

# SOVIET LIFE

HOW TO LIVE TO BE 100  
THE BATTLE OF KURSK

March 1985 • \$1.25



*The Kara-Kum Desert*



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# SOVIET LIFE

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**Front Cover:** Human stamping on trail in the Kara-Kum Desert. Seven men walked 600 kilometers in the hot Sun. See article and pictures on pages 31-35. Photograph by Vladimir Chistyakov.

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## EDITOR'S NOTES

LET US cherish and love old age, for it is full of pleasure. . . . The best morsel is reserved to the last," said the Roman philosopher Seneca, who lived during the very beginning of our era. Sixteen centuries later the French writer and moralist La Rochefoucauld wrote: "Few people know how to be old."

Several articles in this issue will help show you what the Soviet Union is doing to make the first statement a reality and the second one obsolete. You will learn about a Soviet project to prolong life, in which about 100 research institutes are participating. You will also meet a couple who have just celebrated their fiftieth wedding anniversary. They claim that helping others is in large measure responsible for their fitness and well-being. In addition, you'll read about the passengers of an unusual steamer hired by a pensioners club for the whole summer. You'll find out why a book written by American author Magda Rosenberg is so popular in the Soviet Union. And you'll also learn about the progress made by the participants of the Soviet-American study of long-lived people.

People are living longer. The old traditional type of population reproduction, that is, high birth rate—high mortality, is being replaced by low birth rate—low mortality. This is what we call a demographic revolution. Thus, there are 54 million old-age pensioners in the Soviet Union, which is one-fifth of the country's population. The state's social policy is aimed at

continuous enhancement of their living standards. We have a pension program for all of our citizens. The main task now is to perfect it: to increase pensions, bringing them closer to the level of one's former pay, and to bring down the differences in the size of pensions paid to different categories of people.

At the same time the state stimulates the social activity of retired people. It's up to the individual to decide when he or she should make use of the constitutional right to retire. There's no problem if a person decides to go on working at his or her job after reaching retirement age. And there's every opportunity to transfer to easier work if need be.

Soviet society regards its older generation as its creditors who have made their own contributions to our economic, social and cultural progress and who deserve our care and respect. Sociological research shows that your moral principles seldom change as you grow older. Our priorities are work, usefulness to people and society, awareness of our fulfilled duty, communication, the respect of children, grandchildren and other people. Material well-being, leisure and rest come last. This is the meaning of life of our elderly people.

Ways of thinking about old age have differed in every age, as the sayings of Seneca and La Rochefoucauld illustrate. As for me, I prefer the maxim, "The old pearl-oyster produces a pearl."

Yuri B. Savenkov

## LETTERS TO THE EDITOR

I would like to let you know how much we have enjoyed your magazine. When we were planning our trip to the Soviet Union in February, we decided to subscribe to your publication. We visited your country during the first two weeks in October and were very impressed with all that we saw and the hospitality we were accorded. Now that we have been to the Soviet Union, your magazine is much more meaningful as we can relate to places we have been. We intend to return again for further travels. Thank you.

W. Farrissee  
Bel Air, Maryland

Thank you for your terrific November issue. It arrived just this morning, and believe me when I tell you it isn't easy to leave it before reading it in its entirety in order to get my thanks to you as soon as possible.

The reason for all this unbridled enthusiasm? Your articles concerning trains, stations and related stories—and that beautiful museum picture. As someone who worked a good forty (!) years in various jobs on a railroad, I am tremendously pleased.

Not to digress, but past issues of SOVIET LIFE containing articles relating to World War II, the Great Patriotic War, as you so aptly name it, have been very much appreciated also.

Forgive me for all this "wordiness"—but you can be thankful I'm using some restraint, otherwise you'd be suffering through a further few dozen pages!

Your November article on the cruiser *Aurora* had a special significance to me. On the morning of Saturday, August 18, 1984, at approximately 10:00 A.M., our tour bus was crossing the Lieutenant Shmidt Bridge on the way to the Dostoyevsky Museum. We noticed a Soviet naval band and a large group of people near the bridge and realized a piece of history was about to happen. The driver pulled the bus over, and we stood on the Red Navy Quay as the bridge raised and the *Aurora* was escorted through. The band played the Soviet national anthem.

This witnessing of a historical event was a nice extra touch to an already most interesting tour. I hope to return to Leningrad someday after the *Aurora's* restoration and see this history close up.

Stephen Schechtel  
Portland, Oregon

I want you to know your magazine is splendid and much interest is generated among patients who are also reading it in waiting rooms. It brings back fond memories to us of our marvelous trip a group of some 250 doctors and wives had and our excellent flight from Copenhagen to Moscow on a Soviet airplane—the smoothest takeoff and landing I have ever experienced—and our wonderful and all too brief visit in Moscow and Leningrad.

I cherish the chance to meet such splendid people in a magnificent country.

Thea Blair  
Miami, Florida



### Against Nuclear Catastrophe

□ Academician Yevgeni Chazov, USSR (far left), and Professor Bernard Lown, USA (far right), cochairmen of International Physicians for the Prevention of Nuclear War, held a press conference in Moscow.

They examined the results of the Fourth Congress of the IPPNW held in Helsinki, and spoke of the congress's address to the leaders of the USSR and the USA and of the reply to that address received

from Konstantin Chernenko. This is what the General Secretary of the CPSU Central Committee and President of the Presidium of the USSR Supreme Soviet wrote in his reply:

"The Soviet Union is prepared for the most radical solutions that would help us advance along the roads leading to the termination of the arms race, to the prohibition and, in the long run, to the complete elimination of nuclear weapons."

### A Program For 1985

□ During the last days of November, the deputies to the USSR Supreme Soviet, the country's highest body of state power, gathered for a regular session in Moscow to discuss and endorse the Plan for the Economic and Social Development of the USSR for 1985 and the State Budget.

The targets set in these important documents point to a further advance in our national economy.

The national income to be allocated for consumption and accumulation will increase by 3.5 per cent compared with 1984.

Labor productivity in industry will rise by 3.7 per cent.

Real per capita incomes will



grow by 3.3 per cent and per capita public consumption funds (free medical, educational and cultural services, old-age and disability pensions, day-care centers, and other such benefits) by 3.9 per cent.

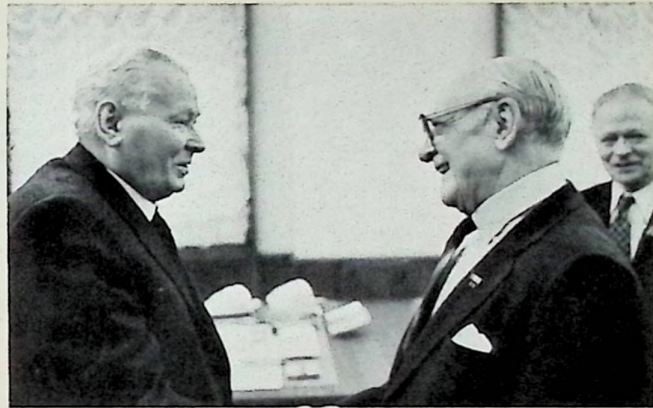
### Soviet Deputies Visit London

□ A delegation of the USSR Supreme Soviet led by Mikhail Gorbachev, Chairman of the Foreign Affairs Commission of the Soviet of the Union (one of the two chambers of the USSR Supreme Soviet), paid an official visit to Great Britain last December. Gorbachev is a member of the Politburo and a Secretary of the CPSU Central Committee.

The Soviet and British members of parliament held fruitful discussions on the most pressing problems in international affairs and on ways to foster the development of Soviet-British relations in all spheres. These talks are viewed as a major turning point in Soviet-British relations since they help attenuate the general atmosphere of international tension.

British business circles expressed the hope that the visit

would contribute to the development of mutually beneficial trade and economic links between the two countries. The London press noted that it was pleased with Gorbachev's words about opportunities for an early increase of bilateral trade by 40 to 50 per cent.



### 60 Years of Cooperation

□ Dr. Armand Hammer, chairman of Occidental Petroleum, is probably the only American who has maintained business contacts with our country for more than 60 years now. Peaceful co-existence of states with different social systems, Dr. Hammer says, was his guiding star.

In the beginning of December 1984 Hammer (center) was received by Konstantin Chernenko

(left), General Secretary of the CPSU Central Committee and President of the Presidium of the USSR Supreme Soviet. In the course of their conversation, the Soviet leader pointed out that the USSR has consistently upheld the establishment of good and equal relations with the United States based on mutual respect and proper regard for each other's interests.



### In the Interests Of Business Cooperation

□ At the end of November Nikolai Tikhonov, Chairman of the USSR Council of Ministers, received Dwayne Andreas in the Kremlin. Prominent in U.S. business circles, Mr. Andreas is the co-chairman of the American-Soviet Trade and Economic Council (ASTEC) and Chairman of the Board of the Archer Daniels Midland Company.

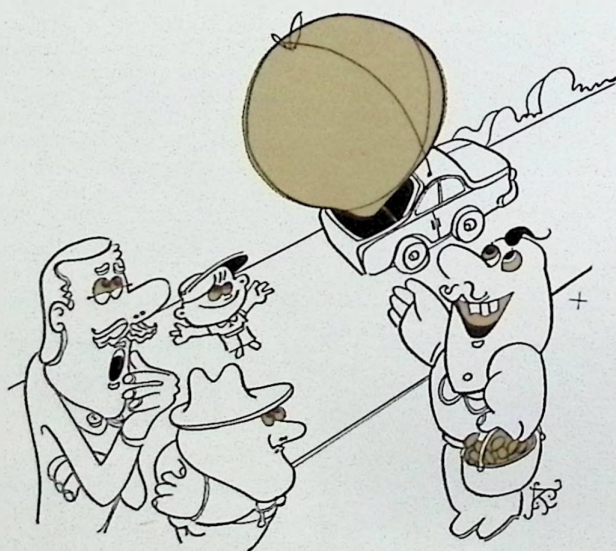
Their conversation dealt with questions concerning trade and economic prospects for trade and economic relations between the USSR and the USA and the role of ASTEC in the promotion of business links between the two countries.



### A Giant Tree 2,000 Years Old

□ This plane tree is a patriarch among the centuries-old trees of Azerbaijan, a constituent republic in the Transcaucasus. It is more than 2,000 years old and grows on the territory of the Nagorno-Karabakh Autonomous Region. A hundred generations have found shelter under its branches. A small stream flowing from a cool spring gurgles nearby. Young and old cool off in the shade of the tree. There is a legend that anyone who

comes to sit on its powerful roots three times and drinks water from the spring will live to a ripe old age. Incidentally, there are many very old people in this area. Here is the large Balayan family standing near the tree. It has as many branches as the ancient plane tree. Machinist Nikolai Balayan and his wife, who work at the local state farm, have 11 children and are already beginning to have their first grandchildren.



### A 15-Pound Mushroom

□ All kinds of mushrooms are found in the forests around the Ukrainian city of Chernigov, but the one Vasilii Ilchenko found amazed even fungus experts. Ilchenko, who lives in Chernigov, drove his car to the forest nearest his home and began

looking for mushrooms. And he found a puffball more than 40 centimeters in diameter! When he got home and put it on the scale—with all the neighbors watching, of course—he found that the giant weighed 6,750 grams.

### Singing Traffic Lights

□ Moscow pedestrians are crossing some streets to the accompaniment of bird trilling. The sound is produced by something like a doorbell when the light turns green.

Previous attempts to install a device that would produce audible signals at busy street crossings, especially ones near shops and factories employing blind people and those with poor eyesight, were a failure. However, the bird-trilling mechanism has been a huge success. More than 20 busy crossings in Moscow now have it.



### Caught Red-Handed

□ A badger was caught in St. Basil's Cathedral in Red Square in Moscow by Vitali Feldman, who heads the special service for catching wild animals in the capital. The badger is now kept at the Central Zoo waiting for its fate to be decided—either the zoo or training for the circus. The animal spent about 10

days in the cathedral before it was caught. At night it startled the watchmen and broke dishes in their room. But in spite of that, the men always left something to eat and a bowl of water for it.

Experts say that the badger got into the city via the sewage system.



### School Pupil's Debut

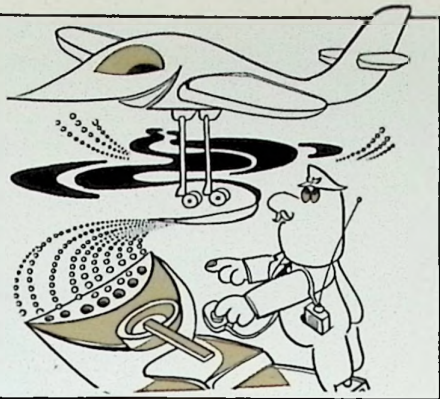
□ Yevgeni Kisin, 12, recently performed two concertos by Chopin in the Grand Hall of the Moscow Conservatory. These works are considered too difficult for any but the most mature musicians.

When he was two, Yevgeni began playing by ear whatever his elder sister was practicing. At six, he had mastered musical notation and began composing. He is now in the seventh grade of a special music school.

Yevgeni's teacher Anna Kantor says: "He has an amazing ability to play by ear whatever music he hears. But even more amazing is the ease and imagination with which he improvises."

## Purification Installation For Airports

□ Ukrainian researchers have worked out methods for the purification of surface sewage in airports where dust mixes with combustion products, particles of worn tires and other such debris that is washed off by rain into water reservoirs and pollutes them.

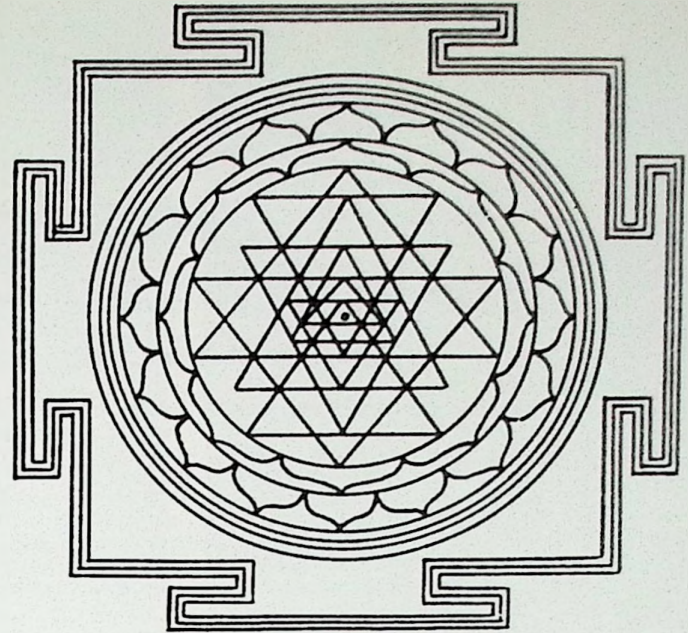


## Mathematician Kulaichev's Algorithm

□ Senior researcher Alexei Kulaichev, who is on the staff of the Biology Department of Moscow University, has been working for several years on an algorithm to create an image of the Sri Yantra (shown here), a complicated figure made in ancient India. Historians, ethnographers

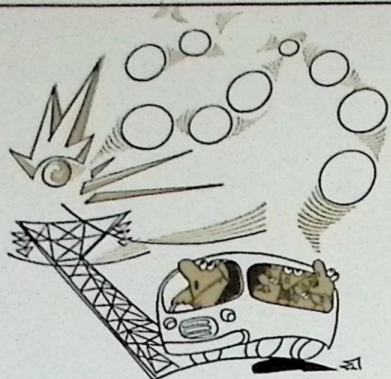
and other scholars from many countries have expressed interest in his conclusions.

At a conference of historians and mathematicians of Moscow University, Kulaichev said that the level of mathematical science in ancient India was much higher than it was thought to be.



## Festival Of the Arts

□ The squares and cozy little yards in Riga, the capital of Latvia, are turned into museums and concert halls for several days every year when the republic's craftspeople meet for the Arts Festival. The stalls in one of the squares sell souvenirs of amber, metal, leather and ceramics made by folk masters. In the picture is an exhibit of children's drawings in a street in Old Riga.



### A Shower of Ball Lightning

□ An unusual natural phenomenon was seen in early October in the Udmurt Autonomous Republic in the Urals. The black star-studded sky was suddenly lit up by many dazzling white balls of lightning spiraling downward. It was like broad daylight. One ball of lightning slowly flew

around a bus which was at a stop and up to the electrical transmission line. When it touched a wire, it exploded with a deafening sound. Luckily, it damaged only transformers. The ball lightning shower was seen by villagers within a radius of more than 10 kilometers.

### A Wizard With His Hands

□ Alexander Vycherov, who lives in the town of Nikolayev in the Ukraine, has a collection of models that includes a ship that is one five-hundredths of its actual size. Its handrails are made of wire as thin as a human hair.

One of Vycherov's models—that of the tanker Moskva—won first prize in a world ship-modeling competition. Sailing in the pool, his model made turns, hooted, stopped and dropped anchor.

It is both a hobby and a vocation for Vycherov. His job is making models of ships under construction.

Besides miniature ships, Vycherov has made a mantle-piece clock of the Napoleonic era and furniture decorated with bronze in his home workshop. He also paints pictures.



### Life After Clinical Death

□ When 19-year-old Larissa was admitted to the Novocherkassk hospital in Southern Russia, she was sure her stay would be a short one because the surgery planned was simple. But her heart stopped beating while she was on the operating table. Six minutes later, when the human brain usually dies, Larissa indeed showed no sign of life. But after nearly twice the time of clinical death had passed, her heart began beating again.

The young woman faced a pitiful existence since there is no hope of restoring the activity of the higher nervous system when the patient has been in a state of clinical death. But doctors don't have the right to stop treatment while there is the slightest sign of life.

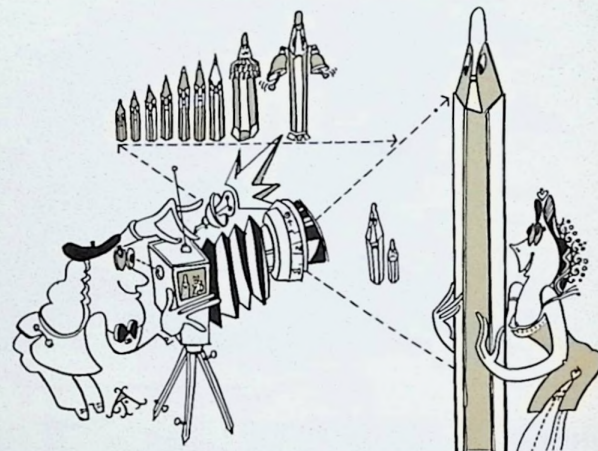
When Larissa opened her eyes for the first time 23 days later, the doctors in the intensive care unit could tell that her brain was dead. But the girl was alive, which in itself was a great achievement.

Larissa's mother was at her daughter's bedside day and night for two years. Once Larissa looked at her, just as she often had before the operation, and asked, "Mother, won't it soon be my birthday?" She meant her twentieth birthday, which had taken place more than two years earlier.

Larissa's memory was almost gone. So her mother bought an ABC book, and several weeks later Larissa mastered the alphabet. The school curriculum followed. The girl's memory was gradually coming back.

The most difficult part was learning to walk, but that problem was also solved.

More than another two years passed before Larissa's memory was almost fully restored and the activity of her higher nervous system reached its pre-operative level. The doctors were surprised to find that the line between life and death was not as fixed as the medical profession had until then believed.

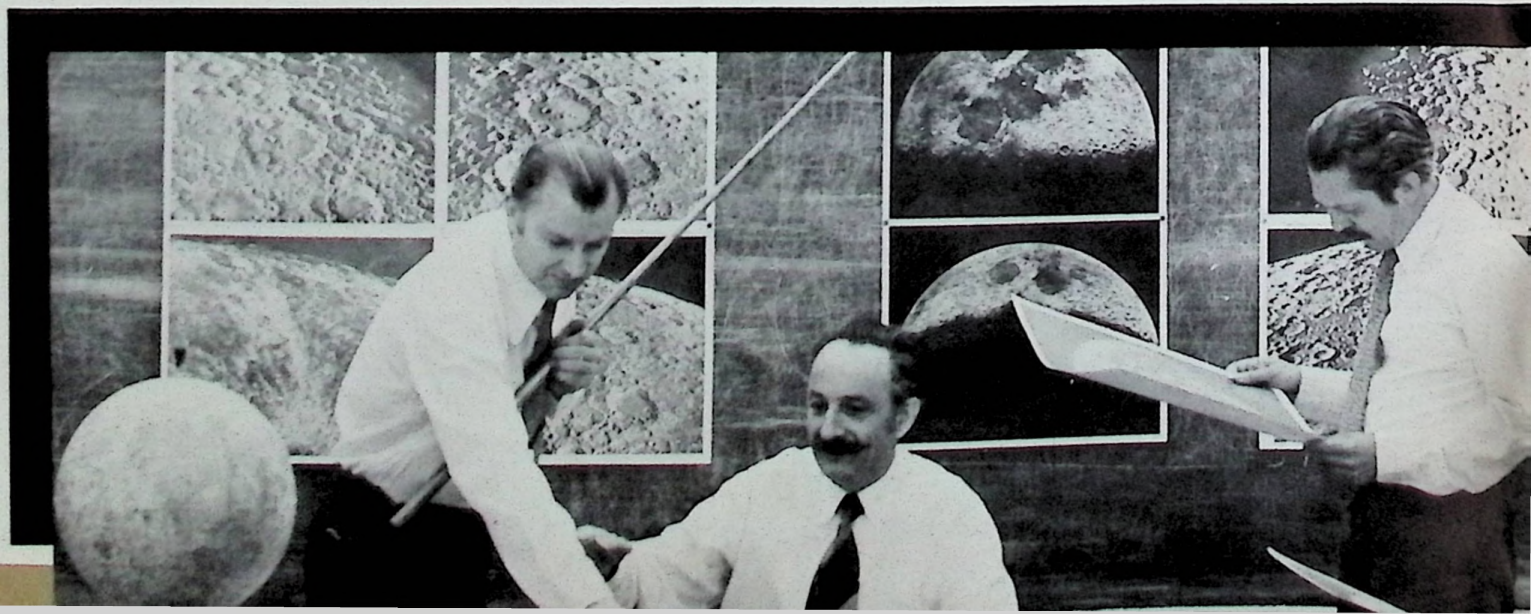


### She Collects Pencils

□ Lydia Yatsii, who lives in the city of Lvov, the Ukraine, has been collecting pencils for more than a quarter of a century now. She has about a thousand of them, both Soviet and from other countries.

They range in size from 20 millimeters to 60 centimeters. The collection includes pencils with plastic caps, plumes, tassels and even little bells.

For years Yatsii has also been saving newspapers and magazine clippings describing her hobby. Not many people are aware today that the first graphite pencil was made in England in the early 1560s. Prior to that, lead, tin and silver pins were used to write on special small plates. The first pencil factory in Russia started operation in 1842.



# IMPORTANT DATES IN HISTORY

**March 1873.** The Smithsonian Institution in Washington, D. C., asked Russian geographer Alexander Voeikov to complete a book about the winds. Information for the book had been collected by a professor at Lafayette College, in Easton, Pennsylvania. The data had not yet been systematized when he died.

**March 16, 1874.** Russia and the United States signed a declaration on the protection of trademark and label rights. The two sides agreed to give U.S. citizens in Russia and Russian citizens in the United States the same privileges as those enjoyed by the natives in respect to protecting their rights to trademarks and packing and manufacturer labels.

**March 8, 1919.** American representative William C. Bullitt arrived in Petrograd with the text of a peace proposal for ending hostilities in Russia. The text had been approved by U.S. President Woodrow Wilson and British Prime Minister Lloyd George. The draft proposal, edited by Vladimir Lenin, laid the basis for the establishment of peace.

**March 20, 1921.** Soon after Warren G. Harding was elected President, the Soviet Government officially proposed to the United States that trade relations between the two countries be established.

**March 1923.** The U.S. women's committee of the movement for the recognition of Soviet Russia urged U.S. Secretary of State Charles Hughes to establish diplomatic relations with the USSR.

**March 16, 1943.** Chairman of the Council of People's Commissars of the USSR Joseph Stalin sent a message to U.S. President Franklin Roosevelt. The message said, among other things:

You will recall that you and Mr. Churchill thought it possible to open a second front as early as 1942 or this spring at the latest. The grounds for doing so were weighty enough. Hence it should be obvious why I stressed in my message of February 16 the need for striking in the West not later than this spring or early summer.

The Soviet troops have fought strenuously all winter and are continuing to do so, while Hitler is taking important measures to rehabilitate and reinforce his Army for the spring and summer operations against the USSR; it is therefore particularly essential for us that the blow from the West be no longer delayed, that it be delivered this spring or in early summer.

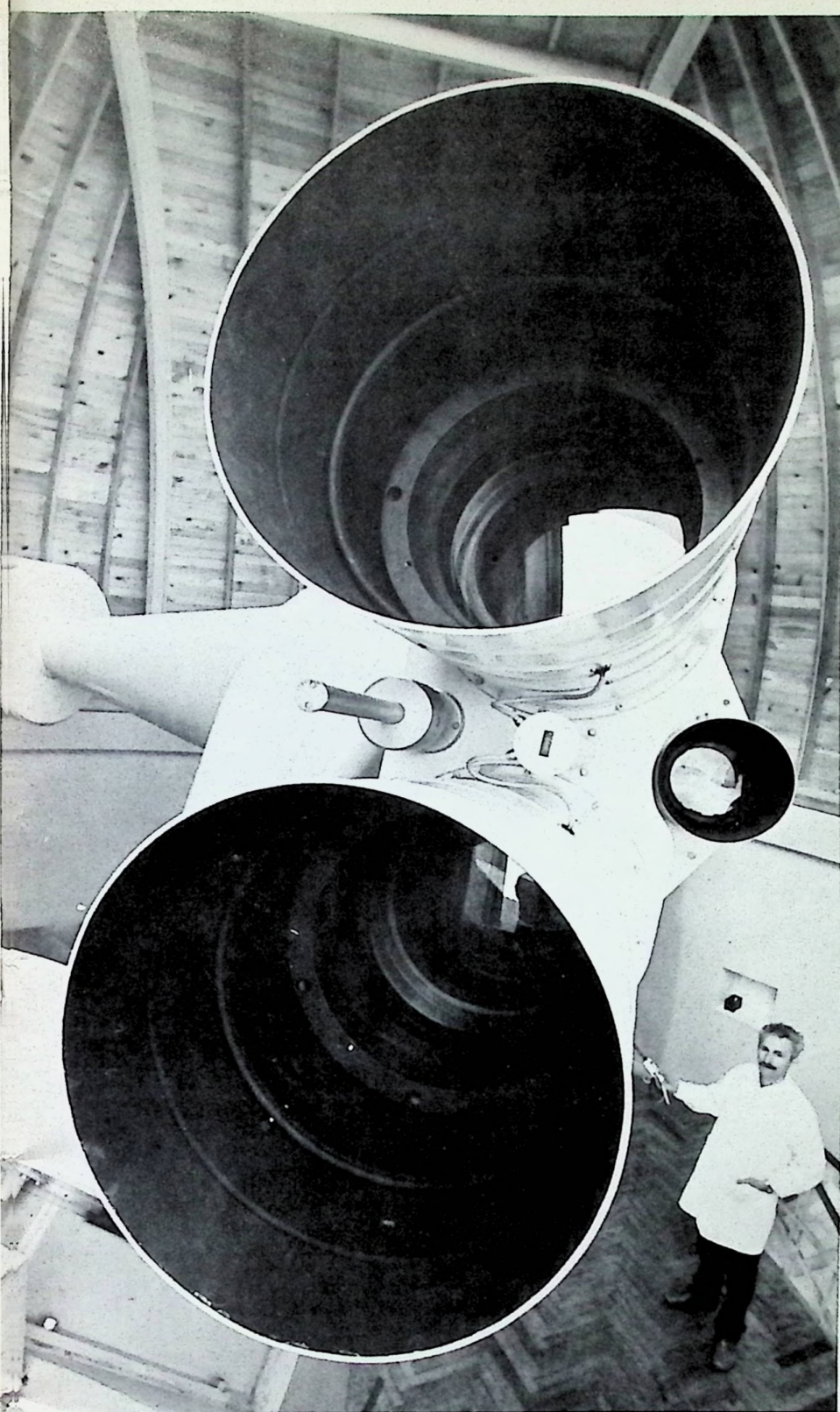
... That is why the vagueness of both your reply and Mr. Churchill's as to the opening of a second front in France causes me concern, which I cannot help expressing.

**March 31, 1976.** In accordance with the Treaty Between the USSR and the USA on the Limitation of Underground Nuclear Weapons Tests, all underground tests of nuclear weapons with a yield exceeding 150 kilotons were banned.

**March 1979.** A Soviet-American seminar on information and documentation in the social sciences ended its work in Moscow.

The same month a session of the Soviet-American standing consultative commission for the implementation of the Treaty on the Limitation of Anti-Ballistic Missile Systems and the Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms, signed on May 26, 1972, as well as the Agreement on Measures to Reduce the Risk of Accidental Nuclear War, signed on September 30, 1971, opened in Geneva.

**March 1984.** The sixth conference of Soviet and American writers was held in Malibu, California.



## The Stars of Abastumani

□ The Abastumani Astrophysical Observatory, one of the biggest in the USSR, is located on the wooded southern slopes of the Adzharia-Imeretia range in Soviet Georgia. This observatory is equipped with telescopes of all kinds and other up-to-date instruments. Abastumani has been the venue of quite a few international and Soviet conferences and symposiums.

Researchers at the observatory are studying formations on the lunar surface, the atmosphere of larger planets and other astrophysical and astronomical problems. They have discovered such new astronomical phenomena and objects as novae and supernovae, comets and smaller planets, specific types of stars, planetary nebulae and galactic star clusters.



# EAST AND WEST: PROSPECTS OF ECONOMIC DEVELOPMENT

**S**OVIET LIFE's economic analyst Vladimir Gurevich has been talking to Alexander Bykov, Doctor of Science (Economics) and staff member of the Institute of Economics of the World Socialist System of the USSR Academy of Sciences; Yuri Shishkov, Doctor of Science (Economics) and staff member of the Institute of World Economics and International Relations; and Nikolai Shmelev, Doctor of Science (Economics) and staff member of the Institute of U.S. and Canada Studies, about the likely role and place in the world economy 10 to 15 years from now of the Soviet Union and its partners in the Council for Mutual Economic Assistance (CMEA), on the one hand, and their Western counterparts, with the United States in the lead, on the other, and the prospect of economic cooperation between the two groups of countries. The interview follows.

**Gurevich:** The Soviet Union and its CMEA partners, which account for about 10 per cent of the world population, produce a third of the world's industrial output. All the socialist countries together turn out more than 40 per cent. Approximately 50 per cent is contributed by the advanced capitalist countries and 7 per cent by the Third World. I doubt that anyone can say with certainty what the figure will be by the end of the century, but can you elaborate on the principal trends?

**Shishkov:** Labor productivity is a principal characteristic, and in the socialist countries the rates of its growth are steadily increasing. I believe that in the period until the year 2000 at least, the socialist countries will retain high growth rates. In the West, I think the rates of economic growth will remain at 2.5 to 3.5 per cent a year for the next 10 years.

**Shmelev:** Nobody is going to dispute the existence of a huge potential in the Western countries, particularly in science and technology. Japan and the Federal Republic of Germany, for instance, have been concentrating on restructuring their economies on the basis of the latest scientific and technological achievements. The West, however, is very much concerned about the increasingly acute problem of traditional industries, which employ the majority of the economically active population and are expected to yield the bulk of the industrial product in the decades to come.

**Gurevich:** Last spring, at a Soviet-American economic symposium in Moscow, some prominent American economists claimed there was a good chance that the share of the United States in world production would drop from the present 25 per cent to 20 per cent and that economic progress in some developing countries could be one of the reasons for this. Are their apprehensions justified?

**Shishkov:** I am certain that Third World countries have the potential for economic advance. However, their general economic situation has deteriorated recently because of an enormous foreign debt and a drop in the market prices of their raw material exports. Both of these factors interfere with their economic growth.

**Shmelev:** On the other hand, their economic development can be advanced by the export of their industrial products. Imports from Third World countries are duty-free in the Soviet Union, but the West, where the bulk of their goods are sold, has imposed all sorts of restrictions on 40 per cent of their industrial imports. Undoubtedly, the Third World countries have made progress. They improved their control over national resources and increased their con-

tribution to the gross world product. But the situation in most of them is still difficult, and the gap between the per capita incomes in the developing and advanced countries has been growing wider.

**Gurevich:** Some Western economists argue that the economic crisis has affected both capitalist and socialist countries. Is this so?

**Shishkov:** The socialist and capitalist countries do have similar problems, like the rising cost of raw materials production and environmental protection.

**Bykov:** Nearly all CMEA countries face a labor-shortage problem caused by the unfavorable demographic situation. All the CMEA member states, which carry on a lively foreign trade, have to cope with the negative phenomena of the world market. However, after a certain setback in the rates of economic growth in the late 1970s and the early 1980s (this was the period of an over-all slump in Western production), the CMEA countries have considerably improved the dynamics of their economic progress. They have stabilized their trade with the West and noticeably scaled down the consumption of resources per unit of output.

**Gurevich:** Can you elaborate on problems common to all countries, for instance, ecology?

**Shishkov:** Apart from engineering factors, the resolution of this problem depends, to a great extent, on social and economic aspects. In a capitalist economy, the principle of environmental protection comes into sharp conflict with profit.

**Shmelev:** The ecological situation in the CMEA countries is best illustrated by the following figures. While accounting for a third of the world's industrial output, the USSR and the other CMEA countries contribute no more than 15 per cent to global pollution. The pollution share of the Western states equals and is even bigger than their contribution to world production.

Nonetheless, the CMEA countries regard environmental protection as a most important problem, one that can become even more acute by continuing industrial expansion.

**Gurevich:** In the 1970s, the energy problem assumed global scale. However, now a surplus of oil in the world market has sent its price down. Any comment?

**Bykov:** Rumors about global fuel hunger can be exaggerated. But still it is quite obvious that the age of cheap fuel is over, never to return, no matter how much the fuel market fluctuates. This applies to all countries. It would be wrong, however, to speak about the global nature of the energy crisis because it never hit the CMEA countries.

**Shishkov:** Though of all the CMEA member states only the Soviet Union has considerable and varied resources, the socialist community experienced no fuel crisis for two reasons. First, the Soviet Union steadily supplied its CMEA partners with fuel at stable prices and did not raise them even when they reached their peak in the world market. The second reason was the joint construction of major energy projects: building oil and gas pipelines, unifying power grids and cooperating in the development of nuclear power engineering. Taking into consideration the fact that fuel production in the hard-to-reach regions of the Soviet Union has been growing increasingly difficult, the CMEA countries have intensified their participation in the development of these deposits.

**Shmelev:** By coordinating their efforts, the CMEA countries have adapted to the changes in the energy situation with smaller losses than other countries.

**Gurevich:** The socialist countries regard integration as the main impetus to their future economic growth. What is your opinion?

**Bykov:** The CMEA economic summit in Moscow in the summer of 1984 reviewed the results of the integration process for the past few years. They are very impressive and spell the dynamic growth of mutual trade, the evening out of the CMEA countries' social and economic standards and the successful resolution of major economic problems. The summit also charted ways to improve and deepen the integration process based on planned economic development and coordination of the five-year plans of economic development. The integration program emphasizes production cooperation and specialization, the establishment of direct contacts between individual companies and enterprises within the CMEA framework and the implementation of long-term programs. The program for scientific and technological progress for 15 to 20 years now being developed by the CMEA countries will provide a sound base for expanding their cooperation in the foreseeable future.

**Gurevich:** The 1980s have been characterized by rapid progress in the development of computers, robotics and biotechnology as well as new materials. It is hoped both in the East and in the West that this progress will ensure a radical rise in labor productivity and efficiency. In view of this, what will be the principal changes in the nature and conditions of work, and what problems are they likely to bring about?

**Shishkov:** The microchip revolution calls for considerable work in education, advanced training and the modernization of the social maintenance system. The burden of these efforts will be shouldered chiefly by the state. The socialist countries funnel a tremendous and ever-growing part of their resources into the social maintenance sphere. I think, therefore, that it will be easier for them to "adapt" socially to scientific and technological progress. Unlike the capitalist countries, the socialist states suffer from a shortage of labor. Moreover, their system of economic management and control guarantees planned modernization, with the simultaneous training of the required personnel. In addition, the socialist countries plan their industrial expansion, and consequently jobs, not for months, but for years ahead.

**Gurevich:** The present international situation notwithstanding, do you think that East-West business cooperation will get out of the doldrums?

**Shmelev:** Actually, I wouldn't describe the present state of East-West relations as stagnating. Many of the developed countries still have business relations with the socialist countries. Nevertheless, any improvement in the current international situation will no doubt further promote this cooperation. The CMEA countries would benefit from Western technological know-how and commodities. This would save them time and money. In turn, by expanding their relations with the CMEA countries, the Western states will get a reliable supplier of fuel, raw materials and manufactured goods. The West has increasingly been using the scientific and techno-



logical achievements of the CMEA countries. Every year Western companies purchase more than a hundred licenses from the Soviet Union alone.

**Gurevich:** What do you consider the main factor for ensuring the successful development of states in general?

**Shishkov:** It is easier to answer this question than to solve the problem because it means ensuring peaceful coexistence, stopping the arms race and

having the states reach agreement on disarmament. **Bykov:** The transfer of the huge defense expenditures into the sphere of civilian production would create an unprecedented reserve for social and economic advance. This would greatly benefit both the East and the West and ensure tremendous gains for the developing countries, too.

**Shmelev:** I would like to remind you of the proposals made by the Soviet Union at two sessions of the UN General Assembly that the countries with major

military budgets make relative and absolute reductions in their military expenditure and that a considerable part of the funds thus released be used to help the developing countries. Quite a few opinions were expressed on the possible results of even partial disarmament. One of them was that less than a tenth of the funds spent on armaments each year would be enough to do away with hunger, illiteracy and the most dangerous diseases in only a few years. ■

## ORDER AWARDED TO APN



**N**OVOSTI PRESS AGENCY (APN), whose material is carried regularly in our magazine, has been awarded the Order of the Red Banner of Labor.

The Decree of the Presidium of the USSR Supreme Soviet, signed by President Konstantin Chernenko, notes APN's services in informing the world public of the foreign and domestic policies of the Soviet Union and the achievements of the Soviet people.

The motto of Novosti Press Agency—Information for the Benefit of Peace, for the Benefit of Friendship Among Nations—became known to the world in 1961 when the agency was founded and began carrying to all corners of the globe information on the Soviet Union, its untiring efforts to strengthen international peace, the historic achievements of the Soviet people, the humanism of Soviet society and the social justice of socialism, remarked Mikhail Zimyanin, Secretary of the CPSU Central Committee (above left), when he presented the order to the agency's staff in November 1984. Pavel Naumov, chairman of the board of Novosti Press Agency, holds the APN banner (above).

APN is a public agency. It was founded by five public organizations—the USSR Journalists Union, the USSR Writers Union, the Union of Soviet Societies for Friendship and Cultural Relations with Foreign Countries, the Znaniye Society (Society for the Dissemination of Knowledge) and the All-Union Central Council of Trade Unions.

Today APN is a large news agency that maintains ties with more than 4,000 newspapers, magazines, publishing houses and radio and TV companies in 110 countries. It puts out newspapers and magazines in 46 languages. At the same time, agency correspondents accredited in many countries acquaint Soviet readers with the life of other peoples.

Instituted in 1928, the Order of the Red Banner of Labor is one of the highest Soviet awards. It is given for "outstanding service in the fields of production, scientific activities, state or public service."

Under its rules and regulations and by long-standing tradition, the order is awarded not only to individual citizens, but also to factories, collective and state farms, cities and republics of the Soviet Union.

# ALONG THE KOLYMA HIGHWAY

By Alexander Tropkin  
Photographs by Vladimir Christyakov  
and Victor Margaritto

## travel

*Kolyma is a large region stretching over thousands of miles in the northeastern part of the Soviet Union. Severe frosts make it inaccessible by air for nine months of the year. Its development has just begun, but it is already on the way to becoming a major industrial area. The Kolyma Highway, which starts in Magadan, the capital of this huge region, is in large measure responsible for its rapid growth.*



# Storehouse of Natural Resources

The harsh landscape of Kolyma  
photographed from the air.





If you were to ask the average inhabitants of the European part of the USSR what they know about Magadan, the first thing they would tell you is that it is faraway and very cold. From how they say it, you might think that Magadan is a desolate hole somewhere at the end of the Earth where people live without any of the amenities of life. Nothing can be further from the truth. The capital of the immense region in the northeastern part of Siberia (1.2 million square kilometers—just about the size of Western Europe) is far from what it was 40 or even 20 years ago.

When Magadan was founded in 1939, a temporary settlement near water was needed as a base for a powerful thrust into the Far Northeast, which was to be developed. The fact that the settlement was temporary determined the way it was set up. Huts were thrown together for living quarters, stores and depots. The plan was to build new cities and settlements, but further to the north, close to the open pits and mines, factories and ore-dressing plants.

This psychology of temporariness began to decline in the early fifties. The original idea was that Magadan would be the base for supplying the rear of the new conquests in the North, but it turned out that it was actually taking the main flow of freight for the Kolyma area. As soon as its crucial significance was realized, rapid construction began on a scale befitting a capital. An airport sprang up to accommodate planes from Moscow, Leningrad and dozens of others cities; a TV center, the first in the Northeast, was constructed; a science center was established; and a theater was built.

A generation of people who are proud to be citizens of Magadan and would not change it for a less severe climate has come of age.

#### The Key to Kolyma

The Kolyma Highway starting from Magadan is known as the key to the vast storehouse of underground and aboveground resources of the Northeast. They were discovered at the end of the twenties by trailblazing geologists, who struck it rich in Kolyma—coal, gold and polymetallic ores. And yet the mere discovery of the deposits was only the beginning of the work. The natural storehouse had still to be reached.

From the air the famous road looks like an intricately twining thin thread between the icecaps of the cone-shaped hills. These hills stretch from both sides of the highway to the horizon. There are looping chains of trails in the virgin snow visible even from the air, a sure sign of an abundance of wild birds and animals.

All attempts before the twenties to conquer the harsh nature of Kolyma were futile. It took cruel revenge on lonely gold prospectors, on hastily assembled expeditions, on everyone who sought to make an easy fortune there. It is in this light that we should evaluate the feats of the pioneers who laid the first winter trail, the beginnings of today's highway.

There were 18 people altogether. They had with them a few of the first imperfect models of Soviet tractors and other vehicles. The snow was up to 10 feet deep, the temperature from minus 50 to minus 60 degrees centigrade. There were constant blizzards. Here are a few paragraphs from the diary of Abram Gerenschtein, one of the trailblazers:

This venture began in February 1932. A freezing fog covered the earth. It seemed as though there were nothing but biting cold and snow in the whole world. We

moved by guesswork straight ahead. The lead vehicle kept sinking in the snow. The engines coughed and gave up, making the drivers furious.

It took a whole week to cover 30 kilometers!

The ascents reared up steeply. They taunted the trucks trying to drive up, flicking them off like toys. The column went back to the taiga. This time two tractors were to lead the way. While crossing the Khosyn River, one of them fell through the ice. Once again we had to turn back. The trucks were left behind at the settlement, and we went on with the tractors and sledges. We didn't make it; we got stuck. But we didn't despair.

They struggled for a month and a half to pierce 260 kilometers of winter track through the taiga, a road for which the flattened ice-packed snow served as a surface. The column delivered food for the first state mines.

And today, as we whizzed along the highway at 100 kilometers an hour, we involuntarily thought of the pioneers. It was they who named many of the ascents, cone-shaped hills and passes that are now on the map. Some of them are named after the people who gave their lives for the road.

#### Separating Basins for Gold-Bearing Ores

The strategy for the economic development of Kolyma was worked out in the thirties. It was decided to systematically increase the capacity of the existing mines, dig new ones, erect more factories and ore-dressing plants, and to build towns and settlements around them for the miners, lumbermen and other workers. A host of problems had to be solved. How could houses be built on permafrost? Where would the energy needed for the plants and heating come from? What brands of steel, lubricants and oils could withstand such low temperatures? Was it possible to grow vegetables in Kolyma? Today we can only marvel at the sagacity and shrewdness of the people who were the first to develop Kolyma, so much has already been achieved.

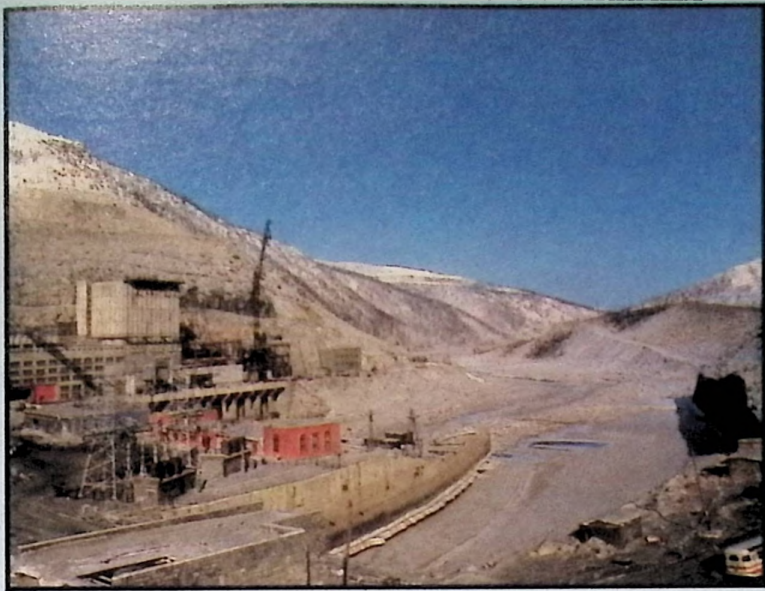
Every 40 or 50 kilometers a village or town looms up from behind the hills. In one village there is a repair plant, in the next a mine, in the third a mining-equipment plant. Their names sound like the incantations of a shaman: Uptar, Khosyn, Orotukan and Karamken.

Karamken is near a hill covered with powdery snow. In the mining village are blocks of the ore-dressing plant and warehouses and further along, neatly defined streets of cottages. But where are the telltale signs of mining? It turns out that that serene, drowsy hill covered with larches is a vast mine. Adits and drifts and coal faces have cut it at various levels. The excavated brittle, gray rock is delivered by invisible conveyor belts straight to the ore-dressing plant.

I won't describe the whole lengthy and chemically complex process. It is hidden away in huge globe-shaped mills, in pipes, reservoirs and storage tanks reminiscent of the modules of a spacecraft. A full picture of what is going on is given by the figures, flashing lights and the never-ending graphs at the automatic control panels, and even then only to the experts. We were told at the plant that the processing method used produces a high percentage of gold from the outwardly unattractive gray rock. But how does the plant manage to coexist with such unspoiled surroundings?

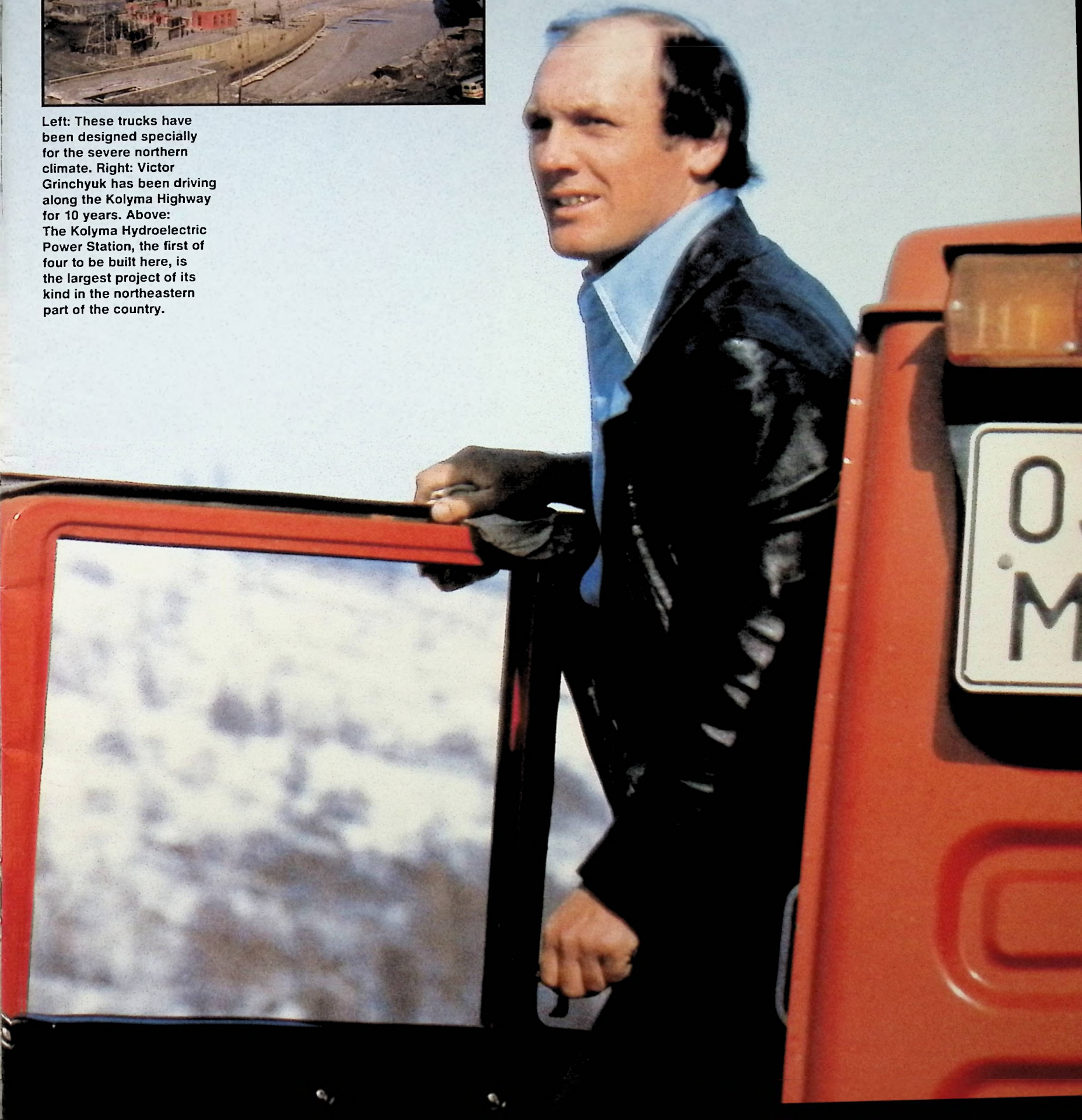
In separating pools set in concrete under closely monitored conditions, the water is cleared of admixtures to carry once again an auriferous suspension of ore. And so again and again in a closed cycle. And one more detail. The separators are closed off from the taiga by a heavy metal grille through which

*Continued on page 15*

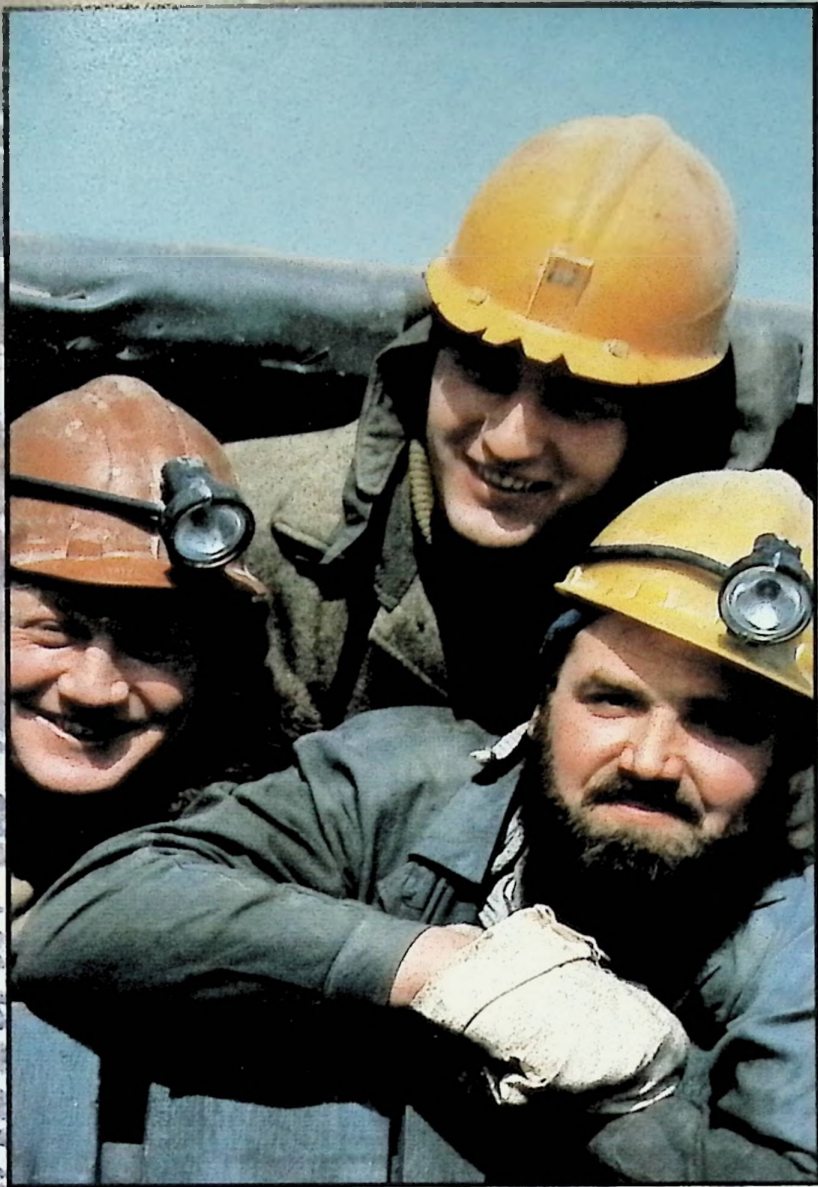


Left: These trucks have been designed specially for the severe northern climate. Right: Victor Grinchyuk has been driving along the Kolyma Highway for 10 years. Above: The Kolyma Hydroelectric Power Station, the first of four to be built here, is the largest project of its kind in the northeastern part of the country.

*The Kolyma Highway runs from the city of Magadan all the way to Chukotka in the Far North. Trucks carrying every kind of freight travel along it throughout the year.*

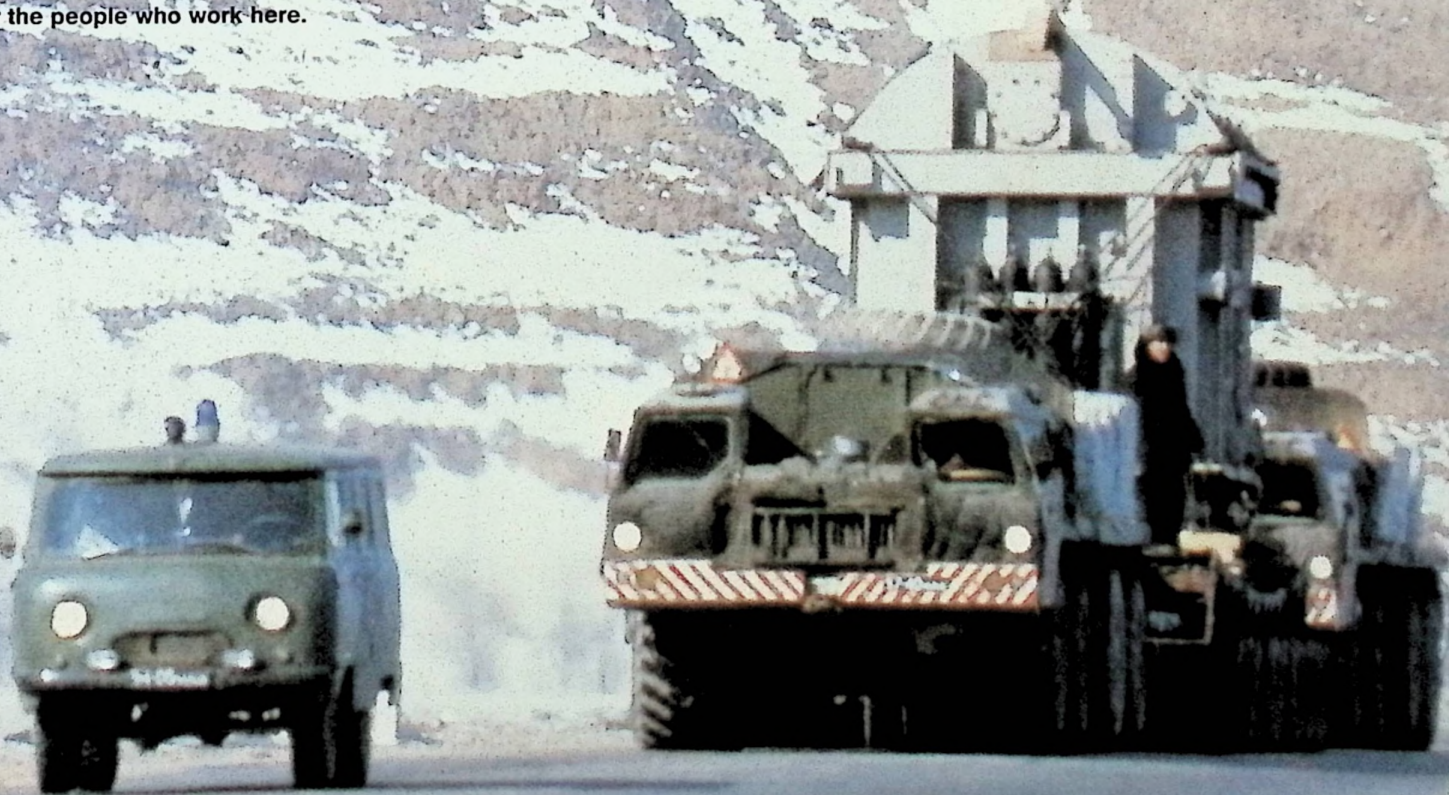






*Powerful explosions shatter the silence of Kolyma. Blasting the impenetrable rock makes it possible to build bridges and dams, mine ore and gold, and lay the foundations of factories.*

Mining and truckdriving are popular and esteemed occupations in the Northeast. The former provides raw materials for the country's industries and the latter food and other necessities for the people who work here.



*Northerners are used to severe frosts and never complain. They have built cities and villages with all modern conveniences. They even grow flowers and vegetables the year round.*



**Topographer Irina Mukha, 20, came from the Ukraine to work in Kolyma. Above: The hothouse in Myaundzh supplies early vegetables and fruits to child-care centers, schools and nearby towns and villages. Top: Vacationers living it up at the Talaya Health Resort.**





Continued from page 10

neither man nor beast can pass. But in places frequented from time immemorial by animals, special bridges have been laid across the pools.

We leave Karamken, and the road takes us steadily upward. Ahead lies Yablonev Pass, which seemed insurmountable to the pioneers. Now, as we approach the top over 7,500 feet up, looking down makes us feel giddy.

### The Kolyma Power Station—Only the Beginning

The Kolyma Hydroelectric Power Station is a rarity, both for the Northeast and the country as a whole. For the first time a hydroelectric power station of this scale was built in a permafrost region with record-low temperatures. However, permafrost and the cold, considered allies by the geologists and engineers, had some surprises in store. To cut construction time, it was decided to build a stone dam with the machine room and hydraulic systems housed in galleries inside the cliffs. But when the construction workers tried to carve away the granite of the hill, torrents of water gushed out, and the walls of the drifts were instantly covered with a thick layer of ice. Combating that was next to impossible, but the workers accomplished a miracle. In a gigantic underground cave lighted by blue neon, which is now the machine room, the first turbines have been installed to produce the long-awaited power.

The project is almost finished, and we can now evaluate the experience.

Yuri Frischter, the head of the construction company, had this to say: "If we could turn the clock back, I might just have refused the option of labor-intensive underground facilities and built a concrete rather than a stone dam. The cost would have been roughly the same, but, as we have seen, the job would have been simpler. For all our experience, we clearly underestimated conditions in the North. And yet, along with the doubts, as an engineer, I feel good about having solved the most complex problems connected with the work. For example, the 1.5-kilometer bridge across the Kolyma was built in only six months. In winter we dammed the river for a while and cut the scheduled time significantly. This was really a new engineering idea that took into consideration the specific conditions of the North. And I could tell you about many other such cases."

"Does that mean the North has not discouraged the construction workers from attempting such projects again?"

"The Kolyma Station is only the beginning! When it's finished, the dam for the Srednekansky unit will go up followed by three other stations. The hard but rich experience gained at Kolyma will enable us to build even more stations on the rivers of Chukotka and the Arctic Circle."

To get back to the highway, it's not an exaggeration to say that it would have been impossible to build the huge station without it.

But that's not all. Without the highway another experiment, no less momentous, would not have been possible. Alongside the hydroelectric power station in the Blue Mountains, a village for the construction workers was built which broke away from the traditional trailers and even the good old Siberian log cabins. The Leningrad architects commissioned to design the settlement decided to put up apartment buildings five to nine stories high on piles in permafrost.

Each family there has a well-appointed apartment with all the conveniences available in a town. Next door to the apartments are shops, cafeterias, a kindergarten, a clinic, a library and a sports complex. This neatly planned village with mountain slopes and a river beach within easy reach (in summer the temperature is 30 degrees centigrade) is a source of pride for each of its inhabitants. They don't feel cut off from the busy life of the capital.

Walking in the evening along the village streets bathed in light, we read with interest the poster invitations to a literary evening on Fyodor Dostoyevsky at the local University of Culture, the Sinegorye Amateur Song Club and a rock concert by a group from Magadan.

### The Magic Power of the Talaya River

About a hundred years ago a tribe of Tungus herdsmen were driving herds of reindeer in the vicinity of the river. The journey was long and grueling. The head of the clan, a 70-year-old man, fell gravely ill and became a burden to the rest of the tribe, which was rushing to the spring pasturelands. The old man asked to be left among the snows near the fast-flowing Talaya to pass over into the other world in proud solitude. They left him a two-day supply of food, a hunting knife and a spear in case he was attacked by taiga animals and said their last farewells to him. About a year later the tribe drove its herds that way again. What a surprise it was for the Tunguses to discover on the banks of the

river a *yaranga* (skin tent). The old man looked well and even younger, and he offered them fried bear. Instead of answering their impatient questions, the chief led them to the seething source of the river and said: "This water has given me health and strength. Drink it!"

Since then the miraculous source of the Talaya River has been sacred for the Tungus herdsmen.

What we saw on the banks of the Talaya were bright saffron-colored buildings in the extravagant Empire style with sparkling hats of snow on the roofs. Inside there were plants in the halls and in glassed rotundas. As soon as we arrived, we were invited to bathe in the pool and take hot and cold baths: "Weariness will fly away as if by magic." And we tried it out and swam in the spa water of a 25-meter pool thinking involuntarily of the 30-degree frost outside. It might be added that the mineral water sacred to the Tunguses is on tap in every room in the resort, and the frequenters of the spa can drink it any time and in any quantity.

Chemists and physicians were quick to guess the reason for the wholesome effect of the Talaya mineral source. The water has a high silicon and fluoride content, the latter being especially needed by Northerners. Medical experts

know two dozen human complaints which the waters will help remedy. At the beginning of the forties, the Talaya Health Resort was established there. It became possible then to install powerful pumps to supply water for therapeutic baths. Soon after, when valuable medicinal muds were found in the lakes near the Talaya River, the various mineral baths were supplemented with highly effective mud baths.

The doctors at the resort have found that after a two-year course of treatment, patients are cured of arthritis and polyarthritis, radiculitis and osteochondritis, stomach and intestinal ulcers and all kinds of nervous disorders.

One of the features of the resort is that it caters first of all to the indigenous peoples of the Far North, who receive treatment there free of charge. Others pay 30 per cent of the cost. Their trade union pays the rest.

All the treatment and apartment buildings, concert and sports halls, the library and cafeterias are interlinked by heated passages. At first it is rather difficult to find your way around in this labyrinth. So the patients do not have to go out into the frost for the 22 days they spend there. The doctors, how-

ever, recommend that even in the most severe rheumatic cases, the patients should not sit inside but go walking or skiing in the fresh air.

### Element of Risk

The job of truck driver is just about the most prestigious and well paid in Kolyma. Almost everything, from needles and pins to multiton transformers, is delivered by road to the far-off miners village and the new settlement that has sprung up near the hydroelectric power station. Hence the traditional respect for drivers. They are welcome guests in any home.

Drivers earn a lot there. However, money, and particularly big money, is not handed out for nothing. The drivers work hard for it and sometimes even risk their life.

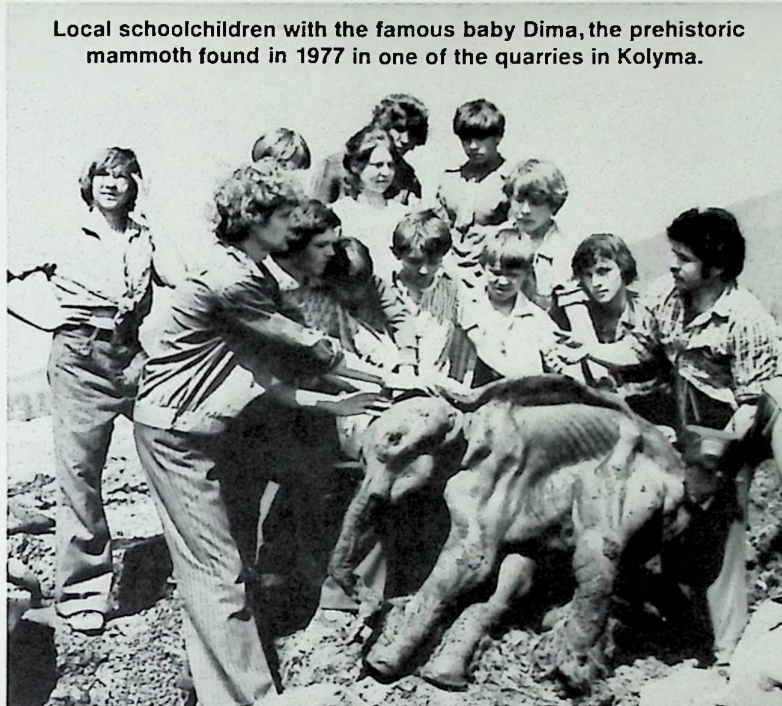
Several thousand vehicles of various makes, from Soviet Ural, Kraz and Kamaz trucks to Czech Tatra, travel along the highway, and each vehicle is specially equipped for conditions in the North: additional heating reflectors, double windshields and windows, and a special more powerful and reliable engine. Such essential additional modifications are made on the production line at factories that specialize in the so-called Northern model. The same applies to bulldozers, graders, dredges and excavators.

The frost is, of course, treacherous, but it is much more dangerous to be overtaken on the road by a snowstorm, when you can't see a foot in front of you. But even in such cases the vehicles keep moving because if you stop, you risk getting walled up in a snowdrift. That's when your life depends on the dispatcher service and the comradeship that exists among the drivers, which usually gets them out of any hole. The dispatcher service available in every settlement along the route watches the traffic, the weather situation and the condition of the road 24 hours a day. Drivers are not allowed to work for more than 10 hours. After checking in at the dispatcher station, they have to rest for seven to eight hours in a motel. The motor transport enterprise pays all motel expenses.

### Where Dima, the Baby Mammoth, Was Found

The last point on our journey to the North was the town of Susuman. After it the road turned to the south and headed back to the Sea of Okhotsk and Magadan to form a gigantic loop.

Local schoolchildren with the famous baby Dima, the prehistoric mammoth found in 1977 in one of the quarries in Kolyma.





There is a lot in Susuman that is worthy of note, but two events in the past few decades have made the town world famous. The Pole of Cold of the Northern Hemisphere moved from Oymyakon in Yakutia to Susuman. Record frosts of minus 70 degrees centigrade and lower were registered there. This didn't surprise the inhabitants of Susuman; they had long ago gotten used to the frosts and even in the most biting cold continue to live and work as usual.

The other event excited the whole world of science. In the summer of 1977 a local bulldozer tugged out a great lump of transparent ice in which an intact baby mammoth lay. It seemed as if at any minute the shaggy little Stone Age elephant, which we named Dima, would come to life and move its trunk and tail. No such miracle occurred, but the infant mammoth gave scientists a rare opportunity to examine him from head to tail, and recently this prehistoric creature stirred the city of London, where it was on display.

This, however, is not the end of the miracles. Near Susuman, in the miners town of Myaundzh, we saw a hothouse or, to be more exact, a small field under a glass roof. This was not the first hothouse we had seen in the Northeast. The Northerners today are no longer surprised at the sight of fresh cucumbers or tomatoes, early plants and flowers. You can order them in cafés and restaurants or buy them at the florists. But here, under the parsimonious northern Sun, grapes, watermelons and cantaloupes were growing in greenhouses. The crops of sweet-smelling grapes and exotic melons are enough to keep the nurseries and kindergartens, school and coal-mine canteens supplied for two to three months. It is planned to increase the greenhouse to two hectares in the near future to provide the miners and their families with fresh fruits and vegetables all year round.

Trucks used to be transported to Magadan via the Sea of Okhotsk. Today a never-ending flow of vehicles of all kinds carries freight along the Kolyma Highway to the villages and towns of the vast northeastern region of the country that has come to life. ■

Magadan is one of the largest ports in the Northeast. The Kolyma Highway starts here. The port supplies the towns and villages of the region with everything from toys to heavy mining equipment.

Right: Reindeer breeding is the area's traditional occupation. The herds cover hundreds of miles of pasture every season. Facing page: An hour-old deer. Far right: The Northeast is a testing ground for Soviet-made passenger cars and trucks.



*The economy of the whole country  
benefits from the industrial  
development of the Kolyma region.  
The discovery of rich natural  
resources there has triggered the  
large-scale construction of  
machine-building plants, mines  
and hydroelectric power stations.*



The dredges that process tons of gold-bearing rock have changed the landscape.





# PERFECTING DEVELOPED SOCIALISM: THE ECONOMIC ASPECT

By Gennadi Pisarevsky  
SOVIET LIFE Commentator

OUR RECORD of socialist construction is a good one. We have some 1.5 million scientists—one-quarter of the world's total—and more than a million doctors—one-third of the world's total. The USSR builds more housing, schools, hospitals, nurseries and kindergartens than any other country.

But we do not idealize our society. We still have many problems to solve, and our advance is handicapped by certain economic shortcomings that are inexcusable now, when such tremendous technological changes are taking place. Nor are we satisfied with our labor productivity.

To put it briefly, we have to concentrate on perfecting our economy. This is precisely the party's approach to the tasks facing us in the remaining part of this century and likely to face us in the next one. In preparation for its Twenty-seventh Congress, the Communist Party is soberly examining the current stage of our society and the degree of its socioeconomic maturity.

These and other problems to be discussed at the congress are dealt with in the article "Living Up to the Standards of Developed Socialism" by Konstantin Chernenko, published in the December 1984 issue of the journal *Kommunist*.

The General Secretary of the CPSU Central Committee examines in a detailed and exhaustive way questions of party theory, strategy and tactics. A lot of attention is also given to the economy. That is understandable: The economy is central to the perfection of developed socialism.

## Intensive Development

The present period of switching over to intensive methods is an important one for the Soviet economy. As Konstantin Chernenko says, the achievements of the Soviet economy have put a limit to its own extensive development. The USSR today accounts for 20 per cent of world industrial production. In many items—oil (plus gas condensate), natural gas, steel, mineral fertilizers, cement, woolens, leather footwear and butter—it leads the world. On the whole, most products are turned out in sufficient quantities to meet the needs of both the economy and the people.

Nevertheless, some products are still in short supply, especially meat, milk and fruit. Their production will be stepped up in every way. On the other hand, we have a surplus of some goods. Now that our domestic market is overflowing with many commodities, the quality of everything must be as high as that of our nuclear reactors, nuclear-powered icebreakers and space stations.

## New Policy

The Soviet economy has a vast potential. It enables—or rather obliges—us to undertake the big task of ensuring the country's advance to the top of the world level of labor productivity, writes Konstantin Chernenko. The formulation of this task is justified politically, socially and economically.

The goal of reaching the highest labor productivity in the world—the key economic indicator—is within our power. We have everything necessary for achieving it—the scientific and technological capability, highly trained personnel and resources.

The productivity of labor in the USSR is growing faster than in developed capitalist countries. But on the whole, we are still behind them in per worker output. It will take years to close the gap.

Our main social goal in economic development is the greatest improvement possible in the people's well-being. This can only be achieved on the basis of higher productivity, notes the General Secretary. Attaining the ultimate in productivity is in socialist society the guarantee for providing a high standard of living for all working people.

The first and most obvious thing to do is to retool all branches of the national economy and lose no time in introducing the most advanced technology. This will take a lot of work.

The picture of the Soviet economy today is increasingly one of individual and amalgamated enterprises equipped with advanced machinery and technology, with high productivity and production efficiency. Many of our enterprises match the famous Western firms for productivity and efficiency.

On the other hand, the USSR has quite a few enterprises that are still operating obsolete machinery and using outmoded technology. This is a contradiction of the period in which we are living, Chernenko points out. To resolve it means helping whatever sectors are lagging behind to catch up, particularly such sectors as farming, the building industry, transport and the service industries. It means enhancing economic efficiency as a whole and bringing about a breakthrough to achieve intensified production in all sectors.

## Two Revolutions Fused

One of the central ideas in perfecting developed socialism is to fuse two revolutions—the technological and the social. This means that all accomplishments of the present and future phases of the technological revolution must be used to improve the people's well-being, raise their working and living standards, promote education and health, and protect the environment. The party attaches special importance to the acceleration of scientific and technological progress in all sectors of the economy.

The USSR's scientific and technological potential is among the greatest in the world. One-third of all scientific contributions comes from Soviet scientists. Over the past 20 years alone the number of discoveries made in our country has almost quadrupled. Yet not all new methods (even, unfortunately, pioneering ones) find their way into production, to the detriment of the economy. Western firms sometimes act more quickly than our own enterprises in applying our innovations. One conclusion can be drawn from this: We have to readjust our economic machinery.

The new economic conditions must make the work of any enterprise, branch or the economy as a whole impossible without scientific and technological advancement. This calls for the development of a new generation of machines, robots and flexible automated systems, revolutionary changes in technology, and computer-assisted production and management.

## Toward an All-Computer Economy

We are still visibly behind the United States in the number of computers used in production and daily life. We are aware of this and are trying to step up the output of these devices as fast as possible. At the same time, vigorous steps are being taken to teach everyone the A to Z of electronics. In the next few years we are going to make our production fully computerized and bring it up to world level.

In the Eleventh Five-Year Plan period (1981-1985) the USSR has been rapidly developing a new industry—robotics. Mass introduction of robots in production helps to both raise productivity and humanize the labor process itself, freeing workers from arduous manual jobs. The number of robots installed at Soviet enterprises now exceeds 40,000.

In the Twelfth Five-Year Plan period (1986-1990) we are planning to manufacture more than 100,000 robots, over 4,000 automatic and semiautomatic assembly lines, 110,000 numerically controlled machine tools, some 2,000 flexible automated systems (including fully automated sections, shops and plants) and up to 3,000 automated design systems.

Accelerated scientific and technological progress will raise the growth rates of the national income to five and then to seven per cent a year, even with the present resources. But to do so, deep-going changes in economic management must take place in line with the requirements of the technological revolution. Highly productive machinery in combination with general economic concern for its application is, in fact, the only thing that can ensure the long-awaited economic breakthrough and fusion of the technological and social revolutions and underscore the advantages of socialist methods of production with new force, Konstantin Chernenko stresses.

We want to achieve the turning point in economic efficiency and in production intensification in the late eighties. The objective prerequisites are already there. In 1983-1984 the Soviet economy made significant progress. Its rates of development increased, and so did the quality of goods. But the main thing was the growth of the population's real income. The State Plan for the Economic and Social Development of the USSR for 1985 was drawn up and is being implemented with an eye to qualitative growth.

The perfection of developed socialism will require an extended period, and we are only at the beginning of this historical stage. That is the conclusion made by the party, which is constantly updating its strategy and tactics.

In the summer of 1943, Kursk, a city in Central Russia, became known to the entire world. For 50 days it was the scene of the biggest tank battle of the Second World War. Although the Nazi command concentrated its best divisions for the offensive on the Kursk Bulge, the Red Army defeated them, breaking the backbone of the German Army and paving the way for a widespread Soviet offensive and the Allied victory in 1945.



# BATTLE OF KURSK: COLLAPSE OF OPERATION CITADEL

By Victor Belousov

SOVIET LIFE presents the third in a series of articles about the major battles of the Great Patriotic War.

A battlefield on the Kursk Bulge. On July 12 up to 1,200 tanks from both sides were engaged in the fighting. Left: The counteroffensive of Soviet troops between July 12 and August 23, 1943.





The Nazis had pinned great hopes on new types of heavy tanks. But the Soviet Command guessed the enemy's plan and the thrust of its strike. The time was supplied by a POW.



**T**he fighting near Kursk was not just another major clash of belligerents on the Soviet-German front. Hitler's order, announced to the German soldiers a few hours before the battle, said: "And you must be aware that everything may depend on the success of this battle." Earlier, near Stalingrad, the Wehrmacht had lost not just a striking army, but the strategic initiative. On the eve of the assault on Kursk, the morale of the German troops was low. Discontent prevailed in the German rear, and Germany's allies now openly thought of withdrawing from the war. Meanwhile, the Red Army continued to press the enemy on the southwestern wing of the huge front. Belgorod and Kharkov were liberated in February 1943.

However, in March, at the most unsuitable time for an attack, a period of slush and impassable roads, the Wehrmacht dealt a strong counterblow against these cities. The haste with which it did so betrayed the enemy's impatience to restore the fading glory of German arms. But that was all it could do. The eagerness for revenge had to be restrained until the summer, for a decisive clash.

Where to strike was determined in the spring. It was prompted by the contour of the front line itself.





Facing page, far left: A Red Army antitank gun fires on the enemy. Below: Soviet tanks begin a breakthrough.



Stretching from Lake Ladoga in the north to the Black Sea in the south, it was almost an ideally straight line. But between Orel and Belgorod, it jutted sharply outward in a westerly direction, like a fist pressing against the very chest of the Reich's armies. One more push, and ribs would begin to crack.

The German Command thought the Red Army's positions vulnerable. It considered this a ready trap into which the Russian divisions had entered voluntarily; all the Wehrmacht had to do was shut the door of that trap by converging attacks—one from the north, from Orel, and the other from the south, from Belgorod. The attacking groups would meet near Kursk, thus accomplishing an encirclement unprecedented in the history of wars, and then the whole world would finally grasp the fact that "resisting the German army is futile." So Hitler thought. That is how the aim of Operation Citadel was formulated. Covers were being thrown off the guns.

For the Soviet Command the enemy's plan was not a surprise. The only question was how to respond. To forestall the enemy by our own offensive? Or to meet the offensive with a powerful defense? The decision was to give the enemy a good thrashing on the fortified lines, destroy as many of its tanks and planes as possible and then mount our own attack.

While the troops were preparing for a difficult summer of fighting, the farmers in the front-line areas—mainly old men, women and youngsters—were sowing grain. They used cows for plowing and brought the seed from the rear, not infrequently carrying it for a hundred kilometers.

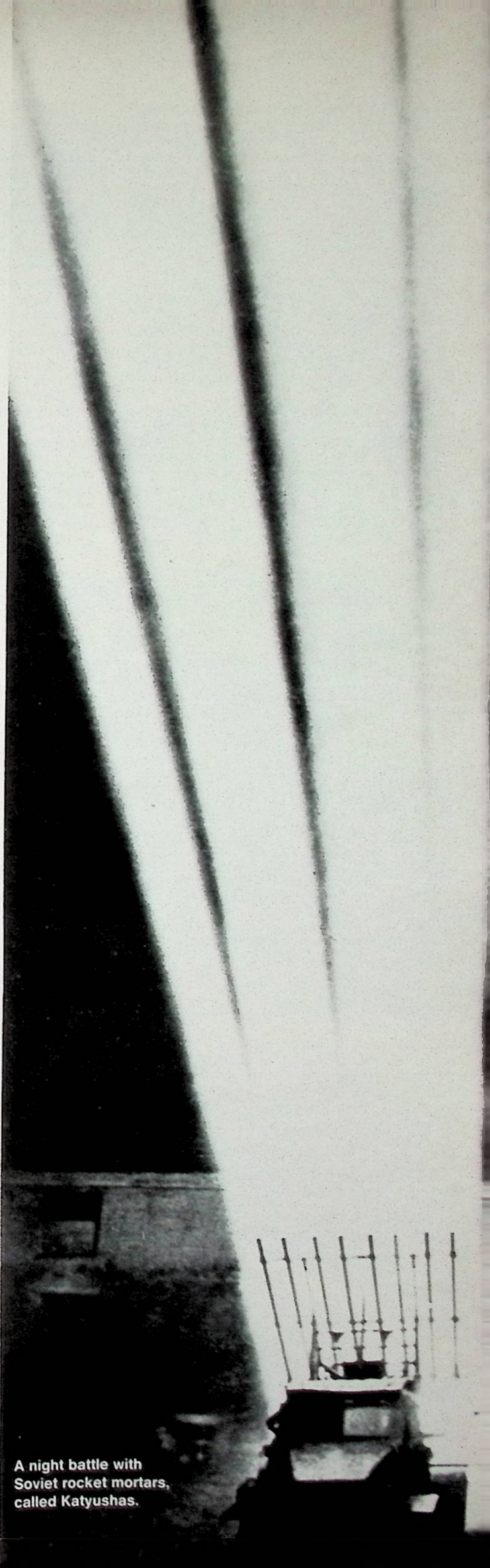
The soldiers were digging in on the front line. Behind it, as far back as 250-300 kilometers, there were another seven defense lines. In the event that the enemy should break through one, it would encounter a new barrier. It was only after the war that the total length of the battle and communication trenches dug at that time was estimated to be 10,000 kilometers.

The soldiers were getting ready to meet the enemy's offensive. They knew how important the trenches they were digging were, not only to themselves but to the whole world. The Wehrmacht had brought in all the materiel it could move near Kursk in order to strike with certain victory, to take revenge for Stalingrad, finish off the Red Army and eventually all the others.

Three Soviet fronts or army groups converged ►



General Konstantin Rokossovsky was in command of the Central Front, one of the three that converged near Kursk. The 2nd Army of the German Army Group Center was deployed along the western edge of the Kursk Bulge. Fifty divisions were massed for Operation Citadel.



A night battle with Soviet rocket mortars, called Katyushas.

near Kursk: the Central Front under General Konstantin Rokossovsky, the Voronezh Front under General Nikolai Vatutin, and the reserve Stepnoi Front under General Ivan Konev. Over 1.3 million soldiers, more than 19,000 pieces of artillery and mortars, almost 3,500 tanks and self-propelled guns, 2,650 planes—all this had to be provided for and fed. Trains could not get through: Orel was in enemy hands. And the nearest railroad ran in the rear. So the State Defense Committee decided to extend a new line from it. The railroaders in the army understood the importance of the assignment and promised to complete the extension within two months. It was ready in a month.

The front was waiting for the railroad. The builders had almost forgotten about sleep. Yet sleep was too strong to resist. Then the commander ordered those who did work to fasten themselves to something so they wouldn't fall.

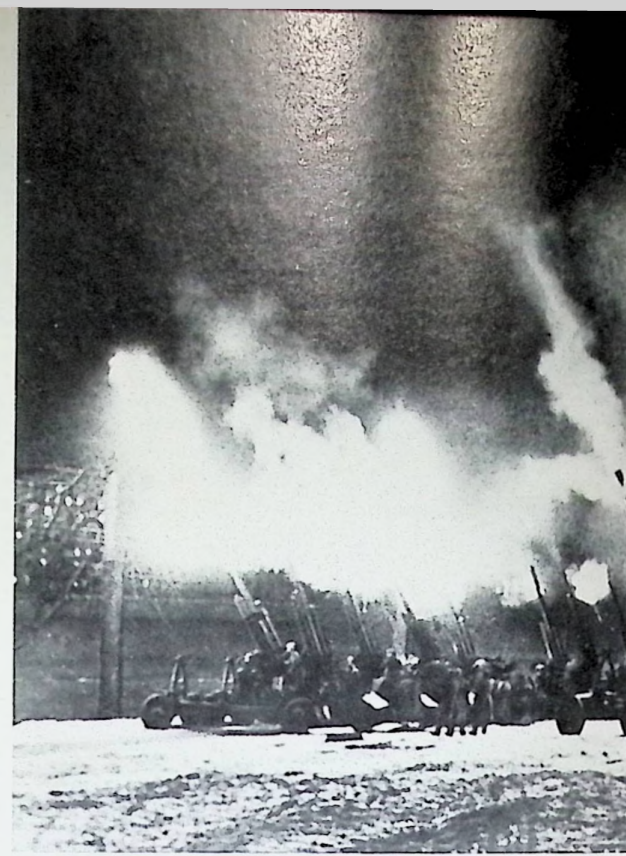
Thousands of women, old men and youngsters came to the site. A little girl wandered in among them. She was clasping something in her tiny fist and kept asking, "Where's my mother?" She finally found her. The woman straightened up and asked the child, "Did you bring me something to eat?" The little girl opened her hand. She wasn't carrying a piece of dried bread or a cold potato, but a notice from the front informing the woman about the death

quarters. The captains in charge that night awakened the colonels, and the colonels awakened the generals. "*Früh morgens!*" How did he know? He said that Hitler's order had been read to the soldiers in the evening. And then they were issued dry rations for five days. Obviously, hot meals were expected to be received on the sixth day in Kursk.

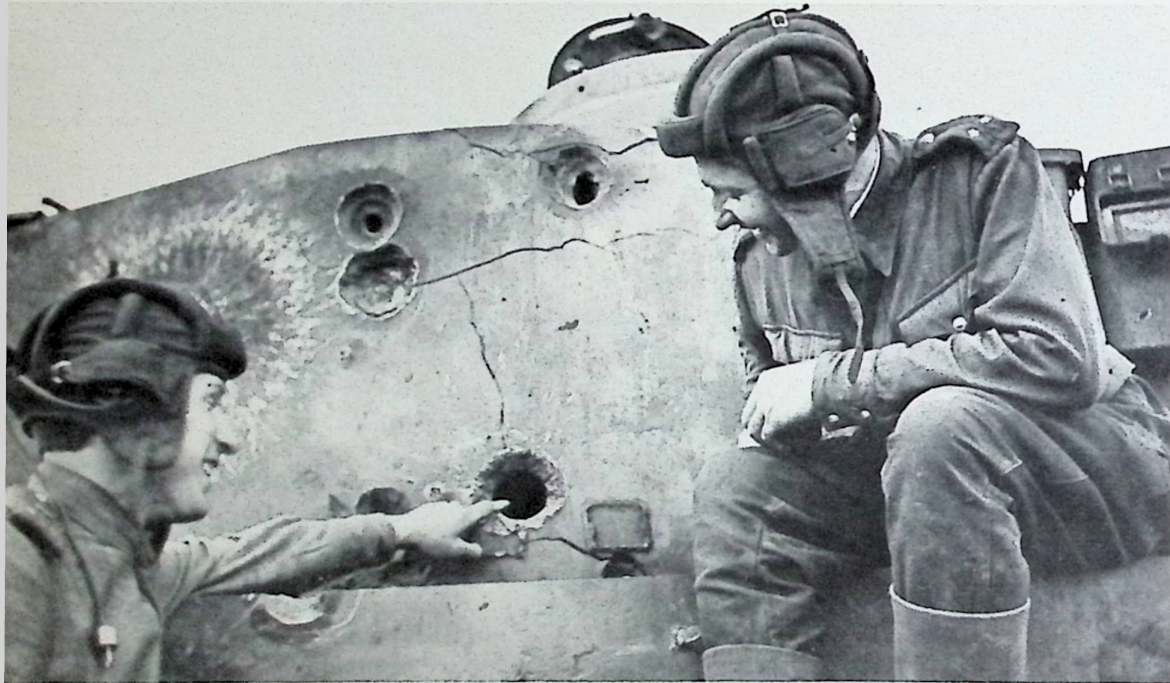
Well, the hot meal was delivered to them by Soviet artillery at daybreak on July 5, while they were still asleep. Generals Rokossovsky and Vatutin had decided to forestall the enemy's artillery preparation by the fire of their own batteries. The representative of General Headquarters, Marshal Zhukov, had agreed. In a war it takes the special courage of a military commander to make the right decision when he has only the minimum of information, when there is no time to wait for new data. No one could guarantee that the prisoner's "*Früh morgens!*" was not false information.

Shells blanketed the positions from which the German attack was about to start. Aircraft took off to continue from the sky the job begun by the artillery. Thunderous noise shook the ground. Everything was enveloped in fire and smoke. The fires and soot made it almost impossible to breathe.

The enemy was in confusion. The forestalling artillery attack made it forget about German punctuality. Carefully planned and regulated, the offensive



Left: The victors inspect a destroyed Tiger tank.  
Above: Moscow salutes the liberation of Belgorod, a large city on the Kursk Bulge.



of her husband. The woman grabbed hold of her spade, which sank deeper and deeper into the ground under the heaviness of her grief. Finally she took off her apron, wiped her eyes with it and held it out to her daughter: "You will carry earth in it for the embankment. We'll have a good cry later."

Construction work was accelerated in an attempt to complete the extension before the battle started. But no one knew when it would begin, not even Hitler's generals. The Führer pushed back the dates. He waited for the 300th Tiger, a tank not yet seen by the Soviet soldiers, to go to the Kursk area. He waited for several tank units to be transferred from Western Europe, although a tank division already was available for every four kilometers of the Kursk Bulge.

But when would all this power be set in motion? It was fortunate that the enemy's plan and the thrust of its strike had been guessed. But it was now necessary to learn the exact date and hour. Each night scouts penetrated the German rear, trying to take a prisoner, but the bodies of their comrades were brought back wrapped in trench coats instead. The Nazis were not going to disclose their secrets.

On the night of July 4, a German soldier was captured. The scouts were about to gag him when he shouted: "*Früh morgens!*"—"Early in the morning!" Oh, with what swiftness the prisoner was taken along the communication trenches to head-

quarters. But the enemy's onslaught was all the more ferocious. Among the Wehrmacht commanders were Manstein and Gott. Field Marshal Manstein knew that Marshals Zhukov and Vasilevsky, the same ones who had outmaneuvered him near Stalingrad, now confronted him near Kursk. Well, they had outmaneuvered him in the snow. He would show them a true military leader's art of fighting in the summer fields. There had not yet been a summer in the war when the German war machine did not advance eastward for hundreds of kilometers.

Now that summer came.

Some Western historians today emphasize the superiority of the Red Army near Kursk in numerical strength. "By seven times!" lamented Manstein. Indeed, fear makes mountains out of molehills. Yes, the Red Army had more of everything then, but not even twice as much as the enemy, and this superiority had not fallen from the sky. It had been forged in unbelievably difficult conditions by the Soviet people—from a People's Commissar dead-tired from sleepless nights to an adolescent who had to stand on a box to operate a machine.

And, besides, the desire to win the battle within five or six days—another blitzkrieg—made Hitler throw all his available forces into it at the same time. On the first morning of the offensive, one Soviet division had to fight off four enemy divisions







armed with Tigers, Panthers and Ferdinands. And Wehrmacht soldiers kept attacking from behind the steel backs of tanks, still believing in the right of might and in the incantations of Goebbels: "Victory is near. All that must be done is to catch it by the tail."

Yes, the Nazis had formidable strength. But they managed to advance only six kilometers a day. That was not the speed expected by Manstein and Gott. The enemy became nervous. What if they struck more to the left? What if they tried a more rightward thrust? They searched for weak spots in the defenses, hammered at them with an armada of new Henschels from the air and rammed them with tanks on the ground. By the end of the time allotted for encirclement, the enemy had covered only 35 kilometers from Belgorod and a mere 12 kilometers from Orel.

The grain sowed with such difficulty near the village of Prokhorovka, which was just beginning to form spikes, was threshed by caterpillar tanks.

Local inhabitants remember that it was foggy the afternoon of July 12. Only the fog did not come from the meadows; it was produced by explosions whose thunder deafened the soldiers. Having failed to make a breakthrough, Manstein turned all his tanks and self-propelled guns toward the grainfield near Prokhorovka. There were over 700 of them.

And General Rotmistrov brought his tank army of 500 here. The biggest tank battle of the war ensued. Hundreds of tanks and gun mounts were in flames. Clouds of dust and smoke hung over the battlefield. The guns became so hot that the tankmen lost consciousness. That was the turning point in the Battle of Kursk.

One of its participants recalls:

"A German tank was burning, and mine was too. We jumped out of them. Tongues of flame engulfed me. He was also in flames. We rushed to the rivulet, trying to outrun each other. We threw ourselves into the water to douse the flames and faced each other. We came to grips right there in the rivulet. And, finally, as his strength gave out, I drowned him."

By the end of the week the entire German offensive had petered out, and, without a pause, the Soviet armies launched their attack on Orel and Belgorod.

Peasant women came to the Prokhorovka field. They had nothing to do there with their sickles. They didn't gather the grain crop. They gathered the party and Komsomol cards of the fallen. Tens of thousands. The enemy columns had crashed against them, and then against the Soviet tanks.

To this day tractor operators find unexploded shells, bombs and mines in the Kursk fields.

Even after decades, the war can still be felt. ■



The German Army never recovered from the blow it received at the Battle of the Kursk Bulge. It was the swan song of the German armored forces.

About 100 research institutes of the USSR Academy of Sciences and the USSR Academy of Medical Sciences are participating in the program coded "A Longer Life." They have outlined three main tasks: to identify the basic causes of aging in order to determine whether the process can be influenced; to find out what part various natural factors play; to develop methods of prolonging human life.

# LONGEVITY: WHO SAYS "NO"?

By Vladimir Kyucharyants

**W**hat makes death inevitable? Is it aging or a programmed limit of life? Is it possible that nature, having created aging and death, has not envisaged a way out? In bygone days people told myths and tales of rejuvenating springs, elixirs and other miraculous ways of restoring youth.

"Calculations make it possible to assume that the maximum life expectancy of human beings is 115 to 120 years," says Professor Frolkis, a distinguished Soviet researcher from the Kiev Institute of Gerontology. "Mind you, those figures are the exception rather than the rule for Homo sapiens as a species."

It has been established that after 30, all the functions of the human organism grow one per cent weaker every year. Still, considering this, we know that a human can live to a maximum of 100 to 120 years, provided he does not have any accidents or contract a fatal disease.

Why is it that most people live to only slightly over 50 per cent of their maximum possible life span? Is it because the organism wears out, or does it contain a self-destruct mechanism that switches on at a certain moment?

"Aging is not genetically programmed. It is determined by the preprogrammed properties of the organism, its functions and their changes in the process of living," Professor Frolkis says. "However, we have established an extremely important fact. Another process, apart from aging, has come into existence in the human organism as a result of evolution. This process is aimed at enhancing and stabilizing the viability of humans and at increasing their life expectancy."

In other words, nature has built a powerful anti-aging factor inside us. How can we use it?

"There are two known ways," continues Professor Frolkis. "The first is tactical, namely, to improve the adaptational abilities of humans. This will help prevent diseases and make the second half of their lifetime more productive. To achieve this, we have developed a whole class of drugs that improves blood circulation in cerebral vessels, metabolism and the activity of the nervous system."

"Incidentally, one of the ways of doing this, is by diet. Low-calorie diets and low-protein diets (with the normal calorie content) are equally effective. We have established that those middle-aged people who have been on a low-calorie diet for a long time have fewer pathological changes in their cardiovascular system and fewer obesity problems."

"The second way is a more radical one—by changing the genetic program. However, how can we control this program when we don't know enough about it yet?"

What do we know?

No matter how different people might be, we are made of the same "raw materials"—about 100,000 different proteins. How, when and in what amount are these proteins synthesized? In what way is their proportion, the only one possible for humans, observed?

The entire "program" of our biological life is biochemically coded in the genes. Every cell possesses a complete set of genes and all the informa-

tion necessary to create another human being physically identical to us. Genes control the number of proteins of all kinds to be produced by the cell.

Our normal development and healthy life depend on the coordinated activity of the genome, or the entire system of genes. Biologists know quite a lot about the individual cell, but they are still in the dark about the ways it can coordinate its activity with that of the billions of other cells that make up the whole organism. They keep guessing at what makes those cells work simultaneously and in perfect coordination and why that coordination is sometimes fatally disturbed, thus turning a normal cell into, say, a malignant one. Is it an accident or a change envisaged by the program? Why is the omnipotent immune system helpless on such occasions?

"Now we are sure that aging is caused by a disturbance in the regulation of the cell's genetic system and by errors in the system of information transfer," Professor Frolkis says. "When such changes occur in the brain, it leads to dysfunction of the organism as a whole. Once having started, the errors keep piling up, and the process avalanches uncontrollably. The immune system musters its entire potential to fight them by switching on all the mechanisms that can mollify the process. This great battle between aging and viability is the main factor determining life expectancy. However, the capacity of our immune system is limited and sooner or later 'the avalanche' drags us downhill."

## The Pendulum of Aging

When I was in Abkhazia, where people say that 100 is not old, I asked Mikha Jobua from the village of Chlou why Abkhazians live so long.

"Because we are not in a hurry," replied the 126-year-old, saddling his mount to go for a ride.

When winding up this man's, and his countrymen's, clock, nature was not in a hurry. As for the majority of people, their clock is invariably fast.

How is the sinister pendulum of aging set in motion and where is it situated? Well, the range of ideas in this field is wide indeed.

One of the most radical hypotheses put forward by American scientists from Harvard University is that the brain secretes a fatal hormone during the time of sexual maturity which suppresses the body's ability to use thyroxin, a hormone produced by the thyroid gland to regulate the intensity of metabolism.

Another hypothesis recently put forward by immunologists links aging with the deterioration of the immune system. As time goes on, the activity and responses of the immune system weaken. This leads to aging in humans because they then become susceptible to any hostile factor.

According to leading Soviet immunologist Academician Rem Petrov, we have no serious reasons to believe that the immune system plays a fatal role in this process. "A more sober approach," he says, "is to regard it as equal to all the other systems of the body. As time passes, this system, like all the others, suffers from structural and functional disorders. Physiological aging is a natural, balanced lack of immunity, or balanced deterioration of all the links of immunity."

Professor Vladimir Dilman, a distinguished scientist from Leningrad, believes that the clock of aging is in the brain. However, his hypothesis is different

from the one put forward by his Harvard colleagues.

"It is quite possible that man's death is envisaged by his genetic program, and his 'clock' is wound for a certain time. However, this clock stops long before the spring is unwound," Professor Dilman says. "Man never reaches his genetic finale, for death is always premature. No one dies of old age. As time goes on, the factors responsible for the development of the organism lead to some well-known diseases causing 85 out of 100 deaths in the middle-age and elderly groups."

"Many years of research have convinced me that the 'switch' of aging and related diseases is the programmed deviation in homeostasis, or the disturbed equilibrium of the internal systems of the body. It is caused by the hypothalamus, or the region of the forebrain controlling the stability of the body's internal state—temperature, blood pressure, sugar and cholesterol contents and acidity."

For some evolutionary reasons, we remain alive and well only if our internal processes are stable. Medical workers tend to regard any deviation in homeostasis as a disease.

The paradox is that the human organism must go on developing though this process is the opposite of stability. Is there any way out?

Professor Dilman believes that nature has envisaged one by including the homeostatic deviation law in the genetic program together with the law of the stability of the inner systems. The coexistence of the two laws is the unity of opposites, which promotes both development and life itself.

The hypothalamus, or the integrator of the signals sent to the brain from all parts of the organism and from outside, sees to it that both laws are observed. It is well informed and can therefore maintain the stability of the inner systems and control the deviation essential for development.

Still, is there any connection between the development of the organism and the inevitable diseases which turn out to be fatal for humans?

"Well, in the initial 25 years of our life this 'main regulator,' implementing its genetically coded growth program, speeds up the activity of three main systems of the body. When the program is completed, the hypothalamus should slow down, but it keeps swinging the pendulum, thus increasing the activity of the systems and disturbing their rhythm," says Professor Dilman. "Naturally, the stability of the body's internal processes are disturbed (meaninglessly and fatally), as well as its equilibrium. This is what we call a disease."

At first the errors are slight; but, as time passes, they snowball, and each of the systems goes out of order in its own way. The energy (metabolic) system develops a high blood cholesterol level, which increases the risk of death from coronary insufficiency. If, on the contrary, the cholesterol content is low, this might cause cancer, which also leads to death.

Why does the organism's guard turn into a time bomb? What prevents it from slowing down?

Professor Dilman believes that the adjustment to changing conditions and defense against stress are possible only when all the systems of the body start working more intensely. The very same systems are responsible for our development. This mechanism also causes the diseases of aging. Thus, protecting

Continued on page 30

# FINE WEATHER ON WEDNESDAY

Six Interviews on a White Ship

By Lyudmila Ivanova

Photographs by Alexander Kurbatov



The weekly cruise on the Moskva River starts early in the morning and ends at 8 o'clock in the evening. Right: Retired engineer-geologist Maria Neklyudova wouldn't miss an outing of the Old Friends Club for anything in the world.



**O**n Tuesday Mother and her friends were preparing for their Wednesday cruise, and the phone rang incessantly. They discussed the menu, what they were going to wear and the books and games that they were going to take with them.

Since the day she joined the Old Friends Club, which has been functioning in Moscow for 25 years now, my 70-year-old mother doesn't become ill as often as she used to. She goes to the theater regularly and attends all kinds of meetings, competitions and exhibitions. In the past months alone the club members went to see the new icon exhibit at the Tretyakov Gallery, the Japanese Design Exhibition at the Artists Center and a popular play at the famous Moscow Art Theater. But her favorite pastime is cruising on the Moskva River.

Every Wednesday in the spring a white boat leaves the Moskva River port at 10 A.M. and an hour and a half later reaches the Bay of Joy, 50 kilometers out of the capital. You can find everything there that a person needs for a pleasant rest: the pure water of the river, a boating station, woods full of mushrooms, green clearings, well-kept tennis and volleyball courts, tables for chess and cards. Everybody can find things that appeal to them. At two o'clock they get together for lunch. There is a buffet on the boat, and the women show off their culinary talent by bringing pies and cookies baked especially for the cruise.

After a nap there is dancing. They dance practically everything "from the quadrille to the twist," said Alexandra Kotova, 67, a retired ballerina.

"You know that people in my profession retire very early, at 35. But I danced until I was 40 and then taught dancing. It was only later that I stopped working altogether. My grownup children and grandchildren have all gone their separate ways, and I live alone. In our club I found what I missed most of all: The feeling of being needed by other people. Now I am again teaching people to dance, and that makes both them and me happy." ▶



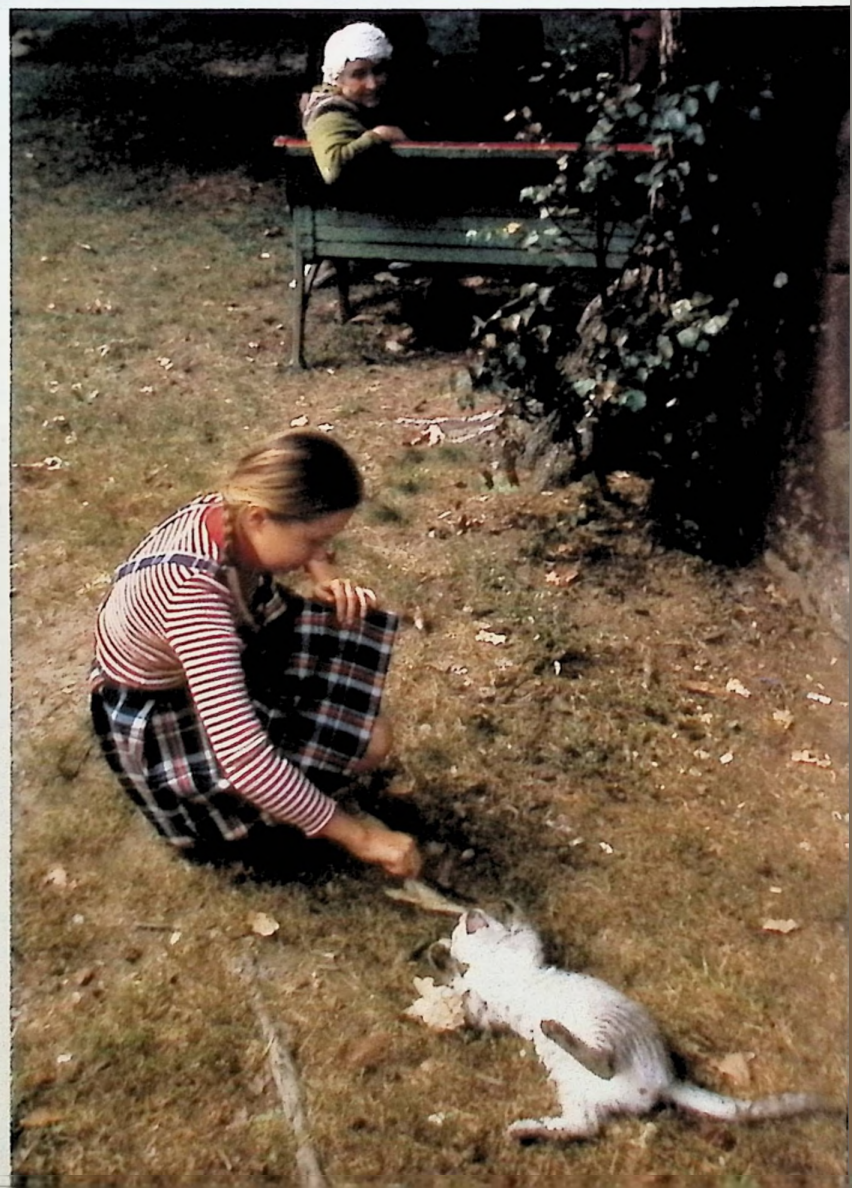
Victoria Skinder, 78, a retired drilling-machine operator, has three children. She lives with her youngest daughter and grandchildren, loves to knit and sew and putter around in the garden of her country house.

"But on Wednesday I put everything aside and go on the cruise. I've found so much that's new to me in our club. I'm glad that I'm living so long. My health is good, and my pension is sufficiently large. I had a very difficult youth. I was already working in a factory during World War I. Little girls like me were given special benches to stand on because we were too short to reach the machines. But now I'm enjoying my old age. Some people complain that they're lonely, but as far as I'm concerned, I never have enough time. I go to the theater and have developed the habit of reading."

Victoria reads with the same zest that she used to work with. She feels for the characters in the book. She is as sorry for Anna Karenina as she would be for her own sister. During the Poetry Hour she's the most avid listener. The members of the club recite the poems of popular poets or poetry they have written themselves. Among the reciters are Faina Khasina, a chemist, and Fyodor Novikov, "ex-economist and ex-captain of navy artillery," as he introduces himself. Fyodor is past 80, but he is smart-looking and well groomed. He lives all alone. His wife died a long time ago, and his children live in other towns. He has no intention of getting married again, but he does appreciate feminine company.

*Continued on page 59*

**Just the sight of the sparkling blue water is a tonic, but there's lots more than that to enjoy: a delicious lunch and dancing on the boat, walks in the woods, volleyball and, best of all, leisurely visits with grandchildren, who are welcome to accompany their dotting grandparents.**





# A TALE ABOUT AN OLD COUPLE

By Vladimir Novikov

**A**nastasiya Grinyova, aged 80, says: "There are two things I hate in the world: war and money."  
We are accustomed to thinking of people Grinyova's age as being decrepit, but she is not what we would customarily call old. She's a handsome woman with a proud turn of the head and a good sense of humor. She is fond of quoting the classics and is well informed about current events. Her husband Konstantin is more restrained and precise in expressing himself, but in all other ways they are very much alike. They live in a two-room apartment in a house in Kirovsk, a suburb of Leningrad.

Recently they celebrated their fiftieth wedding anniversary. It was not a lavish affair because the couple never saved any money. Their most valuable possession, a set of antique silverware, they donated to the Soviet Peace Fund just before their anniversary, but they don't like to even mention it. "We simply gave away something that we didn't need. What's so extraordinary about that?"

"But why did you give it to the Peace Fund and not some other cause?" I asked them.

"Because we believe that war is the most detestable of all human actions. No matter how those who unleash wars try to mask their true aims, money is always at the bottom of all the fighting. That is why I despise war and moneymaking," answered Grinyova.

We might say that the remarkable phrase "What you have given away remains truly yours," uttered by the medieval Georgian poet Shota Rustaveli, is the couple's guiding principle in life. Doing good keeps them active and cheerful. Two years ago they went to the district library, where they have been borrowers for many years, with a cart and asked the librarian to give them torn books to mend. Since then they have repaired 2,500 books. But when the manager of the library offered to pay them, Grinyova said with a smile, "If you want us to keep doing the work, please don't offer us any money."

Anastasiya and Konstantin talk easily on any subject, but there is one question that is especially easy for them to answer. It is, "How can a person retain a clear mind and youthful interest in life? After all, the difference between old age and youth is not the amount of life experience a person has but the diminish-

ing of feelings of excitement and anticipation, a kind of passivity."

They believe that the secret of staying young lies in a life full of activity. Neither of them had a formal education, but they have engaged in self-education all their lives.

In between working, bringing up the children and attending lectures and debates, Anastasiya learned three languages—French, German and English. Konstantin often went on out-of-town assignments, and when they were together, they spoke mostly about their work because they both had jobs in the power supply system.

Though Konstantin's work exempted him from being drafted, he insisted on going to the front from the very outbreak of the war. Anastasiya remained in besieged Leningrad with the children and worked at the power station. She was a member of the commission that controlled the distribution of foodstuffs. Like the rest of the Leningraders, the family suffered from a dire shortage of food. Anastasiya's feet became so swollen because of the lack of food that she could hardly put on her felt boots.

Konstantin returned from the war with two decorations. Without taking a single day off to rest, he left with the entire family to build a new thermoelectric power station in Kirovsk, which had been destroyed during the war. He was assistant chief of construction. After the station was put into operation, he was transferred to a plant manufacturing power machinery as assistant director. Anastasiya worked as the planning and estimating department chief at the station. Their three children have all graduated from higher educational institutions and now have families of their own.

"Involvement in community work is one of the things that keeps you young," says Grinyova. "I was probably a 'difficult' person because I always found somebody to pick on," she said with a smile, and to prove her point, she took out a pile of newspaper clippings of her critical comments in the papers. One of them criticized the director and chief engineer of the power station for using the management car for personal things. And yet the station management and her fellow workers proposed her as a candidate for the Order of Lenin, the highest Soviet award, which Grinyova received in 1953.

The couple maintain that it is malice and inactivity that make a person old and attribute their well-being to a life of hard work, harmony and happiness.

That, apparently, is the secret of eternal youth. ■



## A LITTLE BIT OF FUN FOR GRANNIES

Photographs by Boris Kuzmin

**M**any grandmothers spend the summer at dachas in the countryside looking after their grandchildren. The youngsters have lots of things to do there. One of them is putting on a show



for their grannies. In this village near Moscow they have transformed a clearing in the woods into a stage. The audience applauded their performance enthusiastically and invited the actors for tea and cake when it was over. Even the dog had a good time.

# STAYING YOUNG WHILE GROWING OLD

**W**ant to keep in good shape to the last, remain independent, move about freely, feel and look well? Want your twilight years to be as interesting and happy as your youth?

Sure, you've already done plenty: brought up children, been busy around the house, taken care of a family, helped your dependents in every way, looked after your old parents. But the years have passed, and your activities have fallen off. The children have grown up and left the fold, and you've retired. Or perhaps you have no family left. Without knowing it, you've gradually become dependent on other people. You just don't feel up to going out anywhere, and day by day you are becoming less cheerful and more and more lethargic. You feel tired, have no strength. Old age has set in.

What exactly is old age? It's when waning health seems to be the main thing in life. It's when you become helplessly dependent, perhaps a burden to others who are younger. That kind of old age can be avoided. You're an elderly person? Well, so what? Choose a future after your own heart.

You sit there in your armchair and look at the four walls or TV. Your aches and pains are your whole life. But there's another way. Just a few minutes every day, and you can feel and look a lot younger. You'll gain energy and be able to do whatever you like.

You think we're talking about some magic potion? Not at all. This fountain of youth is accessible to everyone. To find it, all you need is a little will power and knowledge. We're talking about exercise. Which is better—an armchair existence or years full of pleasure, activity and a sense of being useful? A few minutes a day every day, and the healthy elderly person, overcoming the temptations of an immobile lifestyle, regains strength and color and shows the world that the weight of years does not mean the end.

Books published in the Soviet Union can help pensioners move back the walls of age. The most recent in the series is American fitness coach Magda Rosenberg's *Sixty-Plus & Fit Again*. It was published in Russian in an edition of 75,000 copies and immediately sold out.

It is no exaggeration to say that the world has been hit by a health boom, particularly among the elderly. Fitness lessons have been given at sports clubs for over 10 years. In addition to groups for the middle-aged, there are groups for elderly women. So in the past two years the "Youth Section" has expanded to make room for the pensioners. The managers of sports clubs had to find money to build additional facilities for three new pensioner groups.

In the Soviet Union General Physical Fitness, Exercise for Women and Health Training groups are the most popular and accessible sports activity for all age groups. The groups meet for an hour and a half three times a week under a trained instructor. The cost is three rubles (about four dollars) a month.

Jogging clubs are also catching on. They, too, are organized at sports clubs, places of work and study, and by community groups.

Recently an old-timer at one such club in Moscow led a group of joggers on a 10-mile run at the grand age of 76. In an interview taken on the move, Mikhail Kotlyarov told me, "I'm not just running off the years, I'm getting my youth back."

Eighty-one-year-old Germina Ronginskaya has been leading a group of figure skaters at the Nauka Stadium for 10 years. Her association with sports spans four generations. She was almost 60 when she began ice skating, and she has been visiting the rink ever since. At first she kept falling down. She couldn't master the basics, but she'd just get up and try again. She had no reason to feel shy because all the people around were just about the same age, women 45-plus and men 50-plus. The Nauka skating program is organized so as to avoid injuries. I asked Germina what dancing around the ice gave her.

"Just everything. Health, trimness, a good mood, the feeling of being young."

It's a real pleasure to look at these elderly women so active and still so feminine. You come away with a similar feeling from the men's Winter Swimming Clubs for Walruses. Clubs like these exist all over the country but are most popular in Leningrad and Murmansk. In the past 15 or 20 years many have taken to the traditional old sport of bathing in holes cut in frozen rivers and the sea.

The latest form of physical training is aerobics, and it has swept the country. Clubs are springing up all over the Soviet Union. There are major competitions in the new sport, and the newspapers and magazines are full of them. Last summer Soviet television launched a new series introduced by former Olympic ice-skating champion Natalia Linnichuk.

Physical fitness takes a wide variety of forms. A campaign has been launched nationwide to inform people, including pensioners, just what a great thing fitness training is. ■



Aerobics for pensioners is the rage these days. Right: Mikhail Kotlyarov, 76, is leading a group of joggers on a 10-mile run.



# SOVIET-AMERICAN JOINT RESEARCH: HOW TO LIVE TO BE 100

Interview with Victor Kozlov, Doctor of Science (History), by Elya Vasilyeva

In 1977 the USSR Academy of Sciences and the American Council of Learned Societies signed an agreement on parallel studies of long-lived persons. In the United States the project was carried out by the Research Institute for the Study of Man (New York), and in the Soviet Union by the Institute of Ethnography of the USSR Academy of Sciences (Moscow). The Soviet team was led by Victor Kozlov.

**Q: Is the Soviet-American project on longevity still under way?**

**A:** It is. In 1982 the second Soviet-American symposium on the subject was held in New York. Soviet speakers reported the results of their five years of study. At present their papers are nearly ready for publication in the United States.

Our latest meeting with our American colleagues took place last April at the Soviet-American symposium Contemporary Ethnic Processes in the USSR and USA, held in New Orleans.

**Q: In what way is your project different from previous works on longevity?**

**A:** Actually, there has never been anything like our project in international science. The difference is that we have studied the subject on a group level, not on an individual one. For the first time ethnographers have been working in close cooperation with medical researchers, psychologists and other experts. All this has made it possible for us to determine the age of elderly people with great precision.

**Q: On what principle was your choice of location based?**

**A:** Longevity as a phenomenon is not concentrated in any particular area of the world. There are very old people in almost every large city or rural region, but large numbers are concentrated only in certain geographical zones.

In the Soviet Union one such region is the Caucasus. Its population amounts to only about 7 per cent of that of the USSR, but 16 per cent of this country's very old people reside there. We chose the Abkhazian countryside, where the number of long-lived persons is really high. [Abkhazia is a small autonomous republic on the Black Sea coast of the Caucasus.] Dr. Sula Benet, for instance, worked in the Caucasus. She published a book on the longevity problems in those parts which was a real success with American readers.

At present we are continuing our work in another region of the Caucasus, namely, in Azerbaijan.

**Q: Can you say that you have arrived at any particular scientific conclusions on the subject?**

**A:** The data obtained are still being processed. Many conclusions will be made only after comparing our information with that available in other countries. At present we can explain only some aspects of the origins of this phenomenon.

Its idea is not just the presence of a large group of very old people in some area, but rather the fact that many of those people continue working, are healthy and socially active, that is, they embody a "natural solution" of the problem of an active life for elderly citizens.

We can say that the role of some factors which used to be considered absolute is relative. On the other hand, we have revealed the priority of other factors for longevity, factors that have never been studied thoroughly before.

Thus many authors reflecting on the elements that contribute to longevity gave priority to diet, which was usually described in the following way: "Less meat, more cheese, and your life expectancy will increase considerably."

In our studies we did concentrate on diet to some extent, but we cannot give it priority. We established that the major traditional meal in Abkhazia was a

thick porridge of corn meal plus various vegetable and milk products. The basic food product of the Azerbaijanian's everyday cuisine is bread plus some vegetable and milk products and a large amount of meat. Considering the fact that some groups of long-lived persons reside in other parts of the country as well, Yakutia, for instance [an autonomous republic in Siberia], it is easy to see that the diets of elderly people differ greatly.

We believe that a sociopsychological factor is much more universal than diet. We link longevity mostly with the social status of elderly people and the favorable psychological climate they live in, as well as their continuing to work within the limits of their physical abilities.

We have also learned that the oldest person in a community of the elderly enjoys the greatest respect. In families respecting and honoring their elders, they are subjected to less stress, which increases their life expectancy.

**Q: Do you think you can give any practical advice on longevity today?**

**A:** Our practical findings are meant not so much for making individual recommendations concerning schedule, diet and treatment—this is a task for gerontologists—as for resolving the problem vital for all advanced countries, namely, providing the proper conditions for the elderly to remain active as long as possible.

We must also keep in mind that many elderly people today are healthy and sane and have tremendous life experience. Though they are quite willing to rear their grandchildren or their neighbors' youngsters, to look after their own pets or do housework, they prefer not to limit their activity to those simple matters.

The elderly, whose number and potential keep growing steadily, can do a great deal to help the contemporary world.

## LONGEVITY: WHO SAYS "NO"?

Continued from page 24

itself from stress, the organism resorts to an extreme mode of energy production, fat metabolism. However, the fats, economical from an energy production point of view, have the ability to glue blood platelets together. This is why heart and brain thromboses are so common at times of stress.

If Professor Dilman's hypothesis is correct, we should feel sorry for ambitious people, who are always under stress. The emotional tension to which they are subject results in a high level of stress hormones. This increases the probability of developing cancer, as the above-mentioned hormones weaken the immune system. In other words, ambitious people keep swinging the pendulum of their "aging clock" incessantly and of their own free will.

This idea agrees with the opinion, common among specialists, that the rate of aging depends, to a great extent, on the type of nervous system we have inherited. It was not accidental that the study of long-lived Caucasians showed that not a single patriarch was ever consumed with envy or suffered from bad temper and pessimism in his youth.

### Hopes

Well, if scientists have failed to come to a unanimous opinion on the primary cause of aging, how can we seriously discuss the possibility of a longer life?

"The idea that life expectancy is equal to five times the period of our growth (until we reach sexual maturity) was expressed a long time ago," said

Professor Frolkis. "However, today it has been proved experimentally that if the period of an animal's growth is extended, its life expectancy will increase sharply. The problem is how to extend it."

One way is by a special growth diet. However, there are other methods as well. The staff of Frolkis' department has developed an absolutely new technique for increasing life expectancy. By adding special molecule-binding substances to food, we succeed in eliminating toxins from the organism. The experimenters succeeded in prolonging the life of rats by 30 to 40 per cent. Incidentally, this technique is best used at later stages of the organism's development, when toxicity becomes a real menace because of the body's weakening protective forces.

Another way of prolonging life is to enhance the organism's protective forces through the use of substances capable of protecting nucleic acid and protein macromolecules from harmful agents.

Academician Nikolai Emanuel and his staff at the Institute of Chemical Physics of the USSR Academy of Sciences have proved that in some cases those substances result in doubling life expectancy.

Dr. Vitali Arion of the Second Moscow Medical Institute and his colleagues decided to try rejuvenating the immune system of mice by means of the drug T-activin, and the result was far better than expected.

Still, suppose aging is really the switching on of some "lethal genes"?

"It's quite possible theoretically," said Professor Frolkis. "However, we looked at it from a different angle. If aging begins with the activation of formerly passive genes, we must slightly inhibit protein biosynthesis to check the process. This is also one

of the ways to prolong the life of experimental animals by one-third."

What other ways do scientists believe this can be done?

Professor Dilman prefers the pharmacological approach. The idea is to heighten the sensitivity of the hypothalamus to the inhibiting factor, namely, the influence of the peripheral endocrine glands, by using certain drugs. If this works, medicine will have a universal means of controlling the rate of aging as it will be possible to maintain the basic systems of the organism at the level of a 25-year-old.

Another opinion is that if we succeed in bringing down the human body's temperature by 2 to 2.5 degrees centigrade, this will also prolong life.

This means that only some evasive factor prevents scientists from solving the greatest mystery of nature. Gerontologists are most optimistic about it for they have succeeded in prolonging the life of animals by 30 and sometimes even by 100 per cent. It goes without saying that human beings are very different from lab animals.

What about forecasts for the future? The majority of experts believe that we must have greater confidence in being able to control the rate of aging, which can be done in the near future, by the year 2010.

As for a breakthrough in prolonging life or radically extending its expectancy, the position of skeptics is much stronger. The majority of experts doubt that it is possible or, at best, that it could be possible earlier than the middle of the next millennium.

Of course, such a discovery, if it is ever made, will deliver human beings for good from the moral and physical suffering caused by aging and dying. ■



## travel

Is it possible to travel 600 kilometers across a desert in the burning Sun carrying on your back all the food and water you'll need for the trip? Seven men tried it so that they could teach survival techniques to people who might become stranded in a sandstorm or encounter other unforeseen hazards of the desert.

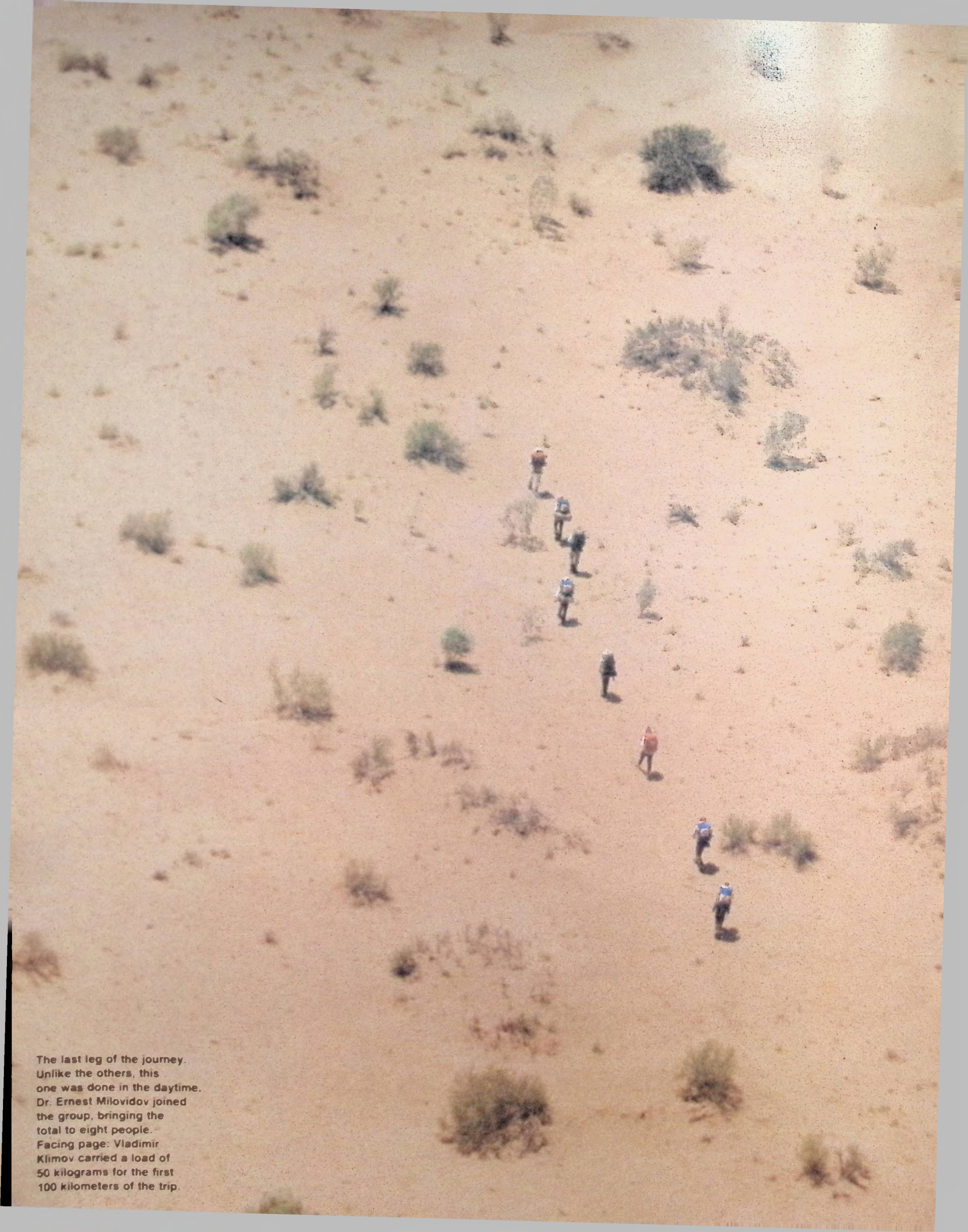


# 720,000 STEPS ACROSS THE KARA-KUM DESERT

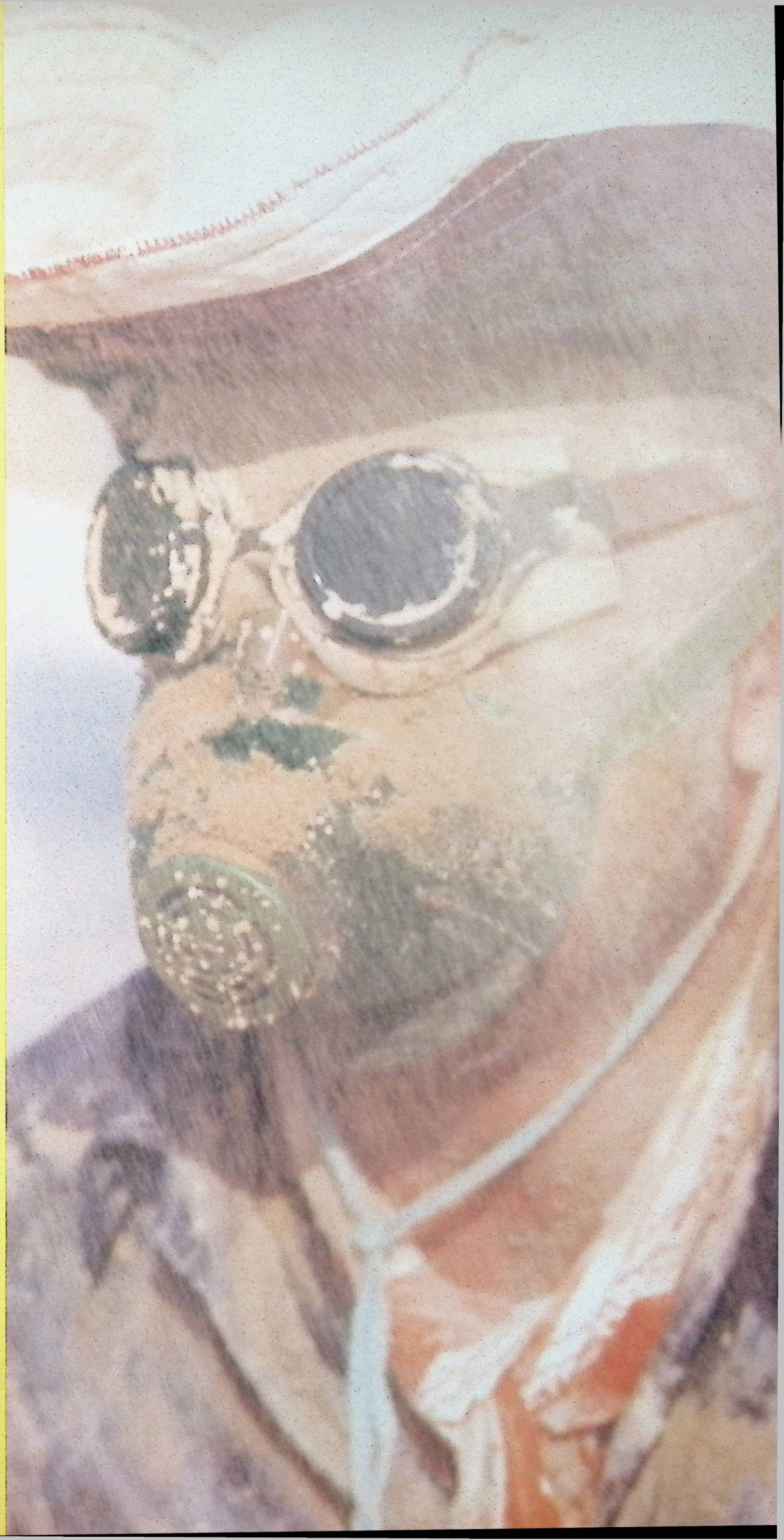
By Pavel Antonov  
Photographs by Vladimir Chistyakov

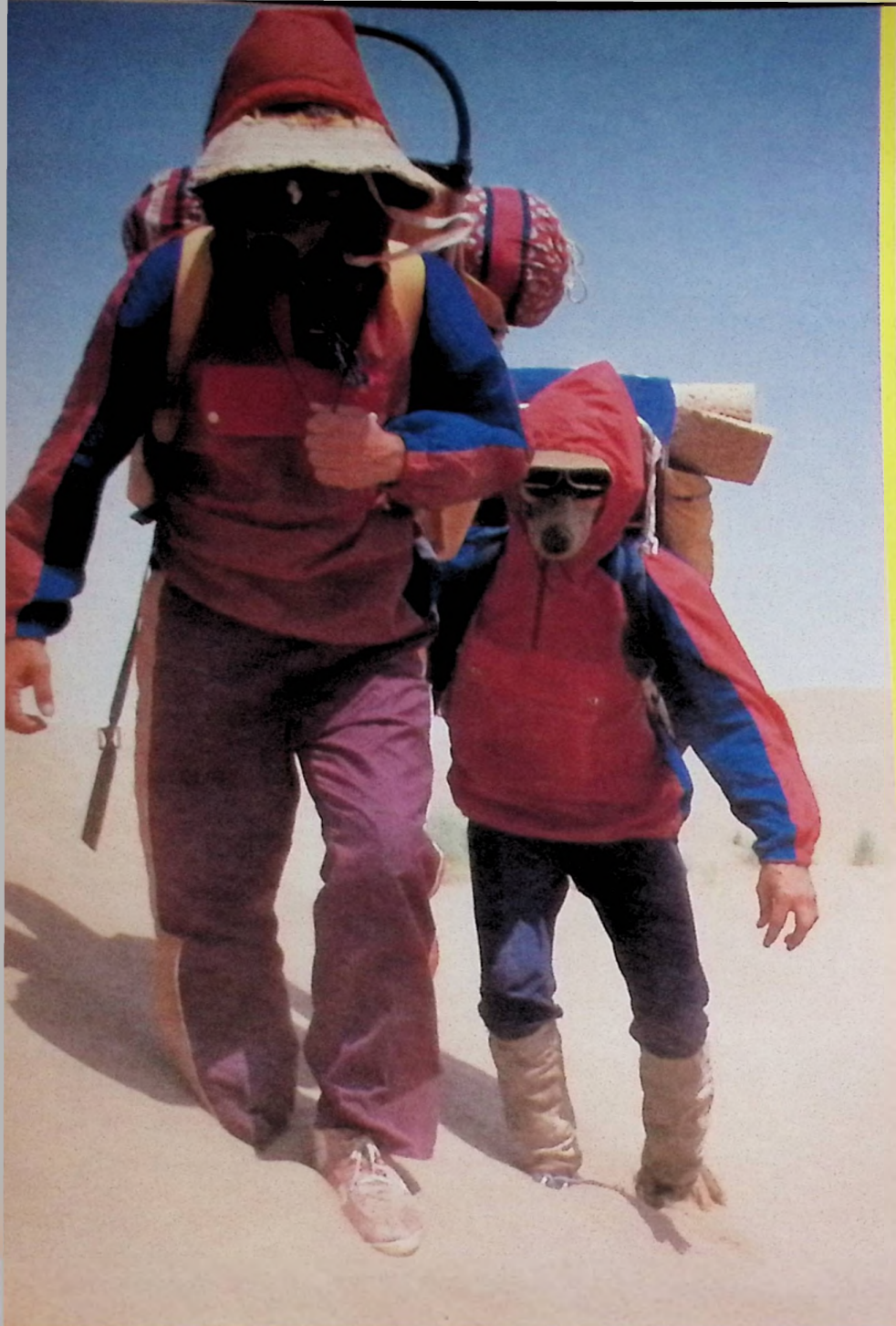
At the Yekidzhi (Lonely) weather station.  
This was approximately 200 kilometers  
along the route, or one-third of the trip.





The last leg of the journey. Unlike the others, this one was done in the daytime. Dr. Ernest Milovidov joined the group, bringing the total to eight people. Facing page: Vladimir Klimov carried a load of 50 kilograms for the first 100 kilometers of the trip.





There were three storms in 22 days. This is the end of one of them. Below: It is an invariable law of the desert never to sleep in the Sun, so Emil Bal is just resting.

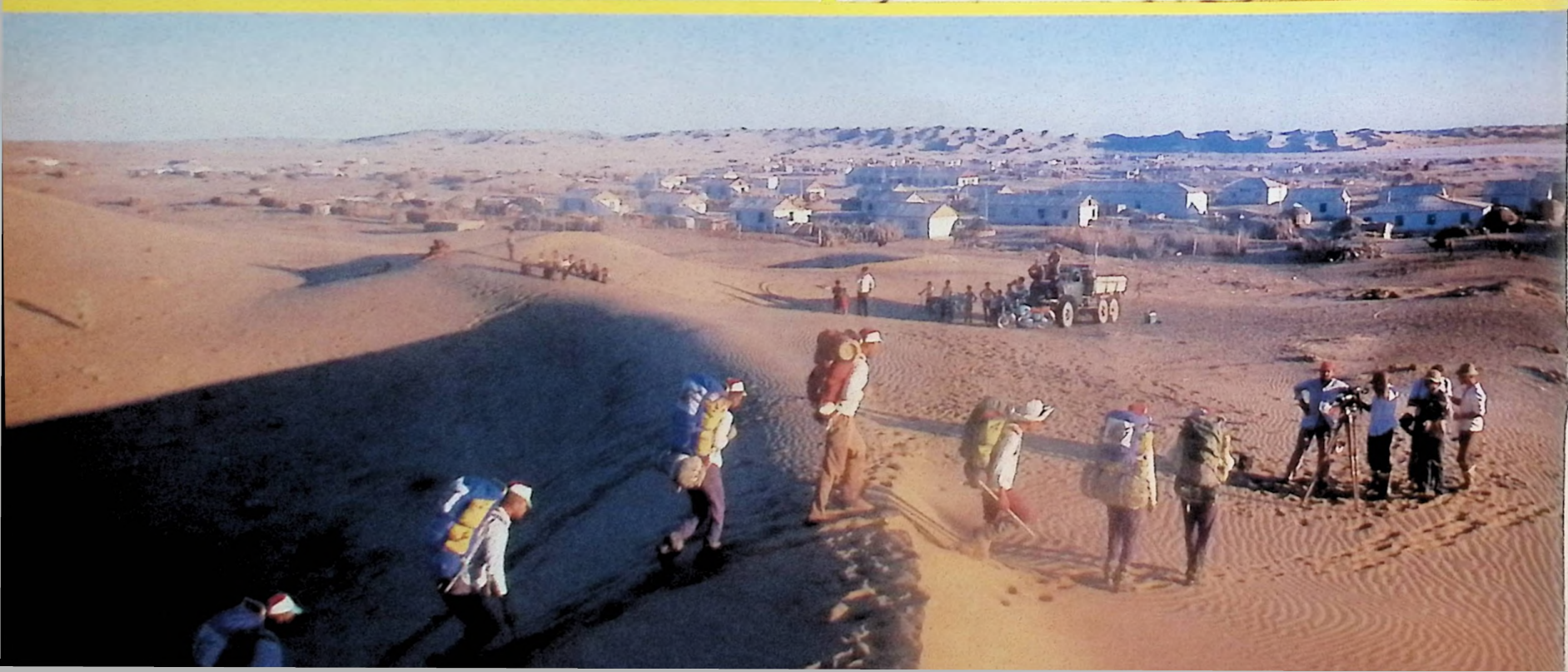
**T**he Kara-Kum is a desert in Central Asia with an area of about 350,000 square kilometers. That is the description in the encyclopedia of the largest "yellow spot" in the Soviet Union.

"For me the Kara-Kum is 720,000 steps," said guide Emil Bal, as he took the last stride. He led the way for the group that crossed the desert on foot in July 1984. His task was all the more difficult since the members of the expedition refused to use maps, relying only on a dotted scheme of wells.

It was the first attempt in history to challenge the huge desert on foot with the challengers carrying food and water on their backs. For millenniums the sandy routes have been the domain of camels. In



Except for the weather station, the village of Kirpili was the only settlement on the route.



our century automobiles have taken the scorching expanses by storm several times. The bicycle proved inadequate, but those who chose sand vehicles under sail were more successful. And, finally, the first attempt to cover it on foot in July, when the heat is intolerable.

There were seven in the group: Nikolai Kondratenko, 37, a doctor, who headed the group; Helmut Gegele, 35, a construction electrician; Nikolai Ustimenko, 25, a lathe operator; Zeinel Sakibzhanov, 34, a shop supervisor; Vladimir Klimov, 33, a serviceman; Victor Golikov, 34, a building engineer; and Emil Bal, a power engineer.

They spent two years making arrangements for the trip. And, at last, armed with the experience of those who had tried before them, they stepped into the desert to learn how to help others whom fate might leave stranded there.

Shortly before, a tragic event had occurred in the desert. Two drivers with a truckload of wood had lost their way. They left the truck when it ran out of gas, took the remaining water and set out on foot in the hope of finding help. Helicopters and cars were sent out the next day to search for them. The truck was spotted immediately, but a sandstorm blew up, and the search was delayed. By the time the men were found, they were already dead. If they had been aware of the law of the desert—"Never leave your vehicle"—they would be alive today.

There are other rules and suggestions that help people of the twentieth century prevail over the raging elements in the desert. These seven courageous men have once again tested and confirmed them.

Of course, they did have assistance. Four major institutes dealing with the adaptation of human beings to extreme conditions supervised the research and sports expedition so as to derive maximum scientific benefit from it. Experts traveled by car along a route parallel to that of the walkers and at quite a distance from them. They were in contact with the group at weather stations where the travelers would have had to meet people in any case.

However, such encounters brought little relief to the explorers because instead of relaxing, they had to have a medical checkup. Sometimes the tests took up to four hours. In addition, they were forbidden to drink fresh water, take a bath and have a rest prior to the medical examination so as not to affect the results. The seven stoically endured that trial in the interests of science.

By the way, they were so well trained that they could have made the trip through the desert far more quickly, but for the sake of medicine, the sports aim was abandoned and the strictly observed rhythm of 120 steps a minute, 6 kilometers an hour, was fixed.

A distance of tens of kilometers was covered by the group by SOVIET LIFE photographer Vladimir Chistyakov. Six months earlier he had taken part in an expedition where it was also human stamina that was on trial. The trek had similar aims, but the conditions were quite different—it took place in midwinter along the Eurasian Arctic seacoast. Chistyakov accompanied the group for more than 1,500 kilometers. (See SOVIET LIFE October 1983.) There were days when the temperature was 59 degrees below zero centigrade. This time, the desert was burning at 59 degrees above.

Asked which had been harder, he answered, repeating almost word for word the statement uttered at the dawn of our century by the great Norwegian explorer Fridtjof Nansen: "It is impossible to get used to cold, so the North was more difficult to bear."

For the photographs taken during the northern passage, Chistyakov was awarded the Golden Eye prize at the World Press Photo exhibition in Holland. We offer his new photostory from the desert. ■

The Sun has already risen, and the weary travelers are using the shade of their knapsacks as a refuge.



In February 1945 the leaders of the three Allied Powers—Joseph Stalin, Chairman of the USSR Council of People's Commissars (ministers); Franklin Delano Roosevelt, President of the United States; and Sir Winston Churchill, Prime Minister of Great Britain—had a meeting in Livadiya Palace, the summer residence of the Russian czars.

## CODE-NAMED ARGONAUT

By Alexander Fursenko  
Doctor of Science (History)

**A**ccording to the ancient Greek legend, the Argonauts sailed to Colchis, that remote Black Sea region, in quest of the Golden Fleece. Churchill suggested that the forthcoming meeting of the Allied leaders be code-named "Argonaut." President Roosevelt liked the idea. When Churchill's suggestion was reported to Stalin, he agreed.

The date and venue of the conference were kept secret. It was only when it was almost over that the newspapers published a report saying the heads of the three Allied Powers, accompanied by their chiefs of staff and foreign ministers, had met on the coast of the Black Sea, that the sessions were still being held and that a communiqué would be issued after the conference.

### The Situation at the Fronts

The conference began with a discussion of the situation at the fronts. The powerful offensive started by the Red Army on January 12, 1945, at the request of the Allies continued. It distracted a considerable number of German troops from the Western Front and helped the Allies improve their position in the Ardennes and also regroup their divisions for a decisive counterattack.

"We must have the support of the Soviet Union for the defeat of Germany," read the memo issued by the U.S. Government for its delegation at Yalta. "We desperately need the Soviet Union for the war with Japan" (after the war in Europe ends).

The conference discussed the reports made by the Soviet General Staff and the U.S. Army Staff, after which Stalin suggested that the sides exchange views on the actions of the Soviet forces.

Churchill said that he wished first to express gratitude "for the massive power and successes of the Soviet offensive" and then remarked that the Allies wanted the Soviet offensive to continue with the same success.

Stalin noted that the Red Army's offensive in January was the fulfillment of the Soviet duty to the Allies.

The meetings between the representatives of the Allied military headquarters, held simultaneously in Yalta, outlined practical measures aimed at ensuring coordination of the Allies' efforts in the future. The communiqué published after the meetings stated that the joint military plans of the Allies would become known only after they had been accomplished and that the very close working cooperation of the three headquarters achieved at the conference would bring the end of the war closer.

The agreement reached at Yalta, whereby the Soviet Union promised to support the war efforts of the United States and Great Britain in Japan within two or three months after the defeat of Germany, was also to serve that objective.

### Joint Communiqué

The communiqué on the results of the conference said that the three Great Powers were unanimous in their wish to bring the war to victory and would cooperate in organizing peace. At Yalta the Allied leaders also discussed crucial problems related to the postwar order, such as the future of Germany, the principles of the political organization of the European countries liberated from Nazi occupation and the foundations of a future international organization for the maintenance of peace and security.

The aim of the occupation and Allied control was declared to be "the destruction of German militarism and Nazism and the creation of guarantees that Germany would never again be capable of violating peace."

In reply to Churchill's remark that he was not sure whether Germany would have any future, Stalin firmly said: "Germany will have a future."

The three Allied leaders declared that they had no plans to destroy the people of Germany and decided to establish four temporary occupation zones—Soviet, American, British and French. Greater Berlin was also to be divided into four sectors.

The communiqué said that the three powers agreed to consolidate the policies of their three governments during the temporary period of instability in liberated Europe and that the establishment of order in Europe and the restructuring of national economic life must be achieved by processes which will enable the liberated peoples to destroy the last vestiges of Nazism and Fascism and to create democratic institutions of their own choice. The discussion of that question in the Crimea was long and revealed differences between the Allies.

It should be noted that the decisions taken at Yalta paved the way for the creation of the United Nations organization, which was to regulate the problems of peace and international security after the end of the war. To preserve the principle of consensus in deciding fundamental international issues, the three Allied Powers agreed on the right of veto in the UN Security Council. Besides the powers participating in the Yalta Conference, France and China were extended that right.

To ensure a fairer system of representation, Roosevelt and Churchill agreed that the UN members would include, in addition to the USSR, the two largest Soviet republics, the Ukraine and Byelorussia, which suffered severely during the war and had made a great contribution to the victory over Nazism. It was decided that a founding conference of the UN be convened in San Francisco on April 25, 1945.

The results of the Yalta Conference were broadcast by radio 30 minutes before midnight on February 12 simultaneously in Moscow, London and Washington, when the participants in the conference had already left the Crimea.

### The Apogee of Cooperation

President Roosevelt made a stopover in liberated Sevastopol on his way back home. Only a few buildings were left standing there. He was aghast at the sight of the city. Addressing a joint meeting of Congress on March 1, 1945, the President expressed the hope that the Yalta Conference would be a turning point in the history of international relations.

That speech in Congress was one of the President's last addresses. He died on April 12, 1945, only a month before V-Day. At 63, Roosevelt was the youngest participant in the Yalta Conference. Churchill was 71 at that time, and Stalin was 65.

In the book entitled *Roosevelt and the Russians*, which was published four years after the Yalta Conference, Edward Stettinius, who was Secretary of State at the time and who participated in the conference, wrote that the President's mind was bright and clear and the President was fully in control of his mental faculties. Repelling attacks on the conference's decisions, Stettinius said that he had studied the records of the session and they showed that the Western powers made no more concessions than the Russians and that the entire atmosphere of the meeting was imbued with a desire to find mutually acceptable solutions.

**T**he anniversary of the Yalta Conference has provoked a lively debate in the press about the importance of the agreements signed for the subsequent development of international relations. Some people claim that the decisions taken in the Crimea formalized the division of the world into East and West. This is an unfounded allegation.

Even the most biased analysis of the Yalta agreements does not justify such claims. The Allied Powers did not discuss or sign agreements on such a question.

In the thirties, long before the outbreak of the Second World War, People's Commissar (minister) of Foreign Affairs Maxim Litvinov declared from the rostrum of the League of Nations that "peace is indivisible." That thesis meant that there could be no peace when there was war anywhere. It also meant that any division of the world undermined the cause of maintaining peace.

The participants in the Yalta Conference, which took place shortly before the hostilities in Europe ended, sought to ensure for our whole planet a lasting peace that ruled out any division and war.

The lessons of the Yalta Conference have not been forgotten. The Yalta agreements created guarantees of international security based on the real state of affairs in the world and the principles of equality and equal security of the countries that participated in the conference.

The political heritage of the past has not been lost. It made possible, to a great extent, the achievements of the period of détente. ■

# WHO IS HEAD OF THE FAMILY?

By Darya Nikolayeva

Drawings by Mikhail Shestopal



"Children know very well which parent to ask for food and which to ask for money." That's what I read once in the magazine *America* regarding the different roles of the husband and wife in the family. It is common knowledge that an interesting idea is like a new hat; the moment you see it, you want to try it on. So I decided to "try" the idea on my family,

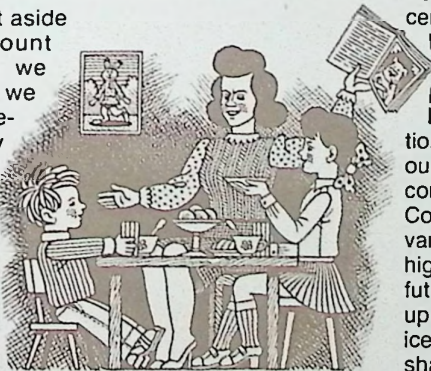
but it didn't work because I happen to be the only one my son and daughter ask for both food and money.

Naturally, the money my husband and I each earn goes into the family till. He turns his salary over to me, except for some pocket money and whatever he needs for our car. Beyond that he's really not interested in where the money goes, even though I sometimes exclaim with a worried look that there's no money in the house.

Frankly, I'm not a mathematical wizard, and if I had to fill out something like a financial statement of our income, I know for sure I'd have to retire from my post of minister of our family finances. Yet I manage very well with our simple accounting: I know that we have to pay 8 per cent income tax on the first hundred rubles of our earnings and 13 per cent on every additional hundred; 1 per cent for trade union dues, 4 per cent for rent and utilities. Those are our regular monthly expenses, and we spend the rest on whatever we need.

We don't try to put aside any definite amount every month, but we do save up when we want to buy something particularly expensive or if we are planning a special vacation. My knowledge of arithmetic is sufficient for that.

Considering that I am responsible for the organization of the family's daily comforts and leisure on top of being minister of finances and meals, the question regarding who is head of the family may appear superfluous. Actually, the question never arises in our family or, so far as I know, in most others. In Leningrad sociologists polled 600 families and discovered that three-fifths of them answered they did not believe in the head of the family concept. I feel that of the women polled, many had far more serious "claims to the throne" than I. In our country it is primarily the women who are in charge of the money and the order and comfort in the home. Besides, some of them rank higher at their jobs than their husbands and earn more too. I lag behind my husband in this respect. However, de-



spite the fact that I have not advanced very far in my career and that my contribution to the family budget is smaller, I am firmly convinced that the life of our family hinges on me, and that gives me a lot of satisfaction.

Then a chance occurrence enabled me to discover something new about myself. It was when the population census was being taken. A pretty blond student from the Economics Department of the university was our census officer. When she came to the question: "Who is the head of your family?" I was somewhat surprised that this archaic terminology was still in the form, and turning to my husband, I said, "Please meet Sergei Nikolayev, the head of our family."

He bowed ceremoniously and, winking at the pretty young woman, said: "Now I can come out," hinting at the popular joke in which the husband, who has been driven under the table by the wife, says in an offended tone, "I won't come out until you say that I'm the head of the family!"

We all laughed, went on to the other questions and soon said good-by to the student. That's when I started thinking about what had prompted me to say that my husband was head of the family without a moment's hesitation. I knew I didn't do it because I considered it proper or a tradition hallowed by the centuries.

In the first place, like a lot of people, I often prefer to say something that is contrary to what is expected.

In the second place, what did centuries-old tradition have to do with it when for the past 68 years our country has been living according to the laws of complete equality of the sexes guaranteed by the Constitution? What's more, women are taking advantage of this equality to such an extent that it is high time for the men to think seriously of their future fate. The majority of them have already given up their position in the education and health services fields. In the near future the same situation may shape up in their beloved technology because even now one out of every three engineers is a woman.

Once I saw a survey by a Dutch sociologist who defined men as rationalists inclined to mental activity. He said that women were more suited to physical activity because of their emotional temperament. I simply cannot agree with that. I even checked my opinion with special literature on the subject. I doubt that in the past 40 years our men have become more romantic or sensitive or our women have lost the capacity for oh-ing and ah-ing and even bursting into tears on the slightest provocation, but the number of men engaged in mental activities has increased in that period from 20.6 to 22.8 per cent, and the women from 13.6 to 36.3 per cent. At that rate, all respect for centuries-old tradition scatters to the four winds.



Then what is the explanation for my having called my husband and not myself (who enjoys equal rights with men and has legislative, executive and all other power ceded to me in my hands) the head of the family?

I don't like to boast, but I consider myself a just person. That is why I say that I know something that isn't noticeable to outsiders. It's that my husband is also head of the family but of a higher order than I. He does not delve into the details of our day-to-day life though he is no less concerned than I with the welfare of our family. Seeing how much satisfaction it gives me, he lets me do the ordering around, and he unobtrusively turns to the things with which I need help.

For instance, that is the way it was when the children were small. They used to go to kindergarten, which is naturally a great help to working mothers, and still I couldn't manage with all my household duties. After all, I had to cook after work, tell the children a bedtime story, tuck them in, see if all the buttons and zippers were in place or needed mending, and so on. I decided to work part-time, and my husband agreed.

Naturally, it was easier that way, but I felt dissatisfied. I suddenly realized that my work was as necessary to me as my family. What I missed was not so much the work as the feeling of being an equal member of our society. I felt this lack even in trifles. For instance, in the morning my colleagues would tell me that last night they had celebrated our secretary Lenchka's birthday. I listened and thought: That was the difference. They laughed and had fun together yesterday, and I felt like an outsider.

I didn't say anything about it at home because I realized it was ridiculous. It turned out that I didn't have to say anything because my husband can read me like a book. After a while he casually suggested: "I think you ought to get back to your old job. I'll try to do more around the house to help you."

My life became fuller and more meaningful. A year later I was promoted, ahead of two men, incidentally. That achievement was chalked up to the whole family.

The following conversation between the children, which I overheard accidentally, proves that my evaluation of the situation in our home is correct:

Son Igor (thoughtfully): "Tanya, who do you think is the head of our family, Papa or Mama?"

Daughter Tanya (condescendingly): "Both are. Our family has two heads, maybe even four. After all, you and I are not exactly outsiders, are we?" ■



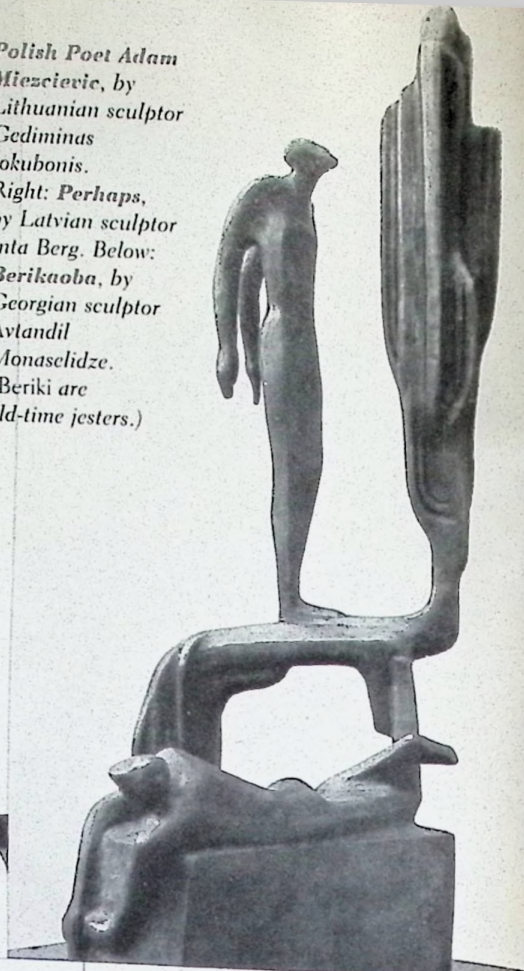


## MUSEUMS

**S**WEDEN has the only dance museum in the world. A sculpture of Galina Ulanova, the greatest ballerina of our time, done by well-known Soviet sculptor Yekaterina Yanson-Manizer and presented to Sweden by the Soviet Government, stands in front of the museum in Stockholm. Ulanova was invited to attend the unveiling ceremony. Today she is a ballet teacher and coach at the Bolshoi Theater. Her pupils are known throughout the world. In the photograph Ulanova (second from right) is with a group of Swedish artists. The unveiling ceremony was opened by Bengt Hegger, the director of the dance museum.



Polish Poet Adam Mieciewicz, by Lithuanian sculptor Gediminas Iokubonis.  
Right: Perhaps, by Latvian sculptor Inta Berg. Below: Berikaoba, by Georgian sculptor Avtandil Monaselidze. (Beriki are old-time jesters.)



## ACTORS AND ROLES

**A**CTRESS Tatyana Dogileva of the Lenin Komsomol Theater in Moscow has been making a lot of films lately. She started out playing bit parts, but audiences liked and remembered her. Her first big role on the screen won her recognition and a prize at the national festival of young film makers for the best female role in the comedy *Well, What Do You Know?* It revealed Dogileva's flair for comedy, which is quite in keeping with her vivacious personality. The latest film starring Dogileva, *The Blind Around the*



## GRAPHIC ARTS

**T**HE illustrations in books for small children have as much significance as the text itself, perhaps even more. This makes the role of the artist especially important. On the facing page are three books that were put out by Malysch (Tiny Tot) Publishers in Moscow. At the right is a page from *Funny Russian Stories* illustrated by the late



# Things cultural



*Marino Flora, by Estonian sculptor Ellen Kolk. Below right: Little Son, by Aldona Nenashva.*

## sculpture

**S**CUPTORS are showing increasing interest in improving the appearance of cities. Now that more attention is being paid to sprucing up urban centers, they have greater opportunity to work in this area. Quite a few squares and courtyards, which lend themselves to sculpture, are being cleared, and those vast expanses of glass and concrete architecture, which can be monotonous at times, certainly could stand some livening up with the help of sculpture.

Every sculptor tries to develop his or her own style in the new urban architecture, as the examples here and on the facing page confirm. All of these works were cast in bronze.

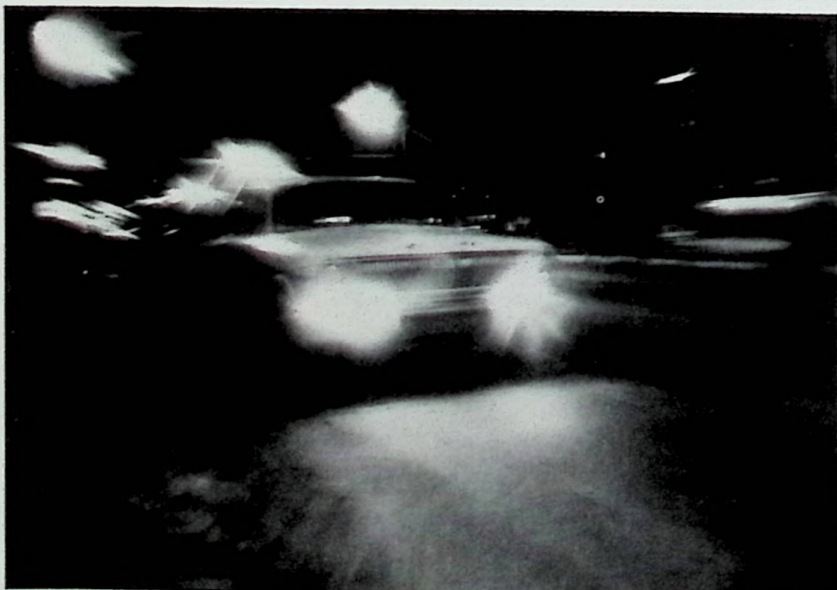
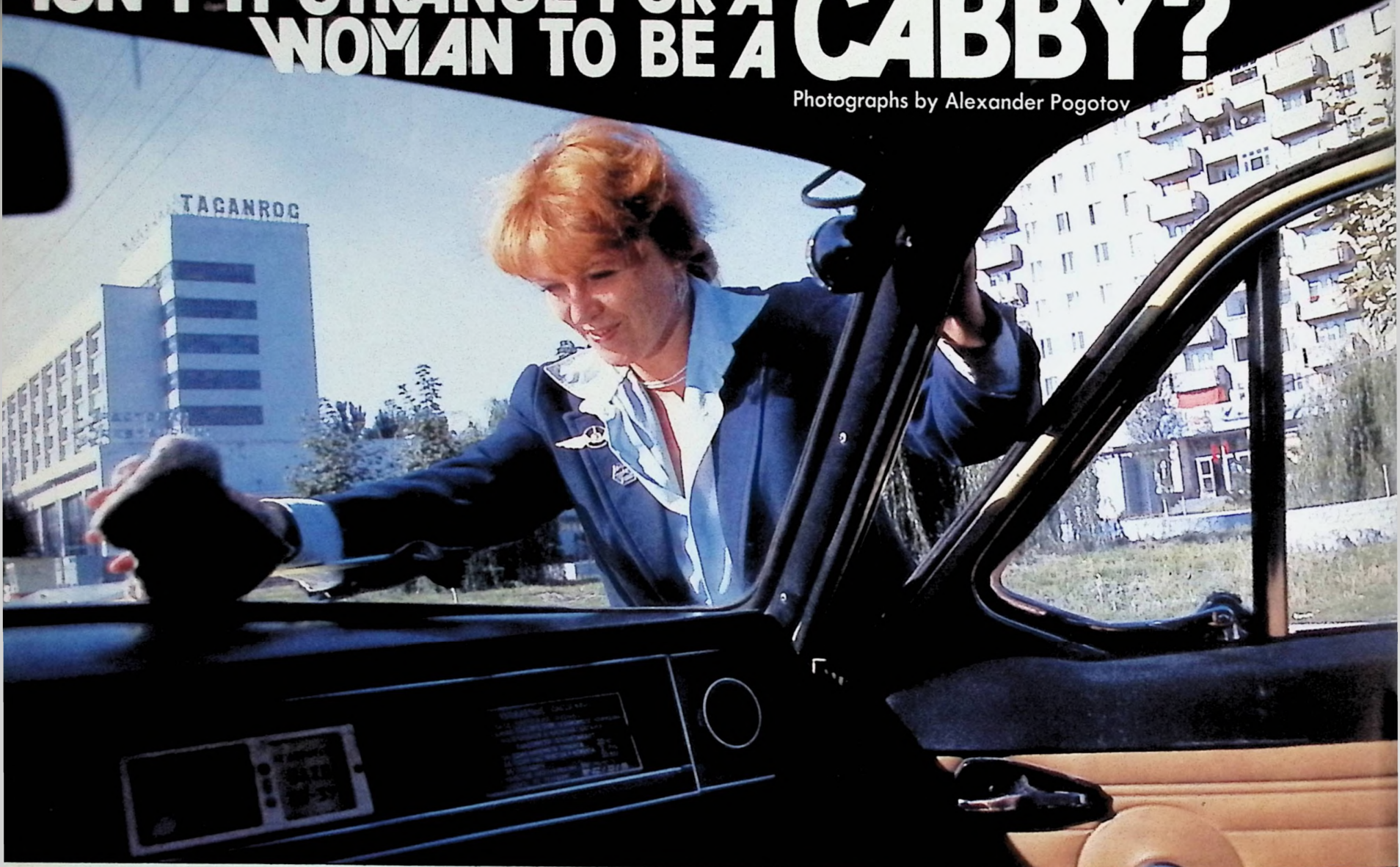


drawings are classics. The cover of a book should immediately attract a child's attention. The more beautiful it is, the sooner it will interest the youngster. You will find this special quality in Veniamin Losin's cover for *Russian Tales* (center). The work of Victor Chizhikov is represented at the left by an illustration for Dr. Aibolit by

Like father like daughter? In Svetlana Belyk's case the old saw has a new twist. From the time she was a little girl, she wanted to be a cab driver like her father, but she was the mother of two children before her dream actually came true. She loves people, and in her line of work she meets all kinds. The only thing they have in common is that they're all in a hurry. But she does get to know some of them anyhow.

# ISN'T IT STRANGE FOR A WOMAN TO BE A CABBY?

Photographs by Alexander Pogotov



Svetlana Belyk knows the engine of her cab better than some of the men drivers. As for keeping the body of the car glistening, she's way ahead of them all.

**N**ow tell me, what do girls want to be? Doctors, teachers, researchers. The more self-confident ones dream of becoming actresses, and the more reckless want to be cosmonauts. But few of them think about being a cab driver. Maybe that's really not a woman's job, but still there's equality even in space nowadays. As the saying goes, there are always exceptions to the rule.

Svetlana Belyk always wanted to become a cab driver, just like her father, but she had to help her mother with the household chores. All of her leisure time she spent near her father and his old car. When she was 10, Svetlana knew all the traffic signs by heart, and at the age of 12 she jumped into the driver's seat of a parked milk wagon and drove it out of the village. And it made her so happy that the careless driver decided not to make a fuss about it.

When she graduated from high school, she couldn't get a job as a truck driver on a collective farm, so she went to the city of Taganrog on the Azov Sea coast in the southern part of Russia to study at the vocational school for streetcar drivers there. Even though a streetcar isn't a car or a truck, they do have something in common. And so Svetlana Belyk became a streetcar driver.

Sometimes the things you fail to achieve when you're young come to you when you're older. Svetlana already had two children when she enrolled at a driving school, the only woman in the class. But she was an excellent student and got top marks on her final exams.

She's a member of the Taganrog driving team and competes in amateur events. Svetlana seems to be able to make time for everything, but first on her list is parenting.



Svetlana is a member of the Taganrog Young Communist League. Here she is at a meeting of YCL leaders of young Taganrog drivers.

One of the special pleasures of the job is driving a wedding party. Bottom: Victor, Svetlana's husband, always shares the kitchen work.



Five years ago she got a job as a taxi driver in Taganrog. The taxi garage she works at has several hundred drivers, but no more than 10 of them are women. After all, it is difficult to drive a cab.

"It's hard, of course," Svetlana says, "but only psychologically. You meet all kinds of people. First it's a joker who's a bit tight, and then an overly fresh teenager or a fault-finding old man. Some are happy, others sad, and all of them are in a hurry. But I think you can either find a common language with a passenger, or ignore him if you have to. And I like to get to know different kinds of people.

"I like visitors most of all. On the way to where they want to go, I tell them about my city, like a guide."

A lively woman, Svetlana finds time for everything. She is even a member of the Taganrog car-driving team and competes in many events. But doesn't that interfere with bringing up her two sons?

"I don't think so," Svetlana says. "First, my husband helps me. Secondly, my younger one is already in first grade at school. He's quite independent and self-reliant. But you're right, I do have very little leisure time, and that's a pity. I'd also like to go in for equestrian sports. Because, although my vocation is of my own choosing, I have to get away from the car every now and then." ■

youth forum

# FRUITFUL DIALOGUE IN KISHINEV

By Alexander Grigoryev  
and Igor Dorofeyev

Photographs by Boris Babanov

The thirteenth meeting of Soviet and American young people took place in Kishinev, the capital of Moldavia. The first meeting, held in 1972, was so successful that its participants voted to make it an annual event.





Although the meetings of the Forum and the USSR Committee of Youth Organizations are concerned with serious problems affecting the lives of young people, its participants know how to have a good time together. Bottom: Two duets—Debbie and Megan Smith (right) and Moldavian composer Ion Teodorovich and his wife Doina—are shown here singing an antiwar song.



### Thirteen Years of Dialogue

Moldavia was the scene of the thirteenth meeting of Soviet and American young people. The first one, held in 1972 in Minsk, capital of Byelorussia, was so successful that its participants spoke in favor of continuing the contacts between Soviet and American young people. The members of the U.S. delegation to the first meeting later set up The Forum for U.S.-Soviet Dialog. The Forum and the USSR Committee of Youth Organizations have since then been sponsoring annual meetings, one year in the USSR and one year in the USA.

Life has shown that Soviet and American young people want to know more about each other. The essence of the get-togethers has certainly changed. The early meetings had more of a get-acquainted, semitourist character since their participants usually knew very little about each other. These days they discuss problems of concern to young people in both countries. The composition of delegations, especially of U.S. delegations, has also changed. Almost all of the more than 40 American participants in the Kishinev meeting were either university teachers or research workers at places like the Congressional Research Service, The Rand Corporation and the American Enterprise Institute for Public Policy

Research. The Heritage Foundation, represented by Bruce Weinrod, director of Foreign Policy and Defense Research, participated for the first time.

### What We Were Talking About

The topics of the talks, discussions and disputes during the get-togethers are not limited. Each new forum is a kind of living organism with a rhythm of its own. Each meeting brings something new with it. Although the sponsors have worked out an official program, the actual events are much broader.

During the thirteenth meeting the U.S. delegates spent two weeks in the USSR. The three days in Moscow were devoted to familiarizing them with the city (those who had come here for the first time), preliminary meetings of the leaders of the two delegations to discuss last-minute details, talks with government officials and visits to youth clubs and theaters.

While they were in Moscow, the Americans met with Colonel Gely Batenin of the General Staff of the Soviet Armed Forces. The conversation naturally dwelt on the necessity of preventing the arms race in space. The guests wanted to know what the Soviet colonel thought about it.

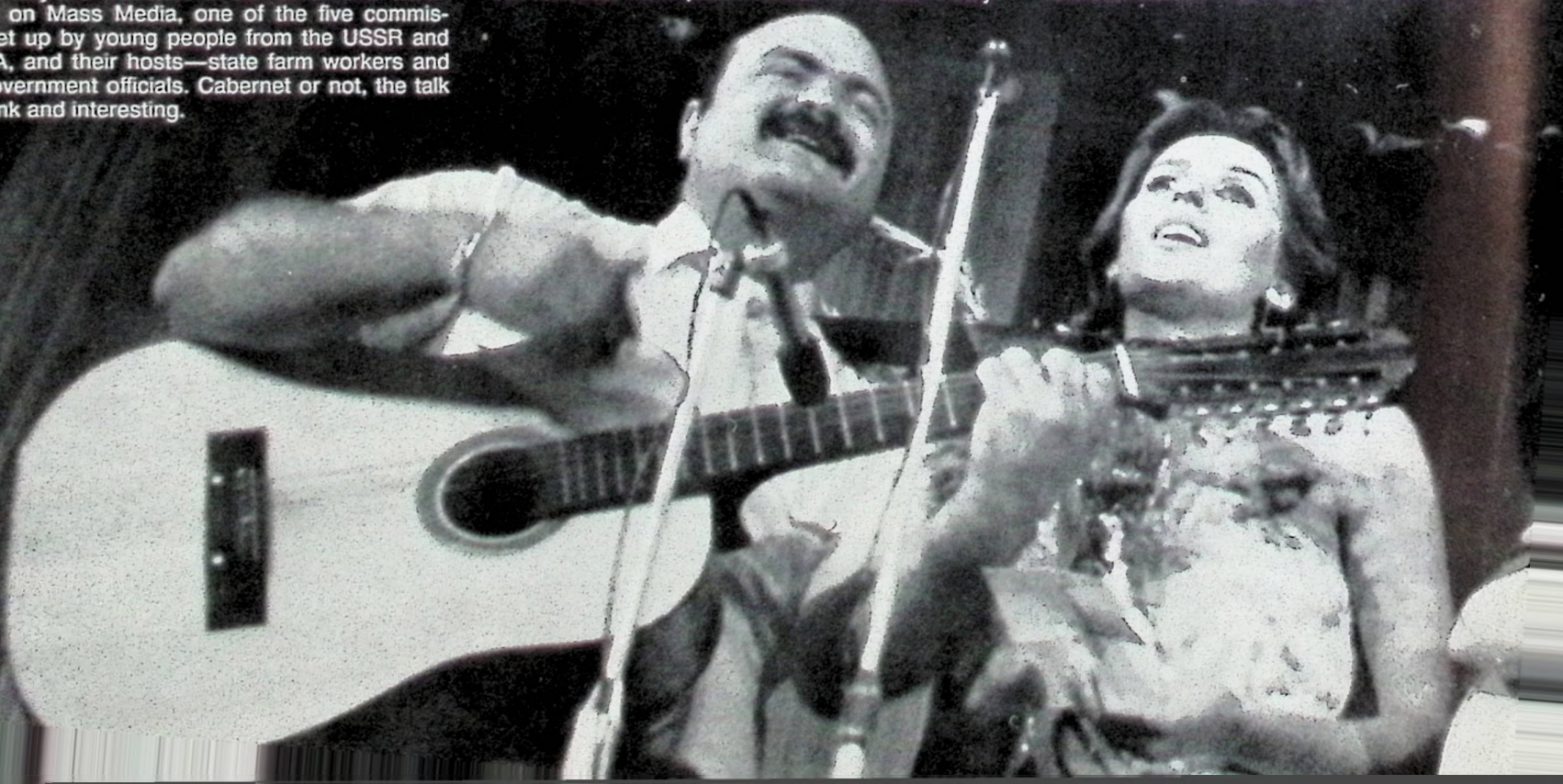
Colonel Batenin said that the USSR was strongly

**T**hey say that Moldavian cabernet is served at the court of the Queen of England. "Is it really true?" asked Alvin Rosenbaum, a publisher from Washington, D.C., getting ready to jot down the answer.

Innokenti Zakharov, First Deputy Chairman of the Executive Committee of the Soviet of People's Deputies of Strasheny District, answered with a smile:

"So far as I know it is true. Moldavian wines are served not only in Great Britain but also in many other countries. As for cabernet, and that is what you are having right now, this is the wine of diplomats because it is believed to improve the results of talks. Though the talks you are having are unofficial, we hope our wine will help you, too, to better understand each other."

This conversation took place in a two-story building surrounded by vineyards stretching to the horizon. It usually accommodates vacationing grape growers from the village of Kozhushna, not far from Kishinev, the capital of Moldavia. The house with fretted platbands, towers, small balconies with intricate tracery and a tiled roof includes premises for recreation, a Russian bath with a swimming pool, and a spacious dining room. It is in the dining room that the guests gathered for a working lunch. They are members of the Soviet-U.S. Commission on Mass Media, one of the five commissions set up by young people from the USSR and the USA, and their hosts—state farm workers and local government officials. Cabernet or not, the talk was frank and interesting.





against the deployment of weapons in space, and its peaceful proposals were aimed at preventing the militarization of outer space.

"The question often asked in the West," Colonel Batenin noted, "is whether a treaty on space is required and how reliable it will be. But the reliability of a treaty is measured first and foremost by the degree of trust shown by one party for another. Take the signing of SALT-I. This first Soviet-American agreement on limiting strategic arms was reached at a time when the sides had practically no experience in dealing with such questions. But problems that seemed unsolvable were resolved on the basis of mutual trust. Compliance with SALT-I was—and is still—being monitored by national systems of verification.

"As for space weapons, the USSR and the USA are in a position similar to the one described above," the colonel went on to say. "Verification procedures may be instituted with the help of national technical means with a view to executing limited verification that would not violate the sovereignty of the parties concerned. This would make it possible to monitor compliance with adopted treaties."

After the meeting with Colonel Batenin, the U.S. delegation left Moscow for Kishinev to meet the So-

viet delegation. The meeting lasted for a week. During that time, the five commissions discussed the main topics of the seminar. Commission One dealt with Soviet-U.S. relations. Commission Two considered arms limitation and disarmament. Commission Three scrutinized the role of the younger generation in society. And Commission Five discussed trade and economic relations. Nearly all the journalists, including the authors of this article, who took part in the meeting, were in Commission Four, devoted to the mass media.

Tedo Japaridze, a young "USA watcher" from Moscow and Soviet cochairman of Commission One, characterized its work this way:

"The discussion has been very interesting and aboveboard. It goes without saying that the few days we have had are not enough to discuss the entire spectrum of relations between our countries. We have only managed to consider the most important problems, sensitive issues. We have come to the conclusion that an improvement in relations between the USSR and the USA would meet the interests of the peoples of both countries."

The debates in the commissions were often heated and uncompromising. But there was an area in which no differences of opinion were observed and a goal for the sake of which wars of words

were forgotten. This goal is the prevention of real wars and the achievement of lasting peace through mutual understanding.

#### Moldavian Hospitality

Debates in the commissions continued until lunchtime. Sometimes there were round-table discussions after lunch, too, on the Soviet and American political systems or other questions of interest to all the participants, regardless of the commission they were in. The rest of the time was devoted to meeting people of Moldavia, first of all of Kishinev.

That the townspeople showed great interest in the meeting was clear as soon as the guests got off the plane at the Kishinev airport. Although it was well after midnight, they were given a red-carpet reception by hundreds of young people, many of them in the national attire reserved for festive occasions.

The delegates constantly felt the warmth of the hospitality and attention accorded them by the inhabitants of Kishinev. No matter whom they met with—industrial workers, scientists, film producers, lawyers, physicians or journalists (each could choose a meeting according to his or her interests)—they were frankly told about the accomplishments and problems of the Moldavian people. The participants in the meeting were thanked by everyone they talked to for sparing no effort in the work for peace and for encouraging people to do their best to understand one another for the sake of preserving life on Earth. ■



Sightseeing was a highlight of the trip. Top to bottom: Red Square in Moscow; a malachite vase in the Hermitage Museum in Leningrad; Monastery of the Intercession in Suzdal; the Pribaltiiskaya Hotel in Leningrad; Nina Mitrokhina with her new American friends Kathryn Wahlen and Cynthia Friedberg at the production training center. Center: Kathryn Wahlen in front of the Cosmos Hotel, where the American teenagers stayed while they were in Moscow.





special report

# "WE'LL COME HERE AGAIN, THAT'S FOR SURE"

By Alexander Shevel'ov

Photographs by Vsevolod Tarasevich

A group of students from Fieldston School in New York at Sheremetyevo Airport. They came to Moscow for a 10-day visit to learn about the country and its people, to see the sights and to meet their Soviet counterparts.



Left, top to bottom: Eric Dennis demonstrates his typing skill at the training center; Kathryn Wahlen and Dina Goldman sing an American song on their last evening in Leningrad and the end of the tour; sliding downhill in Vladimir; at the Piskaryovskoye Memorial Cemetery in Leningrad, where hundreds of thousands of Leningraders who died during the siege of the city by the Nazis in World War II are buried; Soviet schoolchildren in an art class showing samples of their work to their American friends. Below: Kathryn Wahlen congratulates the newlyweds at the Wedding Palace in Leningrad after the ceremony.



Top to bottom:  
The Cathedral of the Assumption with frescoes painted by Andrei Rublyov in the fifteenth century; spelling notwithstanding, the poster welcoming the American guests is full of warmth and good feeling; James Greenberg asking Sergei Delyanov whether Soviet students get vocational counseling in school; Barbara Pack enchanted by the sights; after a long and tiring trip. Center: James Greenberg taking pictures in the Kremlin.





"Good-by. We'll surely come to Moscow again!" the Americans told their hosts when they were about to leave. Their new Soviet friends urged them to come back soon.



It was, of course, difficult to get detailed answers to any questions in only 10 days. Even John Pendleton, a representative of the American company General Tours, who has been to the Soviet Union 16 times, couldn't explain everything to the young people in his charge. However, he did know one thing for sure—that the Soviet Union and the United States must encourage cooperation, including tourism. He said he believes that contacts between people from different countries, which are made possible by tourist trips, enable them to get to know more about each other and to reach mutual understanding. This is particularly important today, especially for young people. After all, they are the ones who, in the future, will hold the fate of our planet in their hands.

During the next 10 days the young guests from the United States found friends everywhere in the Soviet Union.

But now the Intourist bus was heading for Moscow. The first stop on the itinerary was the Kremlin. Clad in bright jackets and jeans, the Americans looked no less exotic against the background of the ancient cathedrals than the latter looked to them.

They took pictures everywhere and were interested in knowing the history of the sights they were seeing. They learned, for instance, that during the restoration work at the Borovitskaya Tower in the Kremlin, a brick was found on which a fifteenth century mason had left the imprint of his palm. Some bricks bore the restoration date—1856. The bricks laid today also bear the restoration date, thus symbolizing the continuity of the generations.

The American students had an interesting meeting at the Young Pioneer Palace in Lenin Hills. This is the biggest one in the Soviet Union, where more than 15,000 children attend activity circles and studios. At the palace they were told by Moscow pupils that everybody can find something they enjoy doing, including dancing, puppetry, engineering and navigation. There is even a young cosmonauts school at the palace.

#### The "Golden Ring"

Vladimir and Suzdal, some 200 kilometers northeast of Moscow, were next on the itinerary. These cities are included in practically every guidebook of the USSR.

They are the most beautiful of the ancient Russian cities that form the "Golden Ring of Russia." Their architectural monuments are evidence of the talent of our hard-working ancestors.

In Vladimir the American teenagers visited the Cathedral of the Assumption. Its wonderful frescoes were done in the early fifteenth century by Andrei Rublyov, the great Russian painter. It turned out that the American students already knew his name.

Modern Vladimir organically blends with its his-

torical past. Even the huge snow sculptures on its beautiful streets—Russian folk-tale characters—are elements of the past. By tradition such figures are made for the festival of Russian Shrovetide, when the people bid farewell to winter. The ice runs are an indispensable part of the festival. The American guests could hardly wait to try them. The first to rush down a big hill was Jennifer Weiss. The others followed. Accompanied by laughter from the crowd, the Soviet and American teenagers raced one another, and it was hard to tell the guests from the hosts.

The Pokrov Convent in Suzdal is located not far from the hotel in which the Americans stayed. According to the dark history of this convent, it used to be a spiritual prison for women. But in our day it has become famous mostly due to the skill of its sewers, whom the townswomen took under their wing. The goods made by Suzdal's sewers are available in the city's shops. Our young American guests bought some of them for souvenirs.

#### "Let's Be Friends"

The next stop was Leningrad, the USSR's second biggest city. While the Golden Ring cities are monuments of ancient Russia, the city on the Neva is the continuation of the history of our country, a mixture of different epochs and styles. Our guests arrived on a clear, frosty morning. They not only went sight-seeing in Leningrad, but also attended a wedding at a Wedding Palace. The solemn ceremony deeply impressed them. The bewildered bride and groom were showered with congratulations in English, the meaning of which they could gather from the friendly smiles and hearty handshakes. "I never imagined that a Russian wedding could be so beautiful. It was a joy to see," said 17-year-old Eric Dennis afterward.

The guests from the United States were also invited to visit a school production training center. Such centers have been set up all over the country. Their chief task is to help seniors first choose and then master a trade.

"For two years they come here once a week on a day when they have no classes," said Vitali Kleiton, the center's director, addressing the visitors. "They have over 20 fields to choose from," he went on, "from computer operator to pharmacist. First they master the chosen trade under the guidance of experienced teachers and then consolidate the knowledge during on-the-job training in summer. They earn as much as skilled workers. When the course of training is over, they have exams and receive grades.

"Of course not all of them will work at the trade for which they were trained. Some will go on to college. But, and this is important, such training helps develop good work habits in young people. Besides, the trade they have learned will be of use to them anyhow."

In the interval between classes the American and Soviet young people got together. They met in the cafeteria, where they feasted on meat pies and talked. Kathryn Wahlen said she wanted to study ecology, while Katya Nikiforova wanted to be a doctor. Jennifer Weiss and Marina Denisova liked dancing.

They talked about art, literature, rock groups and movies. The Soviet teenagers were very familiar with popular American groups, while their American guests knew all about Soviet films and loved Russian literature.

The new friends were exchanging souvenirs and addresses when the bell rang. The Americans were taken on a tour of the classrooms. Marina showed Jennifer an easy way to make a beautiful bathrobe, and in the drivers education class, the American and Soviet hot rodders competed in their knowledge of traffic rules and road signs.

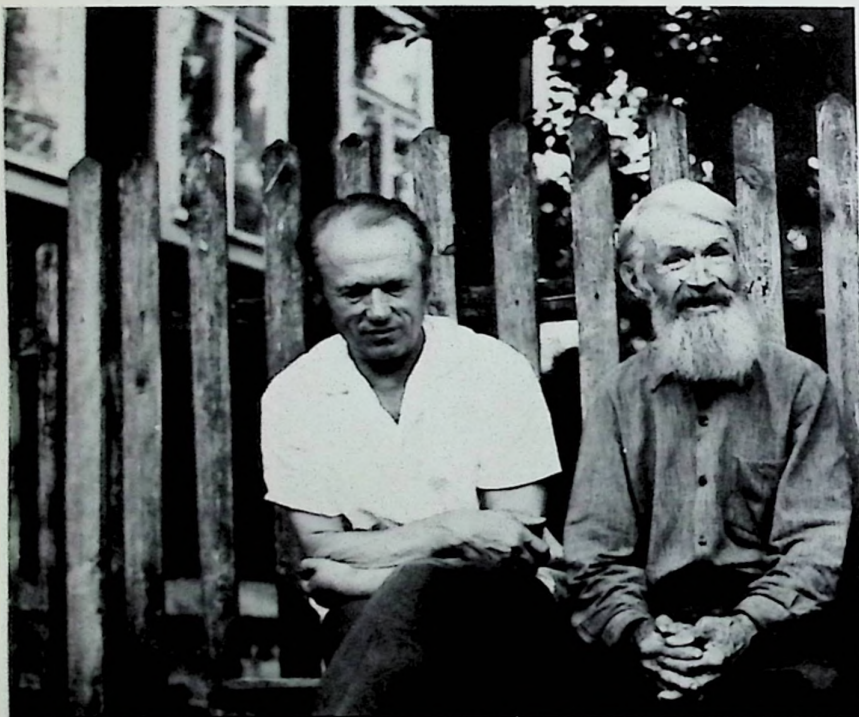
It was with sadness that the Americans left the Soviet Union. It's always that way when good friends part.

"You are a beautiful and friendly people, and we'll come here again, that's for sure," Laura Gratz wrote in the Guest Book.

Some old Russian villages are really fascinating. Kholui is one of them. This part of Ivanovo Region, with its poetic, typically Russian landscape, was bound to inspire its inhabitants to create original folk crafts. Nowadays it is famous for a new art its icon painters founded 50 years ago—the lacquer miniature on papier-mâché.

# KHOLUI: THE VILLAGE OF ARTISTS

By Lyudmila Rozova  
Photographs by Yuri Kaver



The Baburins near their house. Ivan is a former icon painter. His son Nikolai, one of the first graduates of the Kholui Art School, is a talented artist.

**G**ifted icon painters, embroiderers, stonemasons and woodcarvers have lived in Kholui from time immemorial. In our day a new and original craft has added to its fame—the lacquer miniature on papier-mâché. The local decorative panels, all kinds of boxes, brooches and pendants covered with subtle and exquisite paintings on a black lacquer surface are known not only in the Soviet Union, but in many other parts of the world. They are exported to the United States, France, the Federal Republic of Germany, Great Britain, Italy and many other countries.

Russia is famed for its numerous folk crafts. Some came into existence a long time ago, others are only a few decades old. The Kholui miniature is probably the most recent of them all. It is about 50 years old, but its tradition is rooted deep in the past, in the glorious art of medieval Russian icon painting.

Late in the seventeenth century icon painting was one of the main occupations of the local population. However, even in those distant times the works created by gifted artists had realistic elements rooted in peasant tradition. The popularity of Kholui artists kept growing. In the nineteenth century up to 1.5 million icons painted in the village were sold throughout Russia. Many of them

were real masterpieces of magnificent painting and exquisite gold engraving. Kholui masters helped renovate frescoes in the cathedrals of the Moscow Kremlin and were awarded other important commissions.

Gradually icon painting was subdivided into a number of minor operations. Some artists would paint only faces; others garments, hands and other details. The art was thus turned into a monotonous trade. Mass production of icons resulted in the obliteration of the old tradition and the loss of skills that used to be passed down from generation to generation. By the turn of the twentieth century the art of icon painting was in danger of dying out.

After the October Revolution of 1917 many former icon painters became the founders of a new art, the lacquer miniature. They inherited and developed the best traditions of seventeenth century art and introduced contemporary elements.

However, the emergence of the modern Kholui miniature was a painstaking process. It was preceded by years of persistent searching and experimentation. To make use of their skills, Kholui masters trained themselves by painting metal trays, wooden items and canvas wall hangings before they chose miniature painting on papier-mâché items.

Their first works were well received, and in 1934 the newly created Kholui applied arts workshop began functioning. In 1960 it was transformed into a lacquer miniatures factory.

Kholui masters did their best to create a style of their own, to express the spirit of the times without deviating from the realistic folk tradition.

The staff of the Kholui factory is small. Twenty of its members are composition designers, among them both acknowledged masters and recent graduates of the Kholui Art School. Kholui masters often create really original objects of art, but they never stop at that. They work continuously to find new painting techniques and perfect old ones. Some compositions mature for years in their creators' minds and take weeks or even months to paint.

Other artists commissioned by the factory (over 100 of them in all) are perfect copyists of those model compositions, often turning out a copy that is itself a work of art.

The unorthodox art of Kholui is happy and festive. Each object is a thing of beauty, each composition is genuine and sincere.

People often refer to Kholui artists as the tellers of fairy tales, meaning the fairy-tale plots they express in their artistic language and the fairy-tale spirit of their art. The main hero is always a courageous man embodying the majesty and beauty of life. The fairy tale and the epic ballad are more compatible with the imaginative style and artistic possibilities of the lacquer miniature than with any other genre.

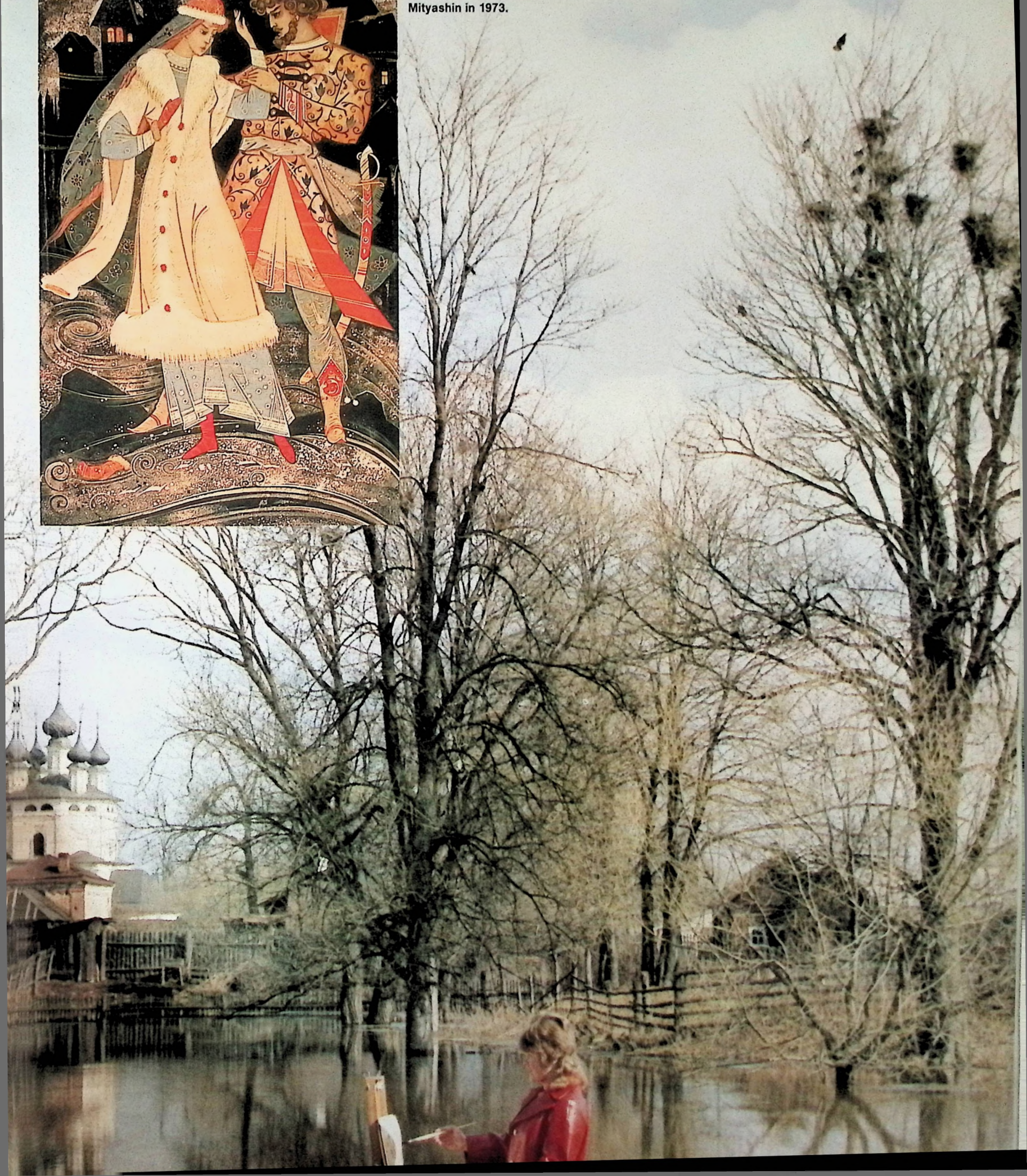
In addition to these themes, Kholui miniatures artists depict historical events, in which the Russian land is so rich, national heroes and characters of Russian and international literature.

The local artists also paint current events. They were the first folk artists to start painting man in outer space, interpreting it as a fairy-tale event: heroic cosmonauts carried along stellar roads by magic horses.

**T**he Teza River runs through Kholui. It is framed by beautiful willow trees whose branches nearly touch its glittering surface. On both sides of the river are rows of houses with woodcarved trim. In spring the river floods a large area near the village. That's why the local people call it "Venice." This magnificent world has engendered *The Firebird*, one of the best miniatures by Vladimir Belov, which has become a symbol and emblem of Kholui miniature painting. ■

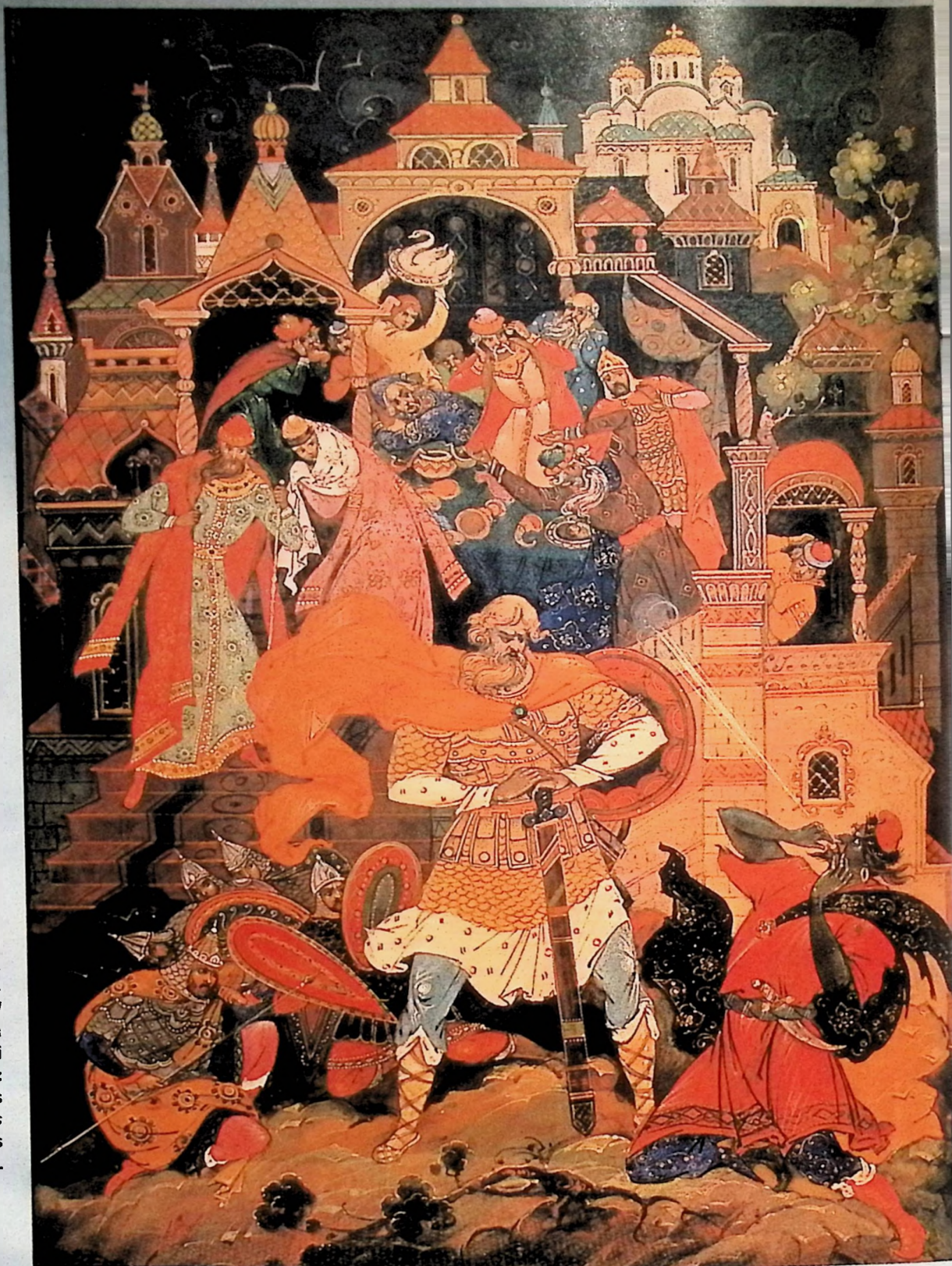


The smooth surface of the Teza River resembles the lacquer objects of papier-mâché made by Kholui masters. Left: *Kiribeyevich*, a character from Mikhail Lermontov's poem, painted by artist Mityashin in 1973.





*The Firebird*, painted by Vladimir Belov in 1965, has become the emblem of the Kholui Lacquer Miniatures Factory. Right: *Ilya Muromets and the Nightingale*, characters from a Russian epic, was done by Nikolai Baburin in 1964. Facing page top: *Poet Sergei Yesenin*, by Boris Tikhonravov (left); *YCL Members Leaving for the Front*, by Boris Kiselyov (right), done in 1967.





*The people of Kholui look forward to spring, when the Teza River floods the streets and turns them into the "canals of Venice." The only way to get around is by boat, whether it's to school, work or the palace of culture.*



scene





# AN AMERICAN INDIAN POW WOW NEAR LENINGRAD

By Alexander Vashchenko  
Photographs by Alexander Takhtarov

**Semiozerye (Seven Lakes), near Leningrad, doesn't look at all like an American prairie or a canyon in the Midwest, and yet each summer an American Indian camp appears there with tepees, a totem pole and people dressed as they were when America was discovered.**



**A** camp of 14 tepees was set up in Semiozerye one day last summer. You could hear the thunder of the drums subdued by a distant chant in the Sioux language. The camp inhabitants attired in Sioux dress were wandering around. They had come there to attend the Powwow Festival, which attracted many scholars of American Indian culture and history—boys and girls, children and adults—from all parts of the USSR. Some of them were festival participants, others their guests. Everybody seriously interested in American Indians and eager to learn more about their past and present had gathered for the annual festival.

The ritual of becoming acquainted was traditional. The new arrivals introduced themselves and told the gathering about the things they had done in pursuit of their interest. To be allowed to take part in the festival, they had had to make an item of the American Indian national costume: a shirt decorated with beads, a headdress, a pair of moccasins or an ornament.

The preliminaries over, the most exciting part of the program began. It consisted of Indian dances carefully modeled after literary descriptions plus a solemn ceremony and smoking the peace pipe. Songs, new acquaintances, the exchange of books and various souvenirs and an exhibit of Indian items aroused everyone's interest.

The atmosphere of the camp was authentically Indian. In the morning a drum awakened the "tribe," urging "the warriors to wash off their morning sleep in the lake." Law and order was maintained by the Chief of "Dog Soldiers" in person.

"We have many visitors," said Alexander Buslayev, who had been elected spiritual leader of the Powwow, "and they all keep asking, 'Are you real American Indians? If you are, where are your tomahawks? And where is your firewater?' Obviously, they don't understand why there is not a drop of liquor in the camp, why all the trees on the campgrounds, no matter how little they are, have remained intact, and why we used only firewood to make poles for our tepees. Every morning we clean our camp very thoroughly. These things are all an important part of our self-discipline. That's the way real Indians lived."

The festival participants—about 100 people from all parts of the country (the Urals, the Ukraine, Byelorussia and Siberia)—had prepared for the event for a whole year. Those present at the ceremony around the fire heard many mournful and moving songs about the history of America's native population. Singers performed songs in Indian languages, in Spanish and in English, and this went on till well after midnight.

Mornings were the time for contests. A war game called "Hunting a Wolf" was the most popular one.

Its participants, young people 18 to 20 years of age, were divided into two groups. The hunters were one group, and two people became "wolves." The hidden "wolves," remaining unnoticed as long as they could, were supposed to break through a row of hunters and reach the campfire. They did and won the game.

Young women greeted the gallant warriors, singing and dancing in their honor. According to an Indian custom, the winning "wolves" were to be given worthy names. To the accompaniment of a drum, the chieftain solemnly announced that the warriors were to be called The Wolves Who Escaped the Hunters.

At noon a meeting of the elders was held in the council tepee. The walls of this tepee—the largest in the camp—were hung with the most precious relics: portraits of Indian chieftains, Iroquois masks and the peace pipe. The participants in the meeting were to discuss a number of issues, for instance, whom to award the prize for the best handmade item. That was quite a problem because there were many handmade items: seven feather headdresses in the Prairie Indian style; 10 pairs of lovely moccasins, each one better than the next; a full costume of a contemporary Indian dancer. As for pectorals and necklaces, there were too many to count.

The Powwow Council accepted a proposal to have Indian bread baked for the entire assembly according to the Pueblo tribe recipe. Another task was to exchange addresses and choose the venue for the next Powwow Festival. Eventually, the council had to decide how to make everyone's cherished dream come true—the setting up of a museum exhibiting the best crafts made by American Indian scholars. The building would be used by performing musicians, singers and dancers. Beginning scholars would use the museum library to write their papers on Indian tribes. The museum would also be able to involve sculptors, artists, potters and jewelry designers in its activities.

The campsite was dominated by a tall totem pole decorated with intricate carving depicting mythological characters. It was solemnly set up on the opening day of the powwow. At the top of the pole was a thunderbird. It seemed to be soaring high, its wings spread wide, and looking ahead to distant horizons.

## How It All Started

It was not accidental that amateur scholars of American Indian culture got together at the Leningrad Alcatraz Club. It is situated next door to the Ethnographic Museum, which contains a sizable collection of objects of American Indian art and culture.

It all started in 1980, when several young enthusiasts of American Indian history got together. They read Indian literature, eagerly attended lectures together and went to see films about Indians, such as *The Great Bear's Sons*, *Tecumseh*, *Ulzana* ▶





and others. Their initiative was supported by the mother of one of them, Anna Pavlova, who had 11 children. Before the Alcatraz Club was officially recognized, its members used to meet in her apartment. Soon the club members started getting letters from all parts of the Soviet Union.

The Alcatraz' main purpose is to study the history, ethnography and culture of the Indians of both Americas. The club activists perform Indian songs,

dances and poems; arrange applied art and picture exhibits; deliver lectures and conduct discussions at schools and colleges; meet with writers and members of international friendship clubs.

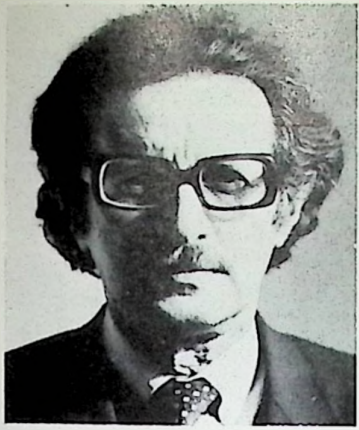
Alexander Buslayev, or Ovases, is one of the founders of the club. (His alias, Ovases, comes from the book entitled *The Land of Salty Rocks*.) A graduate of an art college, Buslayev became friends with Leningraders Sergei Ivanov, Sergei Pavlov and

some others, who were to become members of the future club.

"We amateur American Indian scholars believe that we can learn a great deal from other peoples, including the American Indians," said Buslayev. "For instance, we can assume their thrifty attitude toward the environment, their humanist outlook on the world, their national wisdom, their staunchness and courage." ■

An important part of the festival is the contest of young warriors. Top: A meeting of the elders discussed a number of important issues, not the least of which was whom to award prizes for the best handmade items.





# AN EASY WAY TO TEACH CHILDREN

By Simon Soloveichik  
SOVIET LIFE Commentator

EIGHT YEARS AGO a friend of mine told me: "I agree with you about innovative teachers making a difference in a child's ability to learn. You're telling me such interesting things about them, and yet..."—and she sighed. "My two older children were so eager to learn that I hardly knew they were going to school. But my youngest child doesn't want to study. He doesn't like school. He doesn't like books. Every morning, when it's time for him to leave the house, his temperature shoots up. If a child is not a learner by nature, even the best teacher can't do anything."

Well, we all tend to blame our failures in dealing with children either on nature or the children themselves. I've yet to meet a mother or a teacher who would blame herself.

I had the lucky chance of proving to my friend that she was wrong. Sofia Lysenkova, whom I believe is the best elementary school teacher, taught the second grade that year, and my friend lived near her school. So I persuaded Lysenkova to take on my friend's son.

The end of this story is much shorter than the beginning. Only a week later my friend, absolutely stunned, called me up to say that at supper her son had proudly declared, "We are beginning to study the verb tomorrow!" What was being taught at school had become important to him! The entire family was astonished. The boy made spectacular progress in Lysenkova's class. He started to enjoy reading and turned out to be an intelligent and quick-witted pupil. This year he is finishing a special school for children who are interested in the theater. Before sitting down to write this article, I phoned a teacher I know in that school, and he spoke very highly of the boy.

Of course, not all the stories of Sofia Lysenkova's pupils have the same happy ending, but one thing is for sure—the children in her classes amaze visitors (and at least 10 visitors from different parts of the country are always present at her classes). Their answers to questions are spontaneous and precise. Most important, all of them seem to be equally bright, as though they had been selected for her class as a result of a very difficult test. Actually, Lysenkova's pupils are just ordinary children from the neighborhood, and the school is a regular one, not an experimental one. She teaches every child assigned to her class, but she does so by an unusual method which she has been using successfully for almost 20 years now.

Lysenkova has written a fairly thick book about her method of teaching small children. It would be impossible to reduce her ideas to just one magazine page. Nonetheless, I think that SOVIET LIFE readers will be interested in knowing how she found solutions to problems that seemed unsolvable.

Teachers today face two major difficulties: They teach not just one child, but a whole class, and a class cannot be taught the way one child is; on the other hand, a good teacher is always conscious of the fact that each child is an individual, that each child's knowledge and abilities are his or her own.

This contradiction explains most of the difficulties of modern schooling, and attempts are being made to overcome them by a variety of methods, from individual assignments to the use of computers. School superintendents throughout the world re-

mind the teachers of the need for an individual approach, but Konstantin Ushinsky, the great Russian pedagogue, ironically wrote a century ago that the so-called individual approach was within the reach of only geniuses like Pestalozzi, while an ordinary teacher could not take the peculiarities of each of his/her pupils into account.

This contradiction is especially noticeable and especially dangerous in elementary school, in the first grade, where children who have been accustomed to being treated individually become part of a group, children who, in addition, are all so unbelievably different. By the sixth grade nearly all of them become alike in the level of their knowledge and development, but the diversity is incredible in the first grade. Some read excellently, others don't even know the alphabet; while one counts up to a million, another barely counts to 10. Later they'll even out; nature will assert itself. But by the time the class can be taught as a group, half the children will have become bored because the first classes were so easy for them, while the other half will have lost faith in themselves because everything was so hard. And only the "middle performers," that is, the most uninteresting part of the class for the teacher, will continue to be middle performers, without experiencing any special difficulties.

How do you deal with this?

Lysenkova has found several very simple methods. They enable her to simultaneously teach the class as a whole and the pupil as an individual. Moreover, she does it in such a way that the particular child does not even notice that an individual approach has been applied and none of the children in the class notice it either.

Lysenkova has worked out very simple and graphic diagrams for all the grammar rules, for the four basic rules of arithmetic, for all the tasks that children encounter. For example, children must remember that a sentence is made up of several words, that it begins with a capital letter and that a period must be put at the end. To help them remember, Lysenkova hangs up the following little poster in her class,

I ----.

That's all. And even the least bright child answers briskly, with only the slightest prompting, that the sentence begins with a capital letter, that it is made up of several words and that it has at its end—what? A period!

"Good boy, you got it! You have a quick and remarkable memory!" says the teacher.

And all her pupils are clever and remarkable, all bright and with a good memory. The diagram hangs in the class for weeks. Looking at it, all the children easily reply, with only a single difference—unessential for the class but extremely essential for academic progress—one child looks at the diagram for just a day, while another for a month. One hardly uses it, while it is a life buoy for another. But all the children look equally intelligent, and the teacher can quickly move on.

When you enter a classroom and see how an experienced teacher spouts questions and the children raise their hands and answer them smoothly, you probably know that in 90 out of 100 cases the situation is not as perfect as it seems. Behind this general briskness hide two, three or four children

who are incapable of replying quickly to a barrage of questions. They need time for thinking. Answers ripen much more slowly in their minds, but the teacher cannot afford to wait for them because the rest of the class would get restless and fidgety. In Lysenkova's classes the children don't have to wait for their fellow pupils. Everyone answers correctly, and it makes no difference whether they look at the prompting diagram or not. By gaining time, Lysenkova wins an opportunity to give her pupils three times as many examples and exercises as other teachers do. That makes it easier for even the less developed children to cope with the program.

Lysenkova utilizes whatever free time she can find in class to stimulate the pupils' inquisitiveness. For example, she has developed a method that increases the time allotted by the curriculum for the study of a particular subject by three or even five times. It is a method of "teaching lead." All teachers know two types: They go through the current material, and they repeat the material already covered. "Today" and "yesterday" live at their lessons. Lysenkova has dared to introduce "tomorrow"—the future. She gives her pupils the material they will study half a year and even a year from now! She spends just five or ten minutes on the study of future topics.

At first only the brighter pupils grasp the difficult future topic. Then the number gradually increases, and when the time comes for studying that topic, all the children will have gotten used to it and mastered it. All of them will have completed a hundred exercises and nobody will lag behind.

It is commonly thought that only something new and unexpected interests children. This may be true, but when it comes to study, we find that what interests children is a task they can cope with, what they understand, undertakings in which they feel themselves, if not leaders, then on the level of leaders. Children's interest always involves pride. If their pride is injured, their interest disappears.

This is true of Lysenkova's pupils too. They can all cope with their tasks, all are proud of their good performance. Actually, far from everybody in her class is an excellent pupil, but they all have the potential for being excellent pupils—and this is perhaps even more essential for their future than marks. She assigns almost no homework and implores parents not to interfere in the school work of their children, not to help them, not to check them, only to read more with them.

Lysenkova is the daughter of a railroader. She didn't get a university education because of the difficult postwar years. But she has talent. Talent and enormous conscientiousness, love for children and the very natural desire to make her work easier.

She's still teaching, and this year, her thirty-fifth at the job, she has again taken the first grade. The title of Merited Teacher has been conferred on her, newspapers often write about her and the second edition of her book *When It Is Easy to Teach* is coming out. Each summer vacation Lysenkova sets out for different parts of the country to conduct seminars for teachers and to train them in her method. She has already lectured in 30 cities.

Of course, there are many teachers like Sofia Lysenkova. I chose to write about her because I know her.

## short story

Zorair Khalafyan is an Armenian writer with great empathy for his characters and their foibles. Among his books are the novel *Giving Back Your Portrait*, the story "The Flood," and *Infant Prodigy*, a collection of plays.

**T**he mulberry, a mighty tree whose spreading branches cast their shade on two neighboring yards, grew exactly in the center of the fence that divided them. Autumn, winter and spring it was common property, but in the summer, when the berries became honey-sweet, trouble would begin.

Gaspar's five rattlebrained sons were never out of the tree from the beginning of June to the end of July—from the time the first berries ripened until the last of them were eaten.

His neighbor, Samson, had three little girls, and all they got were the berries from the bottom branches. Whenever they tried to climb up, the boys would chase them away.

Samson claimed that the tree had been planted by his grandfather's grandfather, and Gaspar was sure that it was *his* grandfather's grandfather who had planted it. But the tree was so old and its roots went so deep that in all probability even those ancient great-great-grandfathers would hardly have known who had planted it and whose it was. Those great-great-grandfathers—there were not even any photographs of them—knew only one thing: Their fathers and their grandfathers before them had had arguments over that mulberry tree. Arguments? They had even exchanged bloody noses over it.

A few years ago everything had been peaceful; not a word had been said about who owned the tree. The trouble had started when the children began to climb it.

The magnificent tree stood as it had for ages, generously spreading its branches over both yards. It cast its cool shadow equally on both sides of the fence; it gave its ripe berries with equal generosity to the piglets, hens and geese belonging to Gaspar and Samson. Only the children quarreled over it.

Samson bought a sheep, tied it up in the yard and saw Gaspar's sons in the tree eating mulberries while his daughters timidly reached up to the lowest branches.

"Climb the tree and get the bigger berries," he said to the girls. "Why pick the green ones?"

"The boys won't let us."

"Can't you give the tree a shake, so the girls can have something, too?" Samson called up. "You hear me, boys?"

"It's our tree!"

"Don't talk nonsense, boys. What's the difference whose it is? Eat all you want, who's stopping you? But let the girls have some, too."

So the ancient dispute, which had once flared up every summer, was revived.

"We'll let them have some, but it's our tree. They can climb up a little way on our tree and eat all they want," said the eldest and boldest.

"If you like, we'll shake our tree now and you can all pick up the berries," said the second. The other two boldly echoed this generous offer though they were only knee-high to a grasshopper. "It's ours," squeaked the smallest one hidden in the lower branches. "It grew in our yard and then bent over into yours!"

That clinched it. Try arguing with that little roly-poly!

"You weren't born to see it turn to our side," Samson was getting worked up, too. He left the sheep and went up to the mulberry tree. "Now then, down with you, or I'll . . ."

Gaspar's boys jumped down on their own side and ran off.

"I'll tell my dad on you!" threatened the smallest, bringing up the rear and holding up his pants with one hand.



# THE MULBERRY TREE

By Zorair Khalafyan  
Drawing by Leonid Nasyrov

"Scram!" Samson pretended to be starting after them.

The boys got as far as their door and turned. The little girls were playing with the sheep.

"Ba-a-a!" said the sheep.

"Ba-a-a!" chorused the brothers, jeering at the girls.

In the evening Gaspar came home from work and sat down to dinner. Unlike Samson, he was spindly, with little eyes and a bristly mustache below a long hooked nose. The boys were small replicas of their father: the same features—the same eyes and especially the same nose—the only thing they lacked as yet was the mustache.

FINE  
WEATHER  
ON  
WEDNESDAY

Continued from page 26

"Dad, is the mulberry tree ours or Samson's?" they wanted to know.

"Why do you ask?"

Interrupting one another, the boys started telling him how the neighbor's girls were trying to make out like it was theirs. Whose was it? It didn't really belong to Samson, did it?

Gaspar listened in silence. He looked at his wife. She didn't say a word.

"Have you been telling the boys anything?" asked Gaspar.

"No, nothing."

"What's gotten into them?" He thought a moment. "The old trouble—Granddad's?"

"I don't know."

"Neither do I."

The boys were getting impatient. "Will you speak to Uncle Samson?" asked one.

"What about?"

"Tell him to make those girls leave our mulberry alone. It's ours."

The next morning Samson and Gaspar met by the fence.

"You've bought a sheep, I see," said Gaspar.

"Yes, I'll slaughter it in the autumn for the holiday. For the time being it can graze under the tree, and the girls can water it."

"Good idea," said Gaspar.

If this had been the old days, the discussion would have sounded something like this:

**Samson:** Yesterday your sons broke that tree of mine, Gaspar.

**Gaspar:** Which? Why didn't you tell me? The young scamps, I'll . . .

**Samson:** The mulberry.

**Gaspar (with a look of astonishment):** Our mulberry? Tell your daughters to climb up and eat all the mulberries they want. Why do they take the green ones from the bottom?

**Samson (Gaspar had confused him so he decided to get down to the heart of the matter without any further ado):** Since when is the tree yours? I'm not sure I understood you right, but it sounds like you think you're treating my children to your berries.

**Gaspar:** Everyone knows the mulberry tree is ours. We aren't children to quarrel about it. If you feel like eating mulberries, take them, all you want; I put half the tree at your disposal.

**Samson:** Oh no you don't! The tree is ours. Half can be at your disposal. I'm allowing you to have it, not you me! If I see a single one of those boys of yours up my tree, Gaspar—don't take it amiss—I'll grab him and send him flying so's . . .

*The girls on their balcony listened and hugged each other in delight.*

*"Ba-a-a!" said the sheep.*

*"Ba-a-a!" mimicked the boys and burst out laughing.*

**Gaspar:** Samson, you're going too far! Shut up!

**Samson:** What?

*Then daggers flashed, the children squealed, their mothers wailed and the geese honked.*

That was how it could have been once. Actually the discussion went as follows:

"Samson, we've got to think of something."

"You're right."

"Yes, but what?"

"Darned if I know. Box those kids' ears?"

Gaspar frowned. "That's no good."

"Maybe you're right."

"Better do some thinking."

"Yes, we'd better."

They parted and went to work.

Gaspar's sons immediately climbed the tree, agile as monkeys, settled themselves in the branches and filled their mouths with handfuls of the sweet, juicy berries, chattering merrily, while Samson's daughters picked unripe green berries from the bottom branches.

"Like us to shake our tree so's you can gather the ripe berries?"

"The tree's ours!"

The boys in the tree doubled over with laughter. "If it's yours, why don't you climb up?"

When the boys had eaten their fill, they went away. Then they came back again, ate all they wanted and climbed down.

When Samson came home from work, the five boys hurtled down the tree and scattered as soon as he opened the gate.

Gaspar came out to meet them, and at that the boys' courage returned and they stopped. Samson left his gate, Gaspar left his, and they came face to face.

"What's been happening, neighbor?" asked Gaspar.

"As though you couldn't guess!"

Behind Samson's back, the girls were shivering. Behind Gaspar's back, the boys were watching with fearful curiosity. What would happen?

Samson took Gaspar's arm and led him aside.

"I've thought of something," he said.

"And I've had an idea or two."

"Look, Gaspar, we've got to put a stop to this tomfoolery."

"Sure. But how are we going to knock sense into the kids' thick heads, eh, Samson?"

"You wait," hissed the eldest and boldest of Gaspar's boys, "just wait, our dad'll give that Samson a bashing!"

"He'll show Samson whose mulberry it is!" squeaked the smallest.

But Samson's girls looked anxious. Were Dad and Gaspar going to quarrel? Or even—fight? They ran home to tell their mother.

Meanwhile, Samson was saying, "Here's my idea, Gaspar. We've got to knock all that nonsense about 'our tree' and 'not yours' right out of their heads. It's ridiculous. We can't let the mulberry get them quarreling. They must learn to play together in its shade and be friends instead of quarreling."

"Great, but how?"

"Tear down the fence on both sides of the mulberry and make a playground there. Say, four meters by four. We'll put up a low fence around it and two gates, one on your side and one on mine. The children can play under the tree. We'll make benches and put up swings and spread a good thick layer of sand so that the roots won't suffer."

"That's an ideal!"

"Let's get started right away. The kids can help."

"Agreed!" said Gaspar gladly. And they shook hands on it.

When they turned to the mulberry, they saw both families headed by their wives, who had obviously been awaiting some dreaded quarrel or perhaps a fight. And instead all was ending peacefully.

"Now then, all of you," Gaspar called to his own and his neighbors' families, "get axes, hammers, nails and spades."

"That's right, do what Gaspar says, and it'll all be fine!"

The next day the boys waited under the tree for the girls.

"Let's get some mulberries. We'll climb up and shake them down for you."

The girls smiled and nodded.

"Even though this is a women's club, it doesn't close its doors to men," said Novikov. "There are fewer men on the boat than women, but that's usual among pensioners over 70 years old. That's why they're especially chivalrous and make it a point to dance with each of the women in turn."

Yevdokia Nemchenko, 70, is the belle of the ball. Her husband was killed in World War II, and she lives with the families of her two daughters. She has worked for 20 years as a heating-system operator at the enterprise where both her daughters are working as engineers.

"I have always been an easygoing and cheerful person," said Yevdokia. "I came to the city from the countryside but got used to it quite soon though I didn't have much of an education. My girls are 100 per cent urbanites—engineers both of them. We get along very well."

Yevdokia is known at the club as a connoisseur of old Russian songs and dances, and her lessons are no less popular than those of the retired ballerina. Incidentally, the grandsons and granddaughters who eagerly accompany their grandmothers on the cruise have learned the old Russian quadrille and love to dance it.

The cost of the cruise is 20 kopecks for a child and one ruble for an adult. Alexander Harnas, a veteran builder and engineer, volunteered to be the manager of the club. He explained the financial aspect of the cruises. He does not dance or recite poetry, but he readily takes care of the thick ledgers which, incidentally, no one ever checks.

"The boat is leased for the whole summer by the palace of culture, which has organized the pensioners club," said Harnas. "The money for the loan of the boat and the salaries of the people who teach dancing, knitting, sewing and music comes from the trade unions of the large enterprises of the district in which the palace of culture is situated. The club also has a choir, a drama studio and a physical fitness group."

"The trade unions also see to it that there is a doctor on each cruise and an ambulance standing by near the pier. 'Just in case.'"

"It's a remarkable age," said Valentina Bunina, 33, the captain of the boat. "Old age has unexpectedly turned out to be no less interesting than youth. It has the advantage of experience; it is purged of competitiveness and brings out the best qualities of human beings. I agree with Leo Tolstoy, who said that the attitude toward old age and childhood is the gauge of the social health of a society and an individual. On these cruises, I really get to know people, and I feel like I understand them and myself better than I did before. You know, it's a very curious thing. I've been sailing this white boat for three years, and I always bet on the weather and win. Even if it pours on Tuesday, the weather on Wednesday is usually fine!" ■

Translated by Eve Manning.

profile

# Eduard Artemyev: Ours is a time of great music

By Yegor Tolstyakov  
Photographs by Vitali Arutyunov

**E**duard Artemyev, 45, who has been well known in music circles for 20 years now, is the top Soviet electronic composer, and he has a superb talent for melody. He draws widely on Oriental structures in his works, while retaining the Western modus and counterpoint. A prolific composer, he is also a fine arranger. Among his recent achievements is *Metamorphoses*, the recording he made with the Moscow group Boomerang. Included among the many arrangements of old and modern classics in it are interpretations of Monteverdi, Bach and Debussy. The record was in great demand in every part of the Soviet Union.

Artemyev is popular as a film composer, too. He wrote the music for many movies that are well known both at home and abroad, for example, *Solaris*, *The Mirror*, *Stalker*, *A Slave of Love*, *Unfinished Piece for a Player Piano* and *Siberiad*—62 feature and 20 cartoon films in all.

Artemyev was born in Novosibirsk. He graduated from a choral school in 1955, entered the Moscow Conservatory and finished with honors in 1960.

**Q:** How would you categorize your music?

**A:** This is a crucial time for music. Numerous styles, genres and trends began to branch off at the turn of the century and continued until the late 1960s. Now they are merging into one mighty flow, known as metamusic. It is dominated by electronic music, which incorporates and assimilates every find in every trend. So ours is a time of great music. As for my personal style, I think it is best defined as an attempt to dive into the maelstrom of world music, feeling every trend and style, in order to merge them all.

**Q:** Which of the world's composers has had the strongest influence on your music?

**A:** Claude Debussy—and other impressionists too. Well, there's also Igor Stravinsky. I discovered him anew after the conservatory. But they comprise only one section of my work.

**Q:** A lot of your composing is done to order. What do you write for yourself?

**A:** You see, I found myself something of a greenhorn in the movies, and there you work mainly to order. So there are hardly a dozen works I have composed entirely for myself. One is the *Seven Gates to the World of Satori*, a reflection of my enchantment with India. Then there is the accompaniment to Pierre de Coubertin's words, which I was asked to do for the Moscow Olympics opening ceremony in 1980. The Olympic Committee did not limit me in any way. I embodied in that work my old pet idea, gathering all the instruments and ensembles that ever existed, so it has a symphony orchestra, a choir, rock groups and a synthesizer. I don't count that among the works I made to order because I was so captivated by the idea.

My main concentration now is on *Crime and Punishment*, a rock opera. I confess I'm doing it to order, but it really is a labor of love. It's a challenge to translate into music the profound artistic revelations and the diversity of styles Dostoyevsky employed. To achieve the effect I am after, I leave pure hard rock strictly for Raskolnikov. As for Porfiry, the criminal investigator, his part will be written in the electronic avant-garde spirit. I have to find devices for the other characters too.

**Q:** When do you grasp a new idea in a more or less clear form?

**A:** It's difficult to tell. Sometimes I just say to myself I've got to do this and that—a sort of self-assignment. But everything I do outside applied music is closely tied in with a revelation—an event, an ideological premise, a book, something like that. I never start with a purely musical idea.

**Q:** When you finish a piece, do you treat it as finished, or do you have to postpone your own judgment of it for a later time?

**A:** It always takes me so long to compose that when a piece is ready, it is the final version. After I record it on paper and it is performed at least once, I lose virtually all interest in it.

**Q:** What instruments do you prefer?

**A:** The synthesizer and the electric guitar. The synthesizer is my favorite.

**Q:** How do you envisage the music of the future?

**A:** To see what music will be like in some years, you have to look at the latest instruments. As I see it, the appearance of third generation synthesizers is crucial for the future of music. Take the computerized synthesizer, complete with computer and display. You just sing a song or play something on the synthesizer or any other instrument—and the computer analyzes the music

and produces a recording in a jiffy. You can correct anything you want to; the display is at your fingertips. The possibilities for composers is limited only by their imagination. What's more, these instruments allow people to compose music who have only the imagination and no musical education, even those who can't read notes. This isn't a threat to real talent. It'll be like poetry: Anybody can be taught to rhyme words, but real poets are rare. A similar situation in music will stimulate the truly gifted musicians. As I see it, today's music connected with electronics, especially that inspired by rock esthetics, is essentially, qualitatively, a new stage in music so far as both its charge and its influence on people go.

**Q:** What can you say about Soviet rock?

**A:** There are top-class performers in our leading groups, but they are regrettably too much under the influence of Western trends, except for Boomerang and Alexei Rybnikov, a Moscow composer. The work of these two speaks for itself.

**Q:** Who do you think is the best performer of your music?

**A:** Boomerang. But I've been writing more and more songs recently and am now working with Jeanne Rozhdestvenskaya, a wonderful singer. We've just finished a new record, *Who Am I?* to the words of Yuri Rytkheu, a Chukchi poet and prose writer. It's a series of songs about a woman—her birth, love, life and death.

**Q:** Do you think music is abstract?

**A:** By no means! It's a spiritual phenomenon in which life is expressed at its highest. It is one of the major manifestations of life.

**Q:** You're a great admirer of Oriental music, aren't you?

**A:** It has always fascinated me. I find it a source of rejuvenation. It's permeated with meditation, which has especially influenced twentieth century music as a whole. The rock esthetic system is closely connected with Oriental culture. Rock 'n' roll is the most vivid expression of the synthesis of Eastern and Western music.

By the way, electronic instruments are very close to Indian instruments in tone and subtle nuance patterns. To some extent the synthesizer, a European invention, has built a bridge between Eastern and Western instruments.

**Q:** What do you think about jazz?

**A:** That's a closed book for me. I received a purely classical education and— presto!—passed on to rock, skipping jazz. Now I listen to jazz and try to get accustomed to it, but it's hard.

**Q:** Would you please say a few words about your work in films and the specifics of its music?

**A:** It is very specific, to be sure. The picture is highly informative as it is, so the music has to be more laconic than elsewhere. A single note sometimes makes a whole frame.

Every director treats music in his or her own way. Having worked with many, I can say that for sure. Some are out-and-out opponents of music in the movies. They're the ones whose every scene is so loaded with information that music is superfluous. Such directors resort to music only when they think other means will fail. Then there are directors who think the more music the better and want it in every episode and every frame. They use music to enhance the emotional impact of the film to the point of shocking and overwhelming the audience. And these musical attacks have to have more and more thrust with every new scene.

**Q:** On which films did you like working best?

**A:** I'll name only two here. In *Several Days in the Life of Mr. Oblomov*. Incidentally, this film was shown in the United States under the title *Oblomov*. I used the synthesizer, though the action takes place in nineteenth century Russia. Be that as it may, the music is an organic part of the film, and I'm proud of it.

The other film, *Stalker*, was really difficult to make. We had to show—figuratively—the mythical spot where dreams come true and you are enveloped by happiness. The idea was to produce a really supernatural effect without anything visual, only conversation. That's where the music came in. To demonstrate that it was something *not* of this world, I used Zen ritual music in an utterly European environment. And so, behind the screen, we produced the effect of a nirvana that could be but never is.

**Q:** What are your plans for the near future?

**A:** To finish my *Crime and Punishment* this season and to prepare *Pilgrims*, a 45-minute disc.

## camera at work

It took Victor Chernov a long time, many jobs and a lot of soul-searching before he finally decided to devote his life to photography. He wants to bequeath to future generations a kaleidoscope of the events of our time in all their diversity, conflicts and contradictions—as they are, not as seen through rose-colored glasses.

*Echo of the War*

# VICTOR CHERNOV: IN THE THICK OF THINGS

By Alexander Dorozhkin



Victor Chernov,  
press photographer.

Victor Chernov, considered one of the most distinguished photographers in the USSR, is besieged by requests from editors of illustrated periodicals. The organizing committees of international photography exhibits send him one invitation after another, and he keeps receiving news about his victories at various international competitions. Well,

everyone likes to be in the limelight, and he is no exception. Like any artist, he needs recognition. Still, he's the kind of man who doesn't believe in resting on his laurels. He is always where the action is, working on new themes, rejoicing at every piece of luck, and impatient if something doesn't turn out the way he wants it to. His work is his life. He finds continuous renewal in it. But it may also be a great inner conflict, a never-ending argument with himself.

Chernov was lucky to have been born into a photographer's family. Very early in life he began helping his father around his photography studio, where he learned everything about developing and printing. By the time he was in his teens, he could relieve his father in the studio and do a perfect portrait. However, before long the commercial relationship between the subject and the photographer became too much for him. Although he put his whole heart into his work, he was looked upon as a mere salesman. Eventually he left the studio. Obviously, he was meant to undergo serious trials to test his calling.

He tried working in many different fields. He was a lathe operator, a technician, a mechanic and a construction worker. As for his true calling, it revealed itself gradually. One day the editor of the factory newspaper noticed Chernov's talent for photography and started giving him assignments. Chernov realized that the photographs he did for the paper helped people see life from a different angle, solve their problems and cope with their domestic hassles. That gave him the incentive to go on working seriously. Then Chernov began taking pictures for Novosti Press Agency (APN).

When Chernov became an APN staff photographer, he moved from Novosibirsk to sun-scorched Uzbekistan. For four years he traveled throughout that Central Asian republic, taking up to three series of photographs a day. He photographed hundreds of events, large and small, and thousands of faces of cotton growers, land reclamation experts, musicians, shepherds, tradespeople and poets under the hot, "flat" Sun of Central Asia.

He still calls himself a reporter because he believes that a news photographer's place is in the thick of things. Chernov's credo is to bequeath to ▶







*Lezhinka*

*Great Mom*



future generations a kaleidoscope of the events of our times in all their diversity, conflicts and contradictions—as they are, not as seen through rose-colored glasses. "When I retire, I'll take comfort in the thought that my work showed life as it was, with no embellishments," he keeps saying.

Chernov's photographs have been taken by a kind and openhearted man acutely aware of human

pain, happiness and tears. He can see the emotions in a person's face, eyes and hands, in wrinkles and gestures. That is probably why he enjoys photographing old men, guessing their past and casting light on their wise thoughts and sadness. He deliberately avoids showing the bright aspects of life and various superficial things. I keep thinking of Chernov's series of photographs depicting a har-

vesting campaign in the Kuban region. Dozens of photographers had tried that old theme before him. Many of them had succeeded, but the majority of photographs had been just optimistic pictures—the scorching Sun and the sweating, dusty faces of people working from dawn to dusk, happy at their work—pictures lacking the essence of the subjects. As for Chernov, his pictures were dramatic. He never tried to avoid contradictions and problems. Perhaps this is the reason why his photographs are so true to life. I think that Chernov's approach makes it possible to reveal the spirit of our unquiet times.

When he's at work, it's actually impossible to distract him. And it's also hard to keep up with him. It's as though he had suddenly acquired an ability to fly, to vanish and suddenly reappear where he's least expected. Here is an example of the risks he often takes to solve a problem no one else is aware of. Once, while taking pictures of hydroelectric engineering expert Alexander Maksakov, he worked balancing on the edge of a 20-meter-high wall of an unfinished apartment house. Safety regulations just don't exist for him.

Minutes of Chernov's work are often as strenuous as hours, and even days, of other people's effort, for during those minutes he uses all his experience, everything that's in him. The mood in which he begins working on a new theme is essential for Chernov. He looks preoccupied and nervous when he can't find an answer to the questions he asks himself.

The ultimate in photographic genres is a story in photographs. In Chernov's interpretation, it is a psychological "photo novella." This is not just a label. Carefully choosing photographs on a particular subject, he makes the whole story nearly symbolic despite the fact that he often rejects the most effective compositions. That is why he is called the master of photostories.

The heroes of Chernov's stories have to be real personalities. He'll never agree to photograph them until he comes to understand and like them, to be fond of them, until his characters begin to think the way he does.

He learned a lot from his long acquaintance with Chinghiz Aitmatov. He still has the warmest memories of his meetings with icebreaker captain Victor Liashenko, Vice President of the USSR Academy of Sciences Yuri Ovchinnikov and an old worker named Ivan Riumkov.

I am sure that Chernov remembers all his subjects and that all of them have good memories of him.

For him, Antonina Khlebushkina, the director of a children's home in Tashkent who became a mother-substitute for thousands of little orphans during the Second World War, is Mother, too, and he listens to her stories with tears in his eyes. As for her, she is grateful to the news photographer for understanding her.

Academician Meshalkin, the creator of a new technique in heart surgery, always finds time to meet with Chernov when he comes to Moscow from Siberia. The academician, too, values the photographer's moral support for his own hard efforts.

Chernov's work is as hard as ever, but he is always filled with a thirst for new quests. However, now he is responsible for more than just himself. His best works are part of the image of the new generation of Soviet news photographers. ■

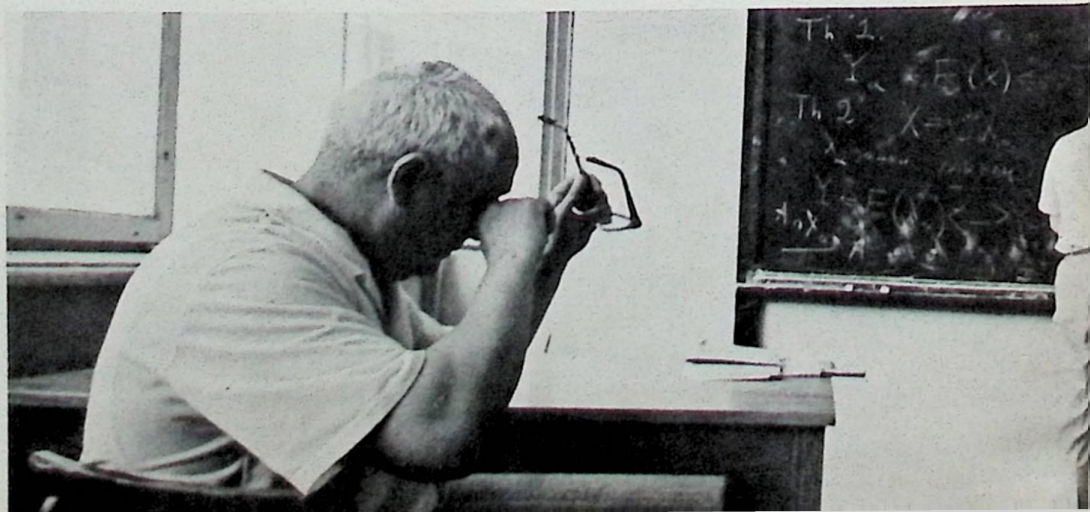
*Birch Trees*



*Wisdom*



*Clash of Intellectuals*





## A TOUR OF KIRGHIZIA

### Meeting People, Seeing Places

Kirghizia is an exotic land of high mountain peaks, rapid rivers and alpine meadows. The national color is reflected in many things—clothing, customs and cuisine. The progress and the changes that have occurred since Kirghizia became a Soviet republic are enormous. In only a few decades this formerly backward province of Russia has acquired an advanced modern industry, a solid foundation in science and a well-developed, unique national culture.



## ROUTING THE ENEMY

### The Events of 1944

"The Liberation" is the title of the April article in our continuing series devoted to the fortieth anniversary of the end of the Second World War. In this piece the events of 1944 are remembered. Actually, that was the year that the Red Army liberated the territory of the Soviet Union from the nazi invaders.

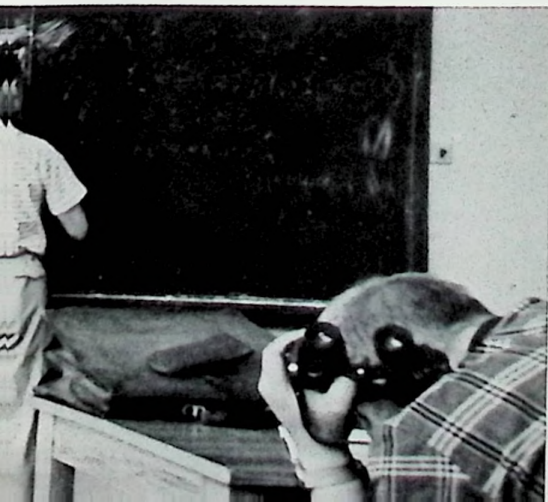
## PEACE CRUISE

### Up the Volga

In 1983 we covered the first Peace Cruise on the Volga, which was a great success. On the second, our correspondent was again aboard. She talked with many of the participants and gives her report.

# COMING SOON

Forty Years of Peace—  
A Special Issue Devoted to the Victory over  
Nazism and the End of the War in Europe



Reading the Koran

## Theater Created by a Student

An unusual theater has been set up at the Moscow Aviation Construction Institute. The duties of the playwright, producer, art director, sound and light engineer, and costume designer are all performed by one person, third year student Nikolai Zykov. The cast consists of string, rods and hand puppets.

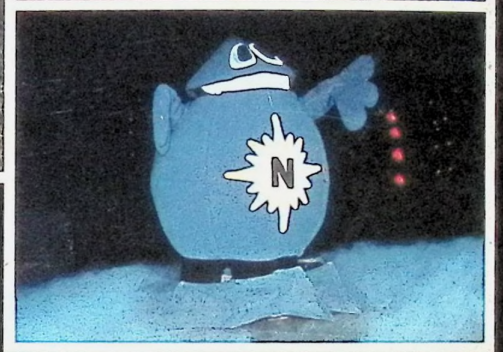
Zykov's puppet miniatures are very popular at Moscow houses of culture and with television audiences. Each act parodies a musical style or a performer. The shows are well thought out, and the sets, lighting and effects blend with the music, which is either pop, classical or folk. Each puppet conveys some generalized idea even if its act is mimicking some star performer.

One of the numbers done by two "actors" is a parody on love duets. The singer and the accompanist are favorite puppet characters. There is a similar number in *An Unusual Concert* staged by Sergei Obraztsov, the founder of the Moscow Puppet Theater. However, Zykov is the first puppeteer to operate two puppets at once. The "actors" dance, walk, play and sing, guided by just one operator who performs wonders of dexterity.

There are 20 puppets in the company now.

Not long ago Zykov prepared an antiwar number, "Monologue of a Neutron Bomb," and he worked a two-meter-high puppet in it. He has been asked to show the miniature at the 12th World Festival of Youth and Students to be held in Moscow next summer. Meanwhile, he's planning to show it at his institute's palace of culture.

Photographs by  
Andrei Solomonov



Top: Nikolai Zykov is the creator of an unusual puppet theater. Above: "Monologue of a Neutron Bomb," a number in Zykov's new antiwar program. Bottom: "Monologue of a Student." Left: Parody on a well-known pop singer.

