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June 1969

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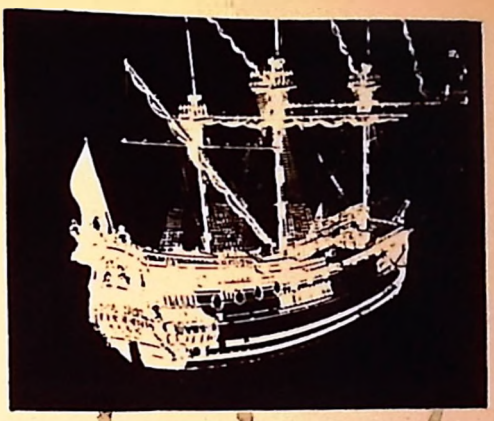

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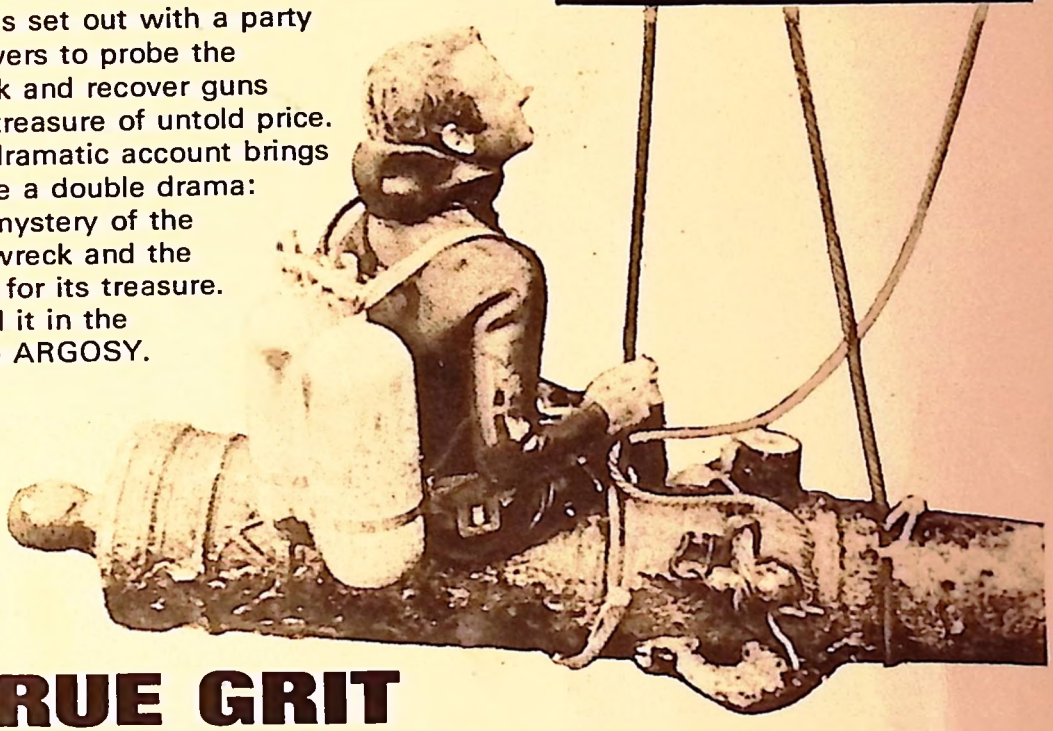

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Designed by Yevgeni Leonov. Technical Editor: Berta Bresler.

SPUTNIK is edited and compiled by the NOVOSTI PRESS AGENCY (APN), 2 Pushkin Square, Moscow, USSR. Chairman of the APN Board: BORIS BURKOV. *Editorial Board:* Editor-in-Chief, Oleg Feofanov. Assistant Editor-in-Chief, Nikolai Litchak. Managing Editor, Vladimir Pozner. Editor, English Edition, Sergei Chulaki, Art Director, Anatoli Galkin.

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LETTERS TO THE EDITOR

As translator and teacher of Russian, I welcome SPUTNIK, since it enables me to show my pupils not only the beautiful and diverse scenery of the Soviet Union, but also the rapid growth of its towns, its swift technological advance, and the astonishing, often heroic, achievements of the Russian people.

I am pleased not only because you deal with so many interesting subjects, but also because your illustrations are in excellent taste and show a high degree of skill. But your cartoonists, in the sense of stylisation of drawing, are not as good as they might be. They should learn from such master hands as Gulbranson, who gets over a lively, trenchant point of humour with the most laconic and dynamic means, discarding everything that is superfluous and naturalistic, anything lacking vitality and interest.

Vera Reinhold, Bremen, German Federal Republic

I enjoyed your articles on Yuri Gagarin and the Siege of Leningrad *(December 1968 and January 1969)*.

As I am a teacher of music I would like to see a regular article on Russian music and composers.

Stella Brown, Glenmanus, Portrush, Northern Ireland

As the old Russian romances are coming back into fashion, could you not give the words and music of the most popular of them from time to time? It would be very much appreciated by your readers.

Marek Cybart, Wola Chojnata, Poland

In response to requests from many readers we shall be publishing the words and music of Soviet songs. We shall probably give an old romance from time to time, too.

It was a great pleasure to read, at last, the interesting interview given by Vladimir Mikhailov on Soviet jazz in the January issue. It is, of course, difficult to write about jazz—you have to hear it and feel it. Today jazz is of interest to young people all over the world. And while we in Poland have quite a good knowledge of Soviet jazz, in other countries fans can only get an idea of it through your magazine. In Poland we know little about young jazz orchestras, the Leningrad group, "Singing Guitars", for instance. Polish readers would enthusiastically welcome articles on such subjects.

Bohdan Czerniak, Poznan, Poland

Several articles about Soviet jazz are on the way, including a feature about one of the best "big jazz orchestras" in Europe, that of Vadim Lyudvikovsky.

It gave me considerable pleasure to read some of the poetry of Alexander Tvardovsky and also his life story *(February 1969)*.

I wonder if this could become a regular article in SPUTNIK for other Russian poets who have written autobiographies.

Marilyn Swann, Aspley, Nottingham, England

We shall not forget about our poets, and you will find something about their work, and also examples of their work, in almost every issue.

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LETTERS TO THE EDITOR

Perhaps we could see regular features and puzzles from the world of chess in your magazine, and biographies of the Russian masters, particularly Botvinnik and Keres.

Anthony C. Talbot, Kildare, Ireland

We invite readers to send in their views on this suggestion. So far we have a regular chess column only in the German edition of our magazine.

Your story on shotguns *(February 1969)* interested me a great deal. After using your Baikal cartridges I now am a great believer in them. In the same way your picture and story of the IZH 54 have set me off wanting to own a Soviet gun.

D. Peggie, Rosyth, Scotland

Each month I find fine illustrations and interesting articles in SPUTNIK. I think it would be a good idea to tell readers about Soviet cameras and watches.

M. van Kooten, Slikkerveez, Holland

Readers will get a better idea of our cameras and watches if they contact "Vneshposyltorg" representatives in their country. These representatives have the relevant catalogues available.

I like both your articles and your illustrations. At last the time has come when the curtain screening the USSR from us has fallen, and at last the prejudices against the Soviet Union can be swept away. In this regard I feel responsibility for the fate of my own child. We must bring up the rising generation to be honest people.

Eva Wilde, West Berlin

I have been subscribing to SPUTNIK for over a year and in that time found much of interest in this publication. We in the West hear many charges of "police state", "oppressed peoples" and so on, levied against the Soviet Union. It is evident from the articles in SPUTNIK that these charges are not entirely true, to say the least. Obviously ideological differences exist between the nations all over the world, but this hardly justifies the hatred and violence that we hear so much of in these troubled times. The singular factor about your publication is that you have a desire to please and explain. If this is propaganda, as some of my more conservative friends would have me believe, then let us have more of it!

I can only say that not everyone in the West is waiting to gloat over the errors of the USSR, but many look forward to a time when we may share our common knowledge and wealth, for the benefit and peace of mankind.

A. F. Ross, Bromley, Kent, England

I am 73. For a long time I have been interested in Russia and finally, in 1967, I journeyed there and saw your country and its people for myself. Above all, I saw that things were well organised there, and was just astounded at Soviet art, science and technology.

I feel that those who whip up enmity between our nations should first take a look at Russia, should get to know its people, then after that they may write—but only the truth.

Willi Haupermann, Kemnat, German Federal Republic

LETTERS TO THE EDITOR

PEN-FRIENDS WANTED

Our "International Students Pen-friends Association" has been running smoothly since 1962. It is a non-political, non-racial and non-sectarian body having only one aim—FRIENDSHIP. It has been formed to strengthen relations of the students of the world and to promote international peace through exchange and collect stamps viewcards, ideas, gifts, etc.

Anybody interested should write for details to the following address:

Jamsheed Ahmed, President, I.S.P.A. New Quetta Book Stall, Jinnah Road, Quetta, West Pakistan

I'd very much like to correspond with friends all over the world. I am 18 years old. My interests include light music, reading, photography and viewcards. I can write in Russian, Bulgarian and a little in English.

Asen Velkov, Bloc 115-A-8, Sofia-73, Bulgaria

I am a 15-year-old girl and I would like to have boy and girl pen-pals from all over the world. My hobbies include reading, pop music, sport and horse-riding.

Hermione Ball, 365 William Street, Brooklyn, Pretoria, Transvaal, South Africa

Being a student of the English philology, I am interested in literature, history, theatre, politics, arts, films. I collect viewcards, stamps, reproductions and books. Can correspond in English, Italian, German, Russian. I am also studying French and Czech. I am 18 years old and would like to have pen-friends from various parts of the world to discuss politics and arts.

Helena Tenkova, Sofilska Komuna I, Sofia, Bulgaria

I would like to have pen-friends in other countries who can correspond in English or French. I am a 21-year-old teacher. I am interested in history, music, art, literature and sport. I also like to travel when I can.

Suzanne Kidman, 3 Curzon Street, Toowoomba, Queensland, Australia

I am an 18-year-old student. I would like to have pen-friends anywhere, especially in Japan. My hobbies are swimming, music, films, viewcards and correspondence. I know English and Arabic.

Raji Badeen, Sh. Arab 30 A, Nazareth, Israel

I would like to get my address published in this esteemed magazine and gain pen-friendship throughout the world. I would also like to add that I'll reply to all the Jordanian girls.

Mohamed Jamil Awan, c/o Mr. Ghulam Rasul, 1st Class Petition Writer, Khanpur (B.W.P.), W. Pakistan

I am an Australian girl of 12, and I would like to have pen-pals all over the world. I am interested in stamp collecting, music, sports and travel.

Dianne McGlashan, 63 Fransworth Street, Castlemaine 34-50, Victoria, Australia

I am a 19-year-old American girl, and I would very much like to correspond with people in Europe and the Middle East. I work as a telephone operator. I enjoy writing letters, playing badminton and volleyball, and car races. I collect stamps, postcards, books and records.

Robin Cramer, 506 N. Maple Grove Avenue, Hudson, Michigan, 49247, USA

I am 17 years old and collect viewcards and photos of film stars. I am very much interested in the life of the youth in different countries. Can correspond in English, Polish, Russian and Esperanto.

Krystyna Draczuk, 4 Dzierzinskiego, Dobiegniew, woj. Zielona Gora, Poland

I am 23 years old and I want to have pen-friends from all over the world, especially from England. My interests are writing, travel, music and literature.

Manouchehr Moyassary, P-104, K-Behrooze, Narvand Shah Street, Esfahan, Iran

I am a 15-year-old pupil of the 9th class at the secondary school. I am fond of drawing and figure skating and can correspond in English, French and German.

Saru Gheorghita, Cal. Giulesti 111, B.5, sc.B, parter, ap.36, sector 7, Bucuresti, Romania

I am interested to have pen-friends from all over the world and especially from Europe. I am working as a clerk in the Burma Christian Council and I am studying English. My hobbies are worldwide correspondence, reading and collecting photos. I am 26 years old. I know English and Burmese.

Dominic Myo Lwin, c/o Burma Christian Council, 20 Signal Pagoda Road, Rangoon, Burma

I collect stamps (but only on covers) and would like to exchange covers—old and modern—with people all over the world.

Brian C. Smith, 2 Kingslee Court, Worcester Road, Sutton, Surrey, England

I want to have pen-friends all over the world. I am 21 years old and I know Russian, English, French and German.

Siegfried Mikitiuk, 8291 Caserlitz 14, Krs. Kamenz, DDR

I am an English schoolgirl of 13. I would like to have pen-friends all over the world, particularly in Spain. My interests are coin collecting, stamps, viewcards, geography, languages and cooking. I speak English and a little French and Spanish.

Sharon March, 2 Pebsham Farm Cottages, Bexhill, Sussex, England

I want to correspond with young people from all over the world. I am 18 and a student. I am interested in politics, theatre, films, books and languages. I collect viewcards and matchbox labels. Can correspond in English, Russian, German, Polish and Esperanto.

Andrzej Figarski, 71 Trubakowska, m.3, Chelm-Lubelski, Poland

I am fond of photography, music and correspondence. I am 23 years of age and my profession is film journalism.

H. K. Verma, 29 Divyang, Sassoon Dock, Colaba, Bombay-5, India

I am 23 years old and would like to have pen-friends all over the world. General interests. I can speak Portuguese and English and some Italian and Spanish.

Mario Luongo, Caixa Postal 154, Jacarei—S. Paulo, Brazil

LETTERS TO THE EDITOR

I want to get pen-friends all over the world. I am 16 and attend a secondary school. My hobbies are literature, music, history and chemistry. I know Russian, English and Bulgarian.

Lylia Tcherkezova, blvd Lenin 148, Block 11, vh.A, Sofia-13, Bulgaria

I am interested in having SPUTNIK pen-friends of any age. My hobbies are reading novels, magazines and exchanging newspapers. I can write in English and Kiswahili.

L. W. Hamiss-Kitumboy, P.O. Box 15360, Dar-Es-Salaam, Tanzania

I am very keen to have pen-friends all over the world. I am an 18-year-old student. I know English and Portuguese. My hobbies include philately, viewcards, pop music, movies, mathematical puzzles and reading.

Albert Nazareth, Regal Hotel, Darbhanga, Bihar, India

I would like to have pen-pals in the United States, Japan and other countries. I am 19, and study architecture at Eindhoven University of Technology. My hobbies are modern jazz, architecture, automobiles and semi-scientific magazines. I can write letters in French, English, German and Dutch.

Jan L. N. Klink, Adelaertstraat 14, Eindhoven, Holland

I would like to have English-speaking pen-friends from all over the world. I am 15 years old and am interested in military history, classical music, especially Tchaikovsky, postcard collecting, ballet and photography. I have a tape recorder and would like to tape-correspond with anyone.

Martin R. Dudley, 59 Hazelwood Road, Acocks Green, Birmingham 27, England

I would like pen-pals from all over the world. I am from Ceylon, working now in the Maldive Islands. My interests are reading, music, sewing and collecting viewcards.

(Miss) Chitra Wickramasinghe, "Tokyo Villa", Male, Maldive Islands (via Ceylon)

I would like pen-friends in East European and Latin American countries, as well as Canada and Australia. I am 20 years old, have general interests. Can write only in English.

C. K. Prabhakaran, 5 North Railway Terminus Road, Royapuram, Madras 13, India

I am very much interested in getting pen-pals from all over the world. I am 18 and a student. My hobbies are stamp collecting, sports and letter writing. I can correspond in English and Tamil.

S. Kulasabanathan, 18/2 Yarl Road, Jaffna, Ceylon

We very much regret that we are unable to publish the names and addresses of all the hundreds of people who write in seeking pen-friends. Because of lack of space we now have to limit this service to *SPUTNIK* subscribers.

—EDITOR

TIME TO LIVE

The human span: Past, present and future

by Boris Urlanis, D.Econ.

***

from the book "Birthrate and Life Expectancy in the USSR"

***

How long could a human being live, and—a completely different matter—how long is average life expectancy likely to be raised within the foreseeable future?

About 170 years ago a French scholar, Froumousand, expressed his view: "Though their bodies are made to last at least 150 years, out of complete ignorance of biological laws people have allowed their life span to drop to half this."

This was quite erroneous, of course. Had Froumousand any access to population statistics he would have known that. In the past people lived even shorter lives, not longer, so their life span can hardly have dropped to 75 years. On the contrary, although it is continually rising, it has still not *increased* to 75 years. How much has life expectancy grown since the nineteenth century?

A Soviet scientist, Alexander Bogomolets (1881-1946), took the view that "science estimates 125-150 years to be a normal life span at this stage of man's development".

This was an exaggeration. The scientist simply did not examine the longevity statistics. Even today people of 125-150 years of age are few and far between. What would a realistic figure be?

Some scientists claim that before long advances in medical knowledge and in the health service will double life expectancy, bringing it at last to over 150 years.

This is an illusion, due to a superficial treatment of the population statistics. Social and medical means alone will not be enough to do this—far more radical interference with the processes of nature would be required. The geneticists would have to step in.

Let us take a realistic look at the prospects.

There never was a 'Golden age of Methuselah'

According to the Bible, Methuselah established the all-time record for human longevity by living 969 years, and as a demographer all I can say is that as far as I know there were no birth registration or population statistics or any similar check in Biblical times.

Statistics show, in fact, that people who live as long as even one-sixth of Methuselah's life span are extremely few. The hazards against living to be 150 are on the same scale as those against winning a lottery with millions of tickets, and in the past one had to be even luckier than that.

Science's Age of Statistics is not so old, having begun only at the close of the eighteenth century, but tombstone inscriptions show that centenarians in ancient times and in the Middle Ages were much rarer than they are today.

Against this it may be countered that population censuses show the percentage of centenarians to have continually fallen over the past 150 years. However, it is not a case of the figure falling; the truth is that there has been a falling-off in the number of statistical errors.

The greatest numbers of very old people have been recorded in regions where no official birth registration was observed in the period 100 to 150 years ago, so there is no guarantee of the real age of the individuals who were counted as having been born in that period. When a pre-war German census was checked, it was found that most of those who claimed to be more than 120 years old had not, in fact, reached their century.

A strict check on the latest (1959) Soviet census, which showed the country to have 28,015 centenarians, reduced the number to 21,708.

We can conclude from population statistics that there has never been any "golden age" of human longevity, and that if people really have the capacity to live to be 125 or 150, they will not do so, on a mass scale, in the near future.

Present and past

The widely publicised Azerbaijanian Mahmud Eivazov, who was born in 1808, is reported to have told the Press on the occasion of his 150th birthday that he had no trouble with his health, hearing or eyesight, and that he still went in for gymnastics, horseback riding and hunting. Eivazov had 20 children, his oldest daughter being more than 120 years old and his youngest past 70.

Other similar examples could be cited. However, as demographers deal with precise figures, what they say can be enlightening.

In the Soviet Union there are about 100 centenarians for every million of the population, compared with 15 for every million of the white population in the USA, seven in France, six in Britain and one in Japan.

There were only 578 people in the Soviet Union older than 120 years at the time of the 1959 census—and that in a country with a population at the time of 209 million! The figures for the very old are clearly exceptions to the rule of the average span of life.

Some comparisons of the present with the past may be useful. At present, the longest life expectancy at birth is enjoyed in Norway, Sweden and Holland, where the average life span is 73-74 years. For Denmark and Switzerland the figure is 72; for Britain, France and Canada 71; Federal Germany, Japan and USA 70 (71 for the US white population and 64 for coloured people). But in India it is only 42, with some countries of Asia and Africa recording an even lower figure.

In the Soviet Union, the average life span is now 70 years.

Compare this with the figure for Czarist Russia, which was 32 years, about the same as in the Middle Ages. Comparable figures for the period before the First World War in other countries were 52 years for Sweden, 50 for Britain, 49 for USA, 47 for France and 42 for Germany.

So the average life span in the Soviet Union has more than doubled since the end of last century. If such an unprecedented rate continued, the average life span of Soviet citizens would be more than 100 years towards the end of the present century. However, this will probably not come to pass, for the reasons I shall give.

Health service advances

The rise of 38 years in the span of life in the Soviet Union in the last 70 years is to a considerable degree

attributable to progress in medical science, its remedies and treatments. However, in India and other developing countries the average life span is still what it was in the Russia of the early 'twenties, when the young Soviet Republic was just beginning to overcome the consequences of the first world war, economic ruin and crop failures, as well as the economic and cultural backwardness the country had inherited from Czarist times.

South Africa has made history with the world's first heart transplant, but the death rate of Africans in large areas on the continent remains monstrously high. Millions who are dying could be saved by ordinary remedies from the chemist's shop or clinic, which are simply not available to them.

Miraculous discoveries and techniques alone cannot prolong human life. What is necessary is a developed public health service and a democratic system of social services, which would put the possibilities of medicine within reach of every man and woman.

It is the social, economic and cultural progress that has helped bring about the unheard-of growth of life expectancy in the Soviet Union, while progress in medical science is a secondary consideration.

Further improvements in living standards and medical services will certainly add something to the average life span in the Soviet Union in the future, too, but the increase cannot be expected to be great, and will be a matter of a few years at the most. This may be seen from the fact that in the last decade life expectancy has been prolonged by one year only—from 69 to 70 years.

Complex problems confronting medical science are the explanation. The death rate in Russia since the end of the nineteenth century has fallen in different ways in different age groups. For children up to five years it has fallen to about 7 per cent, but for the 70-year-olds the fall in death rate has been only one-tenth as much.

This may be explained by the fact that each age group has its own peculiar hazards. In childhood the most important are infectious diseases such as measles, scarlet fever and whooping cough. Adulthood is threatened with injuries and tuberculosis, and for those of advanced years cardiovascular diseases and cancer are the main killers.

It is in the field of acutely contagious diseases that medical science has had its greatest triumphs, and consequently child mortality has shown the greatest falling-off.

Much has been done to improve matters for the adults, but the problems have been more complex. All the same, TB nows kills hardly any Soviet citizens aged up to 20 years, and it is the cause of markedly fewer deaths than before among those aged between 20 and 60. Deaths from injury are also being fought with vigour.

As elsewhere, in the Soviet Union cardiovascular diseases are Killer No. 1, and Killer No. 2 is cancer. They are entrenching themselves in these positions, partly because the number of elderly and aged people increases

with the increase in average life span.

Although they see no hope of stamping out cancer deaths in the next two or three decades, experts think it possible to transfer the main incidence of cancer mortality, and deaths from heart diseases, into the seventies of human life. More promising is the possibility of reducing deaths from chills and infectious diseases, including TB, and from diseases affecting the alimentary tract.

All of this provides grounds for assuming that towards the close of the century the average life span in the Soviet Union may be extended to 77 years.

However, the most strenuous efforts of medical science will be required for every advance in this direction. And the complete elimination of deaths from cancer, for example, would yield only an addition of two or three years to the average span. From this it may be seen that all the talk about doubling average life expectancy amounts to fantasy.

What the future holds

Just the same, I do not believe there is justification for the pessimistic conclusion that the longevity limit is almost at hand. Population forecasts themselves introduce a note of optimism.

It should be noted that the USSR's average life expectancy of 70 years is the life expectancy at birth. Adults may expect to live longer still, according to the following table:—

	Males	*Females*
20 year olds	up to 70	up to 76
30 „ „	„ 71	„ 77
40 „ „	„ 72	„ 78
50 „ „	„ 74	„ 79
60 „ „	„ 77	„ 81
70 „ „	„ 81	„ 83
80 „ „	„ 87	„ 88
90 „ „	„ 94	„ 95
100 „ „	„ 103	„ 104

These figures, it should be noted, are averages, and do not relate to individuals as such. Some of the newly born die in their first year, while others live to be 150. But the main body of the newly born generation can expect to live 70 years.

If he bears in mind the "probability" nature of these estimates, the reader may reason thus: *If I reach 70, I shall be able to live to be 81 . . .* and so on. The whole point is that "if". Not all people will live to be 70. But those who do reach that age will stand a chance of living another 11 years, for the following reasons.

Every age group has its own death risks. But when a man has lived 70 years, fewer of the old risks confront him, so that the older he becomes, the better his chances of longevity. These possibilities increase as the average life span increases.

Towards the close of the century, the average life span in the Soviet Union will most likely be close to 80 years, so that all the figures in our "horoscope" relating to subsequent survival will grow, too. The 80-year-olds will have a chance to reach the age of 90, instead of 87 or 88. The 90-year-olds may then expect to live more than another four

or five years, as at present. And so on.

The number of potential centenarians will thereby increase, while longevity records (of the order of 125 to 150 years) will become more frequent. However, in the foreseeable future they will remain the exception.

Normal longevity, achieved not by a select few, but by hundreds of thousands, now fluctuates around 90.

Possibly scientists and other scholars sooner or later will find the way to understand the biological nature of longevity and thus help medical science to prolong, if not actually double, human life. Population statistics will also help, by providing more exact data on longevity, its historical development, its incidence in different regions, etc.

Why, for instance, does the Soviet Union have the greatest number of its centenarians in Azerbaijan, with almost none in Estonia? Climate and other factors of geographical environment may be at work here. But then, why does Lithuania have six times as many very old people as neighbouring Latvia?

There are thousands of such "whys", and the research people are seeking the answers.

They may be obtained as the result of new discoveries in biology, which may make it possible for man to live as long as 125 years or more.

Number of centenarians per million of population in the USSR

Estonian SSR	10
Latvian SSR	30
Moldavian SSR	60
Ukrainian SSR	60
Russian Federation	80
Turkmenian SSR	80
Kazakh SSR	100
Uzbek SSR	100
Tajik SSR	110
Kirghiz SSR	110
Byelorussian SSR	130
Lithuanian SSR	170
Armenian SSR	330
Georgian SSR	510
Azerbaijan SSR	840

Average life span in the USSR

1896-97 (czarist Russia)	32 years
1926-1927	44
1938-1939	47
1954-1955	64
1958-1959	69
1962-1963	70

Survivors per million in the USSR

Birth to:	Male	Female
10 years	934,250	943,700
20	922,440	936,010
30	898,450	923,400
40	863,240	905,540
50	806,040	875,870
60	694,520	818,250
70	509,200	692,360
80	266,240	434,620
90	66,000	139,620
100	5,400	19,090

Reduction in death rate (by age groups) from 1896 to 1963

Up to 5 years	by 93%
From 5 to 10	92%
From 10 to 20	83%
From 20 to 30	76%
From 30 to 60	66%
More than 70	29%

WHAT LENIN WAS LIKE AS A MAN

by Nadezhda KRUPSKAYA *from LITERATURNAYA GAZETA*

Lenin with his wife, Nadezhda Krupskaya, at Gorky, outside Moscow, in late summer, 1922.

Among reminiscences of Lenin appearing in the Press for the first time in connection with the approaching centenary of his birth, are what Lenin's wife, Nadezhda Krupskaya, called "My Answers to a Questionnaire from the Brain Institute, in 1935". The questionnaire itself has been lost, but the questions can be reconstructed from the answers.

. . . He walked rapidly, without ever swaying or swinging his arms much.

He was not awkward. I would say rather that he was dextrous.

He played gorodki *(an old Russian game like skittles.—Ed.)*, he swam, was a good skater and liked cycling. . . . The locality near the Volga where he lived does not abound in mushrooms, but when I was with him in exile we often went to the forest to pick mushrooms. With his keen eyesight he soon became good at finding them, and he searched for them with zest. He was fond of going out shooting and had a passion for roaming the woods.

. . . His movements revealed no affectation, pretence, eccentricity, theatricality or ostentation.

His expressions and gestures were always eloquent.

. . . He smiled frequently. It was a good smile, never becoming malicious or coldly polite.

And how he laughed! It would sometimes bring tears to his eyes. He would throw back his body as he laughed.

His voice was loud but not raucous, a chesty baritone. He sang. His favourite songs were "We Were Not Wedded in a Church", "I Love You, I Love You Immensely", "Victim of Dire Bondage", "Whirlwinds of Danger", "Arise, the Toiling Folk", "Forward, Comrades, Forward!", "Merry Day of May", "Rage, ye Tyrants", "Vous Avez Pris l'Alsace et la Lorraine"* and "Soldats de

* **An Alsatian song Lenin learned from a French office cleaner in Paris.**

Dix-Septième"**.

Ilyich once told me he had taken a fancy to Latin.

He had a simple manner of speaking, without a trace of showiness, theatricality or "natural artificiality". It was not "mellifluous" like the French (as, for instance, Lunacharsky's way of speaking), nor was it dry, stiff or monotonous like the English—it was a Russian manner of speaking, between these two extremes. That was what his speech was like—typical Russian speech. It was full of emotion, but not insincere or stagey; it was naturally emotional.

He always spoke ardently, whether in public speeches or informal talk. Frequently—he was highly emotional—when preparing a statement or an article he was going to write, he would pace the room whispering to himself, trying to find suitable wording and putting together whole passages.

When out walking he would normally be silent and intent. Then I would keep silent too, in order to let him withdraw into himself. Then he would begin to talk—in detail and circumstantially—and he hated being interrupted by questions.

Returning home after a debate or argument, he would often feel upset and would remain silent and gloomy. I never bothered him with questions —later he would tell me everything of his own accord. I did not have to ask him anything.

Quite frequently during our walks some unexpected word or phrase would reveal that he was thinking intensely and with concentration.

He had an excellent visual memory remembering very well faces, pages and lines from books. His memory retained the details of whatever he saw.

He was extremely fond of nature, and liked mountains, forests and sunsets. He enjoyed combinations of colours and had a high appreciation of them. He paid scant attention to his clothes. The colour of his tie, I should say, was unimportant to him, and he looked upon the tie itself as a tedious necessity.

His usual state was in tense concentration.

He was cheerful and liked a joke.

He always kept some kind of organic link with life.

He had colossal powers of concentration.

He was self-critical and dealt with himself very strictly. But he hated soul-searching and agonising self-analysis.

When he was very agitated he would take a dictionary (say, Makarov's) and read it for hours.

He was a fighter.

And always passionate.

When he was out hunting he would grow excited, and would hunt ducks, crawling on all fours. But he was never foolhardy. He was not timid or fearful, and was the first into the water. He was bold and courageous.

** **Song by Gaston Montéhus, son of a Paris Communard, a gifted composer and performer of revolutionary songs, whom Lenin knew well. The song was dedicated to the soldiers of the French 17th Regiment, who had refused to shoot down strikers.**

MONUMENT IN

STEPANAKERT

from the magazine

DEKORATIVNOYE ISKUSSTVO SSSR

(Decorative Art in the USSR)

Sergei Bagdasaryan, son of a stonemason, has been sculpting from the age of 12. His first experience in clay-modelling was at the local Pioneer Palace, where he attended an art class after school. Years later, he had his first real success—his final project as a student in his last year at the Art Institute.

Of the work he has done since that time, perhaps the best known is a portrait of the composer Comitas, one of Avetisyan, Hero of the Soviet Union, and "Curly-head", a portrait of an Armenian boy.

Bagdasaryan's latest work stands atop a lonely hill in the southern Caucasus. A mile and a quarter away is the town of Stepanakert, capital of Nagorny Karabakh, an autonomous region inhabited by Armenians in Soviet Azerbaijan.

Unveiled in 1967, this monument, called the "Karabakhians", is strikingly original and yet strangely in harmony with the primeval landscape that surrounds it. Its two giant

Two monumental heads seem to grow out of the hillside, echoing contours of neighbouring hills.

heads, of rose red tufa rock, 16 and 35 feet tall, rise right out of the earth where they have been set up. There is no fence, no lawn—the sculpture seems to have been there from the beginning of time.

The "Karabakhians", like the mountains that surround them, give the impression of being something out of the distant past, something primitive and enduring. At the same time the monument is very modern. Part of its impressiveness may be due to this inseparable unity of ancient and modern.

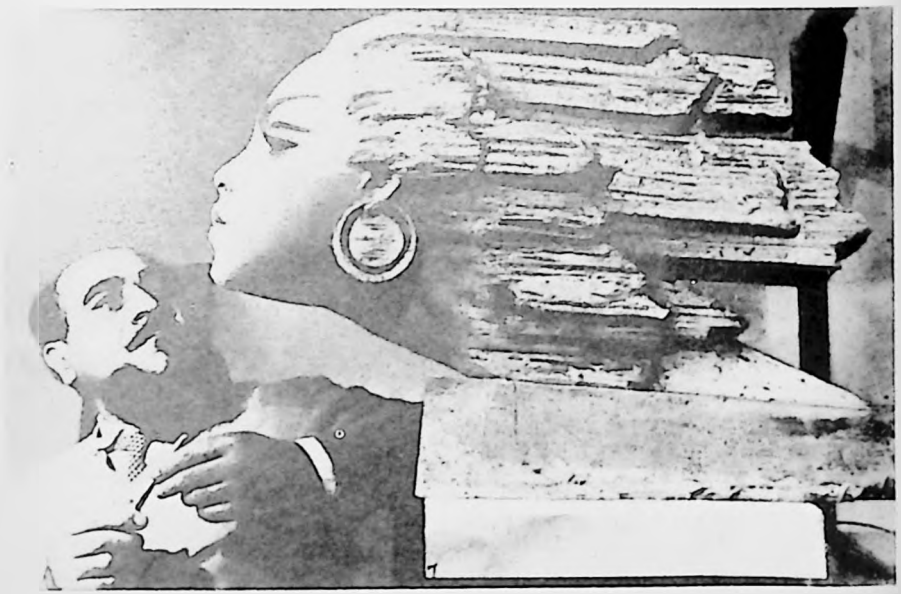
The group as a unit has a very clear-cut silhouette. The outline of the stylised woman's headdress repeats the contour of the mountains behind it, while the head of the man stands out in strong contrast to the rounded forms of the nearby hills.

The decorative aspect is emphasized by means of the ornamental designs and the woman's traditional head cloth, an interesting play of textures resulting from the juxtaposition of smooth cut areas of tufa and surfaces roughened by the chisel.

The inscription on Bagdasaryan's "Karabakhians" reads: "We are our mountains".

In this short phrase is the entire history of the freedom-loving people of mountainous Karabakh, united and steadfast as the hills, their dependable ally in the centuries-long battle they waged for independence.

Sergei Bagdasaryan takes an appraising look at an almost finished work in his studio.



HOW COLOURS CREATE YOUR MOOD

by Lev MELNIKOV

from the weekly NEDELYA

Soviet scientists investigating the effect of colour environment on people have found that there appears to be a direct connection between the range of colours in the spectrum and their psychological and physiological effects on human beings, with red and blue ranges producing opposite results.

Red increases muscular tension, stimulates heart contraction frequency and breathing rhythm, and raises blood pressure. It stimulates a man generally, his mood improves and he becomes more interested in the world around him.

Scientists found that the number of red corpuscles grew when apathetic and anaemic children were "treated" with red. They also gained weight and became more active.

At the other end of the spectrum, the passive colours—light blue and dark blue—lower the blood pressure and slow down the heart and breathing rhythms. Violent mental patients responded favourably when placed in a room with blue lighting.

The experiments confirmed the experience of hostesses that colour can make or mar a dinner. White lighting in a restaurant, it was found, made the diners happier. Orange light at the conclusion of a meal aroused pleasant sensations and something like slight intoxication.

It was found, however, that even the best colour scheme could irritate by its monotony, and that changing colour impressions were needed for complete relaxation. A change from darkness to a brilliant play of colours had good effects in calming the nerves and dispelling tiredness.

As homemakers know, there are "warm" and "cold" colours which actually have an effect similar to a change in temperature in a room. Yellow "warms", blue "chills".

Wall colouring also has an effect on one's impression of the size of a room. The "cold" colours—blue, green and violet—make a room seem larger than one of exactly the same size painted in the "warm" colours—red, orange and yellow.

EXPLOITING THE SUN

from the newspaper STROITELNAYA GAZETA

Power engineering throughout the world still largely owes its existence to mineral fuels such as coal, oil and gas. But their reserves will not last forever. Soviet scientists are seeking to make use of solar energy, which offers unlimited possibilities.

The desert looks dead. The sun, source of life, kills almost all living things there. In just one hour it floods each square yard of desert with more than 800 large calories (a large calorie is the amount of heat required to raise the temperature of 2.2 pounds of water by one degree Centigrade). Eggs can be fried on the burning sand.

The Kara-Kum Desert in Central Asia covers almost 150,000 square miles; its surface receives a stupendous amount of solar energy.

Fresh water is scarce in these parts, but whole seas of salt water lie just below thirsty pastures. Flocks of hardy sheep (three million head) roam the desert. Their numbers could increase if it were not for the

shortage of fresh water. It is easy to imagine the economic benefits of watering the desert.

It has been estimated that a mere 1.3 cubic yards of water is needed to produce 8lb of wool, nearly 17 pints of milk and up to 22lb of meat, or to grow four ounces of cotton wool.

Despite a far-flung system of wells dug over the centuries, the reservoirs built to catch precious rain, and the Kara-Kum Canal—which has brought great benefit to Turkmenia—water remains a problem. The sun is too hot and distances are too great.

Scientists decided to harness solar energy, and a helio-installation to distil salt water is now being built on the Bakharden State Farm, in the heart of the desert.

The installation will be a sizeable complex, comprising distillers (each over 700 square yards in size), ferro-concrete reservoirs able to hold 740 cubic yards of water, a well, water-raising pipes, solar electric generators and water troughs. The construction has just begun.

However, similar installations already exist in Bikrov, near Ashkhabad, at the experimental plant of the Tajik Academy of Sciences Physico-Engineering Institute. The Bakharden helio-installation is patterned on them.

An instrument with a huge mirror of aluminium plates strikes the eye at once. It is a thermo-generator, which produces the energy to raise the water from the well: nearly a ton of water per hour, from a depth of 30 to 45 feet. The mirror catches the sun and sends the pencil of its rays to the heated surface of the thermo-generator. Meanwhile, the installation keeps track of the sun.

There is also a photoelectric generator, which converts light into electricity (as distinct from the thermo-electric generator, which converts solar heat into electricity). Scientists are still undecided which way is better. So they will install both and choose the better.

The distillers are ordinary flat-bottomed shallow pools of ferro-concrete, with glass roofs. Subterranean water is let into the pools to form a shallow layer; it evaporates under the sun's rays, condenses on the glass and flows into the reservoir via grooves. Each square yard of the distiller can yield about 2,500 pints of distilled water.

The sun can not only raise temperatures; it can do the reverse. A freon ejector refrigerator can lower room temperature by 20–25 degrees Fahrenheit on the hottest of days. In cold weather the same installation can warm the interior of a building, raising the temperature by 25 degrees. It is similar in design to an ordinary domestic refrigerator, except that power is supplied by the sun.

The sun can be used to melt metals. Domestic solar energy stoves are the forerunners of a future solar metallurgical furnace. Two solar furnaces are now being tested.

A team of specialists at the Krzhizhanovsky Power Engineering Institute has designed several versions of a solar thermo-electric power station.

"Moon in Harness"—see page 84.

Fishermen's tales

AN OLD CATCH

One day some Azov Sea fishermen were struck by the weight of their net as they hauled it in, and, lifting it aboard their boat, they found it contained some huge bones covered with matted hair.

Experts identified them as mammoth bones, an unusual find in the southern latitudes of the Soviet Union.

Mammoth remains had been found before in the same warm regions, but none covered in hair.

Mammoths became extinct 5,000 to 7,000 years ago. Evidently the body of the beast found by the fishermen had been brought down to the sea by a river and had been partly preserved by the sea water.

From the newspaper TRUD

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A GOLD CATCH

The Alexandrov family, holidaymaking in Kherson (Southern Ukraine), were boating on the River Dnieper. Father was fishing when he suddenly heard his daughter, Galya, shriek, "My watch has fallen into the water."

The water was deep and Galya's gold watch seemed to be gone beyond recovery.

The family went home gloomy, not even cheered by father's catch of a big pike. But when Mrs. Alexandrov was cleaning the fish, there was Galya's little watch in the pike's stomach. It was still ticking away.

From the newspaper RABOCHAYA GAZETA, Ukraine

LOOK AT YOUR FEET!

from the magazine NAUKA I ZHIZN

When did man start wearing shoes? According to the scientists, 20 or 30 millennia ago. Shoes were probably devised earlier than that, but it took some time for the pioneering shoe-makers to get people to see the light. When they finally did, they sparked off the fight between convenience and fashion, a fight that is still on.

The history of the shoe-making business has been one long search to reconcile beauty with comfort.

In the Gorny Altai area of the USSR, archaeologists have unearthed a pair of boots made in the fifth century B.C. They are made of leather and felt, with tops decorated with tin-foil-covered cord, and the soles studded with crystals.

The story goes that the eleventh-century Duke of Anjou started wearing winkle-pickers because his feet were slightly deformed. The style caught on, conquering Europe faster than the Huns had done.

In time, pointed toes went out, but they were back with a vengeance in the fifteenth century, when the Gothic influence was making itself felt. Some dandies had tapering toes almost 2ft. long, stuffed with hair or stiffened with whalebone to keep their shape and add to their beauty.

Soon pointed toes were out again, and square ones came in—these were also exaggerated out of all proportion. But at least a man had a solid footing in them.

The pendulum has swung back and forth between pointed and square toes right up to the present.

In the seventeenth century, Russian boyard ladies wore such high heels that only the tips of their toes touched the ground, a canon of beauty which was revived in subsequent epochs with modifications.

In the 1920s, when legs up to the knee finally became visible, attractive footwear was especially necessary for ladies. So the high-heeled shoe with an elongated toe came back. Then followed a low-heel, square-toe.

The last few years have seen the rise of high boots, elegant in their way, but concealing the natural outline of feminine feet. The high-low heel and the pointed-square toe battle goes on.

Fashion is said to lack logic and to play ducks and drakes with industry. But so far it is inexorable. If you don't like the prevailing style, however, just study fashion history and take the long view. It'll pass.

TIGRAN PETROSYAN BACKS SOVIET GRAND MASTERS

Tigran Petrosyan (centre).

World chess champion, Tigran Petrosyan, was pushed for time when David Guy and Ruben Shirinyan, correspondents of *Vechernaya Moskva* (the Moscow evening paper), asked for an interview. "I am preparing for the Bamberg Chess Centennial* in the German Federal Republic, and every minute counts," he told them.

He did agree to see them, though, but stipulated that the interview must be very short. This is what Guy and Shirinyan reported:–

Our questions were brief and some were a bit ticklish. Here they are.

*How do you explain your setback in the Moscow Grand Masters' Tournament?***

*In the tournament Petrosyan shared second place with Lothar Schmid (FRG); the winner was Paul Keres (USSR).

**This was held in May 1967. Petrosyan shared ninth to twelfth place with Yefim Geller, Paul Keres (USSR) and Miguel Najdorf (Argentine).

A good tournament player must have creative inspiration as well as a good stock of technical novelties, and he needs his own series of opening moves and ideas on the middle game. My match with Boris Spassky drained me dry, and it is not possible to "refuel" in one day.

Then, I made an annoying error in the very first round against Bulgarian Grand Master Milko Bobotsov. Irritation with my game was only heightened by my loss—unfortunately practically traditional now—to Hungarian Grand Master Lajos Portisch, and this feeling persisted throughout the tournament.

How do you rate Portisch's game and that of the Danish player, Bent Larsen? Aren't they considered to be among the world's top chess players?

I am more attracted by Portisch's style, his basic approach to chess, though Larsen's game, his improvisations, may bring better results.

Who do you think has the best chance of challenging you for the world chess crown?

Two years ago I named Boris Spassky in answer to the same question, and my opinion hasn't changed. Although there have been formidable advances in the standards of foreign chess players, I have faith in Soviet grand masters.

Whom do you consider your toughest opponent?

The man on the other side of the chess board, no matter who he may be.

How do you prepare yourself psychologically for a crucial chess battle?

The main thing is to understand yourself, to pinpoint the weak spots in your character, and then gradually get rid of them. One experienced chess player felt that he lacked boldness and daring, so he decided to ski down steep slopes in the dark. I don't know if such jaunts were very wise, but he did become much more aggressive on the chess board.

What is your favourite pastime?

I am very interested in sport, chiefly football and ice-hockey. I'm a Spartak fan (Spartak is one of the top Soviet sports clubs). I like taking pictures, especially when I am travelling abroad, and I try not to miss art exhibitions and the latest movies.

What are your plans for the immediate future?

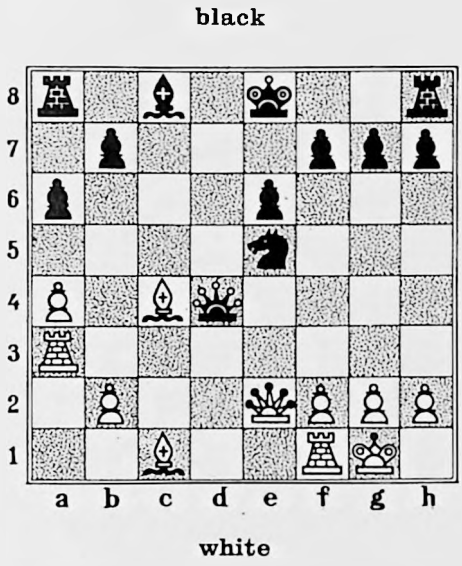
After the Bamberg tournament I shall probably play in the Moscow championship tournament. Then I shall gradually begin training for the match with the contender for the world title.

* * *

Petrosyan's look into the crystal ball came true: the challenger for the world title is Soviet Grand Master Boris Spassky, about whom we shall have a story in a future issue. And now to round out our picture of Tigran Petrosyan, here is a game he played when he was still only contender for the crown.

By the eighth game of the World Chess Tournament the contender, Tigran Petrosyan, had not only

evened the score, but, having scored two consecutive wins, was leading 4 : 3. Things were very tense. By the 15th move Petrosyan (black) had an extra pawn, but the chess pieces of World Champion Mikhail Botvinnik (white) were in a somewhat more active position.



Both men are known as chess players of solid positional style, which to some seems to be too rational and even rather dry. But see what a thirst for battle is concealed beneath this apparent dryness.

Botvinnik makes a "quiet" move: 15. QKtP-Kt3. At first glance Petrosyan has a quite satisfactory counter move: 15. . . . .: Kt x B. However, this move, as Grand Master David Bronstein has shown, leads to inevitable defeat: 16. P x Kt: O-O; 17. R-KKt3: P-KB3; (otherwise there follows 18. B-QKt2) 18. B-R6: R-B2; 19. R-Q1: Q-Kt3; 20. Q-Kt2!! (Even the outstanding masters, David Bronstein and Mikhail Tal, who favour combinations, employ the exclamation mark when making this sacrifice. Of course it would be suicidal to take the queen, since a mate would follow.) 20. . . . .: Q-B2; 21. R x P! ck: R x R; 22. Q x P. . . Black has an extra rook and the next move, but there is no longer any chance to save the situation.

But, perhaps, black should have played: 15. . . . .: Kt -Kt3? But even in this instance white could have come back forcefully and beautifully, as was pointed out by Grand Master Vassili Smyslov: 16. B-Kt2: Q-Q3; 17. R-Q1: Q-B4: 18. B x KtP: Q x R; 19. B-Kt5 ck!!: K-K2 (if black's 19th move were P x B, then 20. Q-K5 ck: K-K2; 21. Q-KKt5 ck with mate to follow); 20. Q-B3!: P-B4; 21. Q-QB3! with threat of mate Q-B7 or KB6.

So actually Botvinnik's "quiet" move was loaded. He had weighed up all these variations in his mind—variations that had been analysed by Bronstein, Tal and Smyslov.

But Petrosyan would not be Petrosyan if he, too, had not considered them. He sensed danger in time. The future world champion made his move: 15. . . . .: Q x B!

Adroitly avoiding all the traps set by his opponent, Petrosyan steered the game into an end position. Forty moves later it finished in a draw. The ingenuity of one grand master matched the caution of the other.

Many thanks, Walt Whitman!

On the 150th anniversary of Whitman's birth

This is not the first time we have introduced Kornei Chukovsky to our readers. Having celebrated his 87th birthday in March this year, he may well be counted among the oldest of Soviet writers. Besides being the author of many well-known books—*As Alive as Life, Chekhov, From Two to Five, Contemporary,* etc.—he is a tireless translator from the English and a critic who has done much to help Russian readers appreciate the finest works of English and American literature. In 1962 Oxford University conferred upon him the honorary degree of D.Litt. for his services in this field.

by Kornei CHUKOVSKY

Written specially for SPUTNIK

This article is illustrated by drawings by Vitali Pivovarov.

His prose

It all began with my buying, quite unexpectedly, a self-tutor of English from a second-hand bookstall in Odessa. I intended to buy Flammarion's *Astronomy*. When this book could not be found on the stall I bought the English text-book as a

mark of gratitude to the book-seller, who had rummaged through all his stock for the Flammarion.

The English text-book was much the worse for wear, certain pages were missing and it bore a generous spattering of ink and grease stains. Despite these deficiencies it had taught me, even before I got back to my attic, that "ink" means *chernila*, "dog" means *sobaka*, and "spoon" means *lozhka*. I was so delighted at this invaluable information that I did not part with the book for a whole year. By the end of that time I was able to read without too much effort Longfellow's *Evangeline* and Poe's *The Raven*.

In those days I had not so much as set eyes on an Englishman. A lonely, ever-hungry teenager, I had been thrown out of school and kept body and soul together by doing odd jobs such as sticking up theatre bills, working on the Odessa docks, and reading psalms at funerals. All my free time was devoted to memorizing the self-tutor as if this were my sole salvation.

I was then almost 17. Passers-by must have been startled by the sight of me: long, lanky, pale-faced, uncommunicative, with the clothes fairly falling off my back.

I read voraciously and without system. A conglomeration of Darwin, Schopenhauer, Dostoievsky and Pisarev left my mind in utter confusion. Out of this confusion I constructed a fantastic philosophy which was to defy all the Kants in the world and bring about the regeneration of mankind. Like most 17-year-old Russian youths, my nights were made sleepless by ruminations upon the origin of the universe, the mystery of life and the hereafter.

In the winter, when work on the docks was slack, I spent whole days in the snug and comfortable municipal library. It was there I discovered Carlyle's *Heroes and Hero-Worship*, a book I revere to this day.

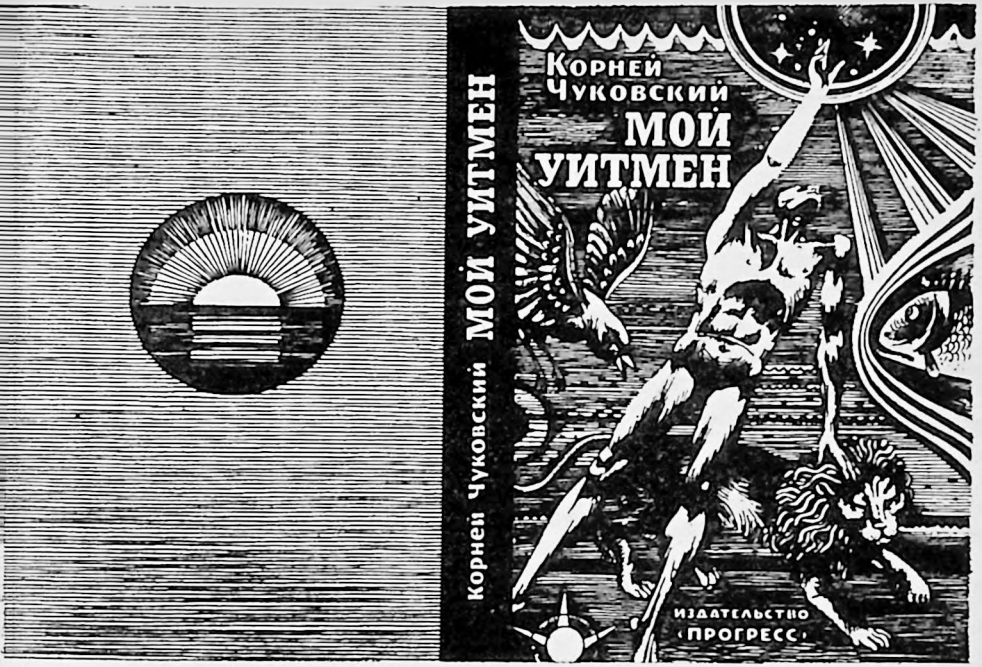
Another year went by like this. I had broken completely with my family.

One day when I was working on the docks a foreign sailor beckoned to me and thrust a thick book into my hands, demanding 25 kopeks for it. He glanced furtively about him as he did so, as if the book were a banned one. Sailors on foreign ships often brought forbidden literature into Tsarist Russia.

That evening after work I took my book to the lighthouse at the end of the jetty. It was a book of poetry written by a certain Walt Whitman, whose name I had never heard before.

I opened at random and read:—

My ties and ballasts leave me, my
elbows rest in sea-gaps,
I skirt sierras, my palms cover
continents,
I am afoot with my vision . . .
Under Niagara, the cataract falling
like a veil over my countenance . . .
Walking the old hills of Judea with
the beautiful gentle God by
my side,
Speeding through space, speeding
through heaven and the stars . . .
I visit the orchards of spheres and
look at the product,
And look at quintillions ripen'd and
look at quintillions green . . .



Jacket for Kornei Chukovaky's book, "My Whitman".

Never before had I read anything like this. Clearly it had been written by an inspired madman who, in a state of trance or delirium, fancied himself absolutely free of the illusions of time and space. The distant past was to him identical with the present moment and his native Niagara Falls was neighbour to the millions of suns whirling in the void of the universe.

I was shaken by these poems as much as by some epoch-making event. The chaos of my emotions at that time was in perfect harmony with the chaotic composition of the poetry. I seemed to have climbed to dizzying heights from which I looked down upon the ant-hill of human life and activities.

But other poems followed, poems written from within the very heart of this human ant-hill and dealing with the commonplaces of ant-hill life. The poet appeared to have forgotten his cosmic ecstasy in the midst of the poor realities of every day. People and things falling haphazardly within his range of vision passed in endless procession:

The lunatic is carried at last to the
asylum a confirm'd case,
(He will never sleep any more as he
did in the cot in his mother's
bedroom),
The jour printer with gray head and
gaunt jaws works at his case,
He turns his quid of tobacco while his
eyes blur with the manuscript . . .

As the deck-hands make fast the
steamboat the plank is thrown for
the shore-going passengers . . .
The floor-men are laying the floor, the
tinners are tinning the roof, the
masons are calling for mortar . . .

Many-peopled is this poem. It would remain in my memory as a vast collection of unrelated sketches drawn from life were it not for the wonderful concluding lines which give unity to the whole and deep meaning to each of its parts:—

And these tend inward to me, and I
tend outward to them,
And such as it is to be of these more
or less I am,
And of these one and all I weave the
song of myself.

Today it is hard for me to understand why I should have been so overwhelmed by this poem. No doubt the poet's ability to renounce the personal in himself and identify his own existence with that of every other individual completely answered my own spiritual urgings at the time, even though I myself was unaware of them. I felt that these lines were addressed directly to me.

For months thereafter Walt Whitman and I were inseparable companions. I took him with me to the docks and to the beach where I helped blind fisherman Simmelidi mend his nets. There were passages in the book I did not understand, there were others I found dull and trite, but when I came upon such treasures as *When Lilacs Last in the Dooryard Bloom'd* I felt I was rich.

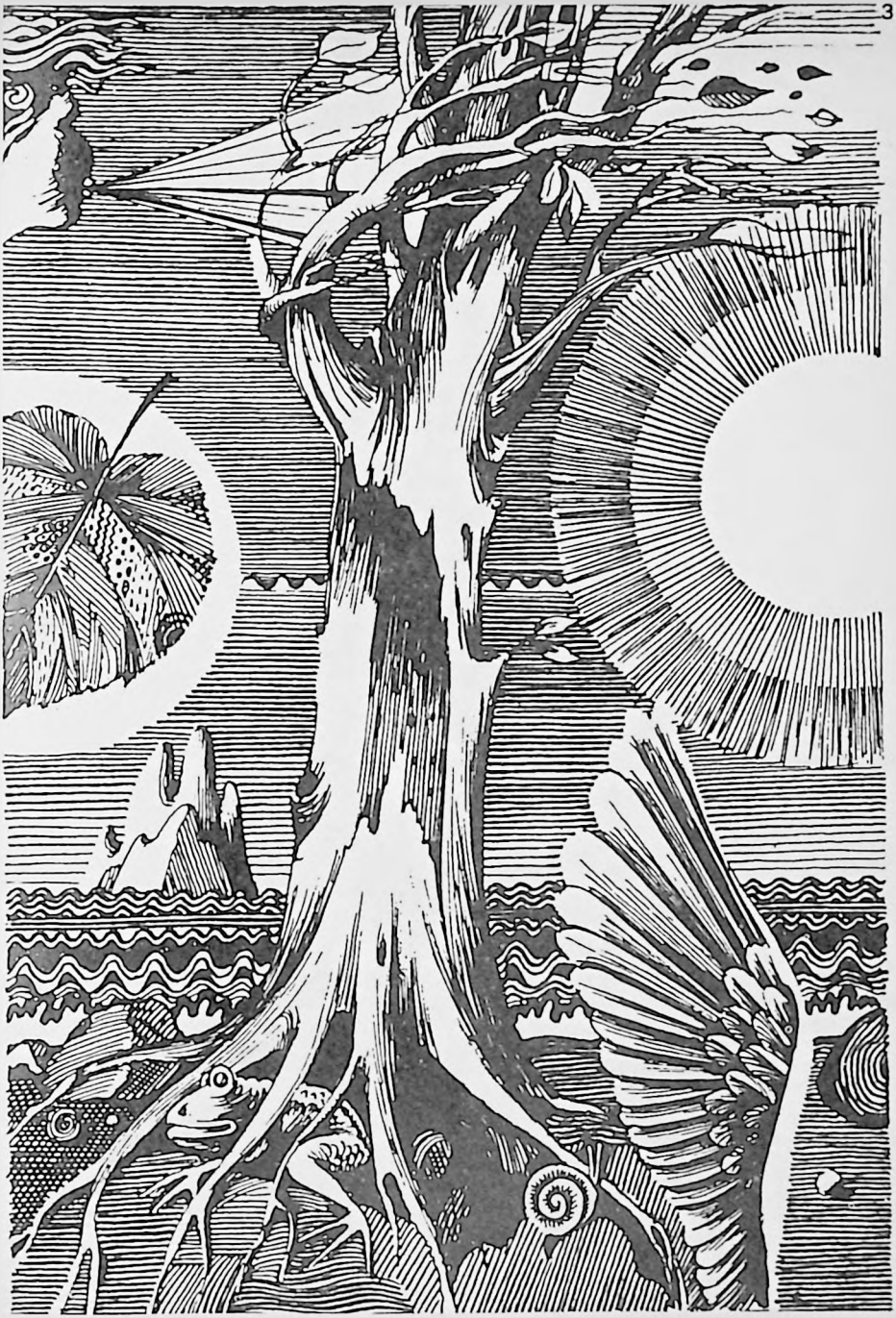
By the coming of winter my kinship with Whitman was complete. My youthful heart eagerly responded to his ecstatic call for human brotherhood, to the radiant hymns he sang to labour, equality and democracy, to the joy he took in the simple things of everyday life, and to his daring glorification of emancipated flesh.

Young readers have a marvellous facility for moulding their lives according to the dictates of a book that has deeply impressed them. That was what happened with me. I began to see the world through the eyes of Walt Whitman and was, in a way, transformed into him. All that I saw about me, all people, all things, every manifestation of nature, was seen against the background of countless centuries, illuminated by a million suns.

It was only natural that I should want to share the happiness I had discovered with others. That is why, in 1901, I undertook the translation of those pages of *Leaves of Grass* which most delighted me.

But alas! I turned out to be a wretched translator. My translations were heavy, clumsy, uninspired. Whitman's lines lost all their force and vigour in my rendering. Since Russian words are nearly three times as long as English ones, my incompetent pen turned out flaccid, bloodless lines that a reader found tedious.

To overcome this tediousness I resorted to an expedient proscribed by all laws of translation: I transformed Whitman's free verse into



lines with regular rhythm and ornamented by striking rhymes. I am even now ashamed to acknowledge so heinous (if unintentional) a crime, but one must remember that I was a lonely, self-taught youth without the faintest idea of how literary translations ought to be done.

Of course I had not dared to hope my Russian version of Whitman would ever see the printed page. It was only in 1907, when I moved to the capital and began being published in St. Petersburg journals, that the student Youth Circle of the St. Petersburg University brought out a small edition of my translations of the American poet. The translations, I repeat, were bad; even so, the little book was a great success. After its appearance Whitman's name was met again and again in Russian literary magazines.

But this success brought me little satisfaction. I suffered from a guilty conscience. I loathed the beastly book and tried to redeem myself in Whitman's eyes by making a new translation.

In 1914 this new translation, which was far better, was published in Moscow. The book was destroyed by the Tsarist censor and never reached the public. I managed to obtain one copy of it.

Readers, however, insisted on having *Leaves of Grass,* and after the Revolution it was brought out and went through one edition after another (1918, 1919, 1922, 1923, 1931, 1932, etc.). I revised each one again and again.

In 1944, not long before the end of World War II, the tenth edition came out. This year, 1969, which marks the 150th anniversary of Whitman's birth, will see the 12th edition, also revised and partly rewritten.

Whitman's poetry has exerted a powerful influence on many Soviet poets. A poem addressed to me by Boris Pasternak in the 'thirties ends with:–

. . . and a big bear hug
For your gift of Whitman.

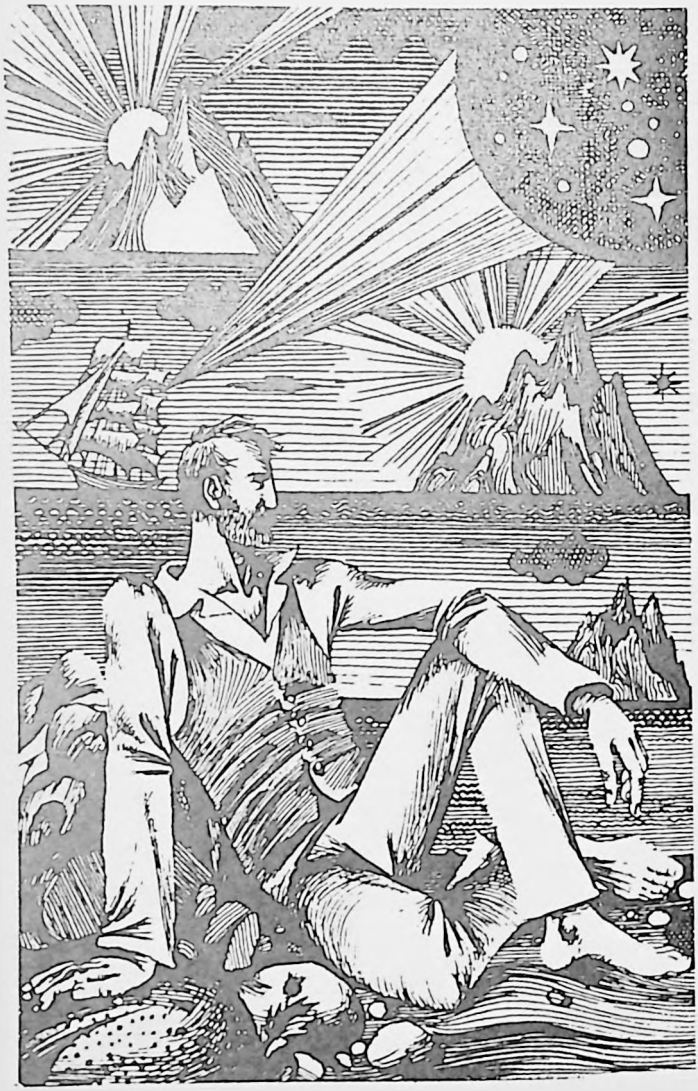
I have never limited myself to merely translating Whitman; in extensive critical articles introducing every volume of his poems I have tried to interpret him and reveal his significance to the reader. In these articles I point out Whitman lines which in one way or another are reflected in the poetry of Mayakovsky and Khlebnikov.

The appearance of fundamental works on Whitman by the Frenchman Roger Asselineau and the American Gay Wilson Allen helped me to a better understanding of the poet's life and work. Today I know a thousand times more about him than I did in 1901 when, as an unsophisticated youth, I read the *Song of Myself* in the Black Sea port. But I cannot deceive myself into thinking that Whitman evokes the same fiery response in me today as he did then. Try as I will, I cannot feel my heart lift with joy as I did when I first beheld the whole world through the inspired eyes of Walt Whitman.

His poetry.

And it seems to me it is not the scholars and critics who truly understand poetry, but rather is it the youthful readers, who absorb this poetry into their very life's blood and draw from it such rich nourishment for the spirit.

Yet even today, with my ninetieth birthday in the offing, I am full of gratitude to the poet whose book so deeply influenced my anxious and unsettled youth.



Left: Frontispiece for "My Whitman"

Right: Whitman in Russia.

A CURIOUS AFFAIR

Tractor driver Grigori Ovchun set off for the woods with his son. It was his day-off.

"We had gone about five miles," Ovchun recalls, "when suddenly I noticed a snow-laden bough swinging in front of me. 'Keep still, son,' I said, 'we don't want to miss anything!'

"We sat there quiet, our nerves on edge. Night fell, then came the dawn. 'O.K., sonny,' I said. 'Run along to the village, get some people to come.'

"About 150 turned out, not a coward among them. I showed them the place where nothing had happened."

Our correspondent asked Lev Monomakhin, the well-known scientist and the author of numerous science-fiction hypotheses about the origin of fauna and flora, for his comments on this eye-witness account.

"I have heard of similar cases," the scientist said.

SILVER WEDDING

The Kumirovs would have celebrated their silver wedding today, were it not for their divorce 20 years ago.

CONCERN FOR MAN

The wife of the poet Boris Khoreyev told her husband that if he didn't give up drinking she would seek a divorce. The poet replied that unless she sued for divorce he would drink even more.

PHENOMENON

An Odessa boy is regarded as a kind of mathematical phenomenon by all his relatives and certain of his acquaintances. He is 13. Despite that, he is totally unable to count.

ANTI-HOBBY

Pyotr Zaikin, a Taganrog office-worker, claims that people should not have interests outside their main work. He despises those who spend time on so-called hobbies. Zaikin has compiled a card index of pastimes and eccentricities. In it are 151,484,656,987 cards. Pyotr Zaikin devotes all his spare time to its compilation.

THERE'S A DEATHLY HUSH . . .

Offices in the town of Glushino have found a way of overcoming street noise. In every office an apparatus has been installed which produces such a thundering and grinding that the street noises are entirely obliterated.

LANGUAGES ARE SO USEFUL

An inhabitant of the town of Chita recently caught a talking fish. As it lay on the bank it spoke fluently in Japanese, French and Greek. Unfortunately, while the fisherman had gone to find an interpreter, the fish vanished. Now many Chita residents are taking up foreign languages.

THE FORTUNES OF SPORT

During a championship match in Rio de Janeiro the guest side, playing brilliantly, was leading 3:0 at one point, but the host side, spurred on by the cheers of their fans, finally succeeded in reversing the positions and finished victors with a score of 4:1.

The victory of will over matter!

CITY OF

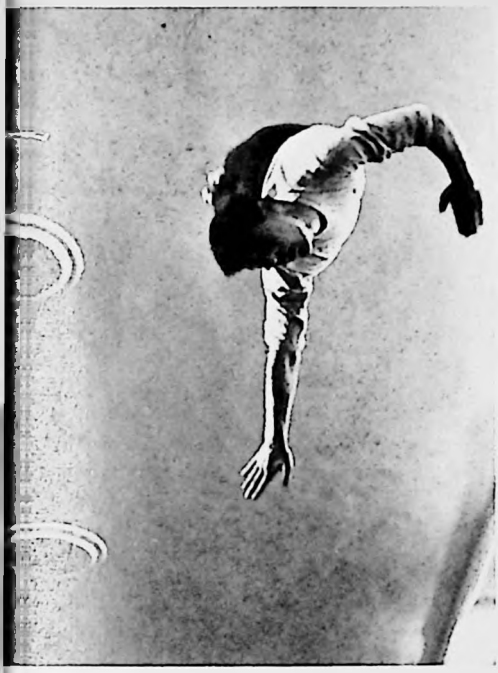
from the magazine SMENA

Mikhail Strakhov, Merited Coach of the Russian Federation, who has trained more than 200 Stavropol acrobats, including three USSR champions for 1967 and three for '68.

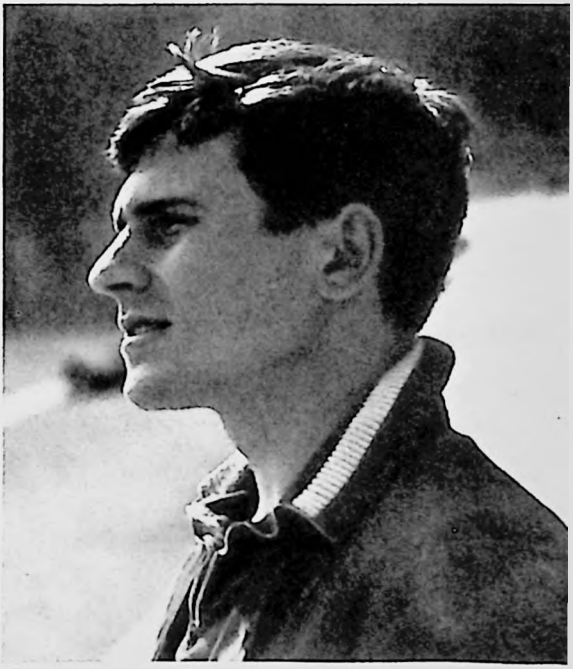
It seems that certain cities have an affinity for certain sports. For instance, Moscow, Kiev and Tbilisi are noted for the football players they have produced. The mining town of Shakhty, in the Ukraine, is famous for its weightlifters; Tallinn, capital of Estonia, for its basketball stars; Stavropol, in the northern Caucasus, for its acrobatic athletes. At the 1968 USSR Acrobatics Championships, two representatives of Stavropol—Vassili Skakun and Igor Tokar—won two gold medals, for the running jump and the trampoline respectively. Andrei Kulakov, gymnastics Master of Sport, writes about the Stavropol athletes.

ACROBATS

The aptly named Vassily Skakun—his surname means "one who jumps"—who won the 1968 USSR Acrobatics Championship.



Igor Tokar, the trampoline jumping champion of the USSR for 1968. "We didn't have the slightest idea how to begin," he says.



"Mr. Jump"

At the 1967 World Acrobatics Championship in London, Soviet athletes participated as guests. The official programme of the tournament included the trampoline jump, but the unofficial programme featured Soviet jumpers in an exhibition performance. They turned out to be the sensation of the tournament.

The acrobats who had converged on London from all parts of the world gave the Soviet athletes a standing ovation. Vassili Skakun, from Stavropol, was a big hit when he performed a series of stupendous double somersaults. Skakun was voted the best jumper in the entire 30-year history of the sport, while the International

Acrobatics Federation dubbed him "Mr. Jump".

"Mr. Jump" is a pupil of Merited Coach of the Russian Federation, Mikhail Strakhov. Some 18 years ago, Strakhov headed a small group of like-minded enthusiasts in Stavropol. Since then, he has been champion of the Russian Federation on numerous occasions. However, he was not destined to become national champion: five times between 1959 and 1964 the national title was won by his younger brother.

Nevertheless, more than 200 Stavropol acrobats, 50 of whom are Masters of Sport, three USSR champions in 1967 and three in 1968, consider themselves pupils of Mikhail Strakhov.

How "crocodiles" are tamed

The trampoline is just as common in Stavropol as the football, even though it appeared in the city only a few years ago. The huge green canvas net was immediately dubbed "the crocodile". But nobody really knew how to tame the "beast".

I asked the USSR champion, Igor Tokar of Stavropol, how he began. He shrugged his shoulders. "That's just it—we didn't have the slightest idea how to begin. All we knew was that there was such a thing as the trampoline and that there would be competitions and that we wanted to take part. So we started practising on the trampoline what we knew how to do on the ground."

The current joke is that the trampoline, with its light frame and metre-high legs, was inspired by a baby's cot

Keen youngsters at a school for young acrobats enjoy a few rough-and-tumbles. Tumbles, actually, are rather rare.

after someone had been watching a youngster bouncing up and down.

For years, the trampoline was used solely as an auxiliary aid in training high divers and pilots. Only in the early 'fifties did it emerge as an autonomous piece of sports equipment. An International Trampoline Federation was set up, and in 1964 the first World Championship was held in London. In the Soviet Union, the trampoline jump became a full-fledged sport only in 1965.

Before he became a trampoline

jumper, Igor Tokar was a Master of Sport in ordinary gymnastics jumping. All acrobatic jumps are united by a common school: the somersault technique. And it was the splendid somersaults of Igor Tokar that helped him tame the "crocodile".

☆ ☆ ☆

It looks as though the Stavropol people have no intention of yielding their championship titles to anyone for quite some time to come. In any case, it won't be easy to wrest these titles away from them.

Many schools in the city are equipped with modern gyms for acrobatics, and these gyms are busy almost round-the-clock.

The 1968 USSR champion, Natasha Timofeyeva, is at a Stavropol school. Sitting at a desk across the gangway from Natasha, is Sasha Timofeyev, no relation, but he is showing plenty of promise as an acrobat.

Young lady with (and without) the dog is Natalia Timofeyeva, 1968 USSR Acrobatics champion.

Many Intelligence men have been glamourised in stories and books, but for obvious reasons some remain incognito. Among the latter is the author of this true story.

OPERATION BRAINWAVE

from the magazine KRUGOZOR (Horizon)

At the end of the summer of 1944 Berlin seemed chaotic, with bombers giving the city no peace by day or by night; the Eastern Front was rolling inexorably towards the German borders, and the Allies had landed in Normandy.

In those days, on an assignment from Soviet Intelligence, I was working in Berlin in a department of the Abwehr, the German Army espionage centre, where officially my job was to train and fit out secret agents who were to be sent to the Soviet Army rear.

Towards the end of August I was summoned by my immediate chief, Lieut.-Colonel Meltzer. With him, an officer in the black uniform of the SD, Sturmbannführer Kletz, whose unexpected presence could mean a particularly important assignment, as the SD controlled the Abwehr operations.

Meltzer handed me a telegram, saying at the same time, "You are to meet the man mentioned in this telegram."

As I turned to go, the Sturmbannführer stopped me and said,

"Remember that the officer who is arriving today will be assigned a mission of special importance. Give him no grounds for complaint."

Later I read the telegram. It said that Captain Schwarzbruck would arrive on the 12.05 train from Dresden, and that to maintain secrecy he was to be met one stop from Berlin.

I was nearing this station in my Opel van when anti-aircraft guns opened up—US bombers were overhead. Most of the aircraft flew on to Berlin, but two fighter-bombers peeled off to attack the approaching train. Bombs were bursting on the railway embankment. The train stopped and from every carriage the panic-stricken passengers streamed out.

Direct hit!

The telegram had indicated the number of Schwarzbruck's carriage, so with great effort I managed to board it and worked my way to his compartment. The captain was lying down holding his head where he had been hit by shrapnel. Taking his trunk and briefcase, I helped him out of the carriage and somehow we reached my van, where I dressed the wound, and then we drove off towards the highway.

After going about three miles I stopped and jumped out to see how Schwarzbruck was faring in the back. I opened the door and found that a large-calibre bullet from a fighter-bomber had made a direct hit. The captain must have been fated to be killed by an American, not a Russian bullet.

What to do now? Telephone headquarters? And what would I be told, particularly by that Sturmbannführer? I suddenly had a brainwave.

To be quite frank, I make it a point to avoid improvisation as a rule. For the Intelligence man, the maxim "Look before you leap" holds true a thousand times. My habit was always to try to find out all available particulars before planning an operation. But now I had neither the knowledge of the particulars I needed nor a definite plan. All I had was an opportunity which I could not afford to miss.

I shut the door and drove closer to Berlin. I decided to look up Michel, one of "my" men, not the Abwehr's. He was a 28-year-old German who had surrendered on the Eastern Front and had since worked for Soviet Intelligence. Now he had come to Berlin to get in touch with me.

I took Schwarzbruck's body to him.

I had at my disposal a set of documents for a certain Hans Schumacher and, with a few odds and ends, I put these papers into the pockets of one of Michel's old suits, which we then pulled on to the captain's body. So the dead man now lying in my van was, according to his identification papers, the late Hans Schumacher.

In that case, where was the captain? It would have been natural to assume that he was not yet in Berlin, and that was what I told the lieut.-colonel on the telephone.

Schwarzbruck had not been found

either on the train or anywhere near it. Meltzer demanded: "Search for the captain and don't come back without him!"

As the SD was putting the pressure on it was no joke.

I replied, "Give me a description of the captain."

I heard the Lieut. Colonel ask Sturmbannführer Kletz over another telephone about Schwarzbruck's description. The renewed fire of anti-aircraft guns could be heard.

"Do the best you can," Meltzer shouted. "I haven't any description, no one here knows him. Call back in an hour, and perhaps I'll have something then."

From the way he spoke I felt he was feeling extremely nervous. "That's good," I thought. "Nervousness hampers thinking. My plan has a chance.

In the ruins

Leaving the captain's uniform and documents at Michel's, I drove back to the station. I had been ordered to look for him and I would do just that, I decided.

On the way to the station I dropped the disguised body with the false documents in the ruins of a bombed building.

The station was on fire and only the commandant's office had escaped the flames. I felt it was certainly the commandant's duty to help an Abwehr officer to search for an exceptionally important passenger, so I questioned him and also some railwaymen and surviving passengers.

It appeared that Schwarzbruck had had three other passengers in his compartment. Discovering that one of them was lying wounded in hospital, I went to see him. With great difficulty he vaguely recalled that the captain had jumped out of the carriage as soon as the bombing had begun.

"But you'd better ask a friend of mine," the man added. "He hasn't been wounded and will remember things better. I'll give you his telephone number."

When I rang this man he told me straight away, "Yes, I distinctly remember the captain jumping out of the carriage and driving off in a passing car."

That, of course, played right into my hands. I had no longer to fear the consequences if the case were turned over to Sturmbannführer Kletz. Now I could refer him to these two witnesses, who would confirm that they had seen the captain jump out of the carriage and race off, nobody knew where.

About five o'clock that afternoon I returned to Michel, who was in a flurry of excitement.

"You know," he told me, almost jumping with glee, "I have found here among Schwarzbruck's papers a personal instruction signed by Himmler and Goebbels!"

The instructions showed that the captain was to have been dropped behind the Soviet lines to recover a group of Nazi officers led by a colonel. Schwarzbruck was described as a skilled agent who knew Russian.

I told Michel of my plan and he responded with enthusiasm, but I warned him, "We must gain as much time as we can, or else we shall fail. We must reduce the odds against us to zero. Improvisations are good for a pianist, but we are not musicians."

At seven o'clock that evening I reported back to Meltzer. Kletz was with him and they both looked agitated. I said, "The captain can't be found anywhere, so far."

Meltzer clutched his head, but I told him, "Don't worry, Herr Oberst, according to preliminary information our guest is still alive and I am sure that he will either report himself or I shall find him in the long run."

"But he is to leave in two days' time," the Sturmbannführer groaned.

"If I only had his description, or at least a photo of him," I exclaimed.

"But we have nothing, absolutely nothing," said Kletz. "He was at the front, and no-one knows him here. I have tried to get in touch with the front, but they're having such a hell of a time there! To find anybody is impossible."

The SD insist

Assuming a dejected air, I went to my bunker: Abwehr officers were then living and working underground. On my way I thought to myself that it would still be possible to temporise for another day.

Suddenly Meltzer came running in, looking pale, and said to me in a low voice, "After our talk with you that blockhead Kletz phoned some SD chief, boasting that we had already found Schwarzbruck. Look at the position he's placed us in! Now the SD are insisting that we bring Schwarzbruck straight to their headquarters."

"Yes," I said, "that's really too much, but don't worry, we'll think of something."

In about half-an-hour we came to an agreement. We would tell them that Schwarzbruck had been caught in the bombing, had been slightly shell-shocked and was in the care of a doctor. But, by his scheduled time of departure, everything would be all right.

Meltzer himself undertook to speak to the doctor and I went back to the city to continue my "search" for Schwarzbruck.

That night I slept soundly, and in the morning I rang Meltzer. "I'm on to his scent," I told him. "I'll telephone again at noon."

I did as I had promised. "Things have taken a bad turn," I told Meltzer when I rang him. "I've lost track of him, but there's still some hope left."

That evening I rang Meltzer again and told him hope was fading.

Meltzer was almost crying into the receiver. He begged me to do everything in my power to find Schwarzbruck. The flight was scheduled for the following day! If we failed to find him there would be a big row.

I said nothing and rang off. On the morning of the departure day I rang Meltzer again and said, "He is found. We are coming." The colonel became almost hysterical. "Good

boy!" Those were the only words I could make out.

Two hours later I appeared at Meltzer's office with a young German in a captain's uniform. A doctor whom Meltzer had previously arranged to be there examined him and declared. "There is almost no trace left of the shellshock. The captain may fly."

When Meltzer and Kletz saw the officer they were all smiles, but I didn't give them much time with him. There were still two hours to go before take-off. We drove to the airport in different cars. A general arrived while Meltzer and Kletz were checking the plane crew's instructions.

Kletz came up to me and said "You are to fly with the captain as far as Budapest. There you will put him aboard another plane, which will drop him behind the front lines. Wait until it returns to Budapest. You will then interrogate the crew and fly back here. Here is an order to this effect signed by the general."

The "captain" and I flew off to Budapest. Before I put him aboard the other plane I gave him a hearty hug—he was my Michel, who was going behind our lines in the place of Captain Schwarzbruck. That night, remaining at the Budapest airport, I received a radio message in code saying, "Schwarzbruck has been safely parachuted where pre-arranged." Then I flew back to Berlin. I was met with great joy by Meltzer and Kletz.

"Excellent," said Kletz. "You should have a decoration. I shall apply for it."

After Kletz had left, Meltzer spoke to me as an old friend: "You can hardly imagine how much trouble you've spared me by finding that captain. You're really smart. By the way, I have at last found a man who knows Schwarzbruck. He's a Lieutenant Krüger. He's a long way off, too, behind the Russian lines in the group Schwarzbruck has been sent to bring back. That will be quite a meeting!"

I forced a smile, although I felt that the ceiling was coming down on me.

Report to Moscow

That night, through my own communications channels, I reported the state of affairs to Moscow. A threat was hanging over Michel's fate and mine too, although, to tell the truth, I was not so much concerned about myself. While working for the Abwehr I had prepared emergency escape routes for myself.

It was the outcome of the operation that worried me. It was a vital operation, with the aim not only of defeating a Nazi group in our rear —that could well be done without Michel's aid. From the documents found on Schwarzbruck's body, we had learned that the group included people immediately responsible to the Zeppelin-Süd spy centre, whose activities were of great interest to us. So it was important not only to capture these people, but to find out as much as possible about their systems of communications, agents and techniques.

The Zeppelin organisation, I must say, had prepared its operation well and used the existing situation ably. The Soviet Army was advancing rapidly, with columns of captive Nazis dragging along in its wake. Schwarzbruck's job was to conduct the group from near Maikop to Rostov, and for this purpose the spy centre had prepared documents for him in the name of a Soviet escort troop lieutenant.

Several Hitlerites who knew Russian were to put on Soviet uniforms and, together with the "lieutenant", were to convoy the prisoners. Schwarzbruck had been provided with the forms of Soviet documents and seals and stamps. On producing his credentials he would be able to obtain provisions and rail transport for his group.

Now this was all in the hands of Michel. But an unexpected obstacle had turned up in the form of Lieutenant Krüger.

According to the instructions I had given him, once he had reached the pre-arranged place, Michel was to begin by getting in touch with the Soviet Counter-Intelligence, and only after that was he to report to the Nazi group. That was the basis of my plan. Parallel with that, I tried to find out what I could about Krüger. He was 27. His chiefs considered his reputation to be irreproachable, and although there were senior officers in the group, the main responsibility was assigned to him. I reported this information to Moscow.

For several days I was in a state of tremendous suspense. In the underground bunkers of the Abwehr, these days seemed as long as months. Meltzer was still extremely well disposed towards me.

After a week had passed we were again visited by Kletz, who arrived half-drunk.

"I say, you must have been pulling our legs with that Schwarzbruck story," he said.

"I don't see the point," I replied calmly enough.

He went on, "You must have known right from the start that he was staying with a lady friend. We are in on all the secrets, so I suppose you too had a couple of good days with them, eh?"

I was duly resentful.

"All right," said Kletz, "perhaps it was only his idea. I believe you."

Radio contact

"By the way, how is he doing now?" I asked.

"Yesterday the centre made radio contact with them. Some difference of opinion had cropped up among the officers. But we issued an order that Colonel. Rodenstock's group should accept Captain Schwarzbruck's orders unquestioningly."

"What if they are spotted?" asked Meltzer.

"That is out of the question," Kletz said cryptically. "Communication with the group is being maintained by some Russian, an old hand at radio operating, and, naturally, our man. Everything is perfectly safe."

Talking of this and that, we then parted.

So Michel was already at work and had succeeded in becoming an insider in the group. But how? Did our Counter-Intelligence know of the existence of that "Russian"?

I had a lot of work to do and failed to notice the passage of autumn into winter, the last winter of the war.

The Zeppelin-Süd spy centre was receiving regular reports from its group. A time came when I had to help fit out a JU-290 plane which was to take the group to Germany from somewhere near Cherkassy, where it had proceeded from Maikop.

It was not until after the end of the war that I was able to unravel what had happened to Michel while he was with the group. Then he told me the story.

Too late!

The Nazis had arranged for Schwarzbruck to be landed about 19 miles from the Zeppelin-Süd group's camp. In accordance with my instructions, Michel made contact with Soviet Counter-Intelligence as soon as he landed. He handed the Intelligence men a package from me, which was immediately forwarded to our centre. He then arranged about communications and, not knowing the danger awaiting him, cheerfully went off to meet Krüger. My report that Krüger was acquainted with Schwarzbruck arrived several hours too late.

Michel reached his rendezvous on time. Later he described this episode to me so vividly that I felt as if I had been there myself.

On meeting Krüger he said to the German, "Excuse me, do you happen to know where the forester lives?" and Krüger replied with his own password. But he immediately realised that he was addressing an impostor, and although he greeted the officer politely, a moment after they started off in the direction of the camp he commanded, "Hands up! Identify yourself!"

Thinking quickly, Michel said. "Nice to hear it. If I hadn't heard that I would have made you raise your hands. Now I can see that everything is in order."

Krüger was at a loss. He was thinking furiously.

"You are right, Herr Leutnant," Michel continued confidently. "I am not Otto Schwarzbruck, but all the same you can drop your suspicions. I am from the Abwehr, too. It was decided to check on whether the Russians had made changes in your group. If you had taken me for Schwarzbruck you would have been in a pretty mess. It's been risky work, but I'm happy to feel that it has all ended well. Let's get to know each other over a cognac when we get to the camp."

Krüger still baulked.

"Do you really believe," said Michel, "that I would have agreed to come here alone if I had been under compulsion? If I had been, you, dear Krüger, would have been captured long ago."

Krüger lowered his pistol.

"At the camp the people there

accepted me," said Michel. Krüger submitted altogether. Michel had got his idea from a skilled Soviet Counter-Intelligence man with whom he had discussed what might happen if someone in the group was acquainted with Schwarzbruck.

There were 12 officers in the group. Its camp was in an out-of-the-way place, well camouflaged. Communication with the Zeppelin centre was being maintained through a certain Terekhov who, after being trained in a Nazi spy school, had been dropped in the Soviet Army rear. Terekhov seldom came to the camp, and he received information from Colonel Rodenstock himself.

"Hand over command!"

Michel demanded to be put in direct contact with Terekhov, but he met with a flat refusal—the instructions contained no such provision. All Michel could do was to have the colonel instruct Terekhov to send Michel's own radio message to the centre. Back came a categorical order saying, "The command is handed over to Schwarzbruck."

When Terekhov became directly subordinated to him, Michel no longer had any worries about what kind of messages he might be sending. With Krüger he began to carry out the Zeppelin-Süd plan.

Michel's detailed report on that operation is still in existence. Here is what it says, in part:—

"In the evening we radioed to the centre to say that we had been assigned a freight car and, as a group of POWs, were moving out in the direction of Rostov. I issued an order to leave for the station and get aboard. I appointed Krüger and Hart as escorts. There were no objections. Food was handed out.

"The colonel read out an order about the movement of the group and added a reminder about discipline. The embarkation proceeded smoothly. Near Rostov the car was uncoupled and, without having the doors opened, was shunted into the grounds of a POW camp.

"After the officers had been isolated, Terekhov applied to the Soviet Intelligence men with a request to be permitted to atone for his guilt by honest work for his country. He had acted as a Nazi radio operator right up to the end of the operation. On my instructions Terekhov sent a radio message from Rostov to Berlin, saying that we had safely reached our destination and would continue on foot.

"Soon after this, from near Cherkassy, we radioed the Nazis asking them to drop money and documents. This was done on February 20th, and five days later a radio message asked us to prepare to meet the JU-290 plane. It arrived at about one in the morning and was captured by Soviet Counter-Intelligence, together with its crew and a representative of the Zeppelin-Süd centre."

This document makes everything appear simple, but on Michel's part it required much resourcefulness, courage and ingenuity to bring our "Operation Brainwave" to a successful conclusion.

Dinner under the sea

Gifts of the Sea is to be the name of the first Soviet underwater restaurant, which is planned for Sochi, the leading health resort on the Black Sea.

The restaurant will seat 300 and on the menu will be fish, sea weed, shell fish and other aquatic food. Special cleaning devices will be fitted to the ultra-heavy glass windows so that diners will be able to enjoy the sights of the sea.

—from the newspaper TRUD

Dinner in the sky

A 1,148 ft. high radio and television tower is to be built in Tashkent, capital of the Soviet Central Asian Republic of Uzbekistan. At the 328 ft. level it will have an observation platform and a restaurant seating 150 people.

—from the newspaper PRAVDA

Wine underground

During earth-moving operations in the central square of the city of Mozyr, Byelorussia, the excavator bucket picked up sealed bottles of well-preserved fruit wine. According to the date on the thick glass bottles, they were laid down in 1815.

—from the newspaper TRUD

And a Roman 'tip'

Soviet engineer Sergei Sheiman has a Roman sesterce dating from 269 B.C. The face of the coin shows the head of the goddess who was the protectress of Rome. It was found in the 19th century during excavations of tombs in the Northern Caucasus, and subsequently passed through a number of hands.

The engineer's collection also includes a set of coins from the time of the Golden Horde and an ancient Iranian coin.

—from SMENA

Footnote on driving home

A siren which is connected to the speedometer, and starts up when drivers in the Soviet Union exceed the speed limit, should soon lead to greater road safety.

A SOVIET VIEW ON THE PILL

WILL CONTRACEPTIVES UNDERMINE MORALS?

A veteran Soviet paediatrician,
Dr. GEORGI SPERANSKY,
a member of the USSR
Academy of Medical Science,
takes issue with the Vatican.

I have given my whole life to the service of my profession of children's doctor, so naturally I look upon sex relations, above all, from the point of view of the interests of the child. These interests are related closely and directly to the circumstances of his birth. Much depends on whether the child was desired, and on whether his parents were prepared for his birth economically, morally and in other ways.

As an experienced paediatrician, I am certain that people have the right and the duty to plan their families. I have never believed in God and I do not believe, either, that people should put up with the imperfection of nature, which the Vatican presents as an inviolable law of God.

I believe, on the contrary, that man should strive to grasp the essence of natural processes and influence them for his own benefit. Who, for instance, would dare to pronounce against the use of an elixir of eternal youth, if it existed, simply because death also existed in nature?

It was St. Augustine who, at the end of the fourth century, first put forward the Roman Catholic claim that procreation should always be the sole aim of sexual intercourse. At that time endless wars and epidemics were taking toll of millions of human lives, and mankind's only hope of survival was a high birth rate. The world population at the time of the Roman Empire numbered only some 200 million, and it took about 15 centuries to bring it to 500 million.

Clearly, during these 1,500 years the birth rate was only slightly higher than the mortality rate, and in such conditions the question of birth control would have been pointless. The Catholic dogma of the Middle Ages concerning sexual intercourse was therefore a reflection of the needs of the time.

But the world changed. The wars between the Romans and the barbarians receded into the past and epidemics became less frequent. Living standards gradually rose, so that by the year 1800 the world population was about 1,000 million. Now it is more than 3,000 million.

The rate of growth of the world population has been increasing from year to year and is now about two per cent a year. There was a marked rise in the middle of the twentieth century when the average span of life was increased by the discovery of antibiotics and improvements in the means of combating infectious diseases, which substantially lowered child mortality. Now scientists and economists talk about the "population explosion", the threat of over-population.

The problem is especially acute in developing countries where living standards lag behind population growth. In Nigeria, for instance, the population rose 129 per cent (from 24,300,000 to 55,600,000) in 13 years (from 1950 to 1962). In Zambia, over the same period, the population rose by 88 per cent and in Ghana by 72 per cent. In India, between 1951 and 1961, 78 million were added to the population.

The Roman Catholic Church declared itself on this problem as early as 1930, when Pope Pius XI modified the Augustinian canon by giving approval for the natural rhythm method of contraception. Simultaneously, the Vatican banned contraceptives as flouting the will of God the Creator.

At the end of the 1950s, compounds resembling natural female hormones were produced and used as contraceptives in the form of pills. At the same time a cheap and simple mechanical contraceptive, the coil, came into use. These devices, almost 100 per cent effective, spread throughout the world, especially after being approved by the World Health Organisation in 1965.

Pope Paul VI's current Encyclical is a belated reaction to the latest changes that have taken place in the world. And these changes, by the way, have found not the slightest reflection in the Encyclical. The Vatican refuses to acknowledge that life does not and cannot go on for ever in the same old way. Everything is good in its time and the Augustinian view, acceptable as it was in the early Middle Ages, is harmful to society in the age of antibiotics and space flights.

Although at first glance the Encyclical appears to be logical and humane, it contains glaring contradictions. The Pope's reasoning is based on the assumption that during sexual intercourse the human being has to be a co-creator with God, or, as an atheist would say, must follow the course of natural processes.

According to this view, since nature has ordained that sexual intercourse is inseparable from procreation, to prevent conception would be an act of folly inviting retribution. People would become even more selfish and immoral, lust would rule the world, and believers who violated the code could only expect to burn in hell.

But let us go back to natural processes or, in the Pope's terms, the will of the Creator. Believers consider that it is God's preordained scheme of things that diseases and their outcome, death, are part and parcel of life. But if man has no right to interfere in natural processes, inoculations against disease must be forbidden and, indeed, man must refuse all medical aid.

But that is a monstrous proposition. How can I, an experienced doctor, tolerate the cruelty of such "logic", even if it is supported by references to the will of God or the "course of natural processes"? Whenever I see a child suffering

I always administer treatment and always will, whatever frightful tortures await me after death.

The Roman Catholic Church recognises the usefulness of medicine in the Encyclical's section, "Legitimacy of Therapeutic Means", and to be consistent, the Church would have to recognise man's right to control the continuance of his species. Married couples cannot be denied their right to choose the time of their child's birth, the size of their family, or even their right to remain childless. By intruding upon this intimate sector of human life the Church, with its hopelessly obsolete rules, tramples freedom underfoot.

Millions of women, a quarter of them Roman Catholics, regularly use contraceptives. As the Romans said: "Vox populi, vox Dei".

Recognising the ineffectiveness of bans and threats, the Vatican compromises on the rhythm method. The Vatican knows well enough the risks involved in this method, which was first mentioned in an Egyptian papyrus of 1550 B.C. and has been used by millions since then. But has it substantially reduced the number of unwelcome conceptions? Haven't millions of women undergone abortions?

According to Dr. Guttmacher, President of the International Family Planning Federation, abortion today is the most widespread pandemic disorder in the world. In Chile, for instance, 20 per cent of hospital beds are occupied by victims of primitive abortions. Women in Colombia, harassed by continual pregnancies, bend double to expel embryos with the help of sharpened sticks. Would these unfortunates have violated the will of the Creator by interfering with natural processes at an earlier stage?

Finally, the Vatican fears that effective contraceptives portend a worldwide falling off in moral standards. It hardly requires proof that the level of morals depends not on fear of pregnancy but on social, economic and historical conditions. It is only necessary to recall the morals of the Biblical Sodom and Gomorrah, or of ancient Babylon, to show that contraceptives are not the cause of immorality. Despite the absence of steroid hormones and coils, in the Rome of Boccaccio or

Alexander Borgia morals were not exactly ideal.

The Vatican's fears are quite unfounded on this point. True morals have nothing to do with fear of punishment, but derive from an understanding of duty, and it is our duty to treat all our fellow human beings with respect, be they child, wife, friend, subordinate or stranger.

Reason is man's only hope that future generations will be kind and that their morals will be conscious and not forced.

Only a misogynist, I am sure, would try to prevent the world-wide use of cheap, effective and harmless contraceptives. All the women of the world need help. They must be helped and they shall be.

The last, but not least, of the Vatican's arguments against the use of contraceptives is that man will lose his respect for woman and begin to use her as a mere means of selfish enjoyment, instead of as a respected and beloved friend. This view turns everything upside-down. Modern contraceptives are designed for women, and not for men. The age-old slave of man's whims, woman has for the first time in history received from science a means of deciding for herself when she will have a child.

Regarded as a child-bearing machine for centuries, woman has long been an "instrument of man's selfish pleasure". But as long as the decision on conception remained the prerogative of the husband, the woman was in danger of being shut out of public activity by virtue of pregnancy, child-bearing, and nursing and rearing many children. Most important, all this did not happen because she willed it so—it depended upon the whims of her husband.

Modern contraceptives, which make it impossible for men arbitrarily to decide the destinies of women, should become an important means of women's emancipation. They can only be welcomed—like everything else that ensures human beings freedom to shape their lives as they see fit.

Shortly before going to press, it was learned that Dr. Speransky had died soon after completing this article.

by Dr. Alexander ZHUKOV
from the newspaper TRUD (Labour)

The gap between man's ability to exploit natural resources and his failure to compensate nature for its losses is well exemplified by the pollution of rivers and lakes by industrial effluent. Millions of cubic metres of waste water are daily being dumped into the world's fresh water sources, making the water undrinkable and killing the fish. The rivers and lakes are in real trouble.
In this article Professor Alexander Zhukov, D.Sc. (Eng.), discusses ways to combat the problem.

Why are so many countries finding fresh water supplies a problem?

There are two reasons. The first is the uneven distribution of resources, consumption in some places exceeding replenishment. The second is pollution of rivers and lakes by industrial waste—in this case the blame for the threatening dearth of fresh water can be laid at man's own door.

RIVERS CRY OUT AGAINST POLLUTION

The Soviet Union is one of the best-off countries as regards fresh water resources, with an annual river discharge in the vicinity of 5,000 cubic kilometres and another 219 cubic kilometres lying underground. The combined areas of Soviet lakes is greater than the whole area of Britain.

However, these valuable resources are not handled with care. Each year some 3,000,000 tons of acids, 2,000,000 tons of oil products, 1,000,000 tons of fats and hundreds of thousands of tons of salts, fibres and metal are dumped in our rivers.

This is the result of the growth of the urban population and industry, which require increasing amounts of water, and in turn produce more effluent.

An illustration of the damage being wrought is given by the condition of the River Kama. The industries in and around Berezniki, in the Urals, daily pour into the river 1,258,000 cubic metres of water containing aniline, phenol, chlorides, alkalis and various insoluble deposits.

As a whole, Soviet industries daily dump into the rivers and lakes some 80 million cubic metres of intensely polluted water, plus 70 million cubic metres of what is called "conventionally clean" water.

Hundreds of rivers have already been made insanitary, and in some the water has been rendered undrinkable and requires costly purifying treatment. The situation is deteriorating, and it is estimated that within the next 15 or 20 years the amount of polluted water discharged will reach from 180 to 200 million cubic metres daily. If this goes on unchecked, river water may become completely unusable by people.

Government organisations are studying the problem, but progress is slow.

There are two ways of reducing pollution.

The first is to reduce the total amount of industrial effluent, as has already been done in some industries, where the consumption of fresh water has been reduced several times. Some oil refineries have reduced the discharge to one-tenth of the previous amount. This has been achieved not only by more economical use of fresh water, but above all by the multiple use of return water.

The repeated use of polluted water, it has been shown, may prove economically expedient even when complex preliminary treatment is demanded.

It is true that this process, despite the economic saving involved, is being adopted very slowly. This is partly because the Soviet Union so far has not laid down rigid requirements about the quality of water for specified production processes, so industries may use unjustified quantities of fresh water.

Furthermore, there are no scientifically worked out standards for water consumption in individual industrial processes. If such standards were laid down, it would not only make possible the strict control of water consumption, but would help to bring more order into the entire

system of industrial water supply.

Extraction of at least valuable materials from waste is the other way to diminish river pollution. These include dyes, fats and wool in textile mills, and oil products from refineries, and so on. Practice shows that this recovered wealth more than repays the cost. Yet so far few industries have seen fit to undertake this measure.

Industries must be equipped with additional purifiers, built on a large scale, and this will require more money—about 100 roubles per cubic metre of waste water. Nature can be relied on to repay the investment.

We need well-calculated, clearly conceived pictures of the prospects for the immediate and the more distant future.

Looking ahead, it can be calculated that even if the whole of industry is equipped with purifiers, the rivers will remain partly polluted. This is because the best techniques available can guarantee to remove only 90 to 95 per cent of impurities in waste water; and although a certain amount of impurity can be tolerated, after the passage of 15 to 20 years and with an increase of waste the rivers, it is estimated, will resume their former degree of pollution.

Co-ordination of efforts to reduce water pollution is essential, the construction of purifiers going hand in hand with a constant reduction in the quantity of waste water discharged. The most sensible thing to do from the point of view of nature protection, the preservation of health and economic expediency is to improve industrial processes, changing them fundamentally. This will be slow and difficult, but science can offer no other way out.

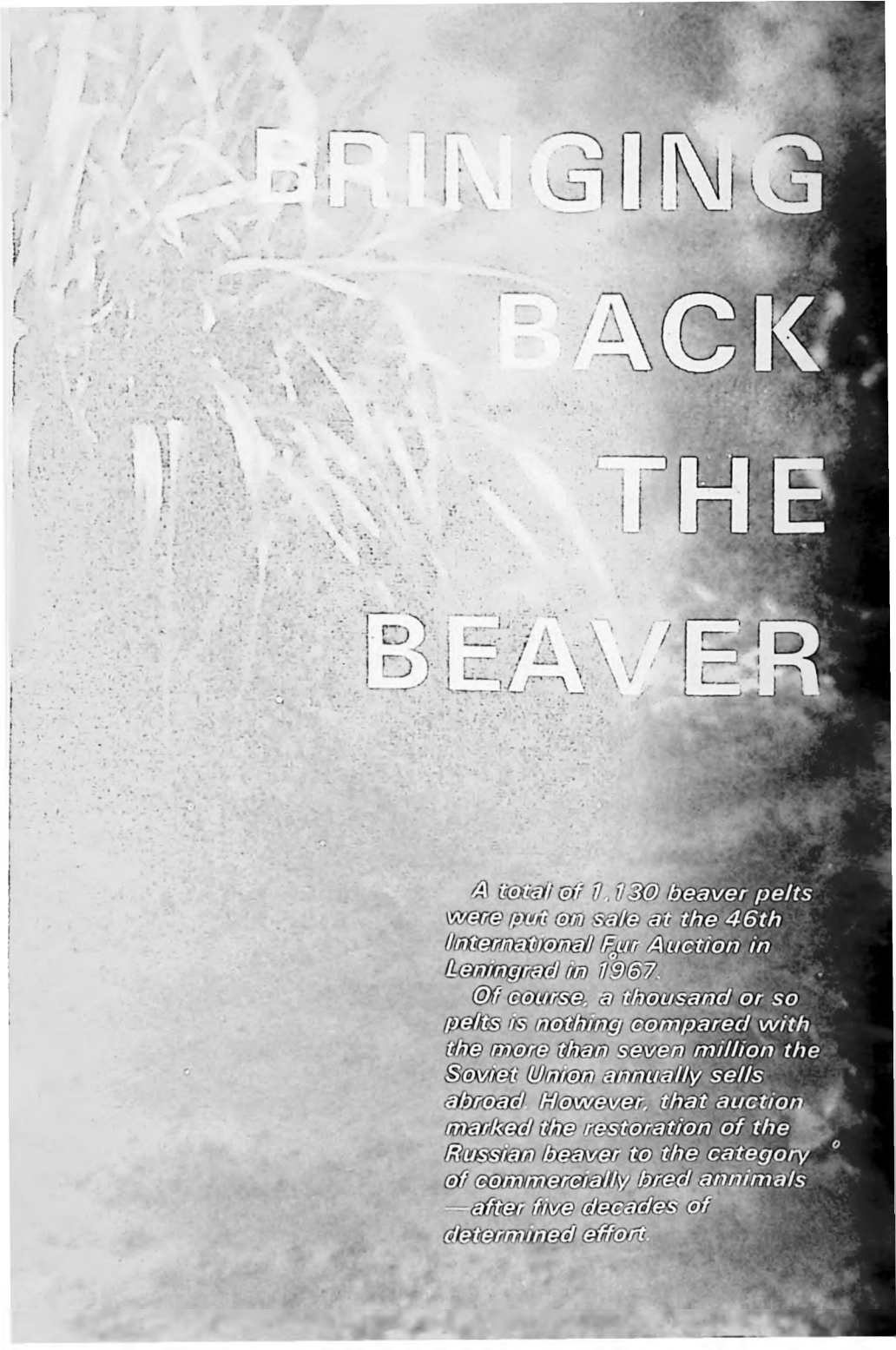
The fate of the rivers and lakes is now in the hands of the people who are designing and building industries and new machinery, those who are planning industrial advance for many years ahead.

CENSUS OF POLAR BEARS

The Soviet Arctic East has become the principal supplier of polar bears to Soviet zoos. Foreign countries are sending in requests, too.

The Central Nature Protection Laboratory of the Soviet Ministry of Agriculture recently took a count of these rare animals on several Arctic archipelagos and islands. The largest number—over 150—was found on Wrangel Island, while only 15 were registered on the much larger New Siberian Islands. Scientists are probing the cause of this disparity.

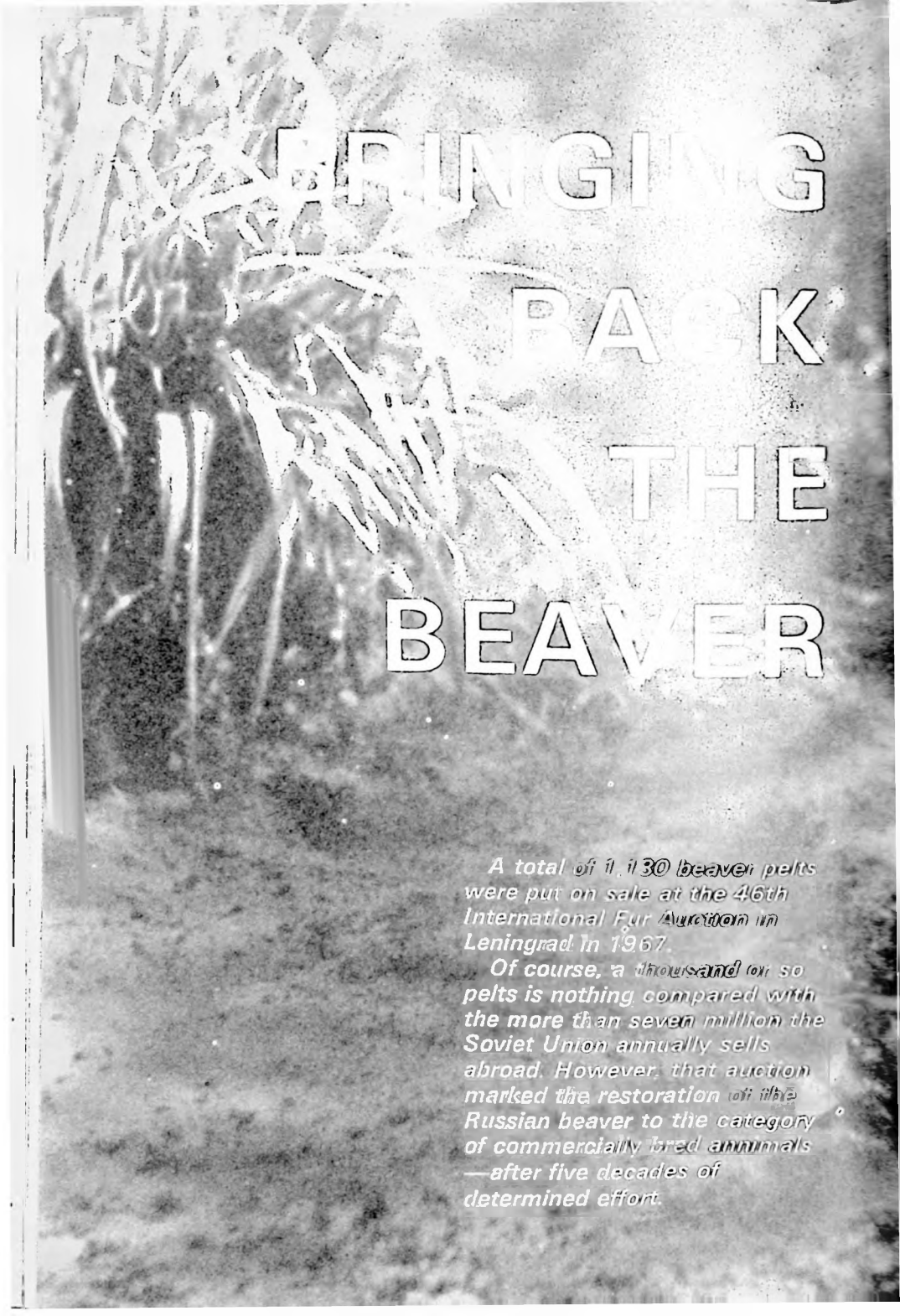
—from the newspaper TRUD



BRINGING BACK THE BEAVER

A total of 1,130 beaver pelts were put on sale at the 46th International Fur Auction in Leningrad in 1967.

Of course, a thousand or so pelts is nothing compared with the more than seven million the Soviet Union annually sells abroad. However, that auction marked the restoration of the Russian beaver to the category of commercially bred annimals —after five decades of determined effort.



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At one time, beaver lodges could be found along the banks of rivers and streams all over Russia. The fur of this little animal provided expensive gifts, beaver tail was a delicacy for gourmets, and its musk was an excellent fixative for high-priced perfumes. Because the beaver gave too generously to man, merci-

less trapping [illegible] the animal the verge of [illegible]on.

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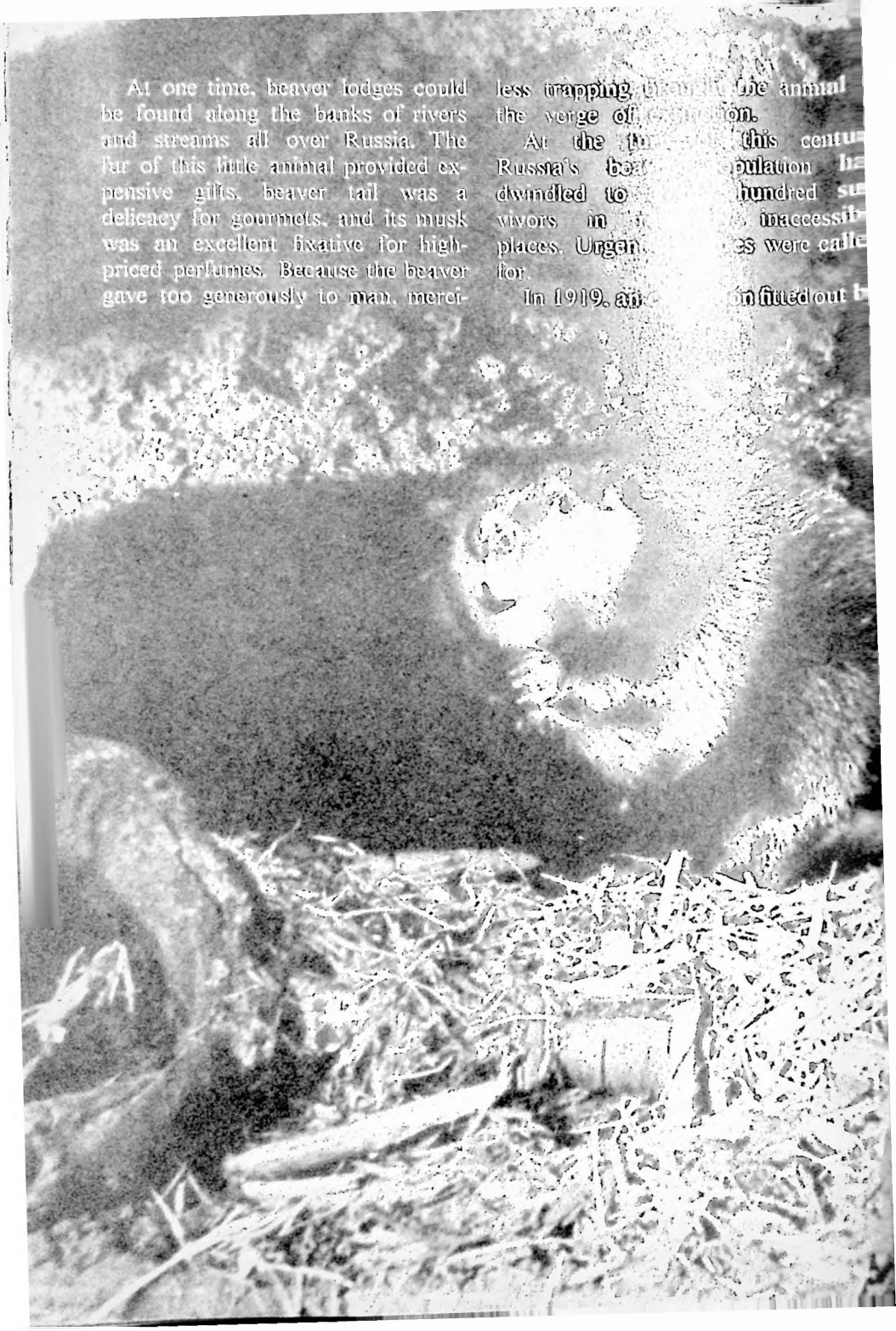


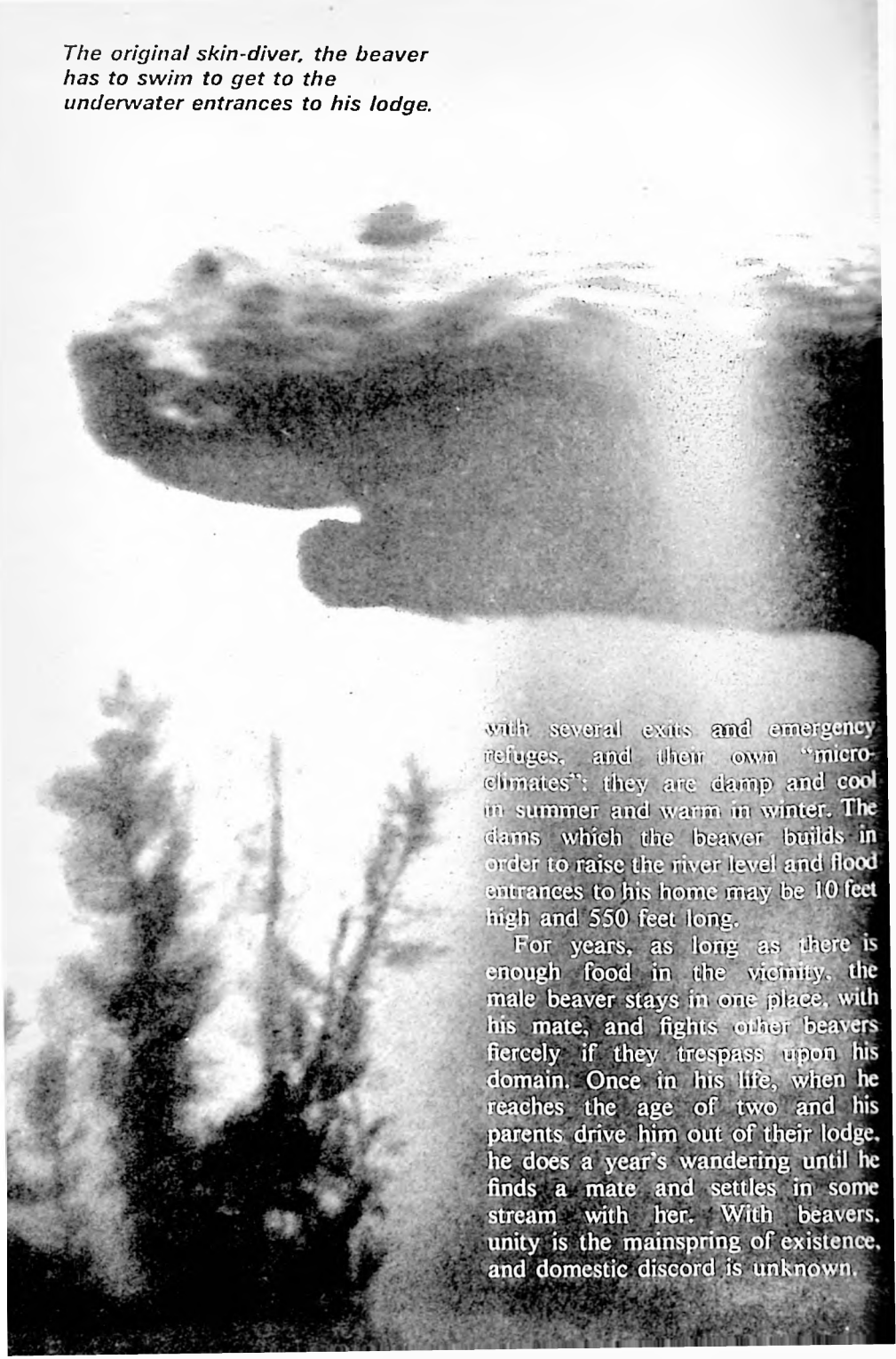
Moscow [illegible] found beavers in a forest on the River Usmanka, in Central [illegible]. Government of the you[illegible]public banned all beaver [illegible] in effort to restore the [illegible] the rivers.

The po[illegible] or colonies flourished. [illegible] the number of beave[illegible]000. Today the beaver population has soared to some 50,000, and is still growing.

The beaver is a nocturnal animal, morose and secretive. He builds amazingly sophisticated lodges, frequently many "storeys" high.

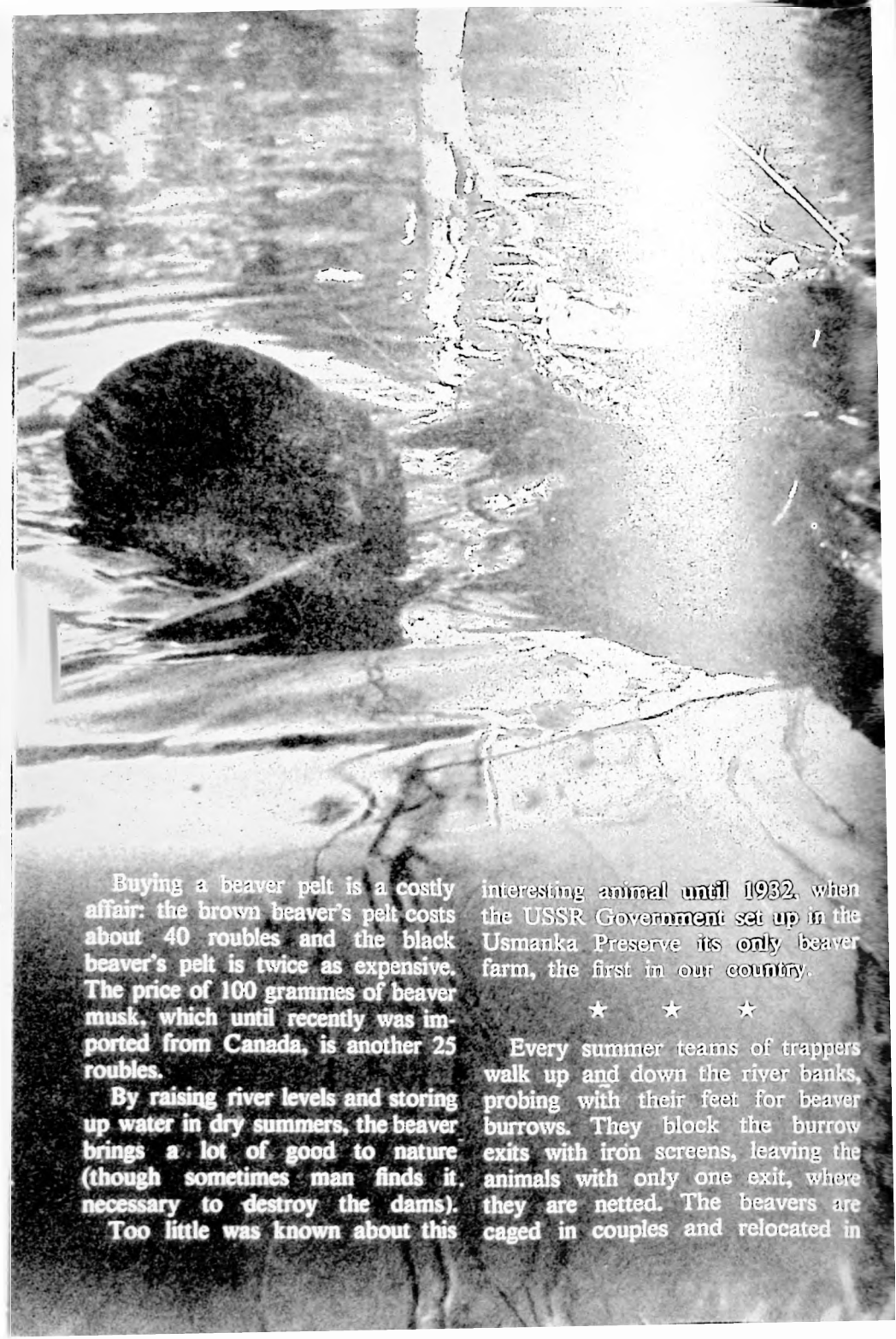
A young beaver, still of the age to live with his parents

The original skin-diver, the beaver has to swim to get to the underwater entrances to his lodge.



with several exits and emergency refuges, and their own "micro-climates": they are damp and cool in summer and warm in winter. The dams which the beaver builds in order to raise the river level and flood entrances to his home may be 10 feet high and 550 feet long.

For years, as long as there is enough food in the vicinity, the male beaver stays in one place, with his mate, and fights other beavers fiercely if they trespass upon his domain. Once in his life, when he reaches the age of two and his parents drive him out of their lodge, he does a year's wandering until he finds a mate and settles in some stream with her. With beavers, unity is the mainspring of existence, and domestic discord is unknown.



Buying a beaver pelt is a costly affair: the brown beaver's pelt costs about 40 roubles and the black beaver's pelt is twice as expensive. The price of 100 grammes of beaver musk, which until recently was imported from Canada, is another 25 roubles.

By raising river levels and storing up water in dry summers, the beaver brings a lot of good to nature (though sometimes man finds it necessary to destroy the dams).

Too little was known about this interesting animal until 1932, when the USSR Government set up in the Usmanka Preserve its only beaver farm, the first in our country.

★ ★ ★

Every summer teams of trappers walk up and down the river banks, probing with their feet for beaver burrows. They block the burrow exits with iron screens, leaving the animals with only one exit, where they are netted. The beavers are caged in couples and relocated in

other rivers, which are calm, rich in food and chemically unpolluted.

Setting up new beaver colonies is a delicate job. The animals are not just released into rivers. Pits are dug for them on river banks, with channels stretching part-way towards the water. Early in the morning the couple is placed in the pit, which is then barred with turf, and left alone.

The beavers stay there till evening, when they dig their "communication trench" further to reach the water. Once in it they feel at home.

A few years later the beaver breeder returns to see how the growing colony is getting along. Left to their own devices, the beavers may eat all the food in the vicinity and have to move. Death may meet them on the way. Beavers have carnivorous enemies, and their very existence depends on unceasing vigilence.

The start of construction work—logs and stones are bound with mud.

Modern sculpture? Ancient archeological finds? Just the art-form favoured by the beaver.

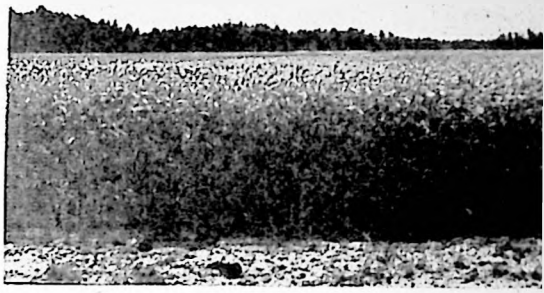
Late in autumn a beaver census is taken from the air. Flying low at about 300 feet the plane follows every bend in the river. A zoologist sitting next to the pilot registers the animals. In the landscape flickering past under the wings, his discerning eye makes out beaver dams, lodges and channels. This "aerovisual" method of stocktaking originated on the Usmanka Preserve, and is remarkably accurate.

Today the River Usmanka is the home of 180 beavers—46 families. And 16 of them—valuable blacks—enjoy special protection.

Every day the beaver-breeder inspects his area, clearing the river bank of fallen boughs and planting fresh bushes where the animals have eaten old ones. In May, the man spends long periods sitting near the beaver lodges, trying to determine the size of the litter by the volume of the squealing.

The expanding beaver population is a rich reward for man's patient, enduring efforts.

RESERVE
OF THE
TWENTIETH
CENTURY



Experts all over the world consider land improvement, use of the "reserve of the twentieth century", to be one of the best ways to eliminate the menace of hunger. How this reserve is being exploited in the Soviet Union is discussed here by the USSR Minister for Land Improvement and Water Conservation, YEVGENI ALEXEYEVSKY.

from the magazine OGONYOK

No-one nowadays disputes that the world's food problem is becoming the most pressing of all.

Scientists calculating the world's food resources and growth of population have sounded the alarm, some drawing a dismal picture of the not-so-distant future, and some in the West even going so far as to say that the food shortage will ultimately be fatal. For this they suggest the remedy of limiting populations, including checks on the birthrate. Some nations are taking organisational and economic measures in this direction. However, such views and measures are nothing new.

We maintain that the food problem is primarily a social question to be tackled not as a purely population problem, but by organising society in such a way as to ensure the most just distribution of the products of the work done by the members of that society.

All the same there are certainly undeniable grounds for grave concern about the future. Experts calculating the world population as it is likely to be after another third of a century agree that, by the year 2000, the population of the USSR, for instance, will grow by about 100 million to reach 340 million. Even by 1980, however, the USSR's population will be such that its present grain output would meet only half of its requirements, and the position would be still worse with livestock production. So it is time now to get down to consistent and energetic work to bring about radical changes in agriculture, especially those changes which will take considerable time to effect. Otherwise, the problems of food and raw materials will take us unawares.

We cannot rely, as our fathers and grandfathers did, on the idea that land is plentiful and will feed everyone. As we have only extremely limited possibilities of reclaiming additional virgin lands, we have to consider not so much the expanding of farm areas as the raising of productivity per acre and intensification of farming on an industrial basis.

Here the chief difficulty is the dependence of crop yield on physical conditions. How can this be overcome? Many of the research institutes agree that what our immense farmlands need, above all, is improvement measures, and that this work is destined to play a major role in the reorganisation of agriculture today, in the immediate future, and in the more distant years.

The information and calculations of many years indicate that in money terms the yield of our irrigated ploughland is about five times as high as that of our other lands, and that of our drained land about twice as high. The improved land must amply produce sufficient to compensate for fluctuations in harvests in droughts.

Forecasts of population increases

and of growth rate of living standards enable us to determine the amount by which the nation's food resources must be increased, and at the same time the scale on which land improvement projects must be carried out. These are of a vastness which will, of course, require years of effort.

I can give some estimates. The most important question is how much grain we shall need to grow on improved lands in order to make up for the natural losses of dry years. At first it will be from 30 to 32 million tons, a target that can be reached by 1970. That will require another 25 or 30 million acres of irrigated lands and drained lands. But, I repeat, this is only the first stage. The corresponding figures for 1980 and 2000 are much greater.

In addition to more grain, we shall also require more meat and dairy products, more fruit and vegetables, and more cotton for the textile industry. This makes our land improvement targets look far more imposing in terms of the volume and complexity of the work that has to be done.

Roughly calculated, improvement measures must be carried out on about 250 million acres of land in the Soviet Union by the year 2000, and the Herculean effort this will require within the next 15 to 20 years staggers even the experts.

You may think the figures I have given are fantastic, but they are quite realistic, being based on well-conceived plans with material and technical backing, and these plans are beginning to be implemented.

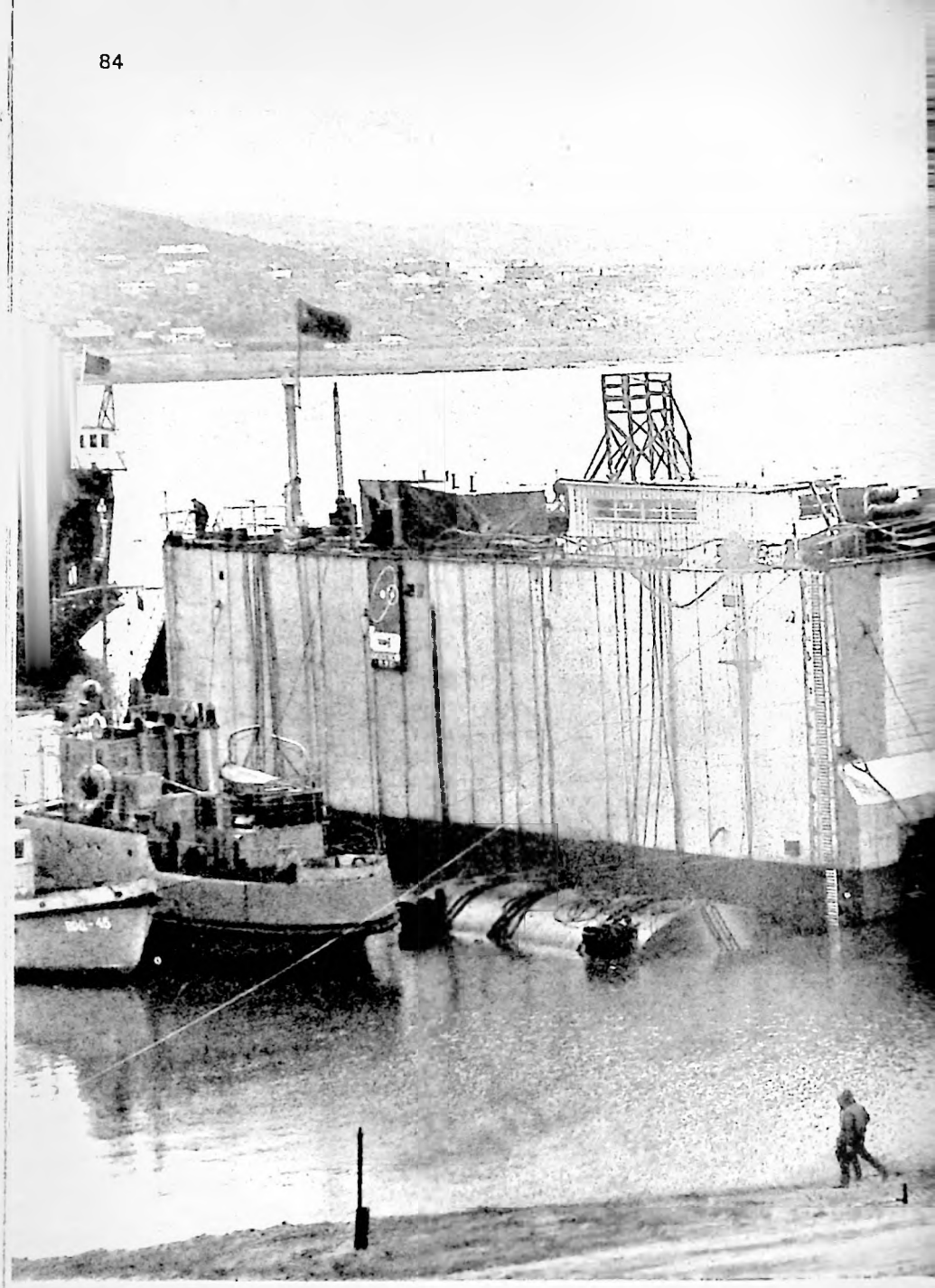
The decisions of the May 1966 plenary meeting of the Central Committee of the Communist Party of the Soviet Union to establish large irrigated areas to produce commodity grain are of tremendous importance for Soviet agriculture.

In these localities—in the steppe-land Ukraine and Moldavia, the northern Caucasus, regions along the Volga and north-east Kazakhstan—a major bulwark against droughts is being built. A network of large-scale construction organisations has already been set up, including more than 600 construction and assembly boards and new specialised stations. Design and research institutes are mushrooming.

We place great hopes in new techniques. In the near future we expect to construct irrigation systems involving the subsurface piping of water, only surface hydrants being visible. These systems will be switched on and off by computers at pumping stations, depending on the dampness of the soil. Such a system is already operating in Moldavia, and others will go into commission in other parts of the country in a year of two.

However, land improvement means more than increasing irrigated acreage. In the past, primitive methods used in the construction of irrigation systems led to salination and the swamping of large and valuable areas. So the qualitative improvement of already irrigated or drained lands is a number one job.

We need new and better techniques



MOON IN HARNESS

by Victor ALTSHULER and Valeri GURVICH

from the magazine NAUKA I TEKHNIKA (Science and Engineering)

Can the sea provide us with fuel?

Coal, oil and natural gas pollute the atmosphere, and reserves of these fuels are being gradually eroded. So it is becoming more and more important to find alternative power sources. The tides are a possibility, and the Soviet Union has already launched a pilot project to harness tidal power.

The two units of the tidal power station constructed in the USSR to date generate only 800 kw, but far greater capacities are in sight.

The importance of such a development lies partly in the fact that nuclear power engineering has its own "ceiling"—the point at which the earth's atmosphere may become over

heated. To neutralize radioactive waste is also a serious problem.

The earth, fortunately, does possess inexhaustible sources of energy incapable of contaminating or heating the atmosphere. One is the tidal ebb and flow.

The pull of the moon produces on the ocean's surface a gently sloping swell, some three feet high, with a radius of hundreds of miles. On the opposite side of the globe, where the lunar pull is weaker, there is a corresponding bulge. The movement of the two bulges is constant, following the movement of the moon, and where they touch the shores tides are produced.

Tides occur every 12 hours 25 minutes, with clockwork precision—25 minutes longer than half the solar day. This is why high tide occurs at different times each day. In addition, the tides are almost three times as weak at times of half-moon as when it is full or new. The ocean responds to the rhythm of the moon.

Many engineers have worked on the problem of using the latent power of the tides, and from 1856 to 1939 some 300 patents were taken out for plants involving this principle. None of them proved effective.

It is only recently that a solution has been found and one design, produced under the guidance of a Soviet engineer, L. B. Bernstein, is in use at the Kislogubskaya Tidal power station on Kislaya Bay. This is part of the Barents Sea where it cuts into the Kola Peninsula near Murmansk, in the Far North.

The tide rises only about 13 feet, but it passes through a rocky neck less than 35 yards wide, producing a powerful torrent to work the turbine. A branch of the Gulf Stream prevents the water from freezing.

The reinforced concrete station, about 50 feet high and weighing more than 5,000 tons, was brought to the site like a floating dock. Then it was sunk in a position to block the rocky neck completely.

The generator of the Kislogubskaya station is submerged alongside the turbine, and can also be used in reverse as a motor, to enable the station to be as independent as possible of the lunar rhythm. Using surplus energy from other stations, it works the turbine so that this becomes a pump driving the water in or out of the basin formed by the dam. It thus primes the "lunar wave", making it more effective and reducing its "idle runs".

The programme had a modest beginning, and Kislogubskaya is only a small experimental station. But after all, the atomic power industry** also came into existence with a 5,000 kw station at Obninsk, near Moscow. Like Obninsk, the Kislogubskaya station will make it possible to test ideas and circumvent unforeseen difficulties.

Research expeditions are setting

*See Dr. Iosif Shklovsky's article, *Social Optimism v. Social Pessimism*, SPUTNIK, October 1968.

**See *Atom—Worker not Soldier*, by Professor Vassili Yemelianov, SPUTNIK, November 1968.

out to survey high tide areas on Soviet Arctic shores. It is difficult, of course, to build tidal power plants there, in the bitter frosts of the bleak Arctic nights and with the danger of ice masses ramming the underwater dams, but the North cannot be properly opened up without a developed power industry. In any case, according to the experts, Arctic tidal power stations will rapidly recoup their design and construction costs.

At present, oceanologists and hydraulic and designing engineers are surveying Lumbovsky Bay, 187 miles east of Murmansk, where it is proposed to build a dam to cut off from the Barents Sea a basin of some 27 square miles. This area, too, is warmed by the Gulf Stream, and there is not enough heavy ice to impede the running of the station. With its commissioning, the Kola Peninsula power system is to get 700 million kw-hours of electricity annually.

In a "warm" part of the White Sea, even farther-reaching engineering ideas are to be put into practice in what is to become the Ustievskaya station at Mezen Bay. Its 200 dual-purpose turbines of the Kislogubskaya type are expected to generate more than 2,500 million kw-hours of electricity annually.

Mezen Bay is also projected as the site of a spectacular 2,000-turbine station on a basin of some 780 square miles cut off from the bay by a 28-mile dam.

There are bright prospects for the development on a world scale of tidal energy projects with a total estimated capacity of almost 1,000 million kw. Their siting depends on the availability of well-protected, ice-free bays where there are considerable differences between the low and high tide marks, and strong pressure of water.

There are many such places, and in the Soviet Union they are concentrated along the shores of the White and Barents Seas. Experts calculate that the torrent blasting its way from the Barents Sea to the White Sea, through the funnel formed by the capes Kanin Nos and Svyatoi Nos, has a capacity of 27.7 million kw, and Mezen Bay has a capacity of almost 10.5 million kw.

Some 6.8 million kw "flow away" into the White Sea, and the remaining energy is lost in the funnel formed where the two seas meet. Most of it is wasted by the water rubbing against the rough sea-bed or washing away the many large sand spits, and the remainder is consumed as the layers of water mix.

The White Sea resembles the Bay of Fundy, between the USA and Canada, which has the world's greatest tidal power resources. In both places the depth of tide entry is about the same, but the vertical fluctuations on the American shore are greater, and the funnel absorbing the water energy in the White Sea is 37 miles longer than in the Bay of Fundy. But the White Sea's power resources are only 25 per cent smaller than those of the Bay of Fundy, so the USSR's "lunar power" projects are being concentrated there.

ALL IN THE FAMILY!

The husband came home from work, and received an extra-special kiss from his wife.

"Darling," she said, "I didn't want to tell you before I was quite, quite sure, but now I'm certain. Before long there'll be three of us!"

"Oh, how marvellous, dear!" he exclaimed joyfully. "You're absolutely sure?"

"Absolutely," she assured him. "Look, here's the telegram. Tomorrow my mother's arriving!"

* * *

SKIMPING THE JOB

"Once again our dear little boy has taken money from my wallet," the husband said angrily.

"How do you know it wasn't me?" his wife asked, trying to pour oil on troubled waters.

"There was some money left."

* * *

THERE'S ALWAYS TOMORROW

After his first day at school a mother asked her son: "Well, did you learn a lot today?"

"No, mother," the little boy said, adding with a sigh, "I'll have to go back again tomorrow."

From the magazine RADIO AND TELEVISION

* * *

ALL OUR YESTERDAYS

The wife told her husband, "I'm fed up with this life. The day before yesterday you came home yesterday. Yesterday you came home today. If you don't come home till tomorrow today, the day after tomorrow I'm applying for a divorce!"

A rare combination of mathematical and histrionic talents made Roman Arago famous as a mathematical wizard, and newspapers dubbed him

THE MAN WITH A COMPUTER BRAIN

by Arkadi GROMOV, actor
from the magazine SCIENCE AND LIFE

In his book Half a Century on the Stage, *a chapter from which is reproduced here, the author gives pride of place to Roman Arrago, a man who could calculate vast figures in a flash.*

"As a rule he was ready with the answer a second before the operator had time to turn the handle of the calculating machine. And at a man v. machine contest in Berlin he beat the best machine of the time by squaring a multi-digit number eight seconds sooner than his mechanical rival."

This is an excerpt from an article in the newspaper *Bakinski Rabochi* about a sensational performance given by Arrago in Azerbaijan in 1929. Similar reports accompanied him on his concert tours of Europe and America.

Roman Arrago was born in Konotop (Ukraine) in 1883. Son of a poor craftsman, he would most likely have followed in his father's footsteps if he had not had a passion for mathematics from early childhood. He was possessed by it day and night; instead of dropping off to sleep right away, he would do all kinds of calculations in his head.

Later Arrago's ambition was to enter a mathematics college. But by the time he had finished school, his father had become even more impoverished, and Roman, who was 17 years old, had instead to get a job in the office of a textile merchant.

The young Arrago was a real treasure for his employer: never had anyone been able to check the bills with such speed and precision, without a single mistake.

As for Arrago himself, his work was nothing but a way of making a living, a stepping-stone to a career as a scientist.

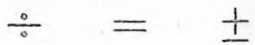
Came the day when Arrago thought his opportunity had come. But ....

In the summer of 1901 Arrago arrived in Paris, where he applied for entry to the Sorbonne. Where could he expect to receive a better education than at this celebrated sanctum of the French school of mathematics?

To do this he had first to learn French. So he spent six months at the Henri IV Lycée, and in 1902 became a student in the mathematics department of the Sorbonne.

In Paris his only source of income was giving private lessons, so the Latin proverb "docendo discimus" (by teaching we learn ourselves) acquired a special meaning.

He had to live frugally, and had no free time except at night—if he gave up his sleep!



Arrago's outstanding ability did not go unnoticed. At soirées given by Professor Picard he met the celebrated mathematician, Henri Poincaré, the author of a number of books on the development of mathematical talent. Sparing with his praise, Poincaré once said, "Arrago is a remarkably clever young man. Just incredible!"

Arrago was often invited to the salons of the Russian community in Paris and was cordially received by the Russian writers Balmont, Merezhkovsky, Amfiteatrov. He also

met many famous French writers, journalists and stage celebrities, and people began to be intrigued by the young man.

Meanwhile he remained a poor student, eking out a living by giving private lessons.

The glitter and the poverty of his Paris period were to remain with Arrago for many years.

After graduating from the Sorbonne, he could not find a use for his mathematical talents and his hopes of doing serious research in mathematics began to fade. But he was only 20 or so, and he decided to try his hand in another sphere—science.

Arrago moved to Liège, where he enrolled at the Natural Science Department of the Montefiore Institute. He chose biology as his subject and was accepted as a third-year student. Eighteen months later Arrago graduated as a biologist and immediately set about looking for a job.

In Liège, as in Paris, his pockets were empty: he could not find employment, and poverty once more stared him in the face. Again lessons were his salvation.

But even in those days hope never left him entirely. His insatiable thirst for knowledge finally brought the unlucky mathematician and biologist to the Higher Polytechnical School at Ghent, Belgium. With qualifications in maths, biology and engineering, he thought, he would be bound to get the kind of work he wanted.

Once, when Arrago was already in the fourth year at the Polytechnic, Professor Neuberg gave him the task of preparing a design for an arched bridge. Students with slide rules and log tables were plodding through complicated calculations, checking and double-checking, covering reams of paper with figures. Arrago's desk was clear. Exasperated, the professor asked:

"What's the matter? Haven't you started work yet?"

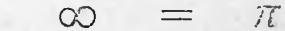
"I've finished."

"So soon? But where are your calculations?"

"Here." Arrago pointed to his forehead.

Sure that the young man was pulling his leg, the professor decided to put him to the test. His examination lasted for a full hour. Neuberg barely had time to jot down the results of Arrago's calculations and check them as he went along. Incredibly, the entire thing had been done in Arrago's head, without a single mistake!

The professor clasped Arrago's hand in his and said, visibly moved, "You just don't understand what you are! What do you want an engineering diploma for? You have a wonderful brain. Go on the stage. It will bring you in far more than any engineering job."



Arrago was greatly embarrassed by the well-meant advice of the professor.

The stage? A biologist, mathematician and engineer entertaining a bored audience . . . ? And what about his dreams of research?

But after years of dreary existence in foreign lands, and bitter experience with scientists who regarded Arrago merely as a salon attraction, he began, probably for the first time, to think about his future seriously. That same day he shared his misgivings with a certain Henri Plantagenet, whom he had often met at the students' dining-room.

Plantagenet jumped up with excitement.

"You say you can do all those tricks? And with such talent you eat in this hole? You're crazy! Earning one franc a day when you could earn hundreds of francs in just one evening! You're just crazy!"

The effusive Belgian gesticulated frantically, heaped compliments on Arrago's bewildered head, berated him, too, and shouted; then his words trailed off to a whisper and he declared: "Any work is honourable! Why should the profession of entertainer be worse than that of a scientist?"

Plantagenet would not even listen to Arrago's objections. From now on he would be his impresario, and the proceeds would be divided fifty-fifty between them.

Soon afterwards Plantagenet came in and jubilantly announced that Arrago had been engaged at the most fashionable variety theatre in Brussels, the Scala. Arrago was beside himself with joy. There was only one short moment of hesitation: suppose his talents failed when he appeared before an audience?

The opening day was November 23, 1908, for some unaccountable reason, he found that the more nervous he was on the stage, the easier he could do the most brain-teasing mathematical operations. The audience went wild, and punctuated the performance with loud applause. Arrago took an endless number of curtain calls.

That is how Roman Arrago became an actor-mathematician.

From now on his life was on wheels. The former Sorbonne student felt an irresistible nostalgia for the Paris boulevards. How would the "capital of Europe" greet him now? he wondered.

Arrago performed in one of the largest halls of the French capital, the Casino de Paris, and was an astounding success. The entrepreneurs showered the "computer man" with most lavish offers of engagements. Arrago went on a tour of Latin America—Chile, the Argentine, Uruguay, and Brazil. Then he made a triumphant return to Paris, where he had once lived in poverty. The professors who had known him as a student were proud to meet him—but privately they sighed, "What an

amazingly talented young man! He could have been a great scientist . . . "

Germany, Spain, Hungary, Holland. . . . And what about Russia? Arrago had been away from his country for years. And so one day, as he left Holland, instead of going to glittering Paris, he travelled to provincial Konotop, his home town.

In 1912, Arrago began a series of tours of Russia. Henceforth, whereas Paris had been the base to which he returned from concert tours of Europe and America, he now went to his dear old Konotop.

In Moscow Arrago sought an engagement through the city's theatre agency, just as he had done so many times in Paris. In those days the agency was run by a Madame Rassokhina. But, unlike the Paris agents, she was not satisfied with the recommendations of his impresario and the newspaper reviews. Madame was not used to buying a pig in a poke, and wanted to see the goods for herself. If you didn't get on the right side of her you didn't make a concert tour. She was all-powerful in her field.

Of course, Arrago was no longer an unknown pauper whose life depended on the vagaries of fortune. Any entrepreneur in Europe and America would have been glad to get him. But this was Russia, his homeland, his compatriots—and his way to their hearts lay through Madame Rassokhina's agency.

Arrago felt a twinge of pride as he demonstrated his talents to Madame Rassokhina personally. She was delighted and engaged him on the spot for a number of performances at the restaurant Yar.

The restaurant was a place where rich merchants went to carouse and others to watch them. It was notorious for orgies and drunken brawls. Ribald jokes and songs and rollicking gypsy ballads and dances were the usual fare here. The incongruity of the whole thing was obvious. Yet Arrago consented to open his Moscow début at the restaurant.

The truth was that not only Arrago, but the restaurant proprietor, Sudakov, had misgivings about the arrangement. So he conveniently stayed away from the concert and, instead, went to St. Petersburg, asking the M.C. to let him know how the first night went off.

It was well past midnight when Arrago went on the stage, and the air was heavy with tobacco smoke and alcohol. He surveyed his uncouth audience and began extracting square roots, multiplying long numbers—five digits, eight digits . . .

Human psychology is a strange thing. At first most people stared in blank stupefaction, trying to grasp the meaning of what was going on. Then, intrigued by the performance, they showed a marked interest. They forgot their drinks. The restaurant was now a concert

hall and the people at the tables were his audience, the first one Arrago had met in Moscow.

Early next morning Sudakov received a telegram from the M.C.: "Arrago thundering success. Come and see yourself."

On his return Sudakov signed a contract with Arrago for 22 days at the staggering rate of 60 roubles per evening. But even after three weeks they would not let Arrago go. He performed there for five months solid—more than 150 times.

One morning Arrago did not wake up. He had lost consciousness in his sleep and was immediately taken to hospital. An examination showed that he had an inflammation of the brain. Arrago came to only on the tenth day. When the doctor saw him open his eyes he asked without a smile:

"What is 327 by 649?"

A minute later the patient said in a weak voice, "212,223"

The doctor laughed and then said, "So you're all right now. But you'll have to leave your calculations for a while. Too much strain is bad for you."

A few months later Arrago was performing at a literary club in Kiev. The audience was mainly scientists and scholars. A Professor Ruzski asked Arrago to extract the square root of 485,765,786,891. Usually a sum like this would take Arrago somewhere between 40 seconds and one minute to do. This time he paused for much longer than a minute. Somehow the root did not come out without a remainder.

Arrago asked the professor if the number was correct. Ruzski insisted that the root was to come out in a whole figure, without a remainder. Arrago paused again. His forehead was covered with beads of perspiration, but the result was the same again. Finally he said, not without irritation, "You're mistaken, professor. Instead of 891, the last three figures of your number should be 961."

"You are quite right," the professor smirked. "I deliberately gave you the wrong figure, in order to test you. . . . "

Arrago had many times been "tested" in this way. But it had not been done with a scientific purpose in mind. As a rule the spectators merely wanted to amuse themselves by seeing his embarrassment. These "amusements" exhausted Arrago. But in this night-club atmosphere they were taken as a matter of course. Even when he had reached the peak of his fame he was still looked upon as an "act", and his phenomenal abilities had not been studied for science.

It is hard to tell how long Arrago would have had to endure the humiliation of these "tests" had it not been for the Socialist Revolution of October 1917.

When Arrago was a student at the Sorbonne, he met Anatoli Lunacharsky. Shortly after the Revolution, Lunacharsky returned to Moscow and was appointed Minister of Education of the young Soviet Republic. Arrago met him again and told him about his life, about his unfulfilled dreams of becoming a scientist, and about his great desire to serve science for the good of the new society.

At last he had a chance to take part in scientific research. True, it was now too late to make a clean break with the stage. But from now on he went mostly to scientific and educational establishments. His excellent knowledge of biology, mathematics and engineering enabled Arrago to speak as an equal to specialists in different fields, and give them scientific accounts of his psychological and physiological self-analyses.

He continued to perform in public, but now he no longer entertained restaurant habitués. Instead he often appeared at workers' clubs and cultural centres, and the sponsors saw to it that he not only entertained the audience, but also got them interested in his phenomenal abilities.

Once when Arrago was performing in Irkutsk (Eastern Siberia), he was approached by Professor Toporkov, a brain specialist, who invited Arrago to meet students and teachers from the local university. "What we want is to try to understand the nature of your remarkable talent," he explained.

Arrago agreed, and went to the club where Professor Toporkov delivered a lecture on Arrago and his tremendous brain capacity. He was followed by other speakers, among them experts on psychology and mathematics. The ensuing discussion led to some interesting hypotheses, which were later tested at various research establishments.

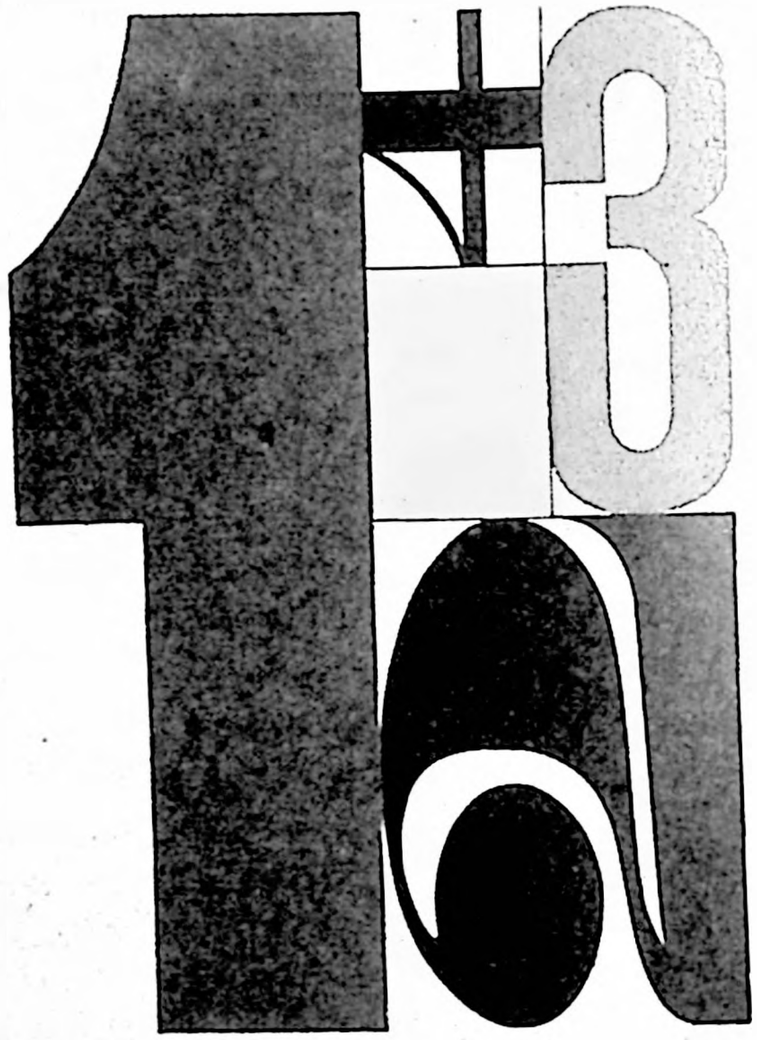
Gradually Arrago's performances assumed the nature of scientific experiments, which were widely discussed by the audience.

Professor Yakov Perelman, an eminent Soviet mathematician, wrote at the time, "What Arrago does in the realm of figures astonishes both experts and laymen. In less than one minute he multiplies four-digit numbers. It takes him about 90 seconds to multiply six-digit numbers. Try to do it in your head without mistakes, even if it takes you two days! And his ability to add up a column of four-digit numbers looks like magic. He just casts a glance at the figures and names the result."

Besides the visual memory, Arrago also had an excellent auditory memory. This helped him to master many foreign languages, including German, French, English, Spanish, Italian, Portuguese, Dutch and Polish.

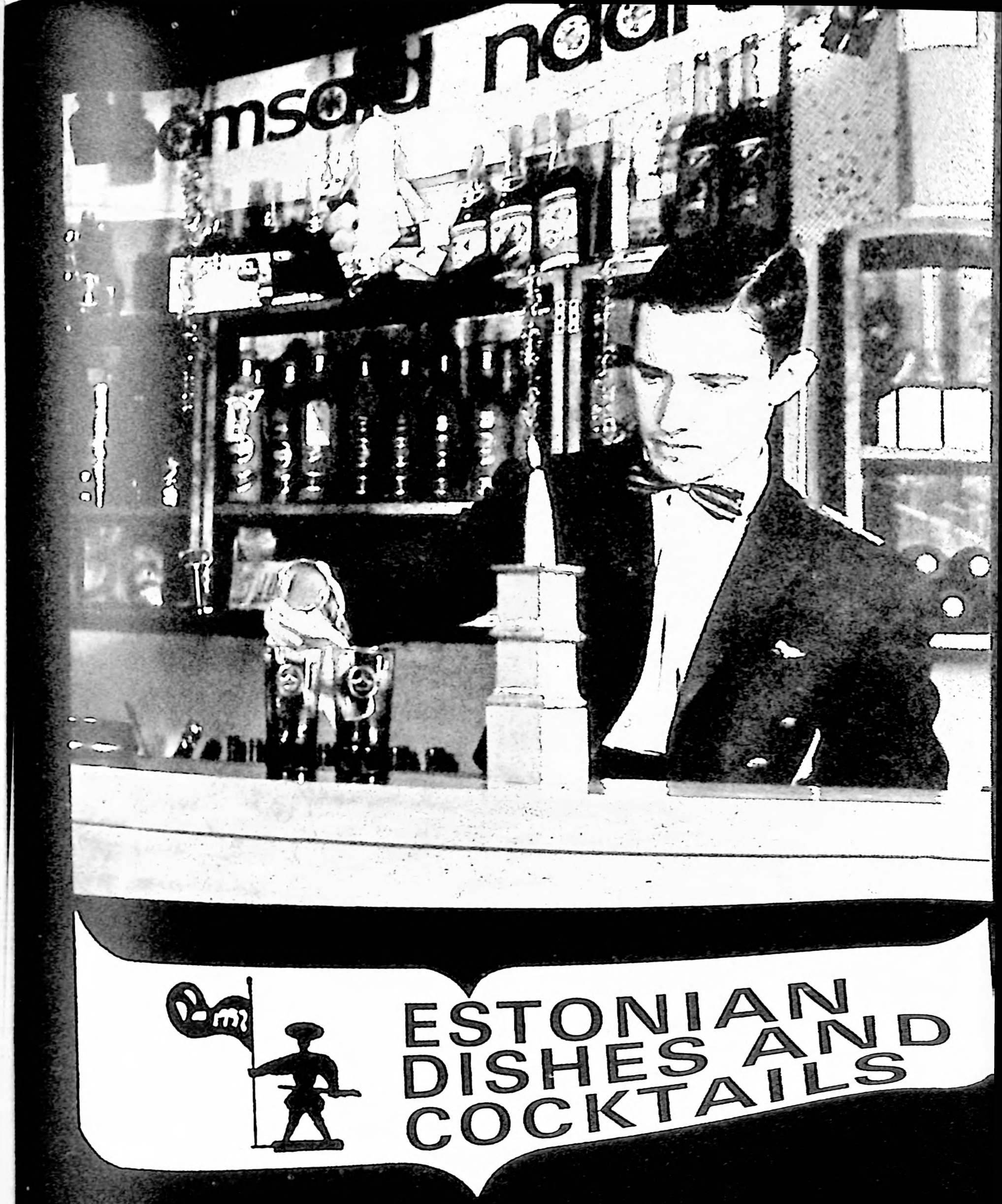
Those who met this "man with a computer brain" remember him as a very kind and modest person. He died in Leningrad on November 29, 1949, at the age of 66.

Shortly before his death he bequeathed his brain to the Brain Institute in Leningrad.



COUNTED OUT!

The young man sat in the doctor's consulting room.
"What's the trouble?"
"I can't get off to sleep at night."
"Try counting to ten, then start again, and so on and so on."
In a couple of days the young man was back.
"It doesn't help, doctor. When I get to eight I automatically leap out of bed."
"But why on earth's that?"
"I'm a boxer."


ESTONIAN
DISHES AND
COCKTAILS

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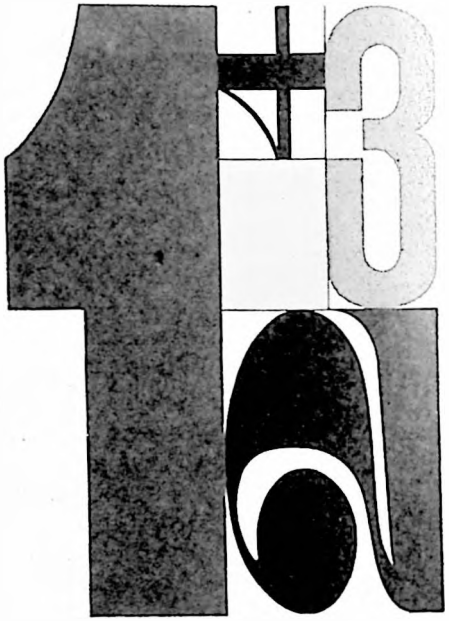

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nääre!
ESTONIAN
DISHES AND
COCKTAILS

"Fox" Cocktail

For 5 people:
¾ bottle demi-sec champagne (½ litre)
1 tumbler "Kyannu Kukk" liqueur (or, if not available, a Cointreau-type liqueur).
½ tumbler cherry liqueur
20 glacé cherries

Mix champagne and liqueur in the glasses, then add glacé cherries and ice.

Estonian Pork Chops

For 4 portions:
$1\frac{3}{4}$ lbs rib of pork
3 oz lard
8 tbs sour cream
4 large onions
Salt and pepper to taste

Divide pork into 4 equal portions, with a piece of bone in each. Beat, season with salt and pepper, and fry rapidly on both sides in lard until well browned on the outside.

Chop onions and fry until golden-brown.

Add sour cream to the pork chops and heat slowly for 5 minutes.

Before serving, arrange chops on plates, pour on sour cream sauce from frying pan and place fried onions on top.

This can be served with fried potatoes, green peas, marinaded fruit and any kind of vegetable.

Novost Salad

For 4 portions:
8 anchovies or spiced sprats
4 tbs diced ham
2 hard-boiled eggs
4 medium-sized potatoes
2 boiled carrots
4 small pickled cucumbers
4 tsp cooked or tinned green peas
½ fresh apple
mayonnaise

Dice cucumber, and also boiled potatoes, carrots and 1½ eggs. Add peas and mayonnaise and mix well.

Heap the mixture in a salad bowl, place anchovies or sprats on top with diced ham, and decorate with slices of fresh apple and egg.

Pigs' Trotters

For 4 portions:
4 pigs' trotters
2 bay leaves
10-12 peppercorns
1 onion
1 cupful dried peas or beans
Salt to taste

Cut each pig's trotter in half lengthwise, wash well, cover with cold water and bring rapidly to the boil. Pour off boiling water, wash trotters once more, cover again with cold water and bring rapidly to the boil.

When the water is boiling, turn down the gas, add bay leaves, pepper, salt and onion (previously cut in half and fried on all sides).

Simmer for 4—5 hours.

This is one of Estonia's most popular dishes, and is served hot or cold. If served hot, it is garnished with boiled beans or peas. (These should be washed, covered with boiling salt water and boiled for 3 hours.) Beer is the drink to take with it.

Served cold, the pigs' trotters may be eaten as appetisers before any meal—also with beer.

Before serving cold, remove the trotters from the stock and place in a dish. Pour on strained stock and stand in a cold place until it sets. Serve with green peas.

Wedding Sausage

For 4 portions:
1¼ lbs fillet steak
3 eggs
2 medium-sized onions
4 tbs milk
4-5 oz ham
Salt and pepper to taste

Cut meat into 4 equal portions, beat well and season on one side with salt and pepper.

Fry finely chopped onions until golden brown. Beat eggs, add milk and pour into the pan with the onions. Bake in oven for 6-7 minutes at a temperature of 120-150° Centigrade (260-300°F).

Allow omelette to cool, divide into 4 equal parts and place each one on a piece of meat. Cover each with a slice of ham a little less than a quarter of an inch thick.

Roll up the meat and secure with a few stitches (especially at the ends).

Deep-fry the resulting sausages in hot butter or lard for 20 minutes on a low gas. Then remove from fat and take out stitches.

Wedding sausage may be served hot or cold. If hot, with prunes or vegetables; if cold, by itself, sliced.

"Old Thoomas" Cocktail

For 5 people:
⅔ tumbler brandy
½ tumbler "Old Tallinn" ("Stary Tallin") liqueur. This is exported to many countries, but if not available, use a Cointreau-type liqueur.
⅓ tumbler cherry liqueur
20 glacé cherries

Mix brandy and liqueur in a cocktail shaker and cool. Wet rims of glasses with lemon juice, then sugar them (turn the glasses upside down and dip lightly into the juice, then into icing sugar). Put a few cherries in each glass and pour out cocktail.

Mulled Wine

(Estonians have been drinking this for the past 500 years)

For 5 people:
$\frac{3}{4}$ bottle sweet white wine ($\frac{1}{2}$ litre)
$\frac{1}{2}$ tsp granulated sugar
pinch of ginger
1 clove
pinch of nutmeg
pinch of saffron
$\frac{1}{2}$ lemon

Pour wine into a fireproof-glass or enamel saucepan, add sugar and spices and cook on a low gas for five minutes. Strain, cool in refrigerator, pour out and add a slice of lemon to each glass.

Roast Pork, Estonian Style

For 4-5 portions:
2¼ lbs loin or rib of pork
3-4 oz lard
2 carrots
2 onions
Salt and pepper to taste

Season the piece of pork with salt and pepper and fry rapidly until nicely browned all over (the fat should be heated before frying). Then add chopped carrots and onion to the pan and fry on a low gas for 15 minutes.

After this, transfer the pan to the oven, adding a little meat stock or water and cook for 40 minutes at 90-100°C (185-212°F).

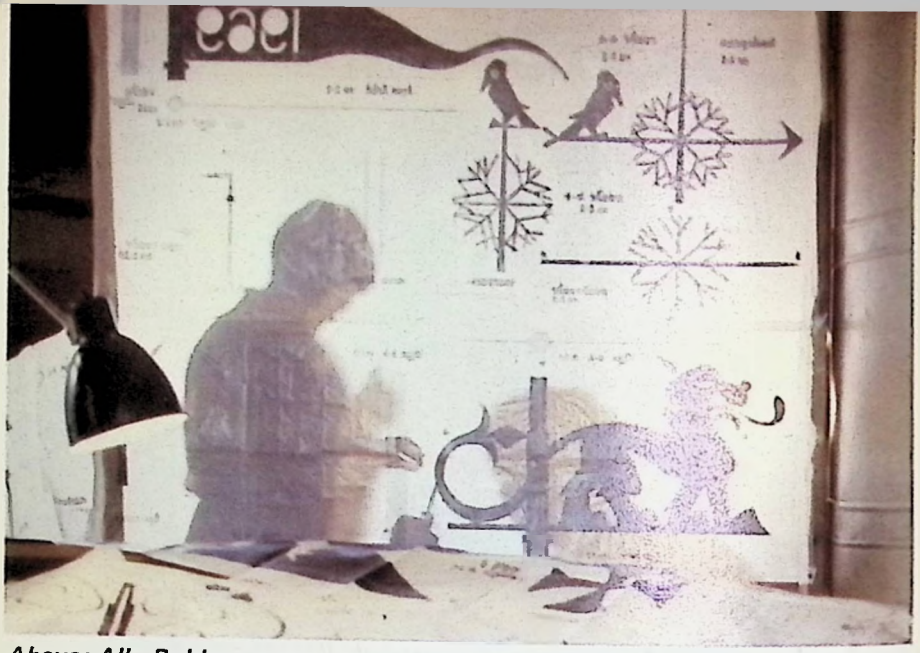
Serve hot with fried potatoes.

If liked, one tablespoon of caraway seed may be added before the pork is put into the oven.

by Lydia CHESHKOVA

from the magazine VOKRUG SVETA
(Around the World)

TALLINN'S WEATHERCOCKS



Above: Alla Buldas, a young Estonian artist, with some of her latest designs for Tallinn weathercocks

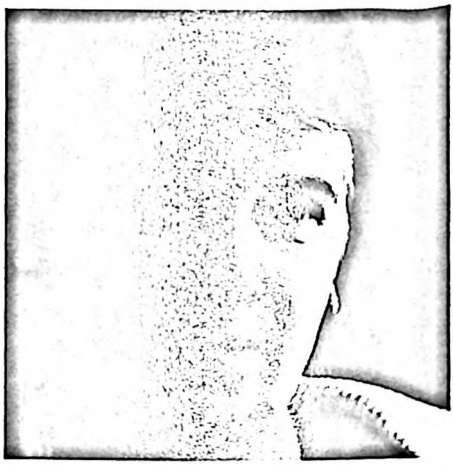
Below: Georgi Laabo (on the right), one of the new generation of weathercock smiths, working at his forge

The device on this badge is a copy of the wind vane "Old Thoomas", erected over the Town Hall in 1530

Right: Typical Tallinn scene—and each of these buildings is, of course, topped by a weathercock

Below: The winged dragon is one of the most widespread popular motifs—others include the unicorn and the cockerel

Mother of the Children's Theatre



by Boris YEVSEYEV,
Isaac LYUBINSKY
and Natalia SATS

compiled from the magazine PRE-SCHOOL EDUCATIONAL and the newspapers SOVIETSKAYA KULTURA and IZVESTIA

The quotation above comes from an article written many years ago by Mikhail Koltsov, a well-known Soviet journalist, in the newspaper *Pravda*. At the time Auntie Natasha was a slim young girl.

Now, she complains, she is neither young nor slim. But nor is she old. There is another word that suits this stately woman with the keen eyes and the low, authoritative voice. She is mature.

Here is a symposium on Auntie Natasha—Natalia Sats—and her work; she is one of the participants.

YEVSEYEV: Not long ago I was present at a meeting of the Artistic Council of the State-run Children's Music Theatre. Natalia Sats presided.

We council members were listening to a new children's opera, "Jelsomino in the Land of Liars". The composer was an elderly woman with no singing voice, and anyway you could not

"There is one theatre in Moscow which never has crises over its repertoire or anything else. In this unique establishment the audience is always a good one, always taking a keen interest in the play itself, in the sets, the acting, the music, everything. Before each performance a woman comes out before the curtain for a friendly chat with the audience. Then there are shouts of 'Auntie Natasha! Hello! Hurrah!'"

hear her above the piano. We had no idea what the opera was like. Then Natalia Sats went to the piano, took the score herself, and everything went fine after that.

When she had finished she handled the discussion very ably. I looked at her and marvelled at how this 65-year-old woman had preserved her incredible energy—the energy of a born organiser and a talented director—and, what was the main thing, an exacting love for children.

When quite a young girl, she was in charge of all theatre and musical work among Moscow children after the Revolution. At the time Natasha sat at a kitchen table with a sign saying: "Children's Department of the Theatre and Music Section".

Her will and energy overcome all barriers, and the country's finest actors were performing to the half-starved children from working-class families living on the outskirts of Moscow.

Now her job is done by a whole staff of directors, choir-masters and ballet-masters.

NATALIA SATS: Our theatre was born in November 1918, on the first anniversary of the Socialist Revolution.

I am speaking of the children's theatre—the first one of its kind in Moscow, or in the world. Never before, anywhere on earth, had there been a team of stage artists whose main aim was to bring their art before children, to create shows for them, and stage them every day for the children in their own theatre, making a special study of children's interests.

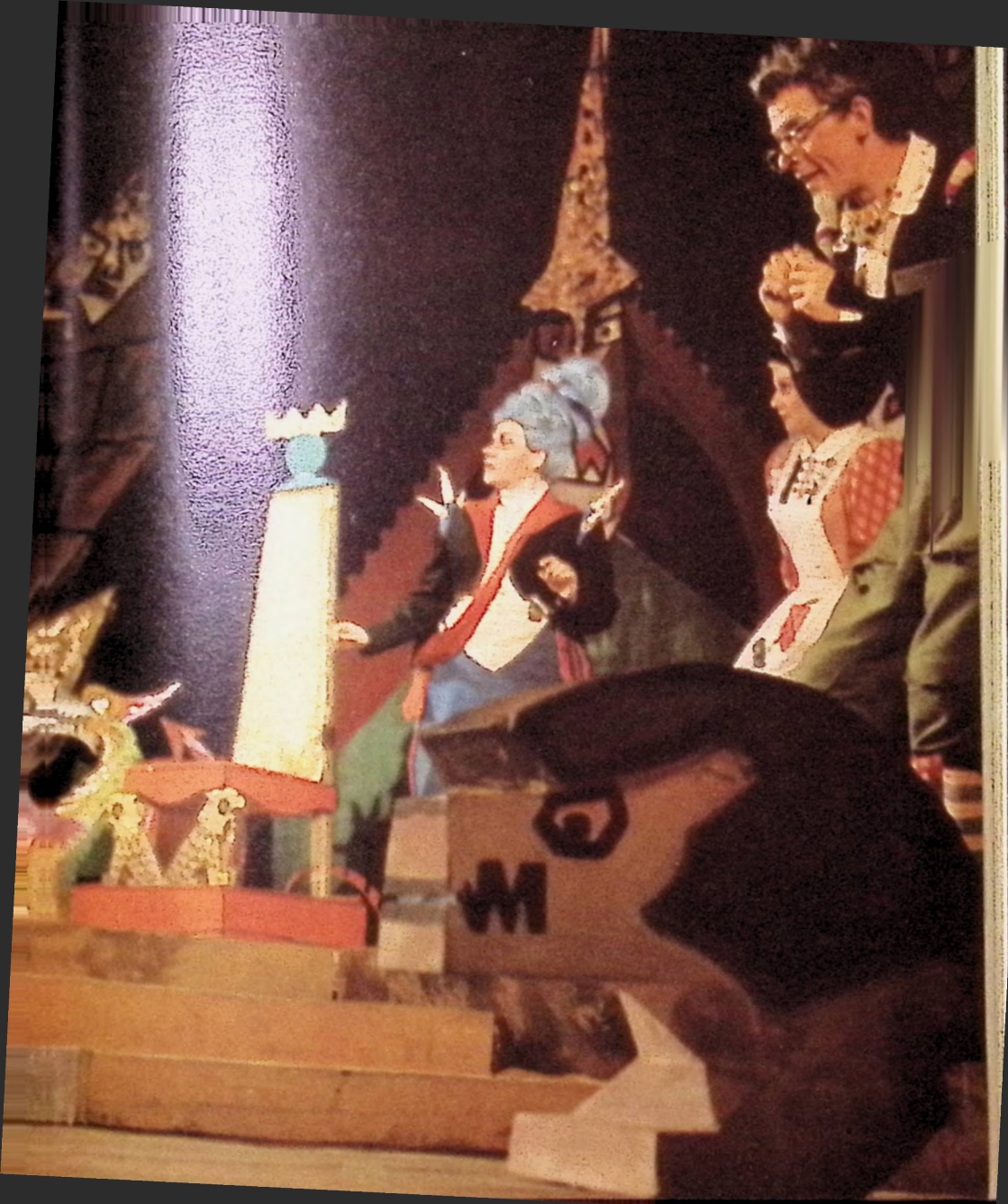
The first theatre building we borrowed from the grown-ups. At last came the unforgettable night of November 6, 1918.

The entire company was hard at it. There were few technicians, and those there were had been allowed to go home. The playwright was stuffing up cracks in the wall with tow, one of the actors was cleaning the windows, another was sweeping up.

Firewood was then worth its weight in gold, and we were not going to light the stove until next day. The main thing at the moment was to decorate the benches for the first-night audience. Ilya Yefimov, the artist, gave us sketches for each bench and then inspected our work when we had finished, adding a few touches himself.

Continued on Page 116

The puppet does her stuff in a performance of Vladimir Rubin's opera, "The Three Fat Men".



The children would be of all ages and sizes. Our benches were long and narrow—but how beautiful they were! On one we had painted the Bluebird, on another weird beasts.

Vladimir Favorsky was busy with a saw, cutting out and hanging on the wall fanciful decorations made of plywood, which would no doubt fascinate the children.

At the piano our composer and pianist, Anatoli Alexandrov, was practising "Victory March", written specially for the first production. But there were a number of passages where this self-exacting artist was not satisfied with his own performance. It is not so easy to play the piano dressed in fur coat and woollen gloves!

Nina Simonovich-Yefimova, another artist, was drawing from life—finishing off a decorative panel for the entrance archway.

All of us, actors, artists, everyone, had set to and were going great guns. We were in a warm and happy mood. We had started something that was new, exciting, joyful. Tomorrow our theatre would open its doors for the first time to a new public—the children.

LYUBINSKY: In 1918, when the Civil War and foreign intervention were at their height, a young girl with pigtails set about carrying out her official duties—the production of plays and concerts for children. She has continued to carry them out brilliantly to this day. A whole 50 years of devoted work, with nothing considered trifling and everything important, from the plywood for the scenery to a meeting with Anatoli Lunacharsky, first People's Commissar for Education. A whole 50 years, and dedicated entirely to the theatre, 50 years dedicated to children.

YEVSEYEV: One can say that the Children's Theatre is one of the wonders of the Revolution.

NATALIA SATS: In two years our theatre, still in the same building, became a State theatre.

We asked Lunacharsky, the Commissar for Education, to become chairman of the board of directors of the Children's Theatre. He agreed, replying: "This is a very important matter, one of the happiest of duties."

In my mind's eye I can see our

Within a few years after the Revolution, permanent children's theatres had been founded in Saratov, Krasnodar and Kharkov. In 1922 the Leningrad Youth Theatre was opened, in a new and attractive building specially put up for it.

For many years now children's plays have been performed in many languages in the Soviet Union. There are children's theatres in the capitals of a number of republics, including the Ukraine (Kiev), Georgia (Tbilisi) and Armenia (Erevan).

However grim times may have been for our country, children's theatres have continued to come into being. An example is the Youth and Children's Theatre of Kazakhstan, built in Alma Ata, in the foothills of the Ala-Tau range, not far from the Chinese border, in the dark years of World War II.

production of "Mowgli". The auditorium was dark. Each child had a chair to sit on, like grown-up theatregoers. They were chuckling. Balu the bear (Igor Ilyinsky) was so amusing as he scratched his stomach with his paw. A young doe (Maria Babanova) appeared on the stage, graceful, frolicsome, and behind the tropical palms beasts of prey were lurking.

The children laughed no more. "Run! Quicky!" they shouted urgently. It has always been like that. At a good show the children always live the story, forgetting that it is theatre and not real life.

LYUBINSKY: As a teacher, I should like to single out one side of Natalia Sats's many-faceted talent. She was the first to cross the footlights, and she entered the children's lives not merely as an artist, but as a teacher, too.

Auntie Natasha is not simply a stage name. This is what Natalia Sats has been named by thousands of children with whom she has talked with respect before curtain-up, during intervals, or at schools; not insulting her listeners by using the condescending tone of an older person talking to younger ones, and not under-rating the importance of the questions they are concerned about.

She has the rare gift of organically combining artist and teacher, and this quality, so valuable for a children's theatre, enables her to know unerringly what children want at any particular moment.

Natalia Sats does not go in for pretty-pretty babyish stuff. Preserving her inherent stylistic features of striking visuality, musicality and rhythm, her best productions always establish direct contact with the spectators—to use her own expression, ringing all the bells in their young hearts.

YEVSEYEV: Six theatres came into being under Natalia Sats's aegis—naturally, with the help of those who had ideas similar to her own. Four of them are still in existence, are flourishing and bringing pleasure to further generations of youngsters.

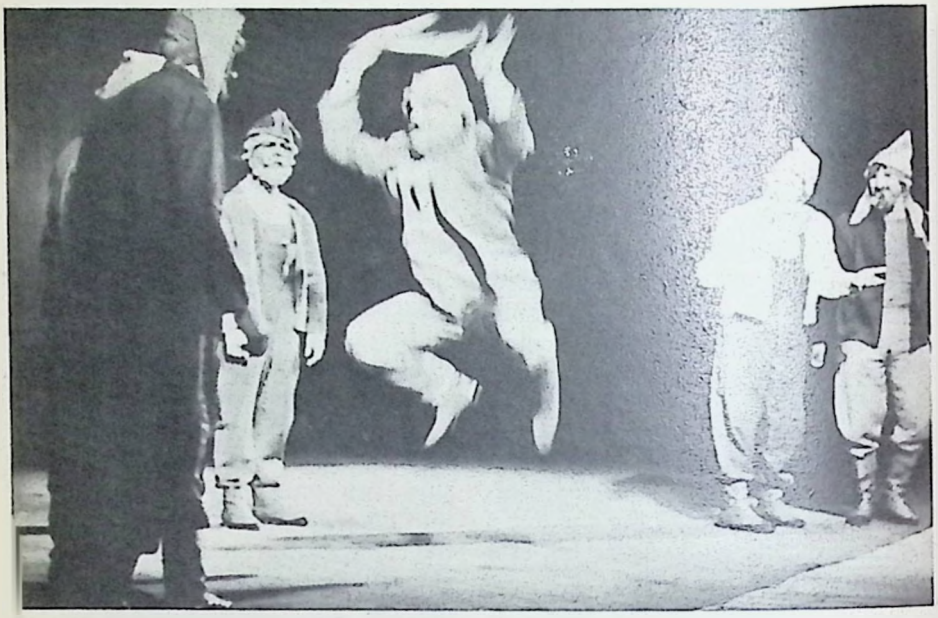
In recent years she has set up a children's musical theatre. There has never been one anywhere else.

The children are gradually drawn into a new kind of game, into which they are urged by Natalia Sats's introductory speech. Ably directing the imagination of the spectators, she gets their attention riveted on the musical characteristics of the heroes in the opera, step by step drawing them into the world of this new art.

The theatre has three operas in its repertoire, based on folk tales. They are "Morozko", by Krasev, "The Wolf and the Seven Kids", by Koval, and "Snow White", by Kolmanovsky. There is also a theatrical concert based on Tchaikovsky's operatic music.

NATALIA SATS: In 1936, at our request, Sergei Prokofiev composed his immortal symphonic tale, "Peter and the Wolf", a work which is now performed throughout the world for children and adults, a work of which they said to me in Paris, "Your 'Peter' is heard everywhere, and teaches children all over the world to love and

"Snow White" is always a favourite, in any form. Edward Kolmanovsky has made a musical comedy out of it.



understand symphony music."

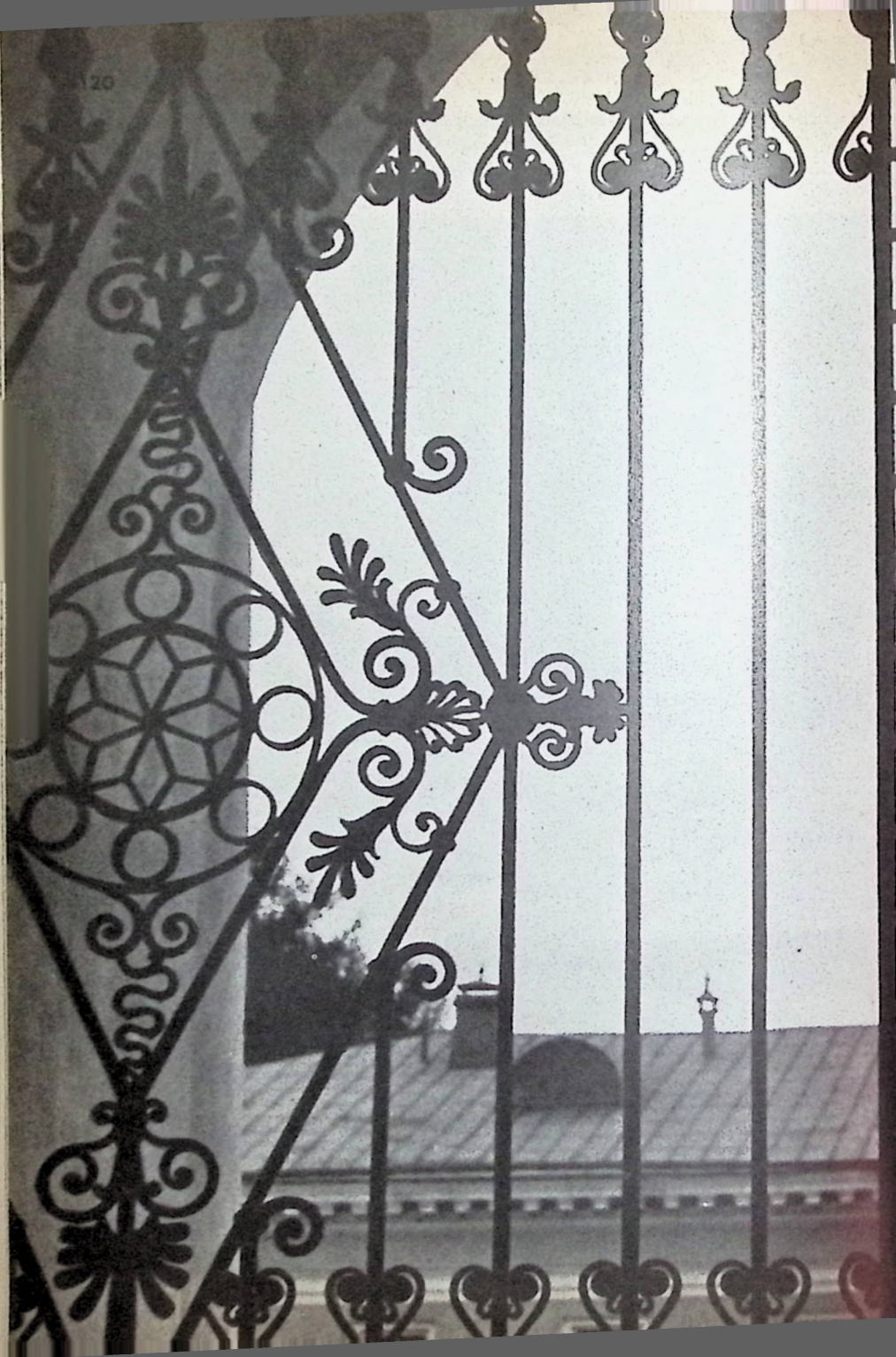
LYUBINSKY: The younger children are, the greater the influence of the theatre (or any other art) upon them. It helps them to understand the world and stimulates the development of artistic taste.

Both teachers and parents know how difficult it is to make up for opportunities not utilised for intellectual development during the first few years at school. Natalia Sats knows it, too. With her many years of experience, she is convinced of the possibility and the need for using drama, opera and variety shows for the aesthetic education of children.

It is difficult to be the first to do anything in history, especially on such a scale. It is difficult, but possible, if you have faith in your cause, if you experience the happiness of reaching the heights, if you never rest on your laurels. Real teachers and artists are always of this kind, and the life and work of Natalia Sats is corroborative evidence of that statement.

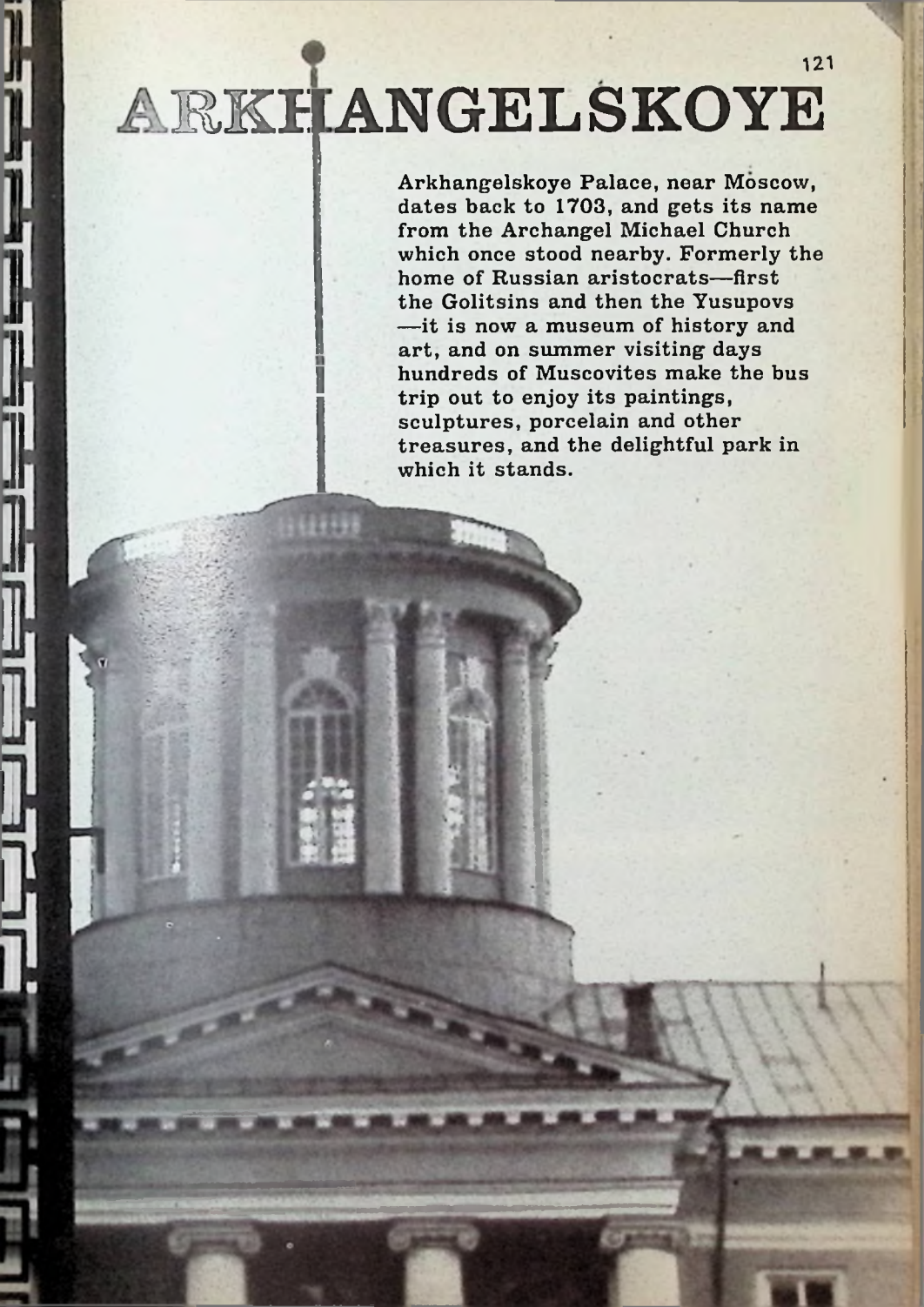
There is nothing surprising in the fact that at the International Children's Theatre Festival in Berlin she was dubbed "Mother of the Children's Theatre".

Soldiers' Chorus—but not from Faust. This indisciplined crew is from "Three Fat Men".



ARKHANGELSKOYE

Arkhangelskoye Palace, near Moscow, dates back to 1703, and gets its name from the Archangel Michael Church which once stood nearby. Formerly the home of Russian aristocrats—first the Golitsins and then the Yusupovs—it is now a museum of history and art, and on summer visiting days hundreds of Muscovites make the bus trip out to enjoy its paintings, sculptures, porcelain and other treasures, and the delightful park in which it stands.



Left: The south façade of Arkhangelskoye Palace.

Bottom left: Graceful colonnade added in 1910-1914.

Below: The Rose Fountain Pavilion in the grounds.

Bottom: View to the south across the Moskva River.

Above: Portrait of Zinaida Yusupova, mother of Felix Yusupov, who took part in Rasputin's murder.

Left: Enfilade of five salons leading to French windows which open into the grounds, as seen from the music room.

Corner of the master bedroom, designed for the reception of guests during morning toilet. It was, in fact, never used, but was simply kept as a reminder that the Yusupovs were not so far in rank below the Czar's family.

Central oval salon with lavish decor, used for receptions, balls and concerts. Pairs of columns of imitation yellow marble support the cornice, and classical sculpture of Eros and Psyche stand by the main entrance doors.

WE WENT FORTH INTO THE NIGHT

by Valentin YERASHOV

from the newspaper
LITERATURNAYA ROSSIYA

In 1958 Valentin Yerashov, then 30, wrote his first book about the war, *My Comrades-in-Arms*. Through all his subsequent stories has run the theme of man and war.

"In my village a memorial has been erected to those who fell in the war. One of the names inscribed on it is that of Ivan Moryakov, a member of the Komsomol, who was one of your school friends..."

From a letter written by Nina Bogomolova, a 12-year-old schoolgirl.

WE WENT FORTH INTO THE NIGHT

We stood there, shifting from one foot to the other, by the sagging stove flue, the dry dust tickling our nostrils.

His thick, insolent lips loomed before my eyes—revolting lips, capable of spewing forth monstrosities, disgusting words, and I was itching to smash my fist into them. In imagination I had been doing so for the past few hours, and now I had called him into the attic while the others were cleaning their rifles. He knew why I'd done it, and stood there with his hands in his pockets—healthy-looking, broad-shouldered—and he waited for me to hit him. Then he would knock me down and roughhouse me so that I couldn't leave the attic.

"So the knightly joust is postponed, the duel won't take place today," he sneered, looking at me as if I were a mangy cat.

I took a step forward and gave him a smack on the face with the flat of my hand.

He went dead white, and lips and eyes became thin lines across his face. He clenched his fists and his tunic was strained to the limit across his tensed back. But I felt no fear and, realising it, he did not strike out.

(Perhaps at that very moment, somewhere in Stuttgart, or Düsseldorf or Königsberg, someone was putting the finishing touches to the shell that was to snatch his life away three months later on April 4, 1943, in the Kuban.)

Had I known that he was to die so soon, if we could see what was going to happen in the future to those we offend, and who offend us, how we would value and cherish them, how considerate, concerned and tender would our feelings towards them be, how much we should be able to forgive. . . .

But I should have hit him all the same, I couldn't help it. I had to do it, I couldn't *not* do it, for he had done such a disgusting, revolting thing. I could think of nothing worse.

His fists once again relaxed into hands, his face regained its colour.

"O.K.," he said.

He turned woodenly and walked away, scuffing up the dust with his heel. At the door he turned and flung back over his shoulder: "I love her, too—get that? So we'll see. We'll take another look at things, Yevdokimov."

He had always called me by my first name, he had been my friend and I had called him Ilya. His surname was Shuryakov. Her name was Galya, Galya Dvurechinskaya.

★ ★ ★

In August 1942, Ilya and I were sent to the evacuated infantry school. According to Army regulations no one was supposed to do Army service

in their home town, but this was not the only rule the war overturned.

But the most astonishing circumstance was that the First Battalion was stationed in the school—it was as if we had never left it. The only thing was that we had exchanged our open-necked shirts (at the time they were known as "Byrons") and our wide baggy trousers for cotton tunics, red American ("Second Front") boots with horse-shoes on the bottom, as though we were trotters, and baggy trousers confined in Soviet-made puttees. With these puttees wrapped round them, our legs looked scraggier and longer. The only changes were that the head's room was now the Battalion office, our old classroom was where we slept, and the former workshop was the arsenal, and so on. There, with our former classmates, it was so easy to slip into calling everything by its old name, and even the Battalion Commander got addressed as "headmaster".

Every morning—between physical jerks and breakfast—our mothers turned up. They weren't allowed in the playground, and they crowded against the wall. Along it on the inside we placed bits of tree stump, little edifices of bricks, and however much the officers railed, they couldn't manage to stop it.

Our heads would poke up above the stones of the old wall, and our mothers would try not to cry as they handed over jars and packets of food, whatever they could manage, and we would take them, feeling embarrassed, and sorry for our mothers. The guard at the gate was outraged at the incompatibility of these meetings with regulations and he would turn away, trying to look as if he noticed neither the many-voiced crowd of women nor our heads protruding over the wall.

Ilya Shuryakov and I had made friends back in the eighth class, and the other kids had even coined a new surname for us two inseparables from our two separate names—we were known as the Shuryakimovs (my name being Yevdokimov). We went everywhere together and now, on military service, they used to detail us to do all our fatigues together—peeling potatoes, cleaning out the latrines, etc. And we made Galya's acquaintance together, too.

It was a Saturday, the day when they were getting ready for the really big market day. We were sent off for makhorka, a strong tobacco substitute grown by the peasants. We military cadets had a very tiny tobacco ration and weren't really expected to smoke. At the dairy stalls we had a glass of bluish milk and a potato cake each, picking out the cheapest things we could find. After that we went off to the second-hand clothes section, just for the fun of it.

That was where we saw this girl.

Rather, it was I who saw her first, and I noticed her eyes.

I couldn't make out what colour they were, and I didn't notice their shape or size. I was seeing something else. They were hungry eyes, hungry as a dog's, and they were scared eyes, too, it seemed to me, although after a second or so I realised it was

not fear but shame that I read in them.

Then I caught sight of something pink in her lap. I didn't realise immediately what it was, but I guessed straightaway that it was something she couldn't flaunt, that it was of a rather intimate nature. And I still don't know how I came to feel that.

The girl also noticed us. She tucked her feet in their wooden-soled boots beneath her, smoothed down her dress, fluttered her eyelashes and made as if to hide the pink whatever-it-was on her lap. But in an instant she had changed her mind, and ostentatiously spread it out, smoothing it with a bold and desperate air.

The pink thing was a pair of lace-trimmed silk panties. The girl did her best to assume a bold, determined, contemptuous expression —and she succeeded.

("The most terrible thing about it," Galya said later on, when we were already at the stage of talking freely about everything under the sun, "was the hole. I'd burnt a little hole in the side with the iron, and forgotten to mend it, and somehow that was the most shameful thing of all.")

An old woman, tall, angular, skinny—visible only in profile—came towards the girl, stomping along through the dust rather like a clockwork doll.

"How much do you want for them?" she croaked.

"A hundred roubles," the girl said with intentional loudness, and the old woman poked a bony finger into the pink silk, looked the panties over and drew the girl behind a shed—she wanted to try them on.

"Let's do something," said Ilya.

"Let's. But how?" I replied.

"We'll think up something. But we'll have to act quickly."

We'd trained ourselves a long time back to act without wasting words. Ilya commanded in the stentorian voice of a militiaman: "Commandant's patrol. Come with us!"

The skinny old crone looked towards us and vanished like the Invisible Man, and the girl said in a hopeless, defiant voice: "If you insist."

Off we went. She was in the middle, her wooden soles clacking like castanets. People all round stared, someone sighed heavily and a voice said loudly, "Look, the soldiers have caught a thief!"

The makhorka fund—for the whole unit—consisted of 180 roubles. The lads would be furious when we got back empty-handed, but we knew where we were going and what for.

The really marvellous food was sold by people from across the River Kama, who still had something in reserve. On the counters were all kinds of bread—loaves made from fine, pure white flour, wholemeal bread, loaves from the very best wheat flour—something for all tastes and enough for everybody.

They were selling little round flat cakes, without flavour and tasting rather like cardboard, made of flour, salt and water and cooked on an ungreased frying pan; there were potato cakes with dried peas in the

hollow in the centre, quivering rounds of a jelly-like substance made from dried peas. And bluish-grey oatmeal "blancmange" covered with a wrinkled skin that looked like milk, although there was no milk in the concoction, and boiled potatoes, and mauve onions, loose or tied in garlands. . . .

It was a typical market of a small town in the rear, where there was still food available, but at a price that scared off most people.

Ilya picked out some food with the careful calculation of the countryman—it was the most filling there was. He picked out two fried meat pies and, from the neighbouring stall, a half-pint jar of cream baked country-style, so that it was topped with a wonderful layer of frothy brown skin. It didn't need a genius to work out what we were up to, and the girl moved back. Ilya called to her, "Where are you going? Hey, come here!"

"I won't," she said. "What do you think I am, a beggar?"

"And what are we—philanthropists?" I countered. "It's unity of the Army and the People. That's all."

"If that's it . . ." she said slowly, and began to laugh in earnest.

"The boys'll kick our teeth in over that makhorka!"

"You're dead right. So let's take some more bread. You see how famished she is? We're still good for half a loaf, the cheaper kind."

We bought it. It was soggy, sticky, with bits of chaff and whiskers from the ears of grain in it, and the crust was coming off. I kept glancing at the girl in case she started to run off.

"What are you doing?" she exclaimed as Ilya held out a crust to her. "I can't take it."

"One of our rich relatives died in the land of our Allies, the USA," I explained.

"Millionaire from the Morgan family," Ilya boasted.

"Dupont," I corrected. "And they left my cousin and me a colossal fortune."

"We handed it over to the Defence Fund," Ilya added. "But the old man left a bit for a funeral feast, so today we're coddling ourselves. A bit of bread—it's nothing! We could buy up the whole market!"

"Boys!" she said. "Boys, you're so. . . ." She stood on tip-toe and kissed Ilya on the chin. She couldn't reach any higher. For some reason I didn't come in for anything.

("Because I liked you more. Or, rather, I immediately felt a special feeling for you . . . you understand? But he was just a comrade.")

She went off, her wooden soles clacking. Suddenly we came to with a jerk. We hadn't found out what her name was or where she lived.

"And why should we, really?" I pondered aloud. "We can't very well go and see her. It'd look as if we were expecting some mark of gratitude."

"True," said Ilya. "Well, back to the school. We'll get it in the neck, now."

There probably wouldn't have been any dire consequences really, but we just didn't want to explain everything. So we went back to an

old man we knew and got some makhorka on credit from him.

We shared the makhorka out equally, but on the quiet we gave a bit extra to Cadet Struzhakov. He had been our maths teacher. The war had stood everything on its head: we were serving in the same unit, we were all "comrade" to each other, but we simply did not know how to conduct ourselves with Struzhakov. As far as we could we used the respectful form of address instead of the first names that were general currency, and we tried to show the same respect for him as before.

He turned out to be quite unsuited to Army life, and everything seemed to slip out of his hands, and Ilya and I helped him: we would take his turn at washing the floor, peel potatoes for him; but, for instance, it wasn't possible to do his target practice for him, to march in step for him, and we felt terrible as we saw our teacher suffering so.

Five days after the episode in the market I was sent on an errand to H.Q. I didn't like walking through my home town on my own—I was self-conscious about my puttees and the greasy edges of my forage cap. If you were with someone else you felt that you weren't quite such a centre of attention. And would you believe it, just outside the school I ran into the girl!

I sang out the first syllable of a greeting, then pulled up sharp. I didn't know whether to use the respectful ending or the more intimate friendly one, as we had quite naturally in the market that day. But then she'd been so wretched and hungry, she'd been like a child, and now, in her red print dress with black spots and proper shoes—not sling-back, wooden-soled monstrosities—she looked taller and more grown-up.

"This is where I live," she said. "Just here."

She pointed to the corner house, diagonally opposite the school. . . .

☆ ☆ ☆

We were going out together for three-and-a-half months, but I didn't go to her home once. Galya explained that she couldn't invite me in, for it was a horrible, pitiful room where these refugees sheltered.

I went there 20 years later.

It was a light night, and the sky seemed infinitely high. The front and side windows were dark. Only one at the back was lit up, and where the wide yellow shaft of light fell the grass seemed to be steaming coldly.

Further back was a vegetable garden surrounded by a fence made of planks of varying lengths so that the irregular top had the contours of a cardiogram. Beneath some large, spreading bushes a table had been set up, its one leg embedded in the ground, and it was surrounded by benches. To the porch led a path paved with bits of brick, between which blades of grass pushed their way.

Behind, in the shed, I could hear a cow breathing and shifting about, pigs were snoring, and there were faint sounds of chickens. Water

gleamed mirrorlike in the trough by the well, which had an odd-looking wheel, something like one on board ship, with handles protruding all round. Ranged up by the trough were water cans, buckets and milking pails.

You lived here once, Galya. You read under the lilacs, your bare legs tucked beneath you, while a persistent bee buzzed overhead. Here you drew water from the well, turning the wheel with unaccustomed hands; here you carried heavy, splashing buckets. Your soft bare feet trod this rough brick path, you washed your linen in this trough. You helped the housewife to cultivate the vegetables, and ate crisp carrots earned by the sweat of your brow, rinsing them in the rainwater barrel.

You stood by this trough saying Goodbye to me, then stood listening as my footsteps died away with little creaking sounds on the dry frozen snow. Then you shivered, ran into the house, opening the inside bolt with a sliver of wood, groped your way through the ante-room in the dark, and in a flash were undressed and under the ragged blanket, thinking of me as you fell smilingly asleep.

In the mornings you would chop firewood, and light the stove, heating a saucepan of water to make soup out of practically nothing. You would scour the blackened pots and pans and cope with all the unfamiliar knobs and levers of the stove. You pared pine chips for the samovar.

You just couldn't get used to that kind, calm cow; she seemed so fearsome to you, as if ready to catch you on her horns if you didn't watch out.

You lived right here, Galya, and I was able to walk into the house where walls, ceiling, windows and stove, probably furniture, too, held memories of you. Your hands touched all this, you breathed this air, here you sang for joy, here you grieved, here you scrubbed the floor, and . . . in short, here you lived.

★ ★ ★

. . . We stood there, unable think of anything to say. My idio boots seemed so conspicuous, though they had a life of their own with my puttee-swathed legs growing out of them. I took off my forage cap after making sure the commander wasn't about.

"What terrible heat!" I said.

"Yes, no-one would think it was September."

The conversation became quite meaningful after that.

"My name's Galya," she said. "Galina Dvurechinskaya."

"I'm Pavel," I announced with a foolish air, like a child. Then I muttered, "I'll have to be getting along. You know. . . ."

"I know," she carried on for me. "See you on Saturday at the dance. I'll definitely be there."

That was my Galya.

"Do you realise?" I asked Ilya, "she'll be at the dance on Saturday? We'll have to dodge fatigues at any cost."

We didn't have any fatigues to dodge, it turned out, and we even managed to borrow high leather

boots from the sergeants, so our appearance left nothing to complain of.

The autumn drizzles hadn't started, and it had not begun to get cold at night. As we walked home from the dance the roofs were shining silver in the moonlight, the grass shimmered white by the fence, and the little house cast a sharply etched shadow.

After our own boots the sergeants' top boots were comparatively light and close-fitting. Galya's shoes had low heels and rubber soles, and she walked almost noiselessly this time. And I felt so sorry that we had only four blocks to go to her home.

We stood by the gate, Ilya chattering some nonsense, Galya laughing, and I silent. We stayed like that for a long time, and it came to me that this was what I had been waiting for, this is how it turned out to be. This was love, not at all like the descriptions in the books, not in the least like anything else in the whole wide world.

★ ★ ★

In the autumn the town was a terrible mess. Great puddles spread over the cobblestones of the two main streets, and the other streets looked like quaysides washed by the Spring spate; the roadways were covered with a thick slimy liquid, and people kept meticulously to the sides, hugging the fences, hanging on to anything that afforded a handhold.

We waded boldly through the mud, and although our footcloths did not dry during the night, it was nothing to our young blood and we did not even catch cold.

Each morning we marched out of the gates, and I knew that Galya was standing on the corner. We felt like real heroes in our sandy-coloured tunics and with training rifles, and gas masks in canvas cases, and the everlasting infantryman's spade jabbing us in the hips. It was only those damned puttees that poisoned our mood, especially when the small boys ran after us shouting, "The tyre's gone flat, soldier!"—and that meant that the puttees of one of us had come undone.

At the firing range we settled ourselves on the dank straw—some clayey mud oozed out from beneath that, too, smelling of dung and vegetable plots—and aimed at the target in turn. The small boys waited, wrinkling up their noses, until we had finished. Then, after dark, they would go rummaging about to find the cartridges, for any self-respecting youngster went about the town with his pockets clinking.

We studied the BUP-42, the military regulations for infantry, which had only recently come out, and we rejoiced to think we were entrusted with a secret document and, furthermore, that we were studying it inside, in the warm.

We cleaned floors—and the hardest of all to clean was the former school workshop, which had rough, unplaned boards stained with paraffin and all sorts of things, so that the water rolled about in dusty, greasy little balls, and dirt remained between the boards whatever you did.

We published a wall newspaper and "military leaflets", we polished buttons, sewed on collars, formed ourselves up for inspection, rehearsed for amateur talent concerts—in short, we learnt to be soldiers, and it was surprising and strange to be in our own school and feel that we were both pupils and cadets, both boys and men, both local folk and strangers at the same time.

☆ ☆ ★

When I went back last year I visited the school, of course. I walked in through the back door. By a piece of luck lessons were in progress and I met no-one.

On the landing I saw a display in a showcase.

"Eternal Glory to the Heroes Who Fell in Battle for the Freedom and Independence of our Native Land!"

That was the heading.

The photographs were of various types. Some taken at school, some at the front, casual snaps and formal portraits. Familiar faces, my former comrades in the Komsomol, looked out at me—shock-headed, with fringes and haircuts in pre-war styles, with and without partings. Turn-down collars, coloured cowboy shirts, square-shouldered jackets, military tunics, tankmen's helmets, jauntily tilted officers' caps.

"Revolutionaries from the age of 14", we had styled ourselves. Some wore wound stripes, and the majority sported orders and medals. I recognised them all, without reading the names underneath. Ilya Shuryakov was there, of course—we had had our photographs taken the day we got our officers' shoulder tabs. Ilya stood there looking pompous, his jaw thrust out and his eyes narrowed in a way that had once seemed amusing to me.

I would never get used to the injustice of it, would never be able to reconcile myself to the monstrous thought that they would never again be among the living. We were not the guilty ones, we had hidden behind no-one's backs, but we were alive, and they were not and never would be. For them the sun would not shine, wives would not smile, for them no morning dew, no nocturnal embrace; never would they know what we who remained had known during those past 25 years. There is nothing more terrible than to know that you had friends on this earth, and they left it before you did.

Someone hooted in an elderly female bass behind me.

"Who's hanging about here? Off with you, quickly now!"

I turned round and immediately heard her say: "Ah, so it's you, featherbrained Pavel Yevdokimov!"

"And what's so special about that, Auntie Nyusha!" I asked, and flung my arms round her—her head just about came to the middle of my chest.

"My! How you've grown!" Auntie Nyusha said, not knowing whether to laugh or cry.

As I was leaving I bumped into the headmistress. Auntie Nyusha had given me away. I didn't know her,

and I had to exchange a few polite words with her. But when she mentioned that there was to be a gathering at the school that evening I was sincerely glad. She asked me to speak to the senior pupils, as an old boy, as one who had served at the front. . . . "You know," she said.

She gave me careful instructions, for she was very definite that my speech should be in conformity with her pedagogical aims, should be dignified and educational.

As dusk fell I returned to the school, to the half-dark hall. There was a piano there, the very same one—I recognised it by the scratches. The wall newspaper was in its accustomed place, and the plywood rostrum looked like the one from which I had made many speeches at Komsomol meetings.

The youngsters glanced at me in curiosity—evidently it was hard to imagine that this elderly man with the grey hair had ever sat in the classrooms where they now had their lessons, had even had some of the same teachers, had been at festivities in this very hall, had rejoiced to get the maximum marks, and had sometimes got the minimum.

They no doubt thought I was cooking up a speech on the importance of studying and observing discipline; on how, disregarding all the hazards of war, we had all studied and prepared to become heroes. And I stood silently behind the plywood rostrum, looking into the far corner. There sat a girl, with short hair and a knitted cardigan over her shoulders, her eyes shining. I smiled at her and began to talk, and what I said wasn't a bit the way the headmistress wanted it or what those youngsters, conditioned to pedagogical talks, expected to hear.

I told them how we had cut classes, had got up to all manner of tricks, had fallen in love, gone to dances and celebrated all sorts of festive occasions. New Year, for instance.

And I longed to tell the girl in the cardigan, "There, where you're sitting, my Galya sat once. It was the only time they allowed us to have a 'do' at the cadets' training school and to invite civilians. It was to celebrate our passing out. Galya sat there, smiling, and looking so beautiful. Galya was like you—everyone is beautiful in youth—and I danced with Galya for a long, long time."

But I didn't say that aloud. If I had, they would hardly have understood what I was talking about, those happy youngsters. To the young it always seems as though what happens to them happens for the first time in the history of mankind. Instead I spoke about something else—yet it amounted to the same thing. I saw the headmistress and the teachers frowning.

When the speechifying was over and the dust-sheet was taken off the piano, I went over to the girl in the cardigan and asked her to dance. We circled around the low-ceilinged hall, and it was sad and joyful at the same time—as if she were Galya.

I suddenly discerned something familiar about the girl's features, and I asked her name.

"Tamara Kubangalina."

"Wasn't your mother's name Tamara, too? We used to share a desk. Perhaps it's still there. How is your mother?"

"Would you like to come to the classroom and have a look? Do you remember which desk it was? Mother's fine, thank you."

"No, I won't bother to go and look," I replied. "Why? I'll never be that boy again, and you'll grow up and one day you'll come here and dance with the son of one of your friends. . . . I beg your pardon for talking like this."

"Why ever. . . . ? Why should you beg my pardon?" She didn't understand.

☆ ☆ ★

. . . . In those days life had carried on, and along with the accustomed everyday things there'd been Galya.

Ilya and I began to be given passes out at different times, and we were put on separate jobs, which meant that we went about the town one by one. I was torn between home and Galya. My mother probably realised what was happening and didn't take offence when I stayed at home for no more than half-an-hour.

Thinking of those partings at the gate, I always remember Galya in an old dress made of some dark material, a threadbare coat and old, cracked boots. I would carry Galya through the mud and implore Fate to let the puddles occur more frequently. She was so small and light, my Galya. . . .

★ ★ ★

It was 1946. Our troop train was held up on the outskirts of the town and they told us we wouldn't get going until next morning. So Major Yevdokimov jumped on to an electric train and sped into the town. Anything that concerned Galya I knew intuitively—perhaps it was telepathy. I did not knock at her door, but went straight on past.

Farther on there was a garden near the Yelokhovsky Church, quite a wretched, dusty place then, with paths of crushed brick and benches peeling since winter. At the entrance stood an old woman selling lilac with heavy, velvety flowers. I bought a spray and walked along the left-hand path, trying to go slowly.

I came up to Galya from behind, put my hand on her shoulder, sloping, alive under her thin jumper. Without turning round, she rubbed her cheek against my hand, sighed, and said "Pavel. . . ."

"How did you know it was me?" I asked.

"As if I wouldn't!"

Outside the town, there was a clearing in a wood surrounded on all sides by maples, above which there drifted a yellowish haze. Before the maples stood a louring elm with aged bark. Galya stroked it, saying "Trees are living things; they can know joy and pain, bitterness and gaiety; they can love and hate, grieve and rejoice. Like ourselves."

Her eyes grew dark and her voice became quiet. "They understand

everything. So let it be that way. Take me in your arms. . . ."

That was in 1946.

★ ★ ★

Ilya usually came back from an evening off in a surly frame of mind and earlier than he need have done. He would head for the kitchen—not as some did to scrounge some food from the cook, but to get an axe. Then he would go out and chop up tree stumps lying about the yard, and the chips went flying right and left like missiles. Ilya had stopped talking about his private affairs a long time ago, and I didn't question him.

It grew cold and an epidemic of flu broke out in the town. We were quarantined, and there was no leave, no dances and no trips to the market. The windows were pasted up for the winter, and when Galya came every afternoon during our free hour we conversed through the glass, explaining in dumbshow until I had the bright idea of writing messages on a newspaper, using a tube of paper dipped in ink.

I got the idea from Leo Tolstoy, but either Galya was less ingenuous than Kitty in his *Anna Karenina,* and probably I was far from being Levin, or there wasn't quite the same spiritual affinity between us as between those two. Whatever it was, first letters alone weren't enough for us.

Once, I forgot to tear up these "notes" and some so-and-so posted them up so that three infantry companies were entertained by them. I laughed as much as anybody—I had that much sense, otherwise I'd have become the butt of ridicule. I thought to myself: Thank goodness I didn't write "I love you", although I had intended to.

Once, before "Lights Out", the duty orderly roared "Cadet Yevdokimov wanted at the entrance!" Such a summons did not usually promise any good, and I jumped smartly to it—to find that there was a phone call for me. I grabbed the receiver the wrong way up and heard Galya's voice coming out somewhere near my mouth. She was on duty at the district committee of the Komsomol.

The duty orderly pricked up his ears, and I couldn't say much in front of him. But he was suddenly called to the quartermaster sergeant and, whispering quickly to me to wait there till he came back, he disappeared. I was there alone, so I said, also in a quick whisper "Galya, listen, I love you. . . ." The phone went dead, there was no crackling, no rustling, even, from Galya's breathing.

The quarantine was lifted at the beginning of December and the first thing Galya said to me when we met was, for some reason "Look what lovely felt boots Mother's given me!"

Of the words I had spoken over the telephone she said nothing, and nor did I. There was no need to. Everything was quite clear.

The town went to bed early, and we used to wander through the deserted streets. The well-travelled road shone, sometimes a low whispering wind trailed across it, snowflakes

whirled against the fence and lay down to rest there, sometimes reddish smoke hovered above the chimneys, the wind whistled, and Galya's lips were ice-cold, tight-shut and unmoving.

"Silly thing, I simply didn't know how to kiss, that was all. And I was afraid someone would see us."

Then came the New Year. 'Forty-three, that was. The only one in my life I saw in with Galya.

I had earned a pass-out through honest and not very pleasant toil. A week before the New Year I found that I was down for duty on New Year's Eve—but then a way out presented itself. An elderly cadet (he was 32!), a rather fastidious, fussy man, was detailed to clean the lats. He kept moaning and groaning as he gathered himself for this heroic deed, and I offered to swap his fatigue for my New Year's duty. He thanked me profusely and gave me a real cigarette.

But cleaning out the lats wasn't enough to get me by, and I spent five days buttering up the sergeant, copying out lots of schedules, rewriting masses of lists, calculations and all kinds of forms, and my efforts were not in vain. The sergeant promised me not only his high boots, but officers' riding breeches and a practically unworn woollen tunic, also officers' issue.

They let us off late, after we had finished clearing up, and I had to tear half across the town. We had agreed to meet at Asya Libman's—she was Galya's friend, and her family had a room with a dark tiny cubicle in a stone semi-basement. Her parents were going out somewhere until morning.

Everyone knows what kind of New Year parties we had in those days. All the guests brought something to eat (thinly sliced bread, mauvish vinaigrette salad made of potatoes, beetroot and onions, grated radish without dressing, home-brew made purple with blackcurrant).

Someone would bring a gramophone and records, and the one needle would be sharpened on a brick. Of course there were songs and the festive bottle in the centre the floor (it would be spun, and y had to kiss whoever it pointed to).

People discussed the latest w communiqué, letters received from the front, friends who had been wounded, and our imminent departure.

We were gay and hungry, and there was enough vodka—putrid, sickening stuff—and enough food for us semi-starved souls—we didn't think of food in those days. . . . And our words were as pure as our thoughts.

And thousands of miles away the war was howling, clattering, echoing, drenched in blood, and somewhere in Cologne, Stuttgart, Hamburg or Düsseldorf they were putting the finishing touches to the bullets that would soon be coming our way.

★ ★ ★

In 28 days the alarm was sounded, and we 954 lieutenants formed up in the yard prior to marching to the

station and entraining. But while the second and third battalions were catching up with us from other buildings, I jumped over the wall, disappeared round the corner and drummed fiercely on the window. Immediately Galya came out to meet me—wearing a coat thrown hastily over her nightdress, and short felt boots on her otherwise bare feet.

I flung open my trench coat and pulled it round Galya. And then I began to kiss her, to kiss her on the cheeks, the lips, the eyes, the hair, on the palms of her hands, saying all the time, "Go indoors, you'll catch cold," yet holding her so tight that she couldn't go. From Galya came a familiar feminine fragrance, and someone called from the corner 'Yevdokimov, into ranks!'"

I turned away from Galya's living, sirable warmth and went forth into e night. The last thing I said to Galya was, "Go indoors, you'll catch cold."

★ ★ ★

The clock registered half-past three.

"You and Galya stay here," said Asya. "After all, you're going soon, Pavel."

She was about two years older than Galya, and she knew what she was about. I felt neither shame nor shyness in front of her. She was right, soon Galya and I would have to part. . . .

We opened the door of the cubicle to let the warm air in. It contained a divan with one leg shorter than the others. I went in and undressed, and in a moment lay beneath the padded quilt with its unfamiliar smell. Then came Galya, shutting the door firmly so that the room was filled with silent, impenetrable gloom. I felt for Galya and said in a whisper, "Come here."

"Turn round," she whispered back, and obediently, although everything was pitch black, I did so. Behind me I heard a rustling, and something fell softly. I lay with my face to the wall and I knew that an unprecedented, unheard-of miracle was taking place in the world that night. . . .

☆ ☆ ☆

I tore into the school in the morning while the town was still sleeping, and we made hasty preparations to go off to the firing range. Our programme was being telescoped, the needs of the front were hurrying us on. And never again did Galya and I stay under the same roof. After that there were only the snowstorms, only the smoothly worn front-line roads, snowdrifts, yellow strips of fire, and the moon, pockmarked, indifferent to everything on earth, and the cold of frozen kisses, and Galya's sorrowful eyes. . . .

I got to the school a minute before parade, and at the range Ilya Shuryakov said mockingly, "Well, how did it go? Did you share that —'s bed?"

I looked at him. Had he suddenly gone off his head? He smirked in my face and said it again, using that

monstrous, disgusting word of Galya, and right then we were summoned to the firing line. Later on, in the barracks, I dragged him up to the attic and hit him, and he said, "I love her, too—get that? So we'll see, Yevdokimov."

That was the end of my friendship with Ilya.

We got our commissions, were supplied with officers' uniforms and shoulder tabs, which had just been introduced. We wandered through the town, which was dazzled by our numbers, our fashionable appearance and our shoulder tabs. Small boys ran along shouting, "Officers, the officers are coming!" In the grove where I met Galya the birches looked grey in the snow, like aspens, and little paths had been trodden between the trees.

☆ ☆ ★

Last Spring I went there for the last time—yes, the very last time. There's nothing for me to do there, either now or in the future.

I went to my home town as one goes to the theatre or the cinema to take a look, perhaps to take a peek at a fragment of someone's life story. But everything I was going to see was my own life, and I opened the door to my youth with a heavy heart.

When I arrived it was night, and in the morning, after a night at the hotel, I set off for our grove.

On I went towards it, drawn either by memories or by instinct—I could not understand myself what I was searching for and what I should find in that thinning, ageing cluster of trees. Yet I understand that it was imperative that I go there and take a look.

It was bare and cold there. Between the old maples some young greening saplings had thrust their way, slender and supple whips. The birches were wrinkled, their heads were hanging and they were quite black at the base of their trunks. They had peeling, unhealthy bodies and their branches drooped. At their feet was a carpet of moss, seemingly velvety, but it was dry and prickly when you touched it.

Something living stirred in the grove and I went towards the sound. It was an old man in a fur cap and wadded jacket, and he was building up a mound of earth round a shaky birch tree.

Not far away a lime tree towered, one that had been struck by lightning. It was charred inside and half the top had been carried off, but on the branches left intact the buds were bursting.

I walked along, greeting the trees. I touched them and they quivered. I wanted to believe that they were living beings, as Galya had said, and that they were responding to me in a human way, and that they, like myself, wanted tenderness, goodness and happiness, which so rarely came.

Something gleamed in the last season's grass and I bent down and picked up a pocket watch, a bulky thing with cracked glass. It was the kind my father had presented to me when I finished the seventh form at school.

Nothing else happened at all—and what could, after all, have happened in that desolate grove, where tired trees were quietly living out their time and new ones thrusting skywards to take their places?

I knew that I would never come here again, or, if I could not restrain myself in my old age, I would only come when the pain of recollection had spent itself, when the suffering and longing were stilled, and echoes of the past would evoke nothing more than a wearying melancholy.

The next morning I left the town, at an hour when the world was hushed. It was good to live, it was sad to live—but one had to live.

★ ★ ★

We said goodbye in the wood—Galya and I, a lieutenant of 1943 vintage, we kissed beneath a birch as though we were quite alone. We were still teenagers, and we could not foresee what was in store for us. There was the Kuban ahead, and Jassi, Budapest and Lake Balaton; for many of us there would be long years of life, attacks, mines, the whine of shells, and orders and medals. Death awaited us, too, and for many it would be soon.

I saw Ilya Shuryakov in the distance. Frowning, he was coming towards us. Then he stopped and stood there, a hulk of a lad, with a gloomy expression, a square chin covered with a growth of bluish stubble, and almost colourless eyelashes.

He looked at Galya as if I were not there. Galya asked quietly, "Ilya, what's the matter?"

"I love you," he said distinctly. "And I'll come back, and then we'll see. You hear? They won't kill me off!"

"Oh, Ilya, of course you'll come back," she said, and she stood on tip toe, as at the market that time, and kissed him on his blue, square chin.

He said bluntly, "I shall never die."

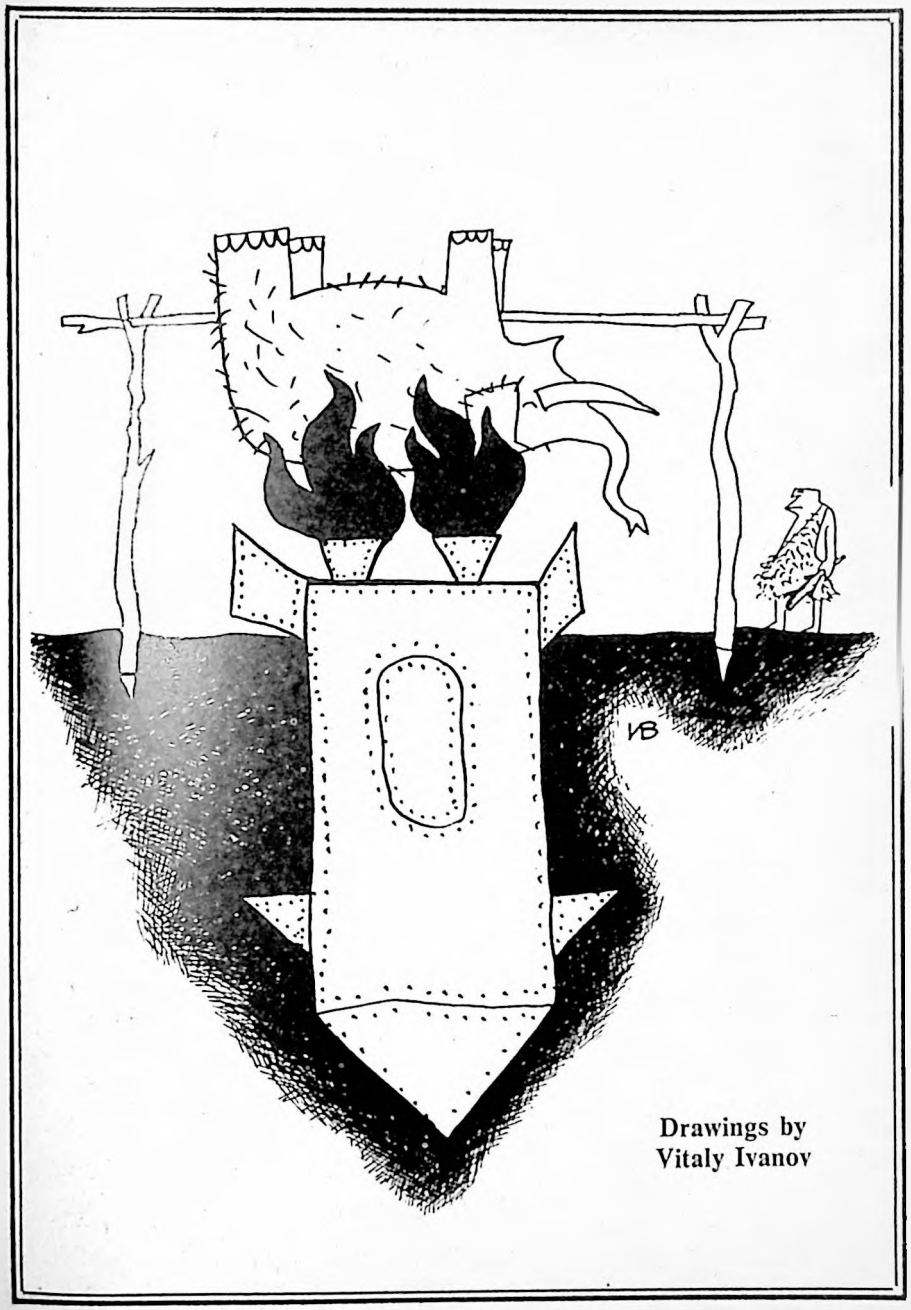
☆ ☆ ☆

In fact he had just 67 days to live, until Sunday, April 4, when a shell exploded right by him on the tortured bank of the Kuban. They found a leg blown off below the knee, and they identified him by the heel-tap hammered on to the boot by his own hand. They buried his remains with the others in a common grave.

☆ ☆ ☆

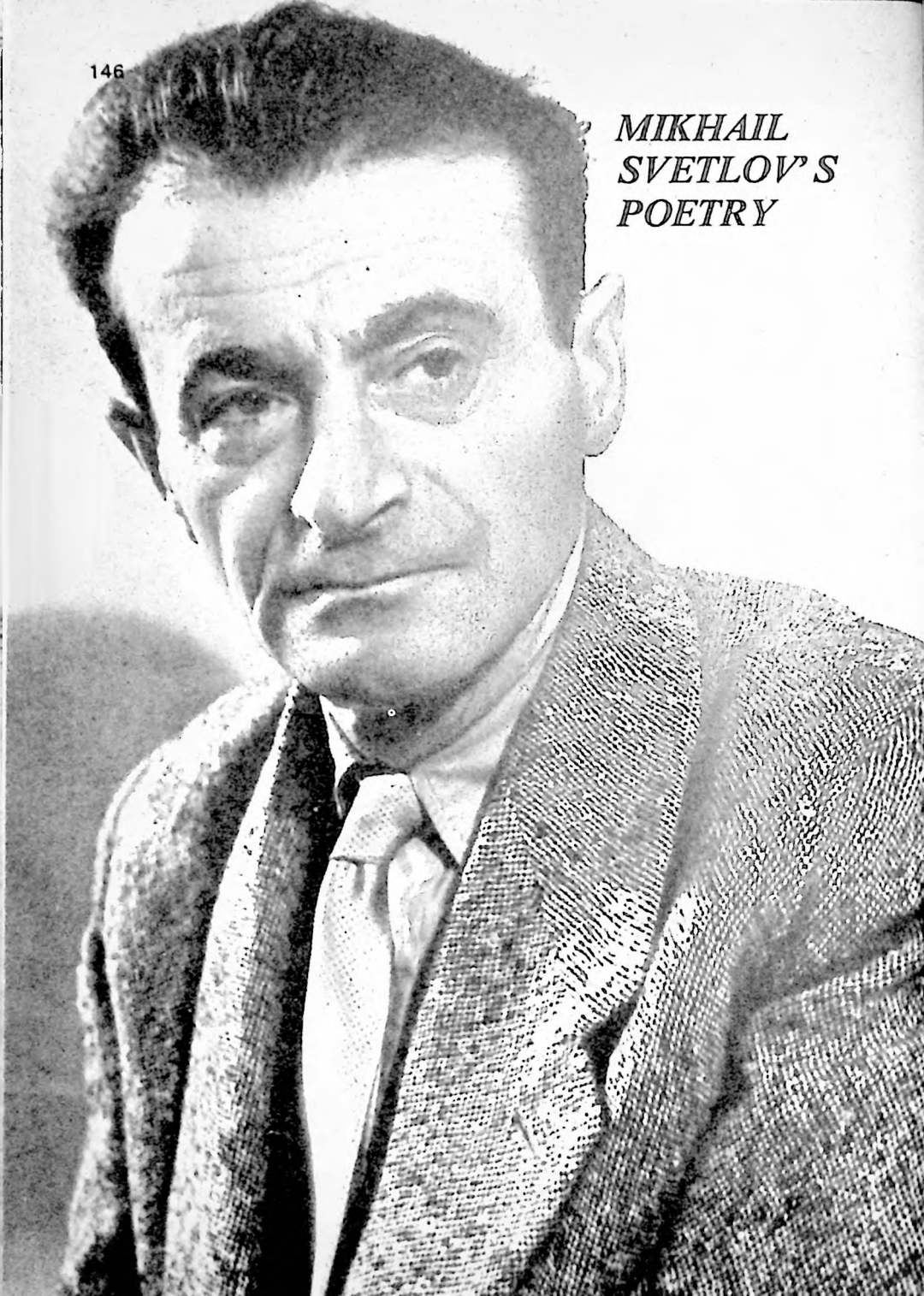
Galya and I parted in the grove, which was ravaged by cold. In 24 hours the signal was given to leave and we went forth into the night, 18-year-old lieutenants, lads born in the mid-twenties. We went forth into the night. How many of us are alive today? Very few—we went right into the holocaust, but we stood firm. . . .

Galya is no more. She, too, went to the front after we left, and returned in 1945 with a bullet in her chest and a damaged lung. In two years the war carried her off, just as it is still carrying us off today—grey-haired boys and girls born in the 'twenties.



Drawings by
Vitaly Ivanov

MIKHAIL SVETLOV'S POETRY



Mikhail Svetlov was born in Yekaterinoslav (now Dnepropetrovsk), in the Ukraine, in the family of a craftsman.

When the Socialist Revolution reached his home town, Svetlov, who was only 14 years old, joined the Red Army and later fought in the Civil War.

He began to write in 1919. Since then his works have been published in 46 collections in a total of 1,278,000 copies.

GRANADA

We charged the enemy,
Camped on the heath,
The "Song of the Apple"
Caught in our teeth.
The rocks and the heather,
The new-mown hay,
Echo our song
To this very day.

But my pal sang another,
A song from afar,
As we sat in the saddle,
Pursuing our star.
He gazed about him,
Alone, alone!
"Granada, Granada,
Granada, my own!"

He sang it with feeling,
This lad from Ukraine;
Now why should he feel
Such devotion to Spain?
Can Kiev or Kharkov
Evoke such a song?
Have Ukrainians been singing
In Spanish for long?
Elucidate, mate,
Is it not in this rye
The bones of Svevchenko,
The patriot, lie?

Why do you always
Sadly intone:
"Granada, Granada,
Granada, my own?"

The answer came slowly,
Shy was his look:
"It's this way: 'Granada'
I found in a book.
Somehow I liked it—
A damn pretty name—
In Spain there's a province
Called by the same.
I went off to fight
With a gun and a pack
So the poor in Granada
Could get their land back.
Farewell to my family!
Farewell to my home!
Granada, Granada,
Granada, my own!"

We rode and we studied,
We mastered at once
The syntax of battle,
The grammar of guns.
The sun rose above us,
Descended again,
Our horses grew weary
Of crossing the plain.

"The Song of the Apple"
Adapted its rhymes
To the rhythm of riding,
The woe of the times.
But your song, mate?
Listen!—A moan?
"Granada, Granada,
Granada, my own."

There he lay wounded,
Prone on the ground,
The first of our men
That a bullet found.
Full on his face
Fell the light of a star,
His soundless lips:
"Granada . . . Grana . . ."
Now he is one
Of the shadowy throng
In the Vale of Mist,
Where he sings his song.

We hardly noticed
The loss of a man;
"The Song of the Apple"
At daybreak began.
But softly, at nightfall,
The gentle rain
Mourned the Ukrainian
Slain for Spain

The song is forgotten,
The singer unknown:
"Granada, Granada,
Granada, my own."
New songs are borne
On the wind to the ear,
Making "Granada"
Harder to hear.
Harder and harder
As new ones are blown:
"Granada, Granada,
Granada, my own."

[*1926.*]

LOVE

Sometimes, while with avid youth discoursing,
In noisy street or quiet grove,
I sudden glimpse among a hundred faces,
The only face, the face of her I love.

. . . Believe me, darling, age sits not upon you.
No toll from you the seasons seem to take;
Along bright highways swains of two-and-twenty
Follow distracted in your gleaming wake.

Till oldest age, till death, I still will see you
Descending that hill with lithesome swing
Against a sky blossoming with sunset,
As Georgian orchards blossom in the Spring.

Day herself keeps jealous watch beside you,
Night has been banished to expanses bleak.
With bated breath I startle a winged insect
That dares to settle on your perfect cheek.

The javelins of too great agitation
Prod my valour to a second start;
Too late, alas! This frenzied circulation
Will burst the brittle chambers of my heart.

Dawn, like glad tidings long awaited,
Has come. Mystery hovers over all.
Take up your basket and we'll go a-marvelling,
As others go a-berrying in the Fall.

The woods will greet us in November,
The ancient oaks will smile and whisper low:
"Such love as this we scarce remember—
Perhaps those lovers . . . four score years ago . . ." *[1958.]*

A LEGEND

According to the legend, long ago
(Oh, very long—a billion years or so!)
Thunder was just a little country boy,
Lightning—a girl whom he delighted to annoy.

And who should know today or when or why
Thunder and Lightning mated in the sky
If Science (honour to her and glory)
Had not revealed to us the cosmic story.

As they grew up, a strange emotion played
Upon the heart-strings of the youth and maid:
He sighed and pined and she turned pale
(Love as we know it, but on a grander scale).

Gigantic were the beds of glacial glass,
Gigantic were the beasts that munched the grass.
And cavemen gathered round gigantic fires
To dine upon the meat of dinosaurs.

Gigantic were the hurricanes that blew,
Gigantic everything those people knew.
But oh! they never heard the cuckoo's song—
Such trifles to that age did not belong.

Cycles of time into oblivion sped,
But still the lovers waited to be wed,
Until a portent from the Sun should say
All was auspicious for their wedding day.

When this time came, ah, then was feast indeed!
The very rivers turned to ale and mead!
And guests innumerable their health did quaff
And drunken laugh and gorge on fatted calf.

Poor Thunder held himself in check, afraid
To startle others with the noise he made;
And Lightning, mindful of her dazzling power,
Shrank in the corner, like a wayside flower.

Until the guests cried out: "A kiss! A kiss!
"Here in our presence make a pledge of bliss!"
Then Thunder pressed his lips upon his bride's:
An awful din broke out upon all sides!
A storm, the first, had broken on the world,
Lightning flashed and Thunder bolts were hurled.

And so throughout the ages it has been:
Forever linked—the dazzle and the din.
So mind you, wife: if you do flash your eye,
Your husband's voice will thunder in reply!

THE NIGHT-SCHOOL FACTORY-GIRL

A taut tense tapping of drums
tears the mist from morning scenes:
Joan of Arc on her charger comes
to battle the Britons besieging Orleans.

Clinking goblets brimming with love
drown the strains of a minuet.
At Trianon the wig, the glove,
are donned in honour of Antoinette.

Dim electricity hung from a hook,
like an icon lamp in its gloomy corner . . .
A girl most dear conning a book,
the Maid's enthralled enraptured mourner.

Blaring trumpets, a tolling bell,
and the holy act is under way;
flames leap up from nethermost hell:
Joan of Arc is burning today.

The executioner is callous to shock
(the colour of blood is the same for all);
Marie Antoinette lays her head on the block,
the knife begins its fatal fall.

Night pursues receding stars
while you sit on. The battle you wage
is of lecture halls and seminars,
with victories blazoned on record-page.

Go now to bed and shut your eyes
and let your fancy freely roam;
see, the stars have left the skies,
have all climbed down, have all gone home.

The wind has pushed a crack in the door,
intruding upon your reveries;
it came last night and the night before,
hoping to read your memories.

On horse, in armoured cars, in ships,
our girls brought honour to their names,
and with a song upon their lips
braved the knife and embraced the flames.

THE POET WHO

by Iosif IGIN

Iosif Igin's friendly caricatures are widely known in the Soviet Union. Not long ago his book *People I Have Drawn* was published. It was dedicated to the memory of Mikhail Svetlov, the poet, with whom the author enjoyed a friendship of about 20 years. Reminiscences of the poet occupy a prominent place in the book.

The bell tolls forth in dismal waves,
the drum sounds sinister in the dark . . .
in each of all our common graves
there lies a Russian Joan of Arc.

Sleep comes beckoning, softly calling,
and you respond; you slumber sweet,
the folds of your faded gingham falling
over the chair with the sagging seat.

Translated from the Russian
by Margaret WETTLIN

LIKED A LAUGH

FROM THE AUTHOR

One day, in an attempt to tidy up my studio, I was collecting together a folder of my sketches. I have had the luck to draw many interesting people, and each sketch stood for a meeting, a friendly chat, memories.

While I was thus engaged, some of my friends dropped in. Mikhail Svetlov was among them.

I showed them the drawings.

"It would be interesting to know," he said, "the circumstances in which

you sketched Capablanca."*

I told him.

"And what about Kachalov?"

"And Yakhontov?"†

So I spent the whole evening telling the story of each of my sketches, and my friends sat and listened.

"You should write those stories down," one of my friends advised.

I argued that I had never done any writing. And supposing it didn't come off?

"It doesn't always come off with writers themselves," Svetlov objected.

He convinced me.

★ ★ ★

"I only look handsome in caricatures," joked Svetlov.

He said it at a plenary meeting of the Writers' Union. I was sitting sketching, and dozens of people were coming up to him.

For about 20 years I watched those streams of people who were always converging on Svetlov. Young, old, well-known, little-known. . . . They came to his house, approached him in the street, in the club, in the theatre.

Already a legend in his lifetime, he was astonishingly unassuming and approachable. He himself sought contact with people. Even when he was working. He would write a poem and immediately read it to somebody. If there was no one nearby, he would ring up one of his friends—sometimes even in the middle of the night.

Once when he woke me up like that I asked him, "Do you realise what time it is?"

"Friendship," he replied, "is a round-the-clock concept."

Sometimes when he met someone he would pull out a piece of paper and read a verse, and sometimes only a line.

"What do you think?" he would ask. "Seems to me there might be a poem in it."

We got used to it, and always expected him to produce new verses or some sly or ironical piece of humour which was invariably charged with affection for his fellow men.

Svetlov was particularly fond of young people.

*Capablanca—former world class champion from Cuba.

†Kachalov and Yakhontov were well-known Soviet actors.

"Such a rotten idea to have invented birth certificates and divided people into young and old," he jooked once.

Then he added in more serious vein, "All people are of the same age. It's just that some are loaded with experience and others haven't enough. By giving others the benefit of our experience we make the young people mature, and become younger ourselves."

Svetlov's verse will always gladden the hearts of readers with the romanticism of the period of which he was the poet. But only those who knew him personally can really appreciate what a remarkable person he was.

Someone said, "Even if he weren't an eminent poet, but was simply there, among people, those people would be the better for it."

Svetlov was not a sanctimonious hypocrite. He liked a glass of wine in company and enjoyed a good joke. His witticisms were passed on from one person to another and acquired the status of folklore.

★ ★ ★

When Svetlov's birthday was celebrated, one of those present said, "I envy Svetlov not only his talent, but also his amazing modesty. He has a greater facility than anyone else for being content with essentials."

"I don't want any essentials," cracked Svetlov, "but I can't get along without the frills."

★ ★ ★

"He's a very colourful person," people said of a particular author.

"Not so much colourful as multicoloured," said Svetlov, clarifying the point. "And it would be better if he were just one shade, but a definite one."

★ ★ ★

Of a poet who became the centre of inordinately loud publicity, Svetlov said, "All his energy goes on whistling, not accomplishing anything."

★ ★ ★

During wartime air-raids, a well-known lady writer spent her time in the shelter, knitting. Later she wrote her war reminiscences.

Svetlov quipped, "Now she's under

the impression that knitting needles are the weapons of war."

★ ★ ★

After reading some of his verses at a literary evening, Svetlov answered written questions. Some of the slips of paper he put aside, and gave no answer.

"Why don't you reply to all the questions?" a voice rang out from the body of the hall.

"If I knew all the answers," Svetlov rapped back, "life wouldn't be worth living any more."

★ ★ ★

Svetlov was a great believer in the efficacy of humour in bringing up children. In the introduction to his book *I'm for Smiles,* he gives the following story from his experience in bringing up his own son:—

"Once when I arrived home I found the place in an uproar. There were frantic phone calls for the first-aid people. Shurik had drunk ink.

"Did you really drink some ink?" I asked him.

Shurik solemnly exhibited a violet tongue.

"You silly thing," I said. "If you drink ink, you have to eat blotting paper to go with it."

That was many years ago, and Shurik has never drunk any ink since that day.

☆ ☆ ☆

Occasionally Svetlov had to borrow money. He did it only in the direst circumstances, always painfully aware that the moment would come when he had to repay it. He would recall the following proverb: "Borrow money for a time, give back your own for ever."

Once he joked, "Money should be borrowed only from a pessimist. He knows beforehand that he won't get it back."

★ ★ ☆

During the long months he lay seriously ill in hospital, Svetlov had a firm belief in recovery, and patiently waited for the time when he would return to the circle of his friends.

He liked it when I took caricatures to the hospital, and pinned them up on the wall.

"Just like home," he would say.

When he was discharged from hospital for a short spell he remarked on the way home, "I feel like a bird on the way to the pawnshop to redeem its wings."

★ ★ ★

I remember Svetlov once saying, "What's a question mark? It's just an aged exclamation mark!"

By Vitali ZHULEV
and Yaroslav GOLOVANOV
from KOMSOMOLSKAYA PRAVDA

BEWARE OF THE PEDESTRIAN

Fifty per cent of all traffic accidents in the Soviet Union are reckoned to be the fault of pedestrians

The Case of the Cynical Stroller

Experience, statistics and personal observations in various countries lead one to the conclusion that the Soviet Union can boast the most unruly pedestrian population in the world.

The sad fact that many western countries take the lead in the number of traffic accidents is no consolation. Leaving aside questions of road congestion and relative number of vehicles, the main difference can be summed up as follows: abroad, the main violator of traffic rules is the driver; in the Soviet Union, the main offender is the pedestrian.

A pedestrian crossing a busy street, wherever and whenever he feels like it, is a characteristic feature of most of our cities. An indifference to traffic lights seems inborn. The pedestrian simply couldn't care less. At best he may glance to see if there is a car bearing down on him. After that he strolls out between roaring vehicles with every appearance of a man bemused by the song of a skylark. Bleating horns (prohibited in cities), screaming brakes and madly signalling headlights fail to disturb his equanimity.

Pedestrian lack of discipline borders on cynicism, and this cynicism springs from an awareness that he is acting with impunity.

What price safety?

Moscow has the heaviest traffic in the country. Its streets, totalling a length of 1,882 miles, have a pedestrian population of 6,507,000. In 1967 the traffic intensity in that metropolis showed a marked increase over 1966.

As traffic increases, so does concern for the pedestrian. Tremendous sums of money are spent to ensure his safety. Thousands of diverse constructions and contrivances are designed solely to ease the life of the pedestrian.

Today Moscow has 22 overpasses, not including 30 flyovers on the highway which rings the city, 117 pedestrian tunnels and over 30 miles of metal safety railings along the pavements to prevent jaywalking. A total of 120 thoroughfares have been designated one-way streets. In addition to 8,889 road signs, 670 traffic lights blink their signals round the clock.

The result?

In 1967 there were five per cent more people injured in road accidents than in 1966, and 13.3 per cent more killed.

About 70 per cent of all road accidents involve a vehicle and a pedestrian, and pedestrians account for 65.7 per cent of the total casualties.

What are the reasons?

One in five of the pedestrians involved in accidents was in a state of intoxication. (Incidentally, the peak day for accidents in Moscow is Saturday, with its record sales of alcoholic beverages.) One in four victims crossed the street at a prohibited point. One in three tried to beat the car across. In short, *two-thirds* of the injuries and deaths were caused by the pedestrian's own carelessness.

Driver v. Pedestrian

The moment a militiaman spots a driver breaking a traffic regulation he signals with his baton and the car obediently pulls over. Wearing a guilty smile, the driver jumps out of his car and sprints towards the traffic militiaman to present his licence. The penalty depends on the degree of offence. Usually it entails a fine. More rarely, his licence is punched with a warning or he loses his driver's licence. Very few breaches of traffic rules by drivers go unpunished.

But when a traffic regulation is broken by a pedestrian, the same traffic controller's whistle does not necessarily make the violator stop. Instead of wearing a guilty smile, he looks resentful: imagine pestering a busy person like me!

Now it's the militiaman who sprints after the offender. Identity card? The pedestrian is not obliged to produce it. A fine? For what? An interminable argument ensues, which usually ends with the pedestrian getting off scot-free. It is extremely rare for a pedestrian to be fined. Nothing short of an extraordinary violation with tragic consequences will lead to prosecution.

In 1967, there were 2.5 times as many drivers fined in Moscow (and this leaves out of account those who paid a stiffer penalty) as pedestrians. And drivers paid out five times as much in fines as pedestrians.

"Why do most offending pedestrians get away with it?" we asked several traffic inspectors.

"It's harder to bring pedestrians to book," was the stock reply. "The driver's got his licence plates for all to see. Then there's his driver's licence, which he's obliged to produce. But the pedestrian can refuse to show his identity card, and give a false name and address, and short of running him down to the nearest militia station there's not much to be done."

The law that does not exist

Strictly speaking, it does exist—in the form of Article 213 of the Criminal Code, which makes punishable "violation of transport rules protecting the order and safety of traffic which has led to fatalities and other serious consequences." But the spectrum of such offences is truly unlimited—it appears to cover all means of conveyance, ranging from airliners and sea vessels to minicars and mopeds. Article 213 is so indefinite that it is well-nigh impossible to apply it to pedestrian violators of street traffic rules.

There is yet another form of responsibility for violations of traffic rules. It is stipulated in the Civil Code, not the Criminal, and takes the form of payment of benefits to victims of transport and traffic accidents.

In the first four months of 1968, the Moscow Transport Agency alone paid 25,000 roubles for bodily injuries. The Moscow Taxi Board paid still more. The payment of benefits is perfectly justified when the driver is guilty. But it is also paid when he is not. Moreover, it is paid even when the court finds him not guilty and closes the case.

Finally—and this is the crux of the matter—it is paid to all pedestrians who are responsible for their own accidents. Article 454 of the Civil Code states that transport organisations and car-owners "must make good the harm caused by a source of increased danger if they fail to prove that the harm arose as the result of an insuperable force or through the design of the victim."

But will the victim ever admit that he was knocked down by a car by his own design?

This formula has indeed become an "insuperable force" for taxi managements, transport agencies and car-owners. No amount of effort on their part can prove that some drunk pedestrian, who couldn't care less at the time, wandered under the wheels of a car "deliberately".

What should be done

First, it is imperative to supplement existing traffic laws and make them more precise. Second, we must find effective ways to curb pedestrian anarchism.

In 1965, the Soviet Union produced 201,200 cars and 379,000 lorries. In 1970, production is expected to grow to between 700,000 and 800,000 cars and between 600,000 and 650,000 lorries.

In November 1967, the Soviet Government adopted an important decision "Concerning the Improvement of Traffic Safety in Urban and Other Populated Centres and on Highways". It contains provisions for the study of pedestrian traffic rules in general schools and vocational training institutes and for systematic radio and television broadcasts accentuating the need to observe street traffic regulations.

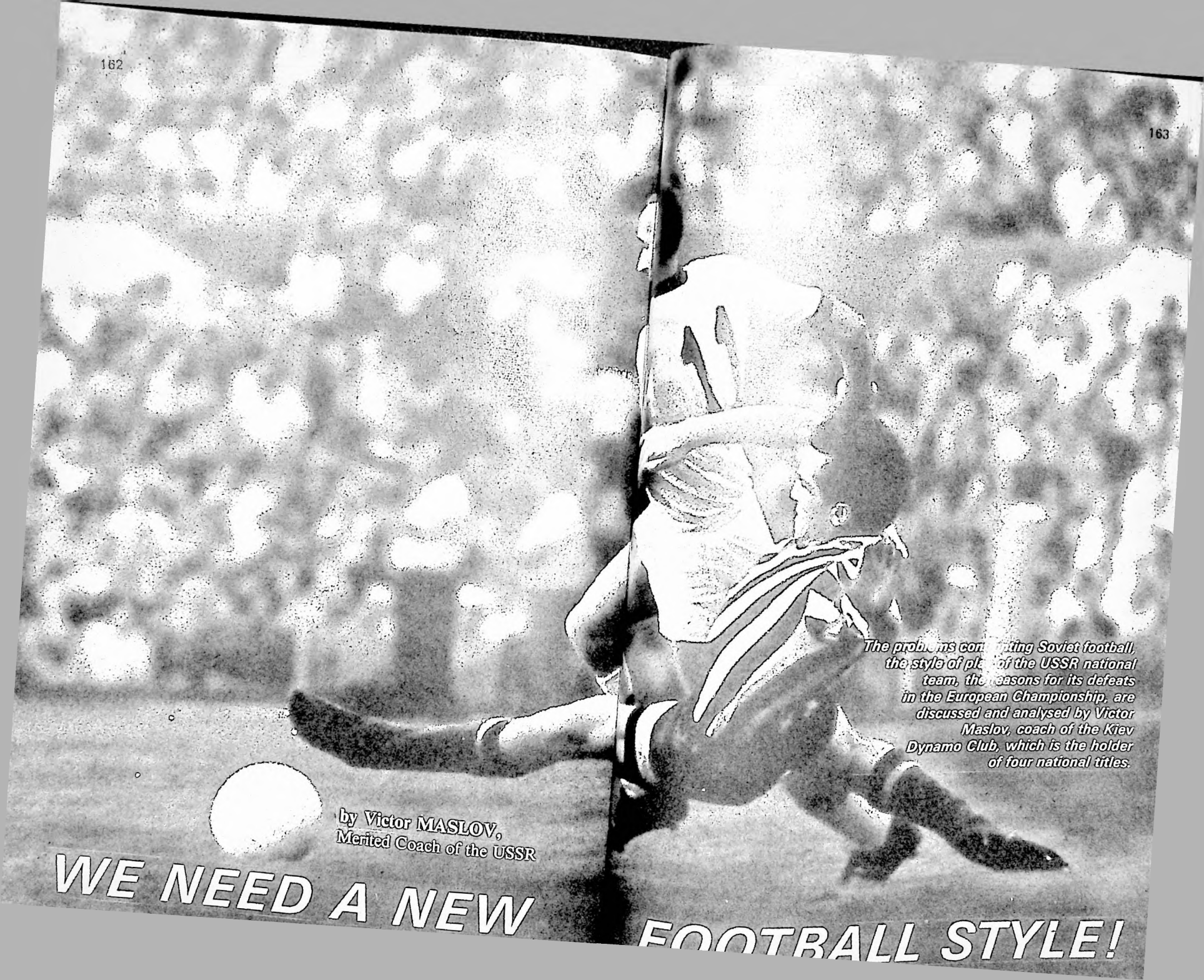
But lectures, talks and meetings alone will not do the trick. In 1967, Moscow held more than 45,000 Safety First talks and meetings, which were attended by some 1,360,000 people. At the same time a 5.2 per cent increase in the number of street accidents was registered.

Warnings must be combined with penalties. The man who has been fined two or three times will think twice before climbing over the safety railing. And if he does climb it, another fine will surely convince him that the shortest distance between two pavements is the tunnel. As for children, nothing can teach them better than the example set by grown-ups.

We must create an atmosphere of intolerance towards violators of safety rules in our streets. Man's inborn instinct of self-preservation must be fully activated. To this end, through stiffer and consistent fining, the pedestrian must be taught to cross only at crossing points and with, not against, traffic lights.

* * *

Drawing by
Vadim KONOPLYANSKY



WE NEED A NEW FOOTBALL STYLE!

by Victor MASLOV,
Merited Coach of the USSR

The problems confronting Soviet football, the style of play of the USSR national team, the reasons for its defeats in the European Championship, are discussed and analysed by Victor Maslov, coach of the Kiev Dynamo Club, which is the holder of four national titles.

from the weekly
FOOTBALL-HOCKEY

The USSR national football team has undergone some changes. Gavriil Kachalin has been appointed the new coach, and some young players have been tested in various positions. True, there has been only one trial in action—in the seaport of Odessa, the national team was pitted against the local Chernomoretz Club.

You can put yourself right out on a limb if you try to judge a team on the basis of a single game. Still, I feel I must express my views and impressions.

The former man at the national football helm, Mikhail Yakushin, had a definite approach—defence first, then sharp counter-attacks. In my opinion, this was a mistake. The Soviet team was whipped both in the Olympic tournament and in the European Championship.

It appears to me that our Soviet team is again resorting to the Brazilian 4-2-4 system; this was confirmed by the line-up of players and their deployment in the game against Chernomoretz.

In my opinion, the Brazilian system has outlived itself. It has become a retarding factor. What is more, it brought about the downfall of its inventors, the Brazilians, in the last World Championship.

I try to understand why some people still favour the Brazilian system. Their trump card, of course, is their shots from the wing. Without them, there is no game. This means that "purely" outside forwards are needed; that is, football players who perform superbly in this position. And the Brazilian system makes provision for precisely such outsiders.

Shots from the wing, of course, are quite fashionable. But a "purely" outside forward is a thing of the past. Such virtuosos as Garrincha have outlived themselves. And the superb Scottish outside Johnston, is playing in the centre with no less success.

In present-day football the players themselves try not to stay too long on the wings: they do not have enough room to manoeuvre, opposing defenders are able to mark them too easily; they need the width of the field, not its length. And the genus of "purely" outside players is becoming extinct not because wing shots are not needed in an attack, but because football has changed.

I believe that the 1970 Mexico Championship will be played in the style of the British Championship. The decisive factor will be dynamic players with a very wide range of action. For them, it will not matter where they play; on the wings or in the centre, in the middle of the field or leading an assault on the goal.

The calibre of a football team today is determined by the sum total of each player's speed. This includes physical speed, quickness of thought and reaction on the part of every man. It is enough for only one element to fail and the whole ensemble seems to fall apart, the tempo of the entire team changes. That is why the best football player can only be a sportsman who has all these qualities, and the

best team that which has the best sum total.

Soviet football players, it seems to me, should take a few hints from aircraft designers. Look at the development of modern flying machines. The sleek nose of the plane protrudes further, while the wings are swept back towards the tail. This is done, of course, to reduce the area of resistance. A needle-shaped plane penetrates airspace much easier, and swept-back wings improve the flow of air past the vehicle. All this, and an increasingly powerful motor, help to build up speed.

Isn't it the same kind of thing in football? Physical fitness is our motor. But this by itself is not enough. A more modern design for the whole team is also required. And I can see this design achieved by reducing the number of points of resistance out front (points at which attackers and defenders come into contact), and also by freeing the flanks of over-protruding wings. In Mexico, in 1970, most of the teams will probably be on this pattern.

The modern attack should be mounted by no less than eight players, and the stress should be spread evenly among all the lines of the team. This means players must be very mobile, versatile and with plenty of stamina and endurance. Their initial position in the attack need not necessarily lay along the so-called line of attack. They should be able to launch an attack from any position.

This is an extremely complicated game, but a promising one, though it requires thorough preparation.

All these tendencies are already noticeable in Soviet clubs. In particular, there has been a change for the better in the organization and the style of play of the Moscow teams—Spartak, Torpedo and Dynamo.

But it is more convenient for me to use for purposes of illustration the Kiev Dynamo Club. Our main principle is to have enough power at any given point in the field to take over the initiative. The defence is an active defence with clear-cut backing, and the ability to make a lightning switch to the offensive. The half-back line is a concentration of players who are capable of coping with problems of attack and defence.

For the offensive, a couple of really dynamic players have to be moved far out front, players who can perform equally well in the wings or centre.

We have given up man-to-man markings completely. In fact, I consider this tactic humiliating for a high-class team.

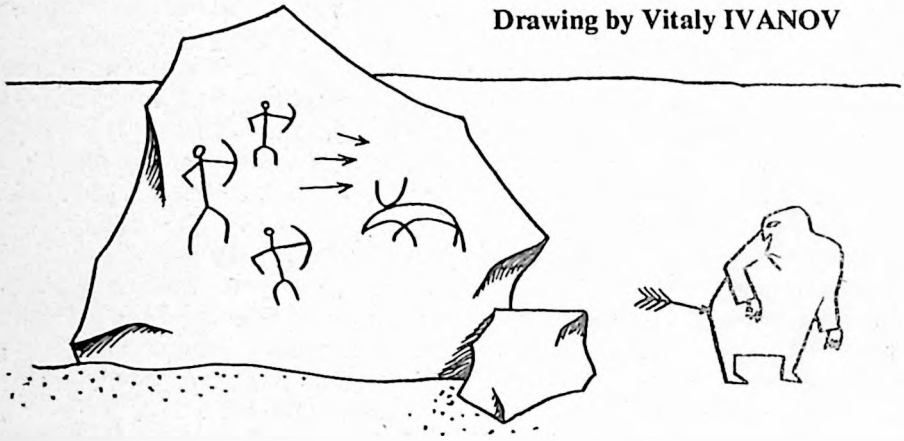
For many years, unfortunately, when the Soviet national team came out on the field its main aim was to neutralise its formidable opponents. This resulted in nothing but running around chasing someone—the principal concern was not to let your rival get past you!

No wonder the team did not have a style of its own. It was completely dependent on the whims and will of the opposing team, and could not impose its own style of play—too much time and energy were consumed

on auxiliary work, on marking. This is one of the reasons why Soviet football did not rise to the heights it could have reached.

There is much that the national team could learn from our club teams. And surely it is more useful to direct one's energies to learning something new, than to return to the old and outdated.

Drawing by Vitaly IVANOV



Learning by experience

by Artur KAZARYAN

The ancient Greek philosopher Apocreon told his slave: "If a man arrives here with a stone in his bosom, do not let him in."

A man arrived, and in truth there was something concealed in his bosom.

"What have you in your bosom?" asked the slave.

"A thermometer," was the reply.

"Ah . . . Well, that's a different story. You may pass."

Later the philosopher came out with his forehead cut and gory, and demanded, "Why did you let in a man with a stone in his bosom?"

The slave replied calmly, "I thought he had a thermometer there."

"Foolish wretch!" the philosopher thundered. "They haven't invented the thermometer yet!"

"Oh, well," thought the slave, "why should I rack my brains? It's of no personal interest to me!"

"Have to put an end to slavery," thought the philosopher. "Leads us astray at every turn."

from the magazine SOVIETSKAYA MOLODEZH

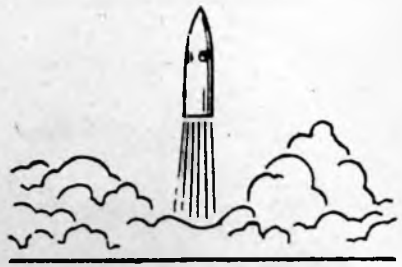
Want to be a good physicist?

Puzzles for science enthusiasts

This is the title of Pyotr Makovetsky's book—a collection of 76 original puzzles in mechanics, acoustics, optics, aerodynamics, astronautics, astronomy, physical geography, television, etc. As a rule, the problems are paradoxical: the answer prompted by common sense proves to be wrong. The problems are split into three parts: A—question; B—hint; C—solution and practical application.

GET TO THE BOTTOM OF THINGS!

Start or Finish?



A. Is the spaceship in the picture on the previous page taking off or landing?

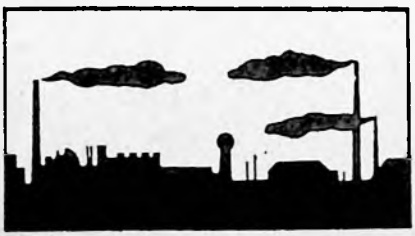
B. Most people may take this as a joke. "Oh," they will say, "the author expects us to reply that, since the jet is directed downwards, the spaceship itself is going up. But we know that when the ship is landing the jet will also be directed downwards, in order to reduce its speed near the earth. Sometimes landing is carried out with a parachute, without use of a retro jet. If the picture showed a parachute there would be no doubt left that the ship was landing. But the picture, as it is, does not suggest any answer to the question."

Of course, the author did not count on such obvious miscalculation on the reader's part. It is true that the ship's orientation, with its nozzle pointing earthwards and clouds of dust being raised by the jet, is equally characteristic of the initial take-off stage and the final stage of landing. And still we say there are enough hints in the picture to answer the question.

C. To put a one-ton satellite into orbit takes dozens of tons of fuel. In the case of a spaceship, which, apart from reaching orbit, is supposed to make a space trip and then safely return to earth, the fuel-to-payload weight ratio is much higher. Consequently the height of the payload sections (cockpit and instrument sections) constitutes a negligible part of the ship's overall height.

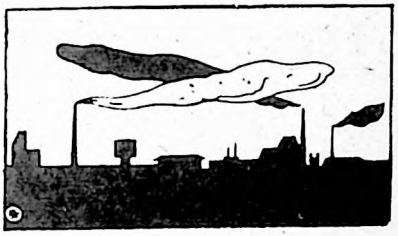
Now take another look at the picture. Judging by the size of the windows, the cockpit takes up a good half of the ship's space, this indicating that the greater part of the rocket stages have already fallen away. The ship's engine now has only one stage, and this is the last. With only the last stage left a spaceship can by no means be taking off—it is landing.

Which way is the wind blowing?



A. Look at the first picture and say which way the wind is blowing.

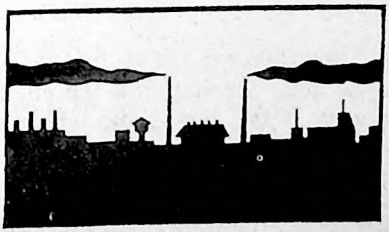
B. Strange though it is, many people on glancing at the picture declare that it must be a trick—that it is impossible for the wind to blow from left to right and from right to left at the same time. The author insists that what is shown in the picture can be seen any day if there is smoke



coming from at least two chimneys. What is unnatural can be seen in the second picture, but the author hastens to add that even that sometimes happens.

A comparison of the two pictures should immediately give you the right answer.

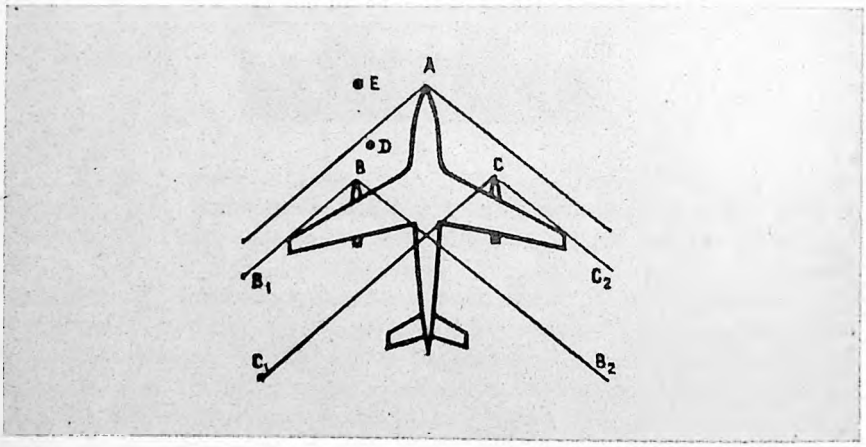
C. The answer is simple, and you have probably already guessed it: the wind is blowing from you to the picture: all the trails of smoke are parallel, like the rails of a railway track, and they should appear to converge on the point on the horizon to which the wind is blowing, due



to perspective. If the wind were blowing towards you from the picture, the trails of smoke should diverge (third picture).

The second picture shows the trails of smoke intersecting. This could not happen if they were parallel. But sometimes the smoke at nearby points may be blowing in different directions. For instance in calm, sultry weather different areas—iron roofs, green lawns, paved streets—are heated differently, thus producing local breezes which divert the smoke haphazardly. This, however, is a relatively rare occurrence. Usually the prevailing wind is much stronger than these local breezes.

Faster than sound



A. A plane is flying at supersonic speed. As shown in the picture, the flier is in the cockpit at point A and the engines are on the wings at points B and C. Can the flier hear the sound of his engines?

B. "Of course not!" everyone will say on first tackling this problem. "We know that in supersonic flight the sound of the engines can only be heard inside a cone whose apex is the engine and which extends back from the engine. Two engines give two cones of sound, B_1—B—B_2 and C_1—C—C_2. The flier is outside these cones and consequently cannot hear the sound of his own engines."

But if you ask the flier he will tell you that he can plainly hear the engines. Only don't ask him why, but try to find the explanation yourself.

C. Sound is conducted not only by the air, but also by the body of the plane. The velocity of sound in air is roughly 1,090 feet per second, and through the metal of the plane about 16,000 feet per second. But don't jump to conclusions! It is not because the plane's speed is less than the velocity of sound through duralumin that the flier hears the sound. Even if the plane's speed were more than 16,000 feet per second the sound could still be heard.

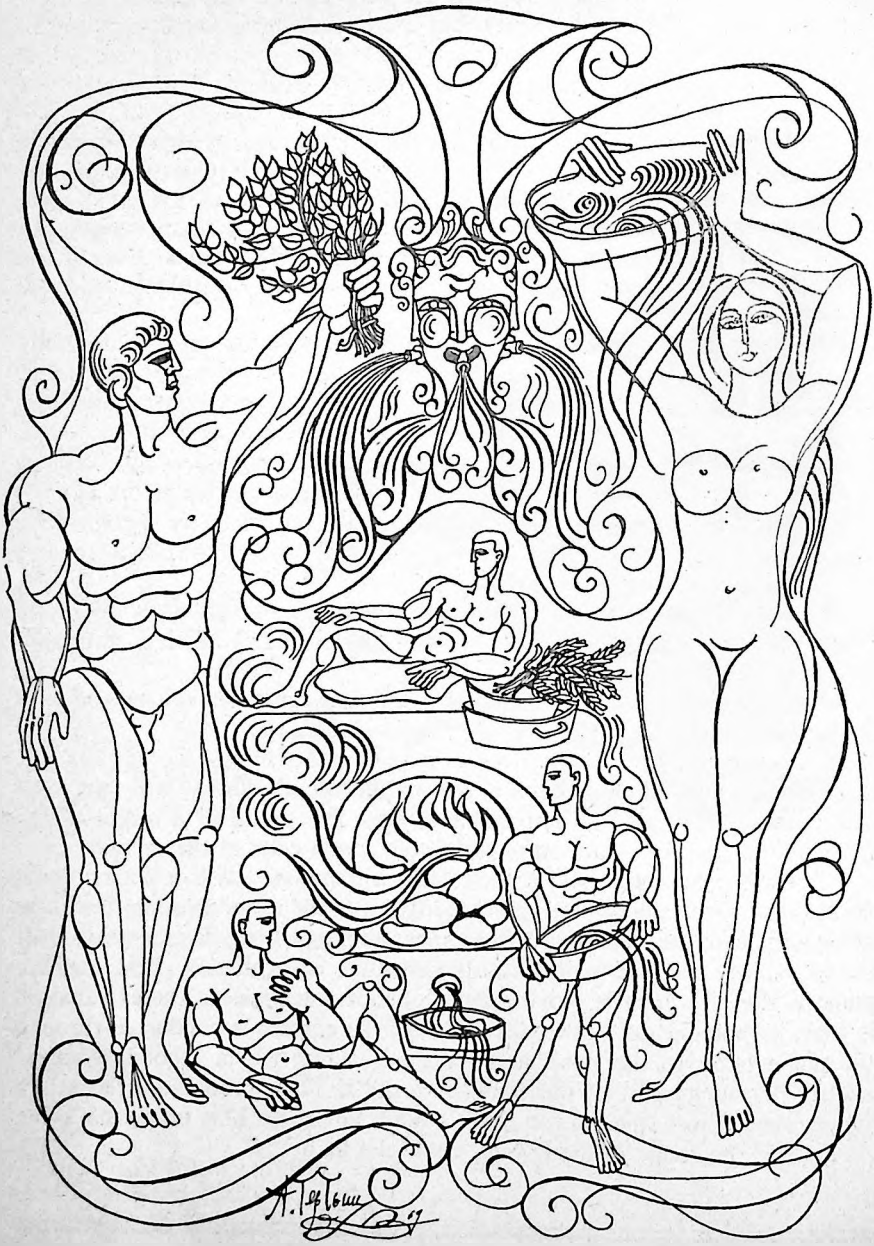
The point is that there is a big difference between the air and the body of the plane as sound conductors. The air, though stationary in respect to the ground, is moving in respect to the source of sound (engine) and the sound receiver (flier); the plane body is stationary in respect to the source and receiver of the sound. Consequently the sound propagated in the air is carried away without reaching the flier; for the sound conducted through the plane body, it makes no difference how fast the plane is flying—it is conducted just as if the plane were standing still. The sound will reach the flier whatever the speed.

Also, since the plane is filled with air which is moving with the plane, sound will also reach the cockpit through this inner air, which is stationary in respect to the plane.

It follows that even in a spaceship flying at escape velocity, the sound of the engines will reach all parts of the ship, including the nose.

It is another matter if two supersonic planes are flying side by side. The only acoustic medium between them will be the air and it will carry the sound away. It would be impossible to hear the sound of a neighbouring plane unless the first plane were within the sound cone of the second.

After what has been said it may seem a paradox that if a person could be at point D ahead of the engine and flying at the same speed as the plane he would hear the sound of the engines, although point D is outside their sound cones, and the only acoustic medium between this point and the plane is the air which is moving away at supersonic speed. The explanation is that, as pointed out above, the sound of the engines is conducted through the plane body to the nose, and the nose, acting like a secondary sound emitter, transmits part of the sound into the air. This produces a secondary sound cone whose apex is the plane's nose, and point D is inside this cone. At point E the sound of the engines could not be heard.



Nothing like a good flogging in the bath-house

by Dmitri BYSTROV *(Novosti Press Agency)*

For centuries the Russians have exchanged the greeting *S lyokhkim parom!*—roughly, "A pleasant steaming!"—on meeting acquaintances outside a bath-house. Steam baths have been going strong for at least 900 years—the 12th century chronicler, Nestor, mentions Russian steam baths in his annals.

The custom is still widely observed in the Soviet Union today, and the greatly expanded and modernised system of bath-houses still keeps the sizzling variety of steam, plus birch-broom lashing for those who like it.

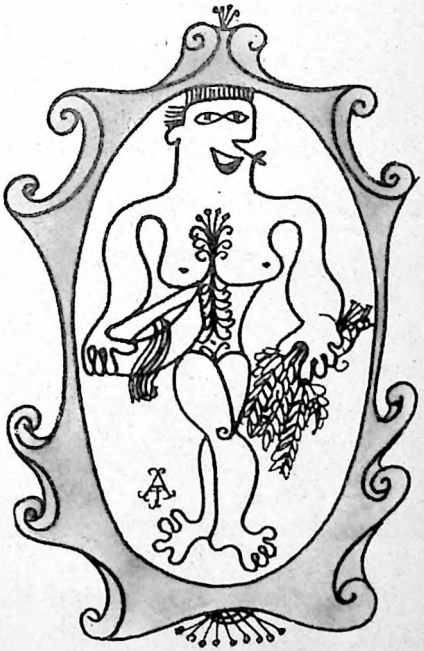
The *kamenka* is the most important item in a Russian bath-house. This is a fireplace built of large stones, cemented together with a mixture of sand and clay. Tub after tub of water is splashed over the red-hot stones until swirling clouds of steam envelop everything. Then the rituals begin.

The "sacrifice" lies prone on a wooden bench while his bathing companion lashes his bare body with a bound switch made of birch twigs, complete with leaves.

This may sound like a form of torture, but read what the *Moscow Medical Journal* wrote more than 100 years ago under the heading "On Russian Steam Baths":

"A Frenchman once said that only the rough skin of the uncouth Russians could stand this barbaric treatment.

"Nevertheless, no matter how hard a person is thrashed with his birch switch in the steam bath, he never feels the slightest pain or unpleasantness. On the contrary, one's whole being is imbued with the feeling of a physical delight one finds it difficult to put into words. It is to no purpose that these sceptics from foreign countries shy at our birch switch—this pleasant and warmly-tender rogue of the



Russian people."

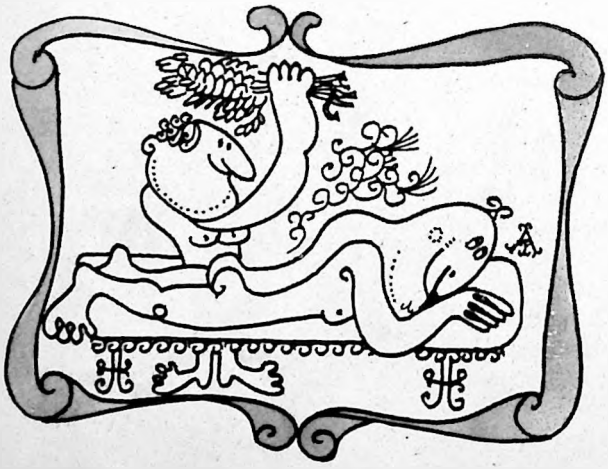
Quite a paean to the Russian steam bath. The author went on to mention that even babes in arms were taken there, and that there was no better place to take your weary body to refresh it. To cure a cold the recipe was: Rub yourself all over with vodka, or a solution of pepper, or formic acid, or honey mixed with salt, or grated radish, or turpentine. Then take yourself off to the bath-house and thrash the cold out in the steam.

Any old birch twigs will not do. They have to be cut during the summer, at the time of the summer solstice, preferably from the variety *betula alba pandula*, whose branches are slender, long and supple. The twigs must not be tied with string, but with bark strips from the linden tree or willow. Then the switch must be taken from a collection dried and stored in a cool place.

The bath-house temperature is kept at between 40 and 50 degrees Centigrade (104-122 degrees Fahrenheit), with a humidity of 95 per cent. The bather's temperature sometimes reaches 38 or 39 degrees Centigrade (100.4-102.2 degrees Fahrenheit), and in winter, if the steam is too much for him, he sometimes rushes out of the bath-house and rolls around naked in the snow. Or else he will take water out of a hole chopped in the ice and pour it over himself. Then he rushes back inside to begin all over again.

Sayings brought down through the centuries affirm the curative properties of the steam baths: "Steam will not break your bones", "The bath is a second mother", "Steam your bones to cure your body", and so on.

Doctors have found that the body's metabolism improves after a session in the bath-house. Blood circulation improves, and the acidity processes increase.



Steam baths are doing a flourishing business in the Soviet Union today, both in the villages and in the largest cities. In Leningrad, where two out of every three have a private bathroom and hot running water, the public bath-houses, of which there are more than 70, never lack a full quota of customers.

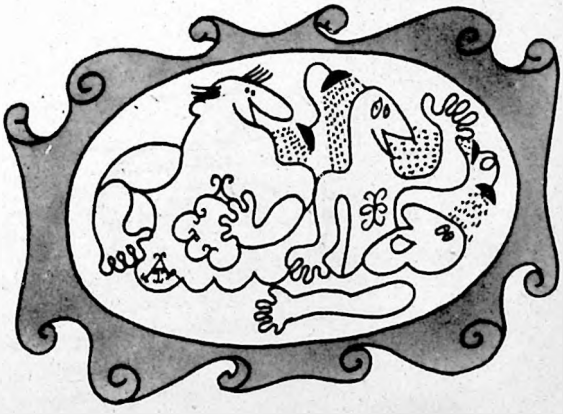
The country's largest bath-house is a four-storey place built in 1967 in Leningrad near the Baltic railway station. On some days it copes with 7,000 people. The special "mothers and children" section has brightly-coloured mushroom-shaped showers for the tots, and a room where the babies are looked after while the mothers give themselves a good lathering.

Shower cabins, private compartments with bath tubs, and swimming pools are also provided, the largest swimming pool covering an area of 150 square yards. Free medical consultations with a doctor are always available, and acting on this advice, one may take curative baths unheard-of by the forefathers of the present generation—carbonated baths, oxygen baths, coniferous baths, hydrogen-sulphide baths.

But Russian baths would not be Russian baths without steam. At the entrance you may buy real birch-twig switches, and seven out of the ten sections of the Leningrad bath-house described here have their *parilkas* (steam rooms).

The large *kamenkas* are no longer heated with fire, but with gas burners in an adjacent chamber. But the red-hot stones are still there, according to the ancient custom, and the steam addicts still splash tubs of water over them, causing billows of scalding steam to shoot ceilingwards, enveloping those lying on the wooden benches and groaning with sheer pleasure as the birch twigs fall mercilessly on their naked bodies.

Drawings by Alexei TERTUSH



RUSSIAN FOR YOU

Урок Восьмой Lesson Eight

Russian names seem to be a subject of vast interest to many English readers who, judging by the large number of letters we have received concerning this subject, regard Russian names with amazement, and even distrust.

"How does one use them? When do you call a person Ivan and when Ivan Ivanovich? And why? Just how many diminutives can one name have?" These are samples of the questions SPUTNIK has been receiving.

In the interests of our readership, we thought one *Russian Lesson* should deal with Russian names and, specifically, with the questions that were most often asked. The linguists and philologists will perhaps be disappointed, but we should point out that our aim is to satisfy a broad interest rather than a small and highly specialised group.

I. WHAT ARE THE RUSSIAN EQUIVALENTS OF POPULAR ENGLISH NAMES?

First, let us keep in mind that the majority of

common names—English as well as Russian—have Greek, Latin and Hebrew origins. However, for the sake of convenience, we do not intend to specify these origins.

Second, the majority of equivalents will be quite obvious, but some will not—for instance, "Hope" and "Nadezhda", which have exactly the same meaning but sound very different.

English name	**Russian name**
with equivalents	
A. Male	
Alexander	Александр
Andrew	Андрей
Basil	Василий
David	Давид
Daniel	Даниил
George	Георгий, Юрий
Gregory	Григорий
John	Иван
Leonard	Леонид
Mark	Марк
Michael	Михаил
Matthew	Матвей
Nicholas	Николай
Peter	Пётр
Paul	Павел
Stephen	Степан
Thomas	Фома
Victor	Виктор
B. Female	
Ann	Анна
Elizabeth	Елизавета
Helen	Елена
Hope	Надежда

Irene	Ирина
Katherine	Екатерина
Mary	Мария
Margaret	Маргарита
Natalie	Наталья
Nina	Нина
Vera	Вера
Zoe	Зоя

BUT SOME NAMES WHICH ARE VERY POPULAR IN RUSSIA HAVE NO EQUIVALENT IN ENGLISH

C. Male

Аркадий
Олег
Владимир
Игорь
Геннадий
Дмитрий

D. Female

Любовь
Людмила
Лариса
Галина
Валентина
Светлана
Алла
Татьяна

II. ENGLISH NAMES OFTEN USED IN RUSSIA

Certain English names have become popular in Russia. Strictly speaking, they are not equivalents, just as, say, "Boris", a name used in the English-speaking world, is not an equivalent of the Russian name: it is the name itself.

Arthur	Артур
Edward	Эдуард
Edgar	Эдгар
Walter	Вальтер
Robert	Роберт

An interesting fact: there are no such female names, at least not among those in common use.

III. MASCULINE AND FEMININE NAMES

There is nothing simpler than telling a Russian masculine name from a feminine name. Here is the rule: all masculine names finish with a consonant, all feminine names finish with the letter "а" or "я". However, this rule applies only to the full name, not to its diminutives: masculine diminutives also often finish in "а" and "я".

Here are some examples:

Full name	**Diminutive**
Владимир	Володя
Николай	Коля
Геннадий	Гена
Александр	Саша

Certain Russian feminine names derive directly from masculine ones. In such cases only the very ending of the name is changed:

Александр	Александра
Евгений	Евгения
Олег	Ольга
Валентин	Валентина

IV. RUSSIAN DIMINUTIVES

Russian names have a far greater number of diminutives than English ones. One example is an extremely widespread Russian first name—Владимир, which has the following diminutives: Владимир, Володя, Володька, Вова, Вовочка, Вовка.

Here basic diminutives are Volodya and Vova, and from them further diminutives are formed. The suffixes "ечка" and "очка" imply affection, while "ка" is rather an indication of familiarity.

Below we give some of the most popular men's and women's names with their main diminutives:

Александр	Саш(к)а, Санька, Саня, Алик, Шур(к)а, Шурик
Алексей	Алёш(к)а, Лёша
Борис	Боря, Борька
Василий	Вася, Васька, Васёк
Геннадий	Ген(к)а
Евгений	Женя, Женька
Леонид	Лёня, Лёнька
Лев	Лёва, Лёвка
Николай	Коля, Никола, Колька

at least to a degree sufficient to spare the visitor to the Soviet Union worry over this point while he is here.

1) Use of first name

Generally speaking, first names are used only with people with whom one is closely acquainted, and to whom one uses the pronoun "ты". It is quite common for people of the same age to be on first-name terms, and first names are always used among children and in addressing children.

2) Use of first name and patronymic

The patronymic is a purely Russian phenomenon and is in universal use. In the case of a man it is formed by adding the ending "-ович" or "-евич" to the first name of his father: Владимир — Владимирович, Сергей — Сергеевич, Николай — Николаевич, Олег — Олегович.

In the case of a woman it is formed by adding "овна" or "евна" to the first name of her father, for example: Владимировна, Сергеевна, Николаевна, Олеговна.

The first name plus patronymic form of address is used between strangers, and also between people who are quite well acquainted but preserve a certain distance in their relationship. This form does not sound too official, yet it rules out familiarity.

It is interesting to note that both "вы" and "ты" may be used in conjunction with it. "Вы" is, of course, more usual, but older people or longstanding acquaintances may use "ты" with first name and patronymic—although this is not, strangely enough, the custom among women.

3) Use of patronymic alone

This form of address is used most of all among country folk and workers in the towns, generally by older men and women. It is used in conjunction only with "ты", and indicates that the acquaintanceship or friendship is of a close, old-established and enduring character.

4) Use of surname alone

This is a more official form of address, indicating a rather distant relationship—for instance, a teacher addressing a pupil. On the whole it is not usual to address people in conversation in this way, and if it is done, it is purely to emphasise formality.

5) Tips for tourists

If a foreigner who knows Russian comes to the Soviet Union and starts addressing people by their surnames alone, this will not seem odd or arouse surprise or annoyance. But if you want to use the first name plus patronymic form, bear in mind the following:

When introductions are made in the USSR it is usual for only surnames to be given. Then you should ask: "Простите, как ваше имя и отчество?" On receiving the answer, you may proceed to address a person in the manner most customary in such circumstances in our country.

* * *

Foreigners often ask: "Why does a woman's surname sound different from her husband's?" This is due to the difference in the feminine and masculine endings.

Real Russian surnames end in "-ов", "-ев", "-ин", or "-ий". For example: Иванов, Николаев, Пушкин, Маяковский. In the first three cases the woman's surname is formed by adding the suffix "а". In the other case the ending "ая" is substituted for "-ий": Маяковская.

It should be remembered that these rules apply only to strictly Russian surnames. As regards surnames of other Soviet nationalities, the rule is not valid unless the name happens to have an ending identical with that of a Russian name, or to be a Russified form. In such cases it changes with gender like a Russian surname.

Here are some examples of endings most characteristic of the surnames of the various Soviet nationalities:

Unchanging

-швили
-дзе
-ян
-ко
-юк
-ич
-их
-аус
-ку

Changing

-ев, for example, Алиев — Алиева (Azerbaijan).
-ов, for example, Мухамедов — Мухамедова (Uzbekistan).

In the July Sputnik

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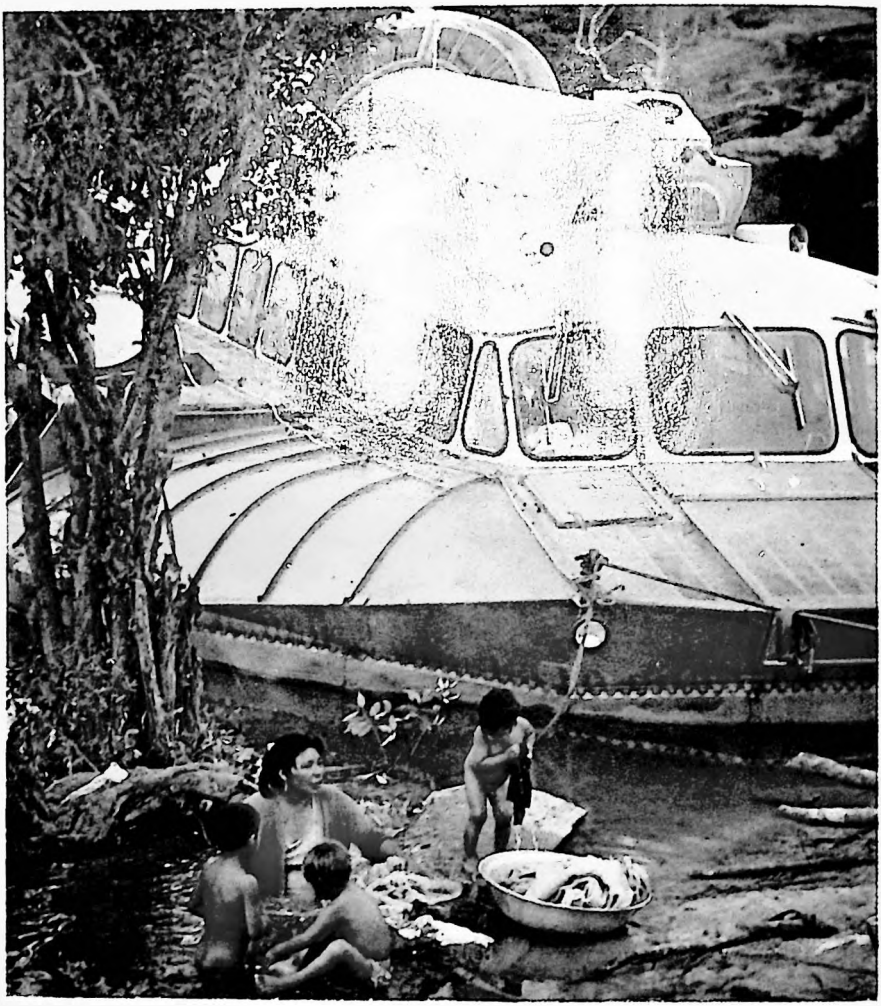
The July issue—on sale June 20

Published each month by Daily Mirror Newspapers Ltd., Holborn Circus, London, E.C.1. and printed in England by Fleetway Printers, London, S.E.1.
Subscription rates £2 15s. for 12 months, £1 7s. 6d. for 6 months.
Sputnik is sold subject to the condition that it shall not be re-sold at more than the recommended selling price shown on the cover.



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