Not long ago I spoke to a young man by the name of Victor Cheremnykh. He had just been released from a penal colony after serving a term of two years for inflicting bodily injuries. Though only 22 years old, Cheremnykh had gone through a course of treatment for alcoholics.

He no longer drinks. The militia helped him get a job in a garage, and in the past two years he has become a good mechanic. But what about his first 20 years? Or, more particularly, the five years before he was sentenced? In those years he did little besides drinking.

"Why?" I asked him. "Did you have problems?"

"No." Cheremnykh shrugged his shoulders. "It was my uncle."

"What was his offense?"

"Nothing. He's still writing to all the authorities that he's innocent. He wrote me, too, saying that if it weren't for me . . . that it's all my fault."

The uncle's case interested me. Georgi Cheremnykh, 40, a college-educated economist in the retail trade system, went to prison soon after his nephew did. However, he had not been involved in the disastrous fight that earned Victor a term of two years. He was quite respectable, fond of music, good food and the company of young people.

Victor (who was fatherless and had been brought up with two other children by his mother) had always been a welcome guest in his bachelor uncle's home. And his uncle had always treated him to vodka. It began with a thimbleful and grew into a glassful. Nor was he the only one treated. His uncle generously entertained Victor's boy friends, and later his girl friend.

It would seem that all this was nobody else's business. Nevertheless, criminal proceedings were instituted against Georgi Cheremnykh under Article 210 of the Criminal Code of the Russian Federation, for "drawing a minor [in the USSR, a person under 18 years of age] into . . . hard drinking." This crime is punishable by imprisonment for a term of up to five years. The article also lists such offenses as drawing a minor into "criminal activity . . . begging, prostitution, games of chance. . . ." Besides, the Supreme Court of the USSR has included among crimes that may be prosecuted "intentional actions on the part of a grownup aimed at drawing a minor into systematic or inordinate consumption of alcohol, regardless of whether the minor has committed a crime under the influence of alcohol and whether or not he has sustained grave consequences (death, mutilation, etc)." In other words, Soviet law punishes the corruption of a young person with alcohol.

I have noted that we are not preaching puritanism. While Article 228 of the RSFSR Criminal Code calls for a prison term of up to three years or a fine for "manufacturing, distributing or advertising pornographic books, periodicals, pictures or other objects of a pornographic nature," the law has only one aim—protecting public health and morals, rather than imposing hypocritical restrictions.

Similarly, Soviet law prohibits procurement and the maintenance of gambling houses. Drawing people into games of chance with the intention of deriving illegal income is defined as swindling. A whole chapter of the Criminal Code (six articles) sets forth penalties for crimes that are vestiges of such local customs as giving and receiving marriage payments, forcing a woman to marry or preventing her from marrying, and polygamy. This chapter applies to areas where the crimes listed survive as reminders of local traditions long since relegated to oblivion.

A current issue in many western countries is the unrestricted sale of firearms. In the Soviet Union only people with special functions (the militia, guards and professional hunters, for instance) receive permission to own pistols, carbines and rifles. This category also includes people who have been awarded honorary arms. Those who keep guns without permission, manufacture them privately or sell them can be prosecuted. Article 218 of the RSFSR Criminal Code lists prison terms for this crime.

Buying a hunting rifle in the Soviet Union is a complicated business. First, you must be a member of a hunting club. In order to join, you must pass an examination in the safe handling of a gun, knowing the hunting rules and seasons, and be recommended by two members of the club with good records. When a gun is bought in a store, its number is recorded on the hunting license. If you carry a firearm into a forest and don't have your license with you, you can be arrested for poaching.

The law everywhere limits the freedom of action of individuals who show no concern for the welfare of others. The interests of the majority will always take precedence over the whims of the minority. In fact, the only absolutely free person was Robinson Crusoe on his legendary island. And he was free only till Friday appeared. Friday, the servant, could not help but restrict his master. Sooner or later, a code of laws would have had to be drawn up for the island, and that meant good-bye to limitless freedom.

It has always been difficult for human beings to find forms of social relations where the freedom of the individual and the interests of society balanced each other. Our people traversed a long, hard road of struggle for their rights before their hopes and aspirations were expressed in the form of laws which the overwhelming majority consider just—because they prohibit violence, discrimination and unethical conduct.



By Lyubov Ivanova  
Photographs by Vladimir Vyatkin

# CAN ANIMALS THINK?

By studying  
the processes  
taking place  
in the brain  
of animals,  
we will be able  
to improve  
our understanding  
of the evolution  
of the human mind.



Collage by Igor Nechayev



**T**HE NATURE of the mind, the consciousness of humans and of animals, is much the same. An investigation of the processes taking place in the brain of lower mammals and other animals is a way to improve understanding of the evolution of the human mind.

In the last two or three decades zoologists and ethologists (ethology is the study of the behavior of animals in their natural environment) have been conducting a great many experiments on animal intelligence. It has become quite obvious that heredity dictates a particular mode of behavior. But higher mammals add to their hereditary resources by adapting themselves to the environment and altering the environment to meet their needs.

The biology department laboratory at Moscow University is one of the Soviet Union's leading research centers studying elementary rational activity.

Is a dog smarter than a chicken? Certainly! How is it then that the hen is sometimes more resourceful and crafty? And why are some dogs stupid? How do we determine if an animal is really bright or if it is not?

Under the guidance of Professor Leonid Krushinsky, corresponding member of the USSR Academy of Sciences, the laboratory's researchers were able to establish definite criteria with which to answer these questions.

A chance observation gave the professor the idea that animals were capable of extrapolation. Out hunting once, he noticed how a young grouse escaped into a bush right under his pointer's nose. The dog did not rush after the bird but ran around the bush and pointed again. It was obviously able to guess the direction the bird would take. The pointer's ability to ascertain the trajectory of movement from the initial motion was what gave the scientist the idea of a quantitative appraisal of rational behavior.

When I visited the laboratory, I was somewhat disappointed that the equipment and procedure were so simple. The same experiment was being conducted with all the subjects. A screen with a window opening on two small feeding troughs was placed before them. One trough held a tidbit, the other was empty. The troughs disappeared in opposite directions, and the animal had to choose which side to run to for the tidbit. The experimenters kept changing the direction in which the full trough moved. There was no way of knowing to which side it would disappear, because it was not the point of the experiment to train the animals. The animals had to make complicated choices, surmount obstacles, find their way in confusing mazes. The smart ones found the tidbit quickly, walking around the obstacle on the correct side.

*This dog quickly found its way through an intricate maze to reach a piece of meat.*



*Right: A researcher is clocking the time it takes the rat to find its food.*  
*Below: In the experiment worms are moved from one cup to the next, in sequence. Because of this factor of regularity, the crow should realize that it does not have to check each cup every time.*

The experiment was simple, but it revealed differences in the animals' ability to extrapolate. Dolphins, monkeys, red foxes and dogs proved to be the most quick-witted. Crows, magpies and rooks were not as smart. The terrapins confirmed their reputation for intelligence. They almost always found the morsel after just a little practice, no matter how complicated the situation.

But animals find it tiring to use their brains. Dogs become indifferent or aggressive. Crows get frightened and sometimes even fall ill as a result of excessive mental effort. In their natural environment animals do not have to keep solving difficult logical problems. And if an animal does well too often in situations too

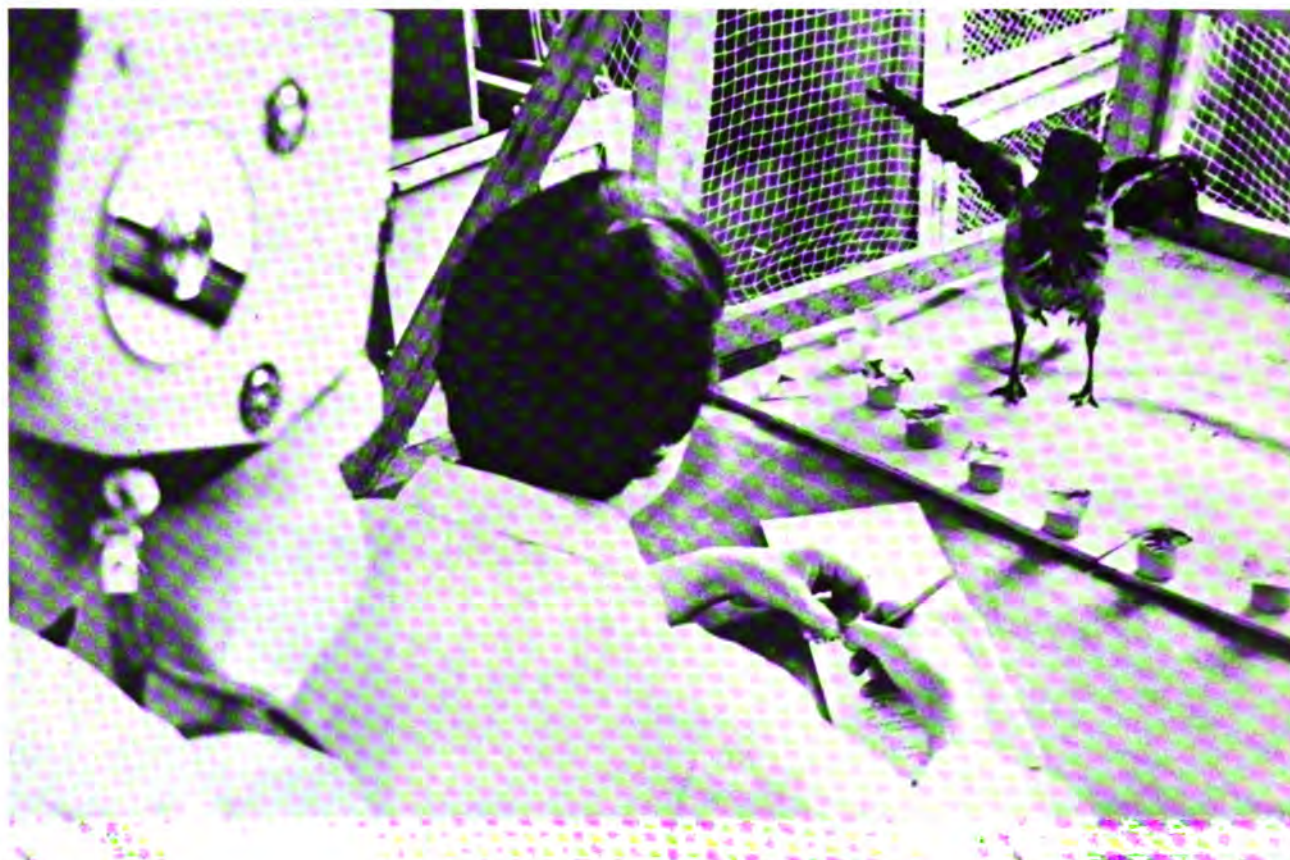
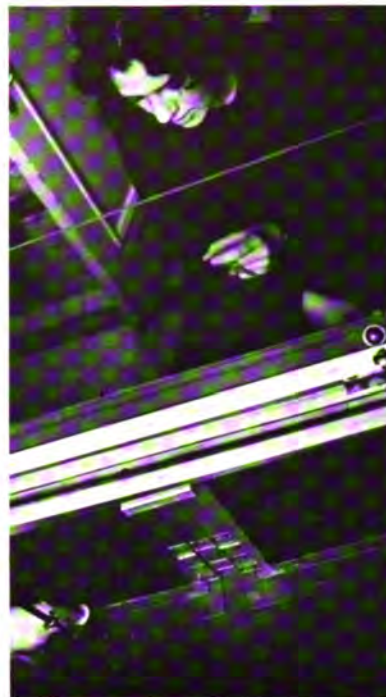
difficult for it, neuroses may develop.

Another test of the animals' intellectual potential sought to determine whether they were capable of differentiating a flat object from a three-dimensional one. Marmosets had no trouble finding a peach in a cube or a pyramid. They paid no attention to the projections of squares and triangles. Dolphins also almost always chose the object in which a ball was hidden. Dogs and wolves, however, were able to find a chunk of meat in a three-dimensional container only after a certain amount of training.

Over millions of years of evolution the brains of animals have not only become larger, but the network of contacts between nerve cells has become much more complex. The greater the number of nerve cells in the brain and the more diverse the system of contacts between them, the greater the animal's reasoning power. Pigeons, for example, have much fewer interacting neurons than crows, and the nerve cells of crows also connect more intricately. That's why crows are much smarter than pigeons.

What exactly is the purpose of such a large number of nerve cells? Every group of nerve cells has a function of its own. An abundance of specialized cells enables the animals to react to different stimuli or, to put it another way, to reason. And certain combinations can be built up out of the large number of nerve cells to correctly solve some unfamiliar problems.

Emotions can also serve as stimuli in the development of







What is this cat thinking about? Electrodes were implanted in its brain to study conditioned reflexes.

The transmitter attached to the rat's head will show how groups of nerve cells solve logical problems.



reasoning. Electrodes were implanted in the brain of rats which otherwise could not be tempted to work even by a morsel of food. By pressing a pedal, the rats caused a weak electric current to stimulate their pleasure centers. Rats that had experienced these pleasant sensations always preferred them to a tidbit.

Initially, the development of the animal brain was stimulated by the need to adapt to the environment. Gradually relationships between animals in a community began to take shape. Such sophisticated relationships as cooperation, mutual assistance and care for offspring develop in animals with a higher mentality.

Among baboons, for example, not only mothers and other females, but even fathers show an interest in their young. They caress the newborn tenderly and,

when the little one grows up, stay friendly. As a result, both mother and children are better protected against predators.

I watched an experiment based on the ability of animals to understand one another. Two crows were placed in an opaque cage (to eliminate distractions) in which worms were lying on two disks. But the crows could get at the worms only by simultaneously pressing on pedals. If one wanted a worm, the other, as a rule, would cooperate. And if it did not, its partner would reprimand it severely.

"It's quite natural to assume," Professor Krushinsky explained, "that the brain of mammals, like that of humans, has great potential and is capable of perceiving new phenomena. Consider these experiments with three-dimensional bodies. In their daily liv-

ing dolphins rarely need to manipulate three-dimensional objects, yet their brain was capable of handling formerly unknown concepts. But dogs, faced with three-dimensional things all the time, they eat out of bowls, live in kennels, gnaw bones, were nevertheless unable to grasp the difference.

"The evolution of the brain proceeds simultaneously in two directions. The first involves adaptation to the environment, to constant irritants, with the help of conditioned reflexes. The second involves a general sophistication of the brain's structure, which provides a basis with which to solve future problems.

"Conditioned reflexes do not always give the best possible results. A conditioned reflex reaction has to be taught, after all, and any kind of training results

in errors. Some may prove fatal. In some cases multiplicity of offspring ensures the perpetuation of a species. Fish, which spawn tens of thousands of eggs, have a biological right to make any number of fatal errors: Two descendants of each pair of parents is quite enough for the species to flourish. But far from all animals have such numerous offspring. In the case of species that could not afford the luxury of error, our ancestors included, a brain with the remarkable ability to grasp the laws governing the environment developed in the process of evolution. But intellectual ability, the power of reasoning, in animals serves only as a means of adapting to surrounding conditions and does not have creative, constructive capacities as in the case of human beings."

Who's winning?





**QUESTION: I would like to know more about present horse breeding, the kinds of horses bred and their use, and horse sports. (L. Michalus, Redwood City, California)**

**ANSWER:** On Wednesdays, Fridays and Sundays thousands of racing fans go to the Moscow Hippodrome. They place their bets and enjoy the festive atmosphere.

There are about 70 racetracks in the Soviet Union, but the leading one is in Moscow. It was set up at the end of the nineteenth century. More than a thousand trotters and purebred saddle horses are tested, and international races and races for the traditional prizes are held.

The Soviet Union has nearly eight million horses. Only the best of them, of course, are selected for the track. Most of the animals are used in farming or to provide kumiss and meat, popular in Kazakhstan, Central Asia and beyond the Volga River.

Forty different breeds of horses are raised at the more than 100 stud farms in the country. Besides the generally known breeds, we have many of our own. Some of them are very ancient. The Akhal-tekkin, for example, in Turkmenia (first century A.D.), is still considered the best in Central Asia. The Karabakhs of Azerbaijan, the Lokaitsy of Tajikistan, the Karabayirs of Uzbekistan, and the excellent Jabe of Kazakhstan have long been treasured.

During the last half-century 10 new breeds have appeared, the Budyonnov, Tersk, Kustanai, Vladimir and Russian trotter, among them.

The horses are kept at the stud farms for two years, after which they are raised and trained at racetracks, special equestrian sports schools (of which there are nearly 70) and sports sections (about 100). By the way, nearly 40,000 people in our country go in for riding.

In the last several years Soviet jockeys and drivers have competed in 775 contests in different countries. They won 389 first prizes and 774 other prizes.

We sell quite a number of horses abroad. Budyonnov, Don, trotters and several other breeds are in demand on the international market. Our first international horse auction was held in Moscow in 1965. It was a big success and is now held annually on September 15, as a rule at the USSR Exhibition of Economic Achievements in Moscow. The highest price thus far was paid for the mare Zadruga, sired by the famed Gay Warrior: 14,600 dollars.

Russians have improved and developed new breeds. Their particular pride is the Orlov trotter. It dates from the mid-seventies of the eighteenth century. The Russian fleet commander Count Alexis Orlov annihilated the Turkish Navy at Chesme, and after the peace treaty was signed, the Turkish sultan presented him with rich gifts, including Eastern horses. The Count himself brought back 30 colts from Arabia. Among them was a silvery-white horse named Arab Smetanka. It cost 60,000 rubles,

a colossal sum for those times. While the other horses were brought to Russia by ship, Smetanka was taken to Moscow by a land route under convoy through Turkey, Hungary and Poland. The trip took two years.

It was by crossing Smetanka's progeny with Danish and Dutch breeds that the now famed Orlov trotter was obtained, a horse that is equally fine in harness and for sports and irreplaceable as a shaft-horse in the Russian troika.

Equestrian contests in our multinational state are bound up with local traditions. For instance, in the Don and Kuban areas, Kazakhstan and the Central Asian republics flat races (without obstacles) at distances ranging from one to 25 kilometers are popular.

The big attraction in Georgia is the Khevsur mountain races. The starting point is at the top of a hill, the finish line at the bottom. The route runs down a steep slope; the riders cover it on the gallop bareback.

Such folk equestrian games as *tskhenburti*, a ball contest, and *kyz-kuu* (Catch the Girl) are popular in both the Caucasus and Central Asia. In the Russian Federation troika races and storming snow forts on horseback are on the program of many folk festivals.

**QUESTION: We are interested in the early Slavic settlements in Russia. (C. R. Shoemaker, Philadelphia, Pennsylvania)**

**ANSWER:** The word Slavs was first used about 1,500 years ago. However, almost 2,000 years ago the Greeks and Romans knew that many tribes of Venedae or Venedi (called Wends by the Germans in the Middle Ages) lived in eastern Europe between the Carpathian Mountains and the Baltic Sea. These were the ancestors of the present-day Slavic peoples and the descendants of the tribes that lived on that territory in the Stone and the Bronze Ages.

At the dawn of our era Europe witnessed the migration of nations that fought against the Roman Empire. The Slavs, at that time, occupied the territory along the Odra (Oder River) and the Labe (Elbe River) and became the ancestors of the west Slavic peoples—the Czechs, Poles and Slovaks. Some of the tribes migrated South, to the Balkans. The southern Slavs—the Bulgarians and the peoples of Yugoslavia—are their descendants.

The ancestors of the peoples inhabiting our country—the Russians, Ukrainians and Byelorussians—lived in the forests between the Dniester and the Dnieper rivers in ancient times. Then they started to push north along the Dnieper.

By the beginning of our era, the Slavs had penetrated to the upper reaches of the Dnieper, where tribes related to the present Lithuanians and Latvians dwelt. Further north, the Slavs populated regions that were here and there settled by Finno-Ugric tribes related to the present-day Mari, Mordvinians and also Finns, Karelians and Estonians.

Centuries later the indigenous population assimilated with the newcomers and adopted their language and culture. In different regions the eastern Slavic tribes were called by different names that have come down to us in the Russian chronicles. In the eighth and ninth centuries the present European part of the Soviet Union was inhabited by the Krivichi, Radimichi, Dregovichi, Severyane, Volyanyane, Drevlyane, Polyane, Ulich and a great number of other east Slavic tribes.

The high banks of rivers and lakes have to this day preserved traces of early Slavic settlements that are now being studied by archeologists. The Slavs used to erect earth ramparts, dig deep moats and build high wooden fences around their settlements. The ruins of these miniature fortresses are called *gorodishche* (site of ancient settlement). The dwellings were built like dugouts with stone or adobe stoves. Usually the inhabitants of a settlement were all related and had a communal economy.

Their main occupation was farming. The original calendar of the early Slavs, which corresponds strictly to the agricultural cycle, bears this out.

The early Slav farmers worked hard. To prepare the land for sowing, they first had to clear the trees. The winter month that was used for felling trees was called *sechen* (from the word *sech*, which means "to cut"). Then the timber was dried and burned. The seeds were sown right into the ash, which was loosened slightly with a wooden plow. Millet was what the Slavs grew mostly. They also grew rye, wheat and barley. The month of the harvest was called *serpen* (from the word *serp*, which means "sickle"). Some of these ancient Slavic names of the months are used to this day in the Ukrainian language.

The Slavs did not only till the land, they also raised cattle, hunted, fished and collected the honey of wild bees.

They smelted iron in clay furnaces or pits. They made wide use of wooden plates and dishes and household utensils of birch bark and bast. Bast was also used to make *lapti* (a kind of footwear) which, by the way, remained the Russian peasantry's main footwear until the beginning of the present century. Today, miniature *lapti* are popular souvenirs.

The Slavs were constantly fighting off plundering nomad tribes that inhabited the Black Sea steppelands. Their most dangerous enemy was the Khazars, who had founded a large state in the lower reaches of the Volga and Don in the seventh century. In those times the eastern Slavs came to be called the Rus or Ros. It is believed that was the name of one of the tribes living on the border with Khazaria, between the Dnieper and the Don. That is how the words *Rossiya* (Russia) and *Russkiye* (the Russians) originated.

Much still remains to be clarified about the history of the Slavic tribes, and new archeological excavations will undoubtedly make many interesting finds.

## QUERIES FROM READERS





## Around the Country



### GRAPEVINE FESTIVAL

When the grapes are gathered, the traditional grapevine festival begins in the villages of the Georgian Soviet Socialist Republic, one of the USSR's 15 union republics. Mummers wearing masks fill the streets, calling at houses, praising the wine and dancing.

The most able and agile test their strength in national wrestling. Colorful fairs are held where you can buy traditional wares of local artisans: chased metal articles, earthenware and much else.

In the houses the tables are set festively, each graced with tall willow wicker baskets filled with peaches, grapes and apples.

### WINGED CROP-SAVERS

One of the state farms located on the slopes of Zailiysky Ala-Tau, Kazakhstan, breeds tiny insects, of the genus *Trichogramma*, which are formidable enemies of apple worms. The insects develop inside the eggs of apple worms and other pests. Assisted by a preparation called entobacterine, they can save an entire crop. Entobacterine has selective action, it kills caterpillars, but it is absolutely harmless to bees and other insects, to human beings and animals.

The technology of growing winged crop-savers is simple. The farm breeds grain moths and infects their eggs with the *Tricho-*

gramma. The eggs are kept in cold storage and when the apple worms become active, paper cards with the biological bombs glued to them are strung to the branches. As soon as the insects emerge, these orchard scavengers immediately start their search for apple worms.

### FACTORY RUN BY ONE WORKER

An unusual cement factory in Lvov, the Ukraine, is run by one operator. All processes are automated:

Concrete mixes are coded by grades in a special device. To get the quantity of concrete in the grade needed, the truck driver drops a token with the necessary code into the device. With the concrete comes a record of the composition of the mix and the quantity.

### EDELWEISS DESCENDS THE MOUNTAIN

The edelweiss brings happiness, they say in the Carpathians, in the western part of the Ukraine. Since ancient times it has been considered a symbol of love and courage, because trying to find it is often so hazardous. The rare silvery flower grows high in the mountains, where paths are blocked by steep rocks and waterfalls. Many *gutsuls* (Carpathian mountaineers) have only heard of the edelweiss, they have never seen it.

Yuri Bobersky, a candidate of science in agriculture, got hold of some seeds and for several years has been growing edelweiss in a nursery at the foot of the mountains.

Now these beautiful flowers (entered, incidentally, in the Red Book of the International Union

for the Conservation of Nature and Natural Resources) can be found in the flower shops of Carpathian tourist camps and health resorts.



### SCYTHIAN GOLD

The Scythians, tribes inhabiting the Black Sea steppes several millennia ago, were considered a riddle for a long time. The only

description of their life and customs was left by Herodotus, the ancient Greek historian. Archeologists were able to learn more about the Scythians when they began to excavate mounds found in large numbers in the southern part of the Ukraine and in Russia. These mounds turned out to be the ancient burial sites of the Scythians. Believers in an after-life, the Scythians provided the dead with everything they thought would be useful: weapons, vessels, jewelry and clothing.

Dozens of such mounds have already revealed their secrets. The decorative items—a breastplate depicting scenes from Scythian life, a comb with figurines of warriors—testify to the high standards of craftsmanship of the ancient inhabitants of the Black Sea steppes.

The unique finds were much admired when shown in the USA and France.



### FOREST GROWS BY THE COMPASS

The wind and birds help to distribute seeds. But is it important how they enter the soil? Apparently it is, so if you want to grow a good forest, you must see to it that the seeds are arranged in a definite way.

Staff members of the Kamchatka forest experimental station (Far Northeast of the USSR) have sown larch and pine, not in the usual parallel rows, but along eight radial rays pointing in different directions of the compass.

When the shoots appeared, it was obvious that the larch preferred east, southeast and south, and the pine east and west. But the best growing trees the second summer were those oriented on the eastern quadrant of the magnetic fan.

These findings will help in developing a unit for the oriented planting of seeds.

### MUSEUM OF FOLK LIFE

In a wooded area south of Kiev, the Ukrainian capital, you will find a unique town. It consists of buildings brought there from all over the republic. The homes and farm structures of various periods, complete with household articles and tools, form the collection of the Museum of Folk Architecture and Life of the Ukraine.

A farmhouse and granary were

brought from the village of Lubyanka in Voroshilovgrad Region, and a smithy from Zalyutye, Volyn Region. All told, the display includes 400,000 rural buildings and 30,000 other exhibits.

### EARTHQUAKE LIBRARY

If you want to know what is happening in the Earth's interior, ask Karine Ambartsumyan. Her job is unusual: She is chief custodian of the central archives of the Leninakan seismic station in Armenia.

Some 70,000 data cards are on file at the station. They comprise an "earthquake library" whose subscribers include institutes and design agencies in Armenia, Georgia, Azerbaijan and the Northern Caucasus, areas where underground tremors are common.

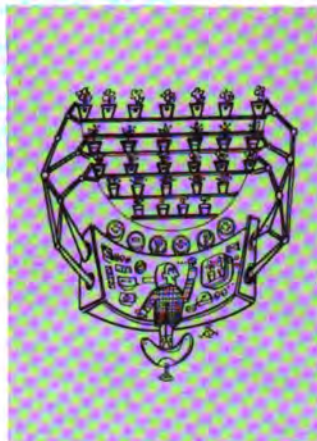
It takes seconds to process information on Earth vibrations. A



hat there are about people in our country, more than 80 years old, the number of people is growing, not only in the Caucasus, but in Italy and the Baltic states. Ukraine has some people who are past the normal figure is more

## STIMULATOR

at the Alexander Institute of Surgery have designed an arrhythmia stimulator, a device that imitates the heart after clinical tests. The new instrument is based on those now in use. The advantage of it can regulate the frequency of heart rhythm. The advantage is that it restores the normal functioning of the heart.



## MULTISTORY HOthouse

An unusual hothouse has been built at the Malpils State Farm in Latvia. It is more than 20 meters tall. The multistory glass tower lined with hundreds of shelves can house some 20,000 pots of cucumber, tomato and flower seedlings.

Workers do not have to climb stairs to look after the plants. They simply push a button on the control panel, and the conveyors to which the shelves are attached start operating. Downstairs the plants are immersed in a nutritive solution, at the required depth and for a prescribed period, and then smoothly lifted to their places again.

## DOES 15-DAY JOB IN ONE HOUR

For the first time in our country M-18 helicopters have been used for the installation of high-voltage power transmission lines and to unwind wire. It was done in the northern part of Tyumen Region, Western Siberia.

A helicopter unwinds a reel with wire rope from support to support in one hour and twenty minutes. A ground team of six

men takes six days to do the job. Laying the wire is done by a helicopter in only an hour; on the ground the job takes 15 days.

## WANT TO BE A SINGER?

Whether you have the talent necessary to be a singer will be determined by a device designed by Anatoli Utkin of the Music Training Institute in Donetsk, the Ukraine.

The device reproduces on a screen the oscillations of the vocal cords, thus making an objective appraisal of the future singer's vocal qualities and also serving as a reliable monitor during instruction.

The new instrument will be useful not only for students and instructors at music institutes, but for medical specialists as well, to make early diagnosis of diseases of the larynx and vocal cords.

s crew soon found him alive, on a tiny raft.

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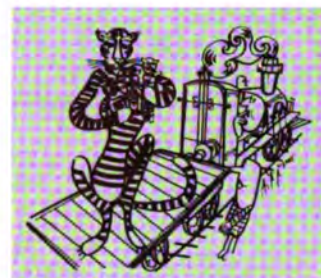
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## Around the Country



### GRAPEVINE FESTIVAL

When the grapes are gathered, the traditional grapevine festival begins in the villages of the Georgian Soviet Socialist Republic, one of the USSR's 15 union republics. Mummers wearing masks fill the streets, calling at houses, praising the wine and dancing.

The most able and agile test their strength in national wrestling. Colorful fairs are held where you can buy traditional wares of local artisans: chased metal articles, earthenware and much else.

In the houses the set festively, each tall willow wicker b with peaches, grapes

### WINGED CROP

One of the state f on the slopes Ala-Tau, Kazakhstan, insects, of the genus ma, which are for emies of apple insects develop inside apple worms and Assisted by a prepa entobacterine, they entire crop. Entob selective action, it pillars, but it is abs less to bees and oth human beings and c

The technology winged crop-savers i farm breeds grain r fects their eggs with

### EDELWEISS DESCENDS THE MOUNTAIN

The edelweiss brings happiness, they say in the Carpathians, in the western part of the Ukraine. Since ancient times it has been considered a symbol of love and courage, because trying to find it is often so hazardous. The rare silvery flower grows high in the mountains, where paths are blocked by steep rocks and waterfalls. Many *gutsuls* (Carpathian mountaineers) have only heard of the edelweiss, they have never seen it.

Yuri Bobersky, a candidate of science in agriculture, got hold of some seeds and for several years has been growing edelweiss in a nursery at the foot of the mountains.

Now these beautiful flowers (entered, incidentally, in the Red Book of the International Union

for the Conservatio and Natural Resour found in the flow Carpathian tourist health resorts.



### SCYTHIAN

The Scythians, trib the Black Sea st millenniums ago, we a riddle for a long t



### FOREST GROWS BY THE COMPASS

The wind and birds help to distribute seeds. But is it important how they enter the soil? Apparently it is, so if you want to grow a good forest, you must see to it that the seeds are arranged in a definite way.

Staff members of the Kamchatka forest experimental station (Far Northeast of the USSR) have sown larch and pine, not in the usual parallel rows, but along eight radial rays pointing in different directions of the compass.

When the shoots ap obvious that the le east, southeast and the pine east and best growing tree: summer were those the eastern quad magnetic fan.

These findings developing a unit for planting of seeds.

### MUSEI OF FOLK

In a wooded area the Ukrainian co find a unique tower buildings brought over the republic and farm structur periods, complete articles and tools, lection of the Mu Architecture and Ukraine.

A farmhouse and



The annual output of the factory is 125,000 cubic meters.



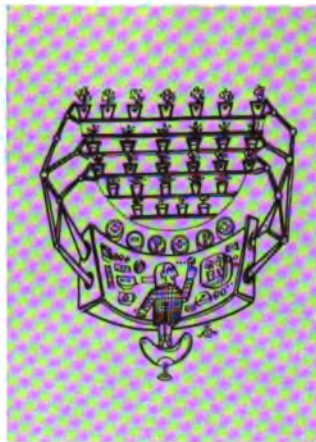
## MORE LONG-LIVED PEOPLE

The Institute of Gerontology of the USSR Academy of Medical Sciences has made a study of age categories.

It indicates that there are about three million people in our country who are more than 80 years old. Significantly, the number of long-lived people is growing, not only in the Caucasus, but in Siberia, the Altai and the Baltic republics. The Ukraine has some 55,000 inhabitants who are past 90; the national figure is more than 300,000.

## HEART STIMULATOR

Researchers at the Alexander Vishnevsky Institute of Surgery, Moscow, have designed an impulse defibrillator, a device that revives the heart after clinical death. The new instrument is an improvement on those now in use because it can regulate the power and frequency of heart impulses. Another advantage is that it can restore the normal rhythm of an ailing heart.



## MULTISTORY HOTHOUSE

An unusual hothouse has been built at the Malpils State Farm in Latvia. It is more than 20 meters tall. The multistory glass tower lined with hundreds of shelves can house some 20,000 pots of cucumber, tomato and flower seedlings.

Workers do not have to climb stairs to look after the plants: They simply push a button on the control panel, and the conveyors to which the shelves are attached start operating. Downstairs the plants are immersed in a nutritive solution, at the required depth and for a prescribed period, and then smoothly lifted to their places again.

## DOES 15-DAY JOB IN ONE HOUR

For the first time in our country M-18 helicopters have been used for the installation of high-voltage power transmission lines and to unwind wire. It was done in the northern part of Tyumen Region, Western Siberia.

A helicopter unwinds a reel with wire rope from support to support in one hour and twenty minutes. A ground team of six

men takes six days to do the job. Laying the wire is done by a helicopter in only an hour; on the ground the job takes 15 days.

## WANT TO BE A SINGER?

Whether you have the talent necessary to be a singer will be determined by a device designed by Anatoli Utkin of the Music Training Institute in Donetsk, the Ukraine.

The device reproduces on a screen the oscillations of the vocal cords, thus making an objective appraisal of the future singers' vocal qualities and also serving as a reliable monitor during instruction.

The new instrument will be useful not only for students and instructors at music institutes, but for medical specialists as well, to make early diagnosis of diseases of the larynx and vocal cords.

## AMERICAN BALLOONIST RESCUED

On June 25 Karl Thomas, a 27-year-old psychologist, took off in a balloon from Lakehurst, New Jersey. It was the thirteenth attempt in the history of aeronautics to cross the Atlantic by balloon. All 12 of the brave men who tried earlier failed to reach their destination.

Thomas hoped to land in the Paris area in four days. After two days communication with him ceased. Dozens of ships and planes of different countries began searching.

In the small hours of July 1, sailors aboard the Soviet cargo ship *Dekabrist*, on its way from the American port of Savannah to Rotterdam, noticed a red rocket—the distress signal.

Despite the squally wind and stormy sea, a boat was lowered

immediately. Its crew soon found Thomas, barely alive, on a tiny rescue raft.

The balloonist said later that on the morning of June 27 he had been caught in a violent storm. His craft began losing altitude. It was six meters from the water when the rescue raft was automatically ejected, and the balloon abruptly shot upward. At an altitude of 60 meters, Thomas got ready to jump. He struck the water heavily. Mustering his last strength, he swam to the raft and struggled onto it. He was bleeding at the mouth.

Thomas had spent almost four days on the stormy Atlantic without food or water, and with sharks frequently approaching his raft.

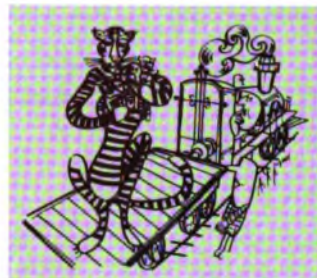
Ship's doctor Trofimov found that the rescued balloonist had 10 broken ribs, wounds in the left shoulder and acute conjunctivitis. There were also some very bad

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magnetic tape is fed into the computer, and the data released can be used in just a few minutes.

## HYDROGEN INSTEAD OF GASOLINE

An unusual Moskvich car (five-seat sedan), the country's first hydrogen-fueled vehicle, has appeared on the streets of Kharkov, one of the largest cities in the Ukraine.

Instead of a gas tank it carries a miniature reaction vessel in which metallic powder acts on water. As a result of the chemical process, hydrogen is released and fed into the engine cylinders together with air.

The engine horsepower and cruising range of the Moskvich car have remained the same, as has the handling of the steering wheel. Only a few more controls have been added to the front panel. The use of hydrogen is

very promising because it provides an inexhaustible supply of fuel. Another important point is that hydrogen, in contrast to gasoline, is not a pollutant. Engines burning it exhaust ordinary water into the environment.



## SEA SCAVENGERS

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water of oil. In spite of its size (about an inch), the mollusk can filter up to 15 liters of water a day in its search for food. Anything it finds that is unsuitable for food it surrounds with slime. That is exactly what happens to oil. These microcapsules are then dropped to the bottom of the sea, where they are biologically degraded into harmless substances.

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**T**HE CHILDREN's Picture Gallery in Yerevan, founded six years ago, has become an art center for the children of Armenia and the rest of the country as well. Since it opened, it has shown tens of thousands of drawings. The best are in the gallery's permanent collection. A file is kept for each young contributor, with notes on the most characteristic and interesting elements of the child's work, and comments and recommendations by specialists.

At times one-person shows are held. The youngest artist to be given such a show was three-year-old Aram Megrabyan (top right). His water colors, (done in light, cheerful tones, are in the permanent collection. In his first interview, the youthful artist said that he had been drawing for a long time. "Six months," explained his parents, both bank clerks.

Pictures from the collection of the Yerevan Children's Gallery are exhibited throughout the country and abroad. They have been shown in the United States, Canada, Italy, France, Sweden and Latin America.



## EXHIBITIONS

**N**OWADAYS, when old lamps have become the fashion, the products of the Bolotino factory, dating back to the turn of the century, are especially popular. Out-

## BOOKS



**P**ROGRESS PUBLISHERS recently issued a book titled *Their Point of View: Young Americans in the USSR*, covering two major USA-USSR youth exchanges of the 1970s. The author and interviewer is Maya Gordeyeva.

The 67 young Americans

she interviewed for *SOVIET LIFE* and for her book—in Minsk, Baku, Moscow and Leningrad—share their views on many issues of the day, comparing what they saw with what they expected to see in the Soviet Union, the world's first socialist country. They also question themselves and try to analyze the misconceptions about the USSR still prevalent in their own country.

Last but not least, the book deals with the young people's appraisal of the great American dream, America's still unsolved problems, and the realization that Soviet and American youth will have one world to live in, provided relaxation of tension is maintained.

**T**HE QUARTET of the Moscow Institute of Foreign Languages is called *Lingua* for tongue. Its members—three young men and a young woman—sing in nine languages. Their repertoire consists of songs of the peoples of Europe, Asia, Africa and Latin America.

The quartet members do not have special musical training, but they perform with a flair that any professional might envy.

*Lingua* was formed in 1972 and that same year was awarded the First Prize at the Festival of Young Songs in Moscow. Since then it has been to Hungary and the German Democratic Republic.

Aside from folk songs, major part of its repertoire consists of political songs. "We aim through the la-

debut

Things cultural



**V**ALENTINA TELICHKINA has appeared in some 20 films during a decade of acting, and she is now famous. The first film that Telichkina starred in, Sergei Gerasimov's *Journalist*, earned her a reputation as a character actress. In another early film, as Natasha in *Autumn Weddings* (directed by Boris Yashin), she proved she was a first-class dramatic actress. The film won the prize for best direction at the Twenty-first International Film Festival in Locarno, Switzerland.

Telichkina came to Moscow 15 years ago from a Volga village and applied at two higher educational institutions—the Shchukin Theater School of the Vakhtangov Theater, and the State Institute of Cinematography. She was accepted by both. "I am sure," said Leonid Gaidai, the well-known comic film director, in whose *Impossible* Telichkina recently starred, "that she can cope equally with comedy, drama and tragedy. Her greatest role is still to come."

## ACTORS AND ROLES



standing examples of these decorative lamps, from the former Bolotino cut glass plant (now the Krasny Mai), are on view in the factory museum.

uage of music to give young people a sense of solidarity and internationalism," says Yuri Zdorovov, the quartet's leader.

## MUSIC



**P**USHKIN WAY is the name tentatively given the museum zone now being designed by a large group of artists and architects in Moscow. It is located in one of the oldest districts of the city—Arbat. There are quite a few buildings of the Pushkin period there, some of which are memorable because great writers like Mikhail Lermontov, Nikolai Gogol and Alexander Herzen lived in them. Others, though not famous, are representative of the period. The staff of the Pushkin Literary Museum, which is housed in a mid-nineteenth century mansion, has been playing an active role in designing the zone.

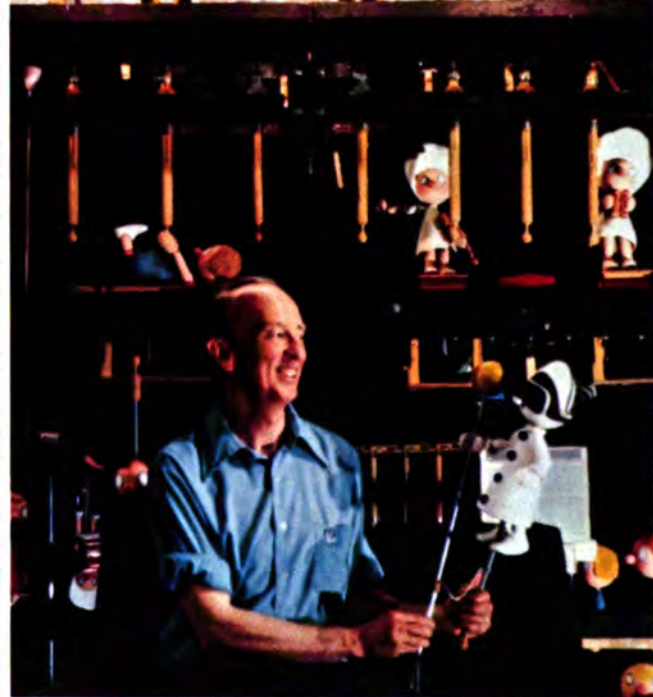
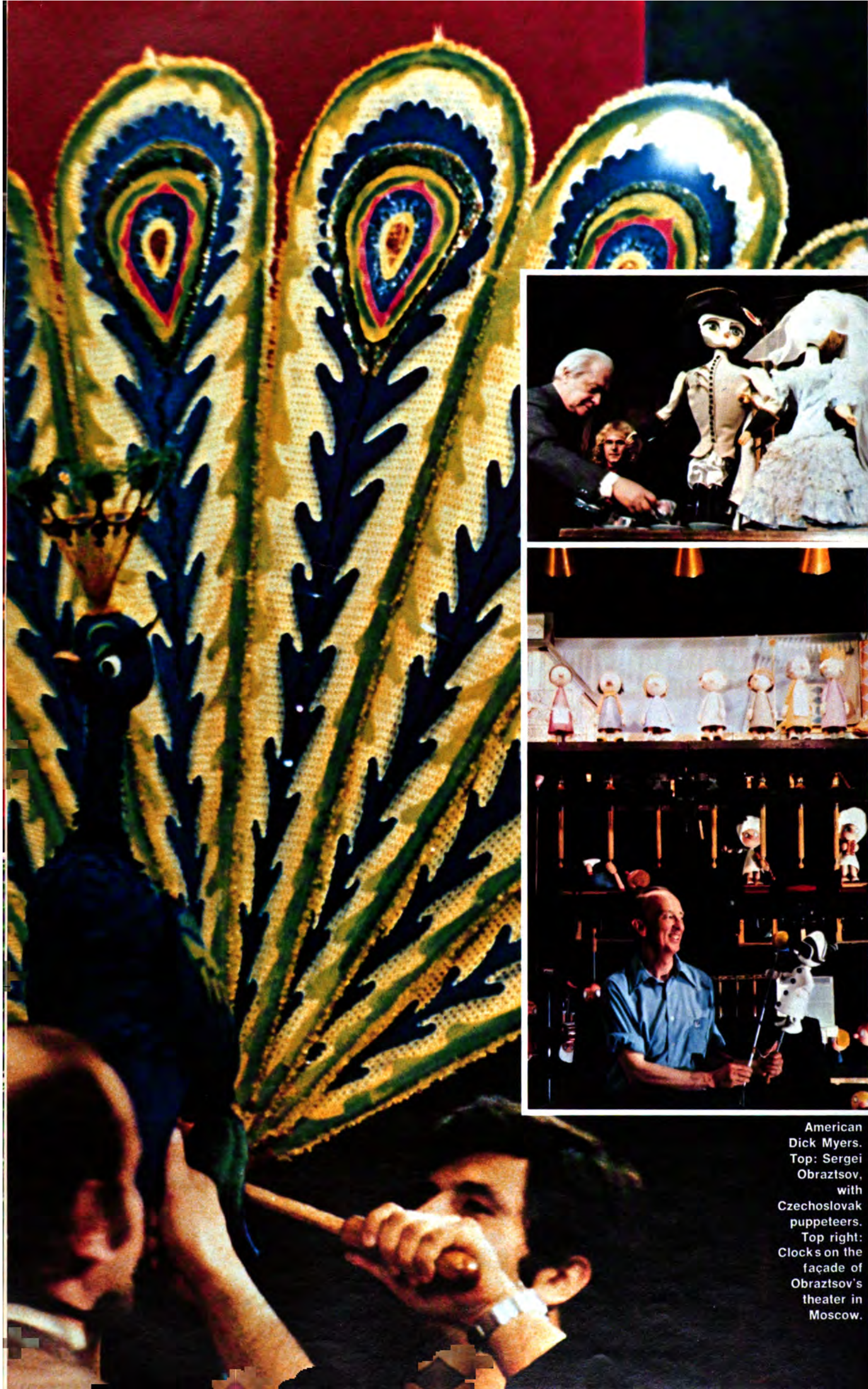
We see Pushkin as more than a great poet. His influence on the development of Russian culture was enormous. In fact, for present-day readers he is so contemporary that you can almost speak of his tangible presence.

The Pushkin Literary Museum held an exposition showing all the houses and lanes enclosed in the museum zone—in drawings, plans and models. The models, two of which are shown here, are so beautifully done in white paper that they resemble porcelain.



## the arts





American  
Dick Myers.  
Top: Sergei  
Obraztsov,  
with  
Czechoslovak  
puppeteers.  
Top right:  
Clocks on the  
façade of  
Obraztsov's  
theater in  
Moscow.

By  
Marina Khachaturova

UNIMA—that strange abbreviation so much like a woman's name—is the acronym for Union Internationale de la Marionnette, or International Union of Puppeteers, founded in 1929. Its activities were interrupted by the war and not resumed until 1950. Now UNIMA's members come from 45 countries on six continents.

UNIMA's charter declares that it "is a voluntary organization of people of the world over concerned with puppet theater who pledge to serve with the art the idea of peace and mutual understanding among people without distinction as to race, political belief or religion." UNIMA holds both home and international festivals, sponsors conferences and exhibitions, and issues its own publications. Once every four years the puppeteers convene at their congress to review what has been done, look at new work, and draw up plans for the future.

This year the Twelfth Congress of UNIMA took place in Moscow. For a whole week, from May 15 to June 6, the event was featured on the radio and television, and in magazines and newspapers. In the streets of the Soviet capital groups of people speaking every language sported the UNIMA emblem—the globe on a puppeteer's stylized finger. Some 500 delegates and guests from different countries attended the congress. The busy program included plenary sessions and section meetings. "The Puppet Theater and Problems of Contemporary Society," "The Puppet Theater in the Third World," "The Younger Generation in the Puppet Theater" were among the topics discussed. Less important were the business exchanges, friendly conversations, creative gatherings, the trading experience.

However, as the saying



# PETROSHKA, PUNCA, POLICHINELLE, AND CO

goes, talk is fine but seeing is better. The highlight of the congress was the International Festival of Puppet Theaters, in which 21 theaters of 15 countries, including Bulgaria, Rumania, the German Democratic Republic, Hungary, Czechoslovakia, the USA, France, the Federal Republic of Germany and Japan, took part. The Soviet Union was represented by seven theaters—from Moscow, Leningrad, Gorky, and the union republics of Armenia, the Ukraine, Kirghizia and Estonia.

Tokyo's Takeda Theater has been performing ever since 1669, while the Youth Puppet Theater of Calcutta was founded only 11 years ago. The actors work with rod puppets, as at the Central Puppet Theater of Moscow, directed by Sergei Obratsov, or with string-operated marionettes, as at puppet theater Drak (Dragon) in East Bohemia. There are shadow-figure theaters, like the one directed by the Australian Richard Bradshaw, and wire-puppet theaters, like that of the French Claude and Colette Monestier, who include the process of making the puppets in the dramatic action. The puppeteers work in big companies of 150, like the Hungarian State Puppet Theater in Budapest, or perform alone, like Dick Myers of New York. They give shows not only for children, but also for grownups and stage the classics—Alexander Pushkin, Rabindranath Tagore, Jaroslav Hašek, Oscar Wilde, Charles de Coster, Pablo Neruda—and works by their national writers.

The repertoires of the puppet theaters differ in genre and theme. Grown-ups, for instance, can view the traditional comedies and satires, as well as philosophical plays, parables, lyrical reflections and romantic plots. Many theaters, though preserving the national traditions of the old puppet shows, are



The Takeda Puppet Theater of Tokyo re-created a Japanese classic.


Right: School for Rabbits by the Bulgarian Puppet Theater.

Petrushka, a Russian folk character.



Photographs by Alexander Lyskov





**"Art is a means  
of education, but its  
purpose is enjoyment."  
—Bertolt Brecht**

constantly searching for new forms of expression and doing interesting experimental work.

The opening of the Twelfth Congress of UNIMA coincided with that red-letter day, June 1, International Children's Day. The puppet theater, whose motto is "Through the hearts of children to the hearts of the peoples," plays a large part in molding the character of future citizens, in shaping their ethical standards. In his report "The Social Significance of the Puppet Theater in the Society of Our Day" Sergei Obraztsov, world-renowned Soviet puppeteer, said that the governments of all countries ought to finance children's puppet theaters just as they do hospitals and schools. The large number of puppet theaters in the Soviet Union and in many socialist countries is due to the fact that they are state-maintained, and the artists are sure of their salaries.

"Is the puppet theater needed?" This is a purely rhetorical question for us. In the Soviet Union, of the 160 children's theaters, 110 are puppet theaters. State support makes it possible to sell tickets at a very low price. More than two-thirds of these theaters are housed in specially equipped buildings and staffed by professional stage directors, designers and actors. It was evident from the shows presented by the puppet theaters of Armenia, Kirghizia, Estonia and the Ukraine that each republic has its national repertoire based on local traditions.

Puppeteers are a clan apart. And no wonder, for in our age of scientific-technical progress it is hardly usual to devote yourself to so strange a genre! That is perhaps why they are such a close-knit family. Like their early predecessors who were wandering actors, many travel, go on tour, exchange experience—actively commune with one another, helped and encouraged as they are by UNIMA.

The puppet theater is thought to be the oldest of the dramatic forms. For many centuries it was a street show, but always highly professional. Among the devotees of the puppet theater were Voltaire, Goethe, George Sand, Maeterlinck and Anatole France. Haydn wrote music for it. In certain periods the puppet theater played a significant role in social affairs, and in others it became almost invisible. In our day and age the world's family of puppeteers hopes that its work will become an integral part of the effort to build a better world.



The puppet theater in Yerevan, capital of the Armenian Republic, takes the audience at the International Festival of Puppet Theaters behind the scenes. The play is the always popular *The Dog and the Cat*.



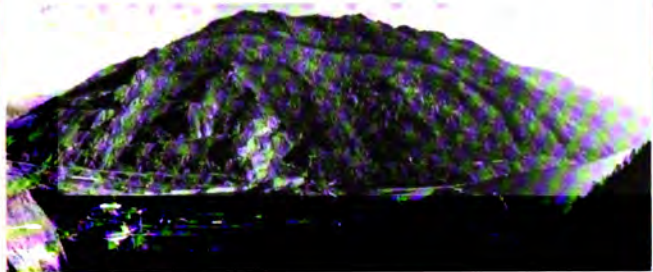


**NEXT  
ISSUE**

## THE REVOLUTION CONTINUES

### Sixtieth Anniversary Next Year

On October 25 (November 7, New Style), 1917, the Great October Socialist Revolution signaled the beginning of a new era for the peoples of Russia. Starting in January, we will mark the sixtieth anniversary of the Revolution with articles and historical documents on how the workers and peasants created the Soviet state.



## SIBERIAN INDUSTRIAL CENTER

### Utilizing a Major River

The Sayan territorial-industrial complex, to include 120 major enterprises, is taking shape on the upper reaches of Siberia's Yenisei River. Travelers along the highway pass blocks of tall apartment buildings interspersed with swamps where mounted shepherds tend their flocks. A December article tells about changes in the area.



## DOING BUSINESS IN MOSCOW

### Caterpillar Co. Representative

Edward and Angela Wright have lived in Moscow for the past two years while he heads an office that sells U.S. farm machinery and pipelaying equipment to the USSR. An illustrated report on two members of the American community.

**COMING SOON**

Kursk Magnetic Anomaly

# THAT SNOWY WEEKEND

Every  
Muscovite  
has  
a winter  
resort  
within a  
half-hour  
train  
ride.

ON WEEKENDS Moscow is noticeably less crowded, even in winter. Thousands of people stream out of the city into the countryside. Many Muscovites head for the woods around the capital, where practically all of them ski, from children to those well on in years.

Not nearly as many people went in for cross-country skiing 20 years ago. Skating was everybody's favorite winter sport then. But with today's back to nature trend, fewer and fewer are inclined to skate. Skiing is something else again; it gives you a chance to really enjoy the great outdoors.

Also, some 10 years ago the Soviet Union shifted to a five-day workweek. That means 104 free days a year, not counting national holidays and annual paid vacation. So now people can shop, go to the theater and ex-



Photographs by Fred Grinberg



hibitions and visit friends on Saturday, and spend all day Sunday in the country.

Cross-country skis are within everybody's reach; they cost a modest 10 to 12 rubles. Downhill skis are more expensive, and they are becoming very popular. But the outskirts of Moscow are fine for those who prefer the more leisurely cross-country variety.

Where to go is no problem. There are suburban trains leaving all nine of Moscow's railway terminals in different directions within minutes of each other. Wooded areas begin immediately beyond the circumferential highway, that is, beyond the official city limits. In 30 minutes you can be in a world of winter beauty. Then you put on your skis and go where your fancy takes you.

There are considerable numbers of ski-hikers who spend all day in the woods. Usually they travel in groups, carry backpacks and even guitars and relax and have fun around campfires during breaks. Some of the more daring ones take off on Saturday with a tent on top of everything else on their backs and spend the night on the snow like Arctic explorers.

Most people, however, like their fresh air combined with basic comforts, such as a place in which to change clothes, have lunch and warm up.

More and more people own

cars, which partly takes care of the problem, but cars also create problems.

So professionals in the field of mass recreation worked out a very serviceable solution: health trains. These trains leave in the morning, take you to some picturesque spot outside the city and bring you back in the evening. The cars are comfortable, just like those on long-distance trains. You can change into ski clothes in your compartment, ski to your heart's content, and then have lunch and rest in the train.

The agency of the City Soviet responsible for tourism and excursions organizes these outings. Tickets for the health trains are distributed by the local trade union organizations at places of work and cost from 1.5 to 2 rubles, including food. Some people buy tickets for their entire family or for their friends.

Often a whole train is chartered by a factory, with the trade union covering most of the cost.

There are several thousand such health trains, and they run out of all the large cities.

These train excursions are not the only way to spend a winter weekend. There are one- and two-day resort hotels open all year. Big industrial plants, offices, colleges and universities also have their own out-of-town recreation centers, sports camps and hotels for fishers and nature lovers.



*There are other ways to enjoy  
a winter afternoon besides skiing.  
Why not try soccer?*







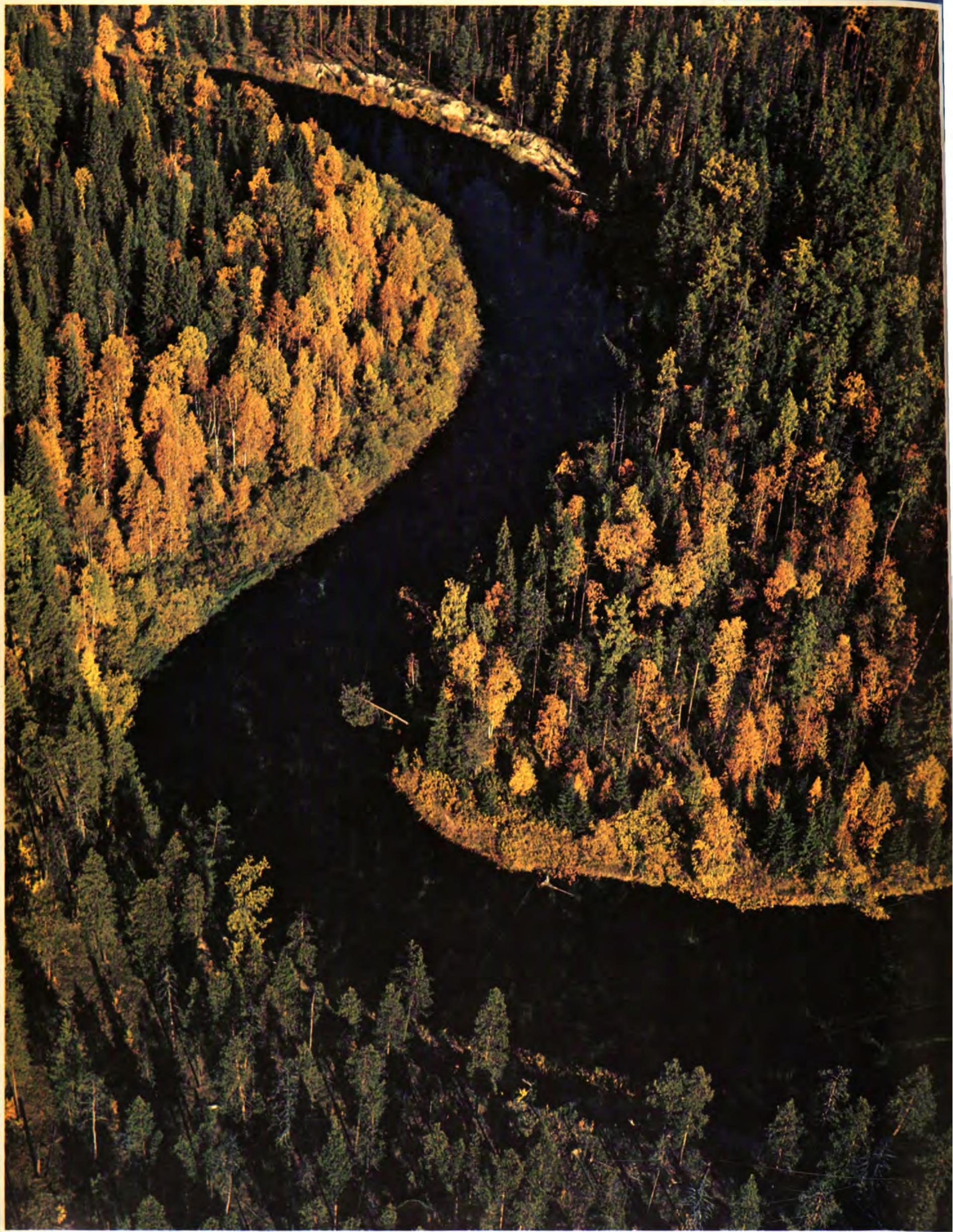
*Although sledding is becoming increasingly popular, this is no way to ensure that the trend continues!  
Below: A little ice and snow won't deter these hardy fishers.*



*Sharing a sunny afternoon and fresh powder with good friends. What more could anyone want?*







# INDIAN SUMMER IN SIBERIA

Photograph by Sergei Lidov,  
*Soviet Union Magazine*



# SOVIET LIFE

## ILLUSTRATED MONTHLY

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