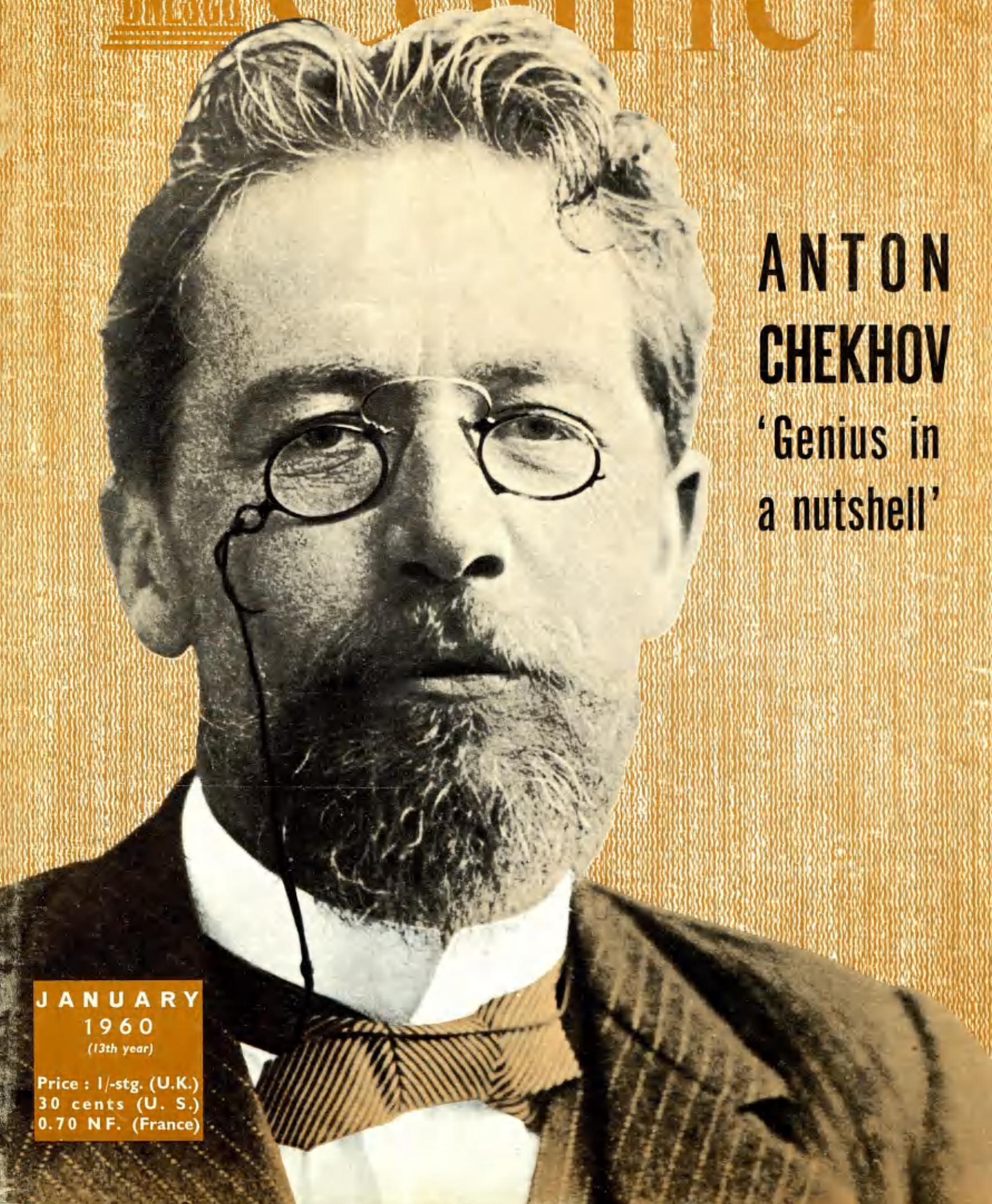


A WINDOW OPEN ON THE WORLD



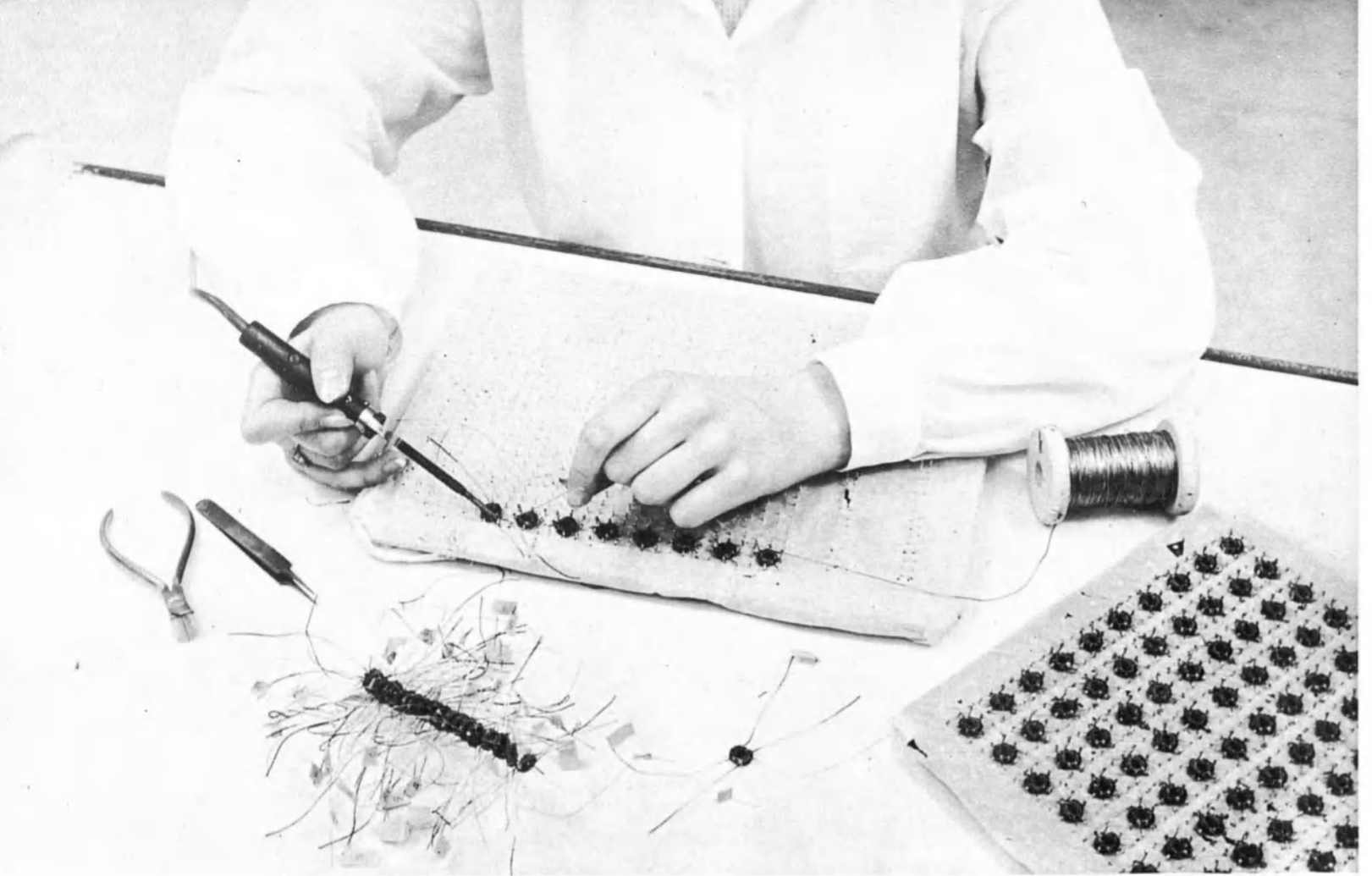
Courier



**ANTON
CHEKHOV**
'Genius in
a nutshell'

JANUARY
1960
(13th year)

Price : 1/-stg. (U.K.)
30 cents (U. S.)
0.70 NF. (France)



MAGNETIC MEMORY MAKERS. Electronic computers are progressively getting bigger and bigger in terms of work capacity—they can now average ten thousand operations a second—but the components are getting smaller and smaller. Today transistors no bigger than a grain of rice have replaced radio valves and some cells which store information are a 250th of a millionth of an inch in diameter. Below, magnetic "memory stores" for use in electronic digital computers being made in a British factory. Above, windings forming part of the "memory", into which information is fed and stored, are soldered into position. Wires are threaded through tiny cores, sometimes only one-twentieth of an inch in diameter, so threading the thousands that are used demands a keen eye and much dexterity. This wiring by hand illustrates the vital part still played by the skilled worker in the age of automation.

Photos British Embassy, Paris.



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This month the centenary of the birth of Anton Chekhov, great Russian writer and dramatist, is being celebrated in all parts of the world. (See page 4)

Official Soviet photo

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CHEKHOV WROTE FOR THE THEATRE ALL HIS LIFE. HIS EARLY PLAYS WERE ONE-ACT COMEDIES. WITH MATURITY CAME WORKS



Official Soviet photo

Anton Chekhov at the age of 28, an unfinished sketch made by his artist brother Nicolas.

CHEKHOV

Contract with conscience

by Pauline Bentley

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WITH A DISTINCTIVE STYLE OF PSYCHOLOGICAL REALISM LIKE 'THE CHERRY ORCHARD' PRESENTED HERE BY THE MOSCOW ART THEATRE

It is just 100 years since the birth of the great Russian dramatist, author and humanist Anton Pavlovitch Chekhov. Born on January 17, 1860 at Taganrog on the Sea of Azov, the son of a tradesman and the grandson of a serf, Chekhov had a relatively short creative life for he died at the age of 44. Yet the works he produced in less than two decades were sufficient to place him as one of the greatest contributors to Russian and world literature. In 1960, homage will be paid to Chekhov in all parts of the world with the commemoration of the centenary reaching its apogee in the Soviet Union. Unesco is associating itself with the anniversary celebrations. It is distributing special articles on Chekhov in its Member States and is sending a specially produced documentary radio programme to some 130 broadcasting stations. Schools will receive a Unesco filmstrip on Chekhov with accompanying booklet in English, French and Spanish. As its share in this universal homage, THE UNESCO COURIER devotes several pages of this issue to Chekhov, his life and work. The article below is based on Unesco's radio programme written by Pauline Bentley, British actress and playwright who has devoted many years to the study of Chekhov and the theatre. On page 13, Professor Maria Yelizarova, a Soviet authority and author of several books on Chekhov's artistic creations discusses Chekhov as a master of the short story.

AMONG writers there are those who die enriching life and literature not only with their work, but sometimes leaving behind them as well a legend which can exceed the truth from which it springs.

The Russian writer, Anton Chekhov, who was born just a hundred years ago, will very likely evoke an immediate recollection of melancholy and gentle futility. His legend is one of pessimism. How did this come about?

There were in a way three Chekhovs—the funny writer for the Moscow comic papers, the serious short story writer, and the playwright. And it is perhaps as a playwright that he is best known.

Outside his own country, his last four great plays, "The Seagull", "Uncle Vanya", "The Three Sisters" and "The Cherry Orchard", are nearly always presented with

a deliberate accent on their minor key and inconclusive content. And yet from many letters and the notebooks which he left we can see how much Chekhov fought against this interpretation of his work and how little he would have cared for his legend. He was far too lucid and humorous to wallow in melancholia for its own sake.

Perhaps it should be remembered he was writing at a time when the society around him was decaying, restless and frustrated. After the exhilaration of the reforms which had taken place in Russia in the 1860's, Russia was in the doldrums before the storm of the Revolution and Chekhov caught this mood of his times. Many of his stories and characters reflect it, since he was one of the most truthful of writers, but time and again he points beyond to a hopeful future, and his natural optimism shines through.

Here is how another writer, Korolenko, a friend of his,

CONT'D ON NEXT PAGE

'I hate violence and lies of any kind'



Photo taken from "Europe", Paris

Anton Chekhov and his wife Olga who had been an actress in the Moscow Art Theatre. When, in 1904, Chekhov went to Badenweiler in Germany for the sake of his rapidly failing health, she accompanied him on that last trip. After her husband's death, she resumed her career in the theatre and was eventually honoured with the Soviet title of Artist of the People.

described the young Anton when they met in Moscow, in 1887.

"Before me stood a young man who looked indeed younger than his years, a little above average height, with an oval face and regular, clear cut features, still retaining the soft contours of youth. There was something unusual about the face, something which I was not able to define at first. Despite the fact that it was obviously the face of an intellectual, it suggested a simple-hearted country lad. It was that which made his face so attractive. Even his eyes, luminous and deep, gleamed at once with thought and with almost childish naiveté.

"His whole appearance, his gestures, his way and manner of speaking, like his writing, radiated simplicity. On the whole, at this my first meeting with him, Chekhov struck me as a profoundly cheerful soul. The endless source of wit and spontaneous gaiety which fills his stories seemed to well up in his eyes. But beneath it we sensed there was something deeper that had yet to develop and was bound to develop for the best. I got a general impression of sincerity and charm."

Behind Chekhov at this time there already lay an unhappy childhood, and the first signs of the tuberculosis which killed him when he was only 44. He was one of six children, born in the little seaport town of Taganrog on the Sea of Azov in south Russia. Unlike the aristocratic writers, Turgenev and Count Tolstoi, who was later his friend, he came of peasant stock. His grandfather was a serf who bought the family's freedom for 700 roubles a head. His own father was an unsuccessful grocer who made Anton's childhood miserable with enforced piety, frequent beatings and rigid schooling.

When Anton was sixteen, the shop failed and the family fled its creditors to Moscow, leaving him behind in Taganrog to finish his schooling and fend for himself by coaching others and doing odd jobs for the merchants of the town. These were years of poverty and hardship but Anton survived them with characteristic gaiety and high spirits. He even managed to write cheering letters to the family in Moscow.

He used these years to educate himself in every way, to deliberately free himself from the limitations of birth

and class. In a letter describing his ideal of a writer which he wrote years later to an editor called Suvorin, he recalls something of his struggle during the years alone in Taganrog:

"In addition to a profusion of talent and material, something else is necessary to a writer. First, a mature mind, and, secondly, a feeling of personal freedom. The plebeian intellectuals have to purchase with their youth what the aristocratic writers receive gratis from mother nature. Why don't you write a story about a young man whose father was a serf, a young man who was in turn salesman, choirboy, schoolboy and student, brought up to treat rank with respect, to kiss the hands of priests, to worship other men's ideas, to express gratitude for every bit of bread he eats, constantly flogged, going about giving lessons in worn boots, fighting with other boys, torturing animals, fond of dining with rich relatives, acting the hypocrite before God and men, for no other reason than consciousness of his own insignificance. Go on to describe how this young man squeezed the slave in him out of his system drop by drop, till one fine morning he wakes up and discovers there is no more slavish blood coursing through his veins—it is all real human blood."

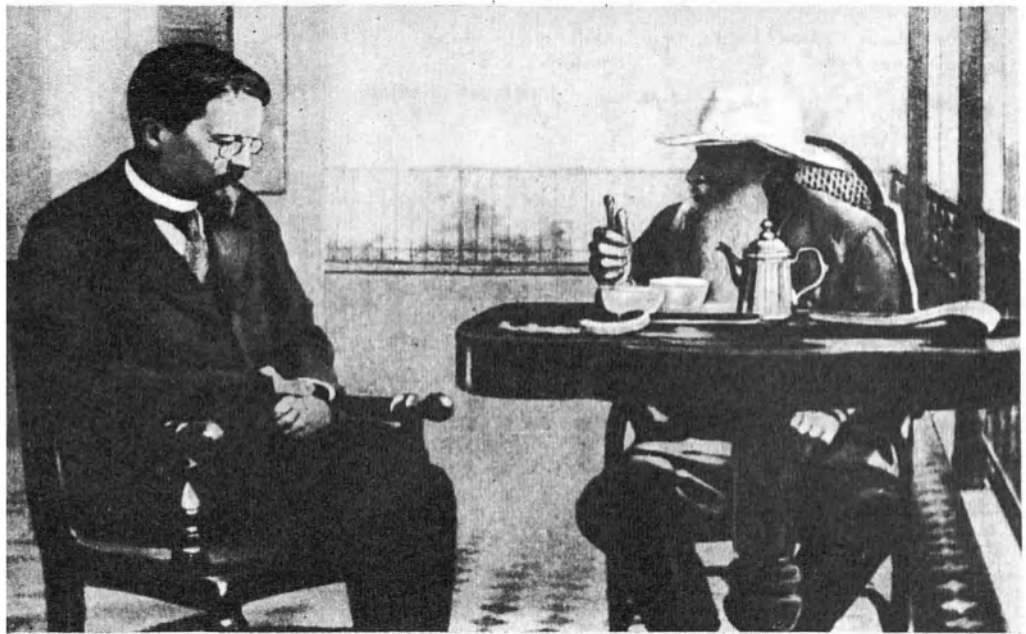
He was nineteen when he first arrived in Moscow and became a student at the Medical Faculty of the University city; and because he found the family in far worse circumstances than he expected, he cast about for a means of earning money to support them while continuing his studies. His choice fell more or less by chance upon writing. From Taganrog he had sent his brother, Alexander, a home-made weekly news sheet which he called "the Stammerer". This aped the low-grade comic news sheet which was fashionable in Moscow at the time. Alexander had already managed to place some of this material in the Moscow papers, which he worked for, and Chekhov now simply enlarged this activity. He adopted a series of nicknames, amongst them that of Antoshe Chekhonte. So, while working at the Medical School, he poured out an endless stream of jokes, captions, sketches, social gossip and even dramatic criticism for the miserable pay these papers offered him.

Another writer of his time, Bunin, has described these inauspicious beginnings of Chekhov as a writer...

A DAY WITH TOLSTOY

One day in 1901, Chekhov, who had taken up residence at Yalta on the Black Sea on the orders of his doctors, went to visit Leo Tolstoy who was also living in the Crimea. As they sat talking on the verandah of Tolstoy's villa, they were photographed (right) by Tolstoy's wife. Chekhov was a keen admirer of his great contemporary whose works, he said, had influenced his own writing.

Bibliothèque Nationale, Paris



"He began his work in the midst of a large family, suffering poverty all through his youth, and he not only worked for the most wretched pay, but in an environment which might have damped the most ardent inspiration—in a tiny apartment, amidst hubbub and loud talk, often sitting at the end of the table around which were gathered not only the entire family but a number of student boarders. Even later he endured a long period of want. But no one ever heard him rail against his fate, and this not because his standards were low—although leading a life of rare and lofty simplicity, he nevertheless detested bleakness and drabness."

Chekhov gave no serious attention to his writing at this time. He regarded medicine as his vocation and writing as merely hackwork. Even later, when success came to him, he persisted in calling medicine his wife, and literature merely his mistress. And success did come, slowly and steadily. First one St. Petersburg editor, Leykin, then another, Suvorin, of the conservative weekly "New Times", offered him contracts. These contracts reduced the financial pressure of supporting his family and allowed him to expand from 80 to 150 lines per story.

In 1884 he qualified as a doctor. Though he never practised medicine regularly, he did work in Moscow and in country hospitals. He drew heavily for his characters,

both from the sophisticated Moscow artists and intelligentsia and the country peasants. But even with his growing fame, he still regarded literature as the lesser of his occupations, until in 1886 the appearance of a story of his called "The Gamekeeper" provoked an older, and much respected writer, Grigorovitch, to write congratulating and advising him to respect and husband a talent as great as his.

Chekhov was thunderstruck: "If I do have a gift to be respected, I must confess that I have hitherto not given it any respect. I felt I had some talent but had fallen into the habit of considering it trifling. Hitherto my attitude towards all my literary work has been extremely frivolous, negligent and casual. I don't recall a single story upon which I have spent more than 24 hours. I wrote "The Gamekeeper", which you liked, in a bath-house. I have composed my stories as reporters write their accounts of fires, mechanically, half consciously, with no thought for their readers or themselves.

"I am going to stop doing work that must be done in a hurry, but not just yet. There is no possibility of my getting out of the routine I have been following. I don't mind going hungry—I've already experienced this—but there is the family to be thought of. I give to writing my leisure hours—two or three during the day and a small

A VISIT FROM GORKY

Shortly after he went to live at Yalta in 1899, Chekhov wrote to his friend, Maxim Gorky, asking him to come and stay with him. A few months later Gorky arrived in the Crimea and was photographed with his host. The two were regular correspondents and Gorky made a point of sending a copy of each of his works to Chekhov as soon as it came off the printing press. In 1900 Chekhov was elected an honorary fellow of the Academy of Science, but resigned when the election of Gorky to the Academy was cancelled by the Government.

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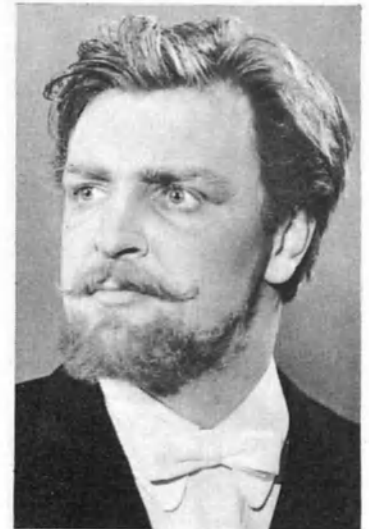
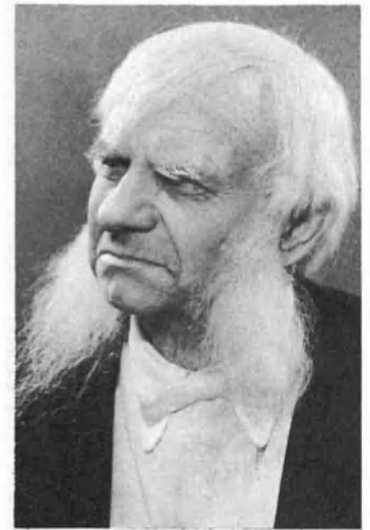
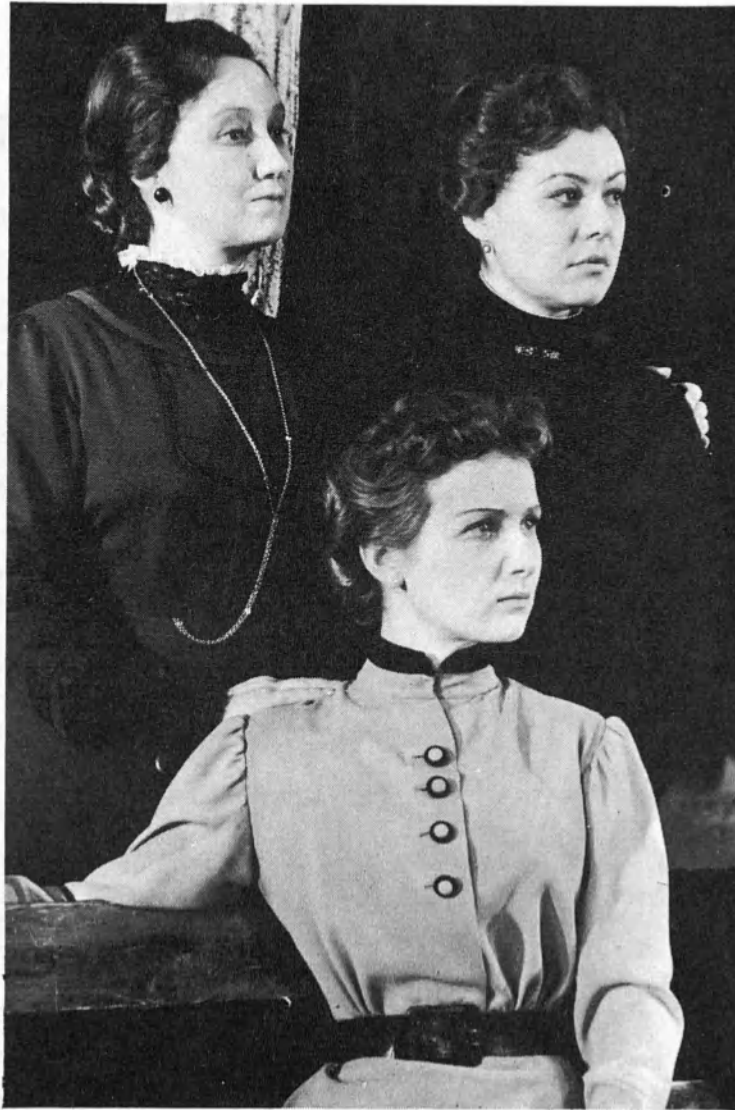
Photos taken from "Chekhov and the Theatre", Moscow, 1954

TRUE TO LIFE. The theatre of Chekhov's day was traditionally a melodramatic affair with stock, heroic characters. Chekhov wished to "de-theatricalize" it; he wanted to reveal the lives of ordinary people, to make a dramatic play of character rather than plot. He found the formula he was seeking when he wrote "The Seagull" in 1895. Produced in St. Petersburg, it was a disastrous failure—neither actors nor public could understand this new sort of play. In 1898 it was revived by a new theatre—the now famous Moscow Art Theatre—which was just struggling into existence under Nemirovich Danchenko and Stanislavsky. This time its success saved both play and theatre. The Moscow Art Theatre still bears the emblem of a seagull on its curtain. Photos show (top) members of the Moscow Art Theatre listening to Chekhov reading "The Seagull" in 1898; (bottom) the company in 1900 at Chekhov's home in the Crimea, where they performed "The Seagull" and "Uncle Vanya".

Flickering flames of social protest

After the success of "The Seagull", Chekhov's connexion with the Moscow Art Theatre became very close indeed. Three of his greatest works—"Uncle Vanya", "The Three Sisters" and "The Cherry Orchard" — were produced there between 1899 and 1904. Photos show scenes and characters from present day productions of these works by the Moscow Art Theatre. Right and below, "The Three Sisters" in which the small sparks of social protest which had been discerned in earlier works now seemed to blaze up more fiercely and openly. The play had its opening during a period of social unrest which was soon to explode in the revolution of 1905. Right (above) Fers, the aged servant in "The Cherry Orchard", who symbolizes the old order; (below) Astrov, the country doctor in "Uncle Vanya". Chekhov expressed many of his own ideas through the character of Doctor Astrov.

Official Soviet photos





THE BROTHERS CHEKHOV

One of five brothers, Anton Chekhov made his first contacts with Moscow journals through his older brothers, Nicholas and Alexander, who were already contributing to them. While working for his medical degree, Chekhov began to pour out an endless stream of jokes, captions, sketches, social gossip and sometimes dramatic criticism. He is seen here watching his brother Nicholas sketching.

Official Soviet photo

CHEKHOV

(Continued from page 7)

'The Seagull' saves a theatre

part of the night. In the summer, when I have more spare time and living costs are lower, I shall take up serious work..."

And take up serious work he did. Antoshe Chekhonte disappeared and from then on Chekhov published under his own name. He slowed down the phenomenal output of his stories from an average of a hundred stories a year to only a score or so. Usually they deal with one main character surrounded by vaguer ones and they recount not so much a story, as a slice of life. At first glance they seem to be written haphazardly, but so brilliant is their construction in fact that their apparent formlessness is impossible to copy, as many of his imitators have found.

The writer Maxim Gorki, whom Chekhov encouraged from the beginning of his career and who became his great friend in Yalta towards the end of his life, wrote to another colleague, Andreev: "Learn compactness and economy of expression from Chekhov, but God prevent you from imitating his language—it is inimitable and you'll only be spoiled if you copy it—it is like a beauty who is passionless and gives herself to no one."

His last stories are classics in their own right. In them are reflected his ruling creative principles of an unwavering respect for truth and objectivity, and the sense of an artist's responsibility which he once described himself: "My holy of holies is the human body and brain, talent, inspiration, love and personal freedom—freedom from force and lies—whatever form the last two may take. Had I been a great artist that is the line I should like to have followed. I am not a liberal, or a conservative or an evolutionist or a monk. I should like to be a free artist, that's all. I hate violence and lies of any kind. Pharisaeism, stupidity and licence are to be found not only in middle class homes and police stations. I see them in science, in literature and among young people.

"It seems to me that the writer of fiction should not try to be the judge of his characters and their conversations, but only an unbiased witness. An artist must judge only of what he understands. He observes, selects, guesses, combines. Only the stating, not the solution, of a problem is compulsory to an artist. In "Anna Karenina" and "Eugene Onegin" not a single problem is solved but they satisfy you completely because the problems are correctly stated.

Plays as complex and simple as real life

"THE writer is not a confectioner, a cosmetician or an entertainer. He is a man who has to fulfil a contract with his conscience and his sense of duty, and however much he may hate it, he must overcome his fastidiousness and soil his imagination with the dirt of life. To a chemist the notion of dirt does not exist and the writer must be as objective as the chemist. He must renounce every subjective attitude to life. You've only to look at the writers whom we consider immortal or even good—the best of them are realists and depict life as it is—there is a conscious aim in every line they write so that you feel, as well as depicting life as it is, they depict life as it should be."

Life as it should be. This was Chekhov's cry. Nothing, nothing deflected him from his purpose, which was to point his optimistic belief in the future. He himself built schools and hospitals in the village where he bought his country house. His treatise on the savage penal settlements which he voluntarily visited on the desolate island of Sakhalin helped to spark some prison reforms there. But it was by his writing, and particularly in his last four plays, the work of his maturity, that Chekhov carried out his intention of pointing to a better life ahead by illustrating the miseries of life around him.

It is no accident that Chekhov's maturest works were his plays. He wrote for the theatre all his life; he published many popular one-act comedies in his early Moscow days and as time went by he developed very definite ideas

about playwriting: "On the stage everything should be as complex, and as simple, as real life. People are having dinner, and while they are having it, their future happiness may be decided or their lives shattered. The hero and heroine of a play are always expected to be dramatically effective. But in life people don't shoot themselves or hang themselves or fall in love or deliver themselves of clever sayings every minute. They spend most of their time eating, drinking, running after women or men, talking nonsense. A play ought to be written in which the people come and go, dine, talk of the weather or play cards, not because the author wants it but because that is what happens in real life. Life on the stage should be as it really is and the people too should be as they are, not stilted."

Unfounded legend of Chekhov's melancholy

THE theatre in his day was traditionally a melodramatic affair with stock, heroic characters, full of action and high-sounding phrases. Chekhov wanted to change all this, to use the theatre for a different purpose. He wanted to reveal the lives of ordinary people, to make a dramatic play of character rather than plot. He found the formula he was seeking when he wrote "The Seagull" in 1895. This was the first play in which he established his own distinctive style of psychological realism. Its first presentation in 1896 was unsuitably cast and it was a disastrous failure—neither actors nor public could understand this new sort of play, where they were shown the complicated relationships and states of mind of a set of characters to whom nothing in particular seemed to happen.

The failure of the play deeply affected Chekhov's weakening health and he returned to Yalta where he had been living for some time on the advice of his doctors. It was only with great difficulty that he was persuaded to allow "The Seagull" to be done again by another, new theatre which was just struggling into existence in Moscow. This was the now famous Moscow Arts Theatre under Nemirovich Danchenko and Stanislavsky. These two men had the idea of bringing much of the same sort of realism into theatrical production as Chekhov had wanted to bring into playwriting, and they chose his "Seagull" to be part of the first season.

The public were no more ready for this new kind of play presentation than they had been for the first production of "The Seagull", and the Moscow Arts Theatre looked as though it was going to fail at its outset until Stanislavsky's production of "The Seagull" in 1898 saved both play and theatre. To this day the Moscow Arts Theatre bears the emblem of a seagull on its curtain and ranks Chekhov amongst its patron authors. All his three major remaining plays, "Uncle Vanya", "The Three Sisters" and "The Cherry Orchard", were presented by Stanislavsky with great artistic and commercial success.

The productions were all marked by argument and discussion. This was true for "The Cherry Orchard"—which Stanislavsky persisted in treating with melancholy although Chekhov himself wanted it to be more optimistic in tone.

It was largely out of such disagreements and Stanislavsky's establishment of his interpretation of the plays that Chekhov's legend of melancholy was born. Stanislavsky's low-key interpretation need not obscure the fact that Chekhov's inspiration was a positive one, as he himself stated once when he was talking to the theatre critic, Tikhonov: "You tell me that people cry at my plays. I've heard others say the same. But that wasn't why I wrote them. All I wanted was to say honestly to people: 'Have a look at yourselves and see how bad and dreary your lives are'. The important thing is that people should realize that, for when they do, they will certainly create another and better life for themselves. I won't live to see it, but I know that it will be quite different, quite unlike our present life."

HIS THREE IDEALS: TRUTH, INTEGRITY HUMAN DIGNITY

(Continued)

The peculiar and unique distinction of Chekhov's plays is the style, the way in which they were written. Like his stories, they seem haphazard. When the curtain goes up on a Chekhov play one is not aware of watching a set of people detached from one's own life, one simply feels that one has been able to become an extension of their lives.

His influence as a writer on the theatre today lies to a great extent in the important place he takes in that realistic theatrical movement which started in Europe towards the middle of the nineteenth century, and whose effects can still be felt today. As soon as his works were published outside Russia, they were avidly read and much admired. The Irish playwright, George Bernard Shaw, emulated his style deliberately in his play "Heartbreak House", though he intellectualized the characters in it instead of keeping them the essentially human beings that Chekhov always created.

Between the plays of another Irishman, Synge, and Chekhov's there is a similarity of inspiration, though this was not deliberate. On the American school of playwriting of the 1920's Chekhov's influence can be seen in writers like Sherwood Anderson and Saroyan and in contemporary writers of the Tennessee Williams' school. But perhaps Chekhov's strongest influence on the theatre today grew not out of his writing as such, but out of the method of presentation which his plays inspired the Moscow Arts to give them, a reforming ideal and preoccupation with the souls of their characters rather than plot.

Strong impact on writers in the West

As a writer outside the theatre Chekhov's influence on those who read him in the West was considerable, and more direct. After Guy de Maupassant he came to be recognized as the master of the short story. Writers as varied in nationality and intention as Katherine Mansfield or Virginia Woolf, James Joyce, Ernest Hemingway, William Faulkner, and Thomas Mann, who describes Chekhov's work as that of "genius in a nutshell"—all these have written and spoken of the effect upon them of this gentle, compassionate Russian.

In 1904, Chekhov went to Badenweiler in Germany for the sake of his rapidly failing health. With him went Olga, his wife, a famed actress in Russia, who has left a record of that last trip: "...Anton Pavlovich took his departure for another world quietly and calmly. Early in the night he woke up and asked me for the first time in his life to send for the doctor. I remember one ghastly moment of bewilderment—the sensation of the nearness of hundreds of people in the great, sleeping hotel, and at the same time the feeling of my own utter loneliness and helplessness..."

"The doctor came in and told me to give him champagne. Anton Pavlovich sat up and said to the doctor, very loudly and meaningly, in German, a language which he knew very little: 'Ich sterbe'. Then he picked up the glass, turned his face towards me, gave his wonderful smile and said 'I haven't drunk champagne for a long time...', drained the glass, lay quietly on his left side and very soon fell silent for ever... And the terrible quiet of the night was only broken by the violent flutterings of a huge black moth, which kept knocking itself painfully against the lighted electric lamps, and hurling itself about the room..."

And so Chekhov died. The dignity of human beings, the integrity of the artist, truth—these were the ideals by which Chekhov lived and by which he would have wished to be remembered.

JOURNEY TO SAKHALIN

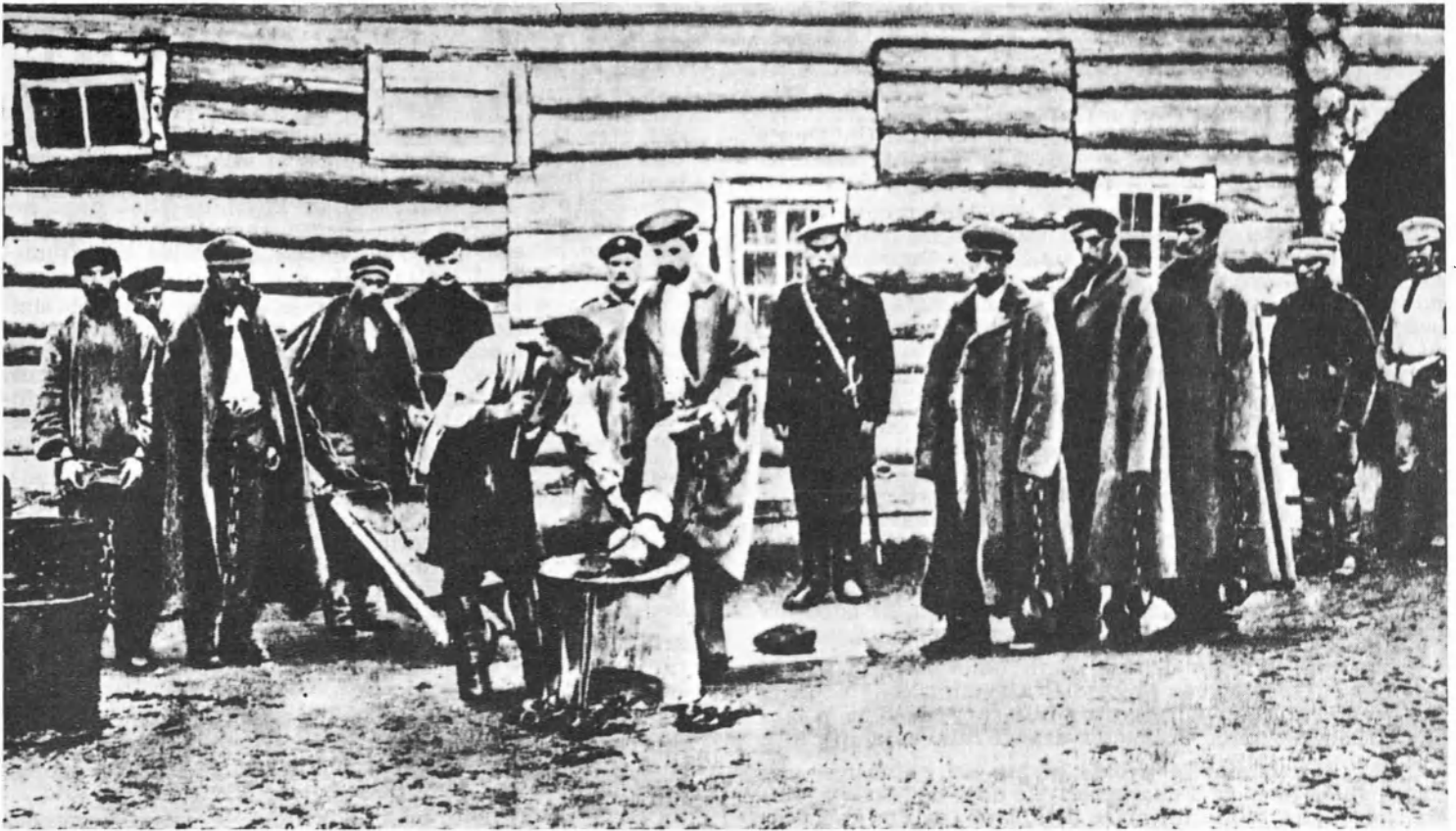


IN THE STEPS OF ANTON CHEKHOV

A major event in Anton Chekhov's life was the visit he made to the convict island of Sakhalin, off the Siberian coast and to the north of Japan. Not only did it give him material for two books, "The Island of Sakhalin" and "Siberia", but it also helped him to mature as a writer and did much to determine the trend of his future work. Chekhov left Moscow in 1890 and after a long and difficult journey reached his goal. He visited the prisons and entered the cells—damp hovels crawling with vermin where prisoners lay chained to planks. His study of Sakhalin was thorough and objective and the precise and impartial book he wrote on his return caused such a stir that the Government was forced to send out an investigating commission. (Photo, right, brought back by Chekhov, shows convicts being put in chains.) Sixty-eight years later, in the summer of 1958, Sergei Mikhailovich Chekhov, an artist and the nephew of the great Russian writer, accompanied by his son, Sergei, a student artist, covered in ten flying hours the 7,000 miles from Moscow to Sakhalin which it took Anton Chekhov three months to reach, travelling by train, poste-chaise and boat. They went there to complete a series of pictures called "Chekhov Landmarks" whose execution had already taken them to many other parts of Russia. At Sakhalin they sketched and painted the places and things that Chekhov had seen and written about. They found and drew (above) some of the low, dark, hideous buildings which have still survived from those days. And they also recorded the striking changes that have taken place there with new towns and settlements springing up (below). They found that the memory of Chekhov lives on in stories and legends, in the names of towns and settlements and they met people who still speak of the writer's self-sacrificing effort to ease the lot of the convicts.

Official Soviet documents





Bibliothèque Nationale, Paris

CHEKHOV—AN UNSURPASSED MASTER OF THE SHORT STORY

by Professor Maria Yelizarova

ANTON CHEKHOV, today accepted the world over as an unsurpassed master of the short story, had to overcome innumerable difficulties in his early years and to struggle against many moribund traditions before he gained the recognition of both readers and critics and took his place in the world of great literature.

In his letters, Chekhov often alluded to these difficulties and to his own *genre* that nobody would recognize. He had to wage a prolonged struggle to obtain acceptance of this style. Nobody wanted to print his story "Shorter than a Sparrow's Beak", for example, and it was returned to him contemptuously, but still he was not discouraged.

Though Chekhov himself believed that everything he had written would be forgotten in a few years, he nevertheless realized that he was breaking new paths in literature: "Everything I have written will have been forgotten in five or ten years; but the paths I have broken will remain, whole and undamaged, and that is my contribution to literature."

Chekhov made innovations both in ideology and style. "An author's originality is not only in his style but also in his mode of thinking, in his convictions, etc.," he wrote in 1887.

The artist, he believed, must have a new word to say, he must find a new angle from which to look at the world, at the life that surrounds him and the people he depicts, and this means that he must also find a new way of revealing these phenomena in his art, he must find a new form for his works.

The Russian literature of the period immediately preceding Chekhov (the sixties and seventies of the last century) showed a great tendency to follow the lines of the

magazine essay; Chekhov endeavoured to re-establish the short story in its own right. His short story is frequently a "snapshot" photographed by a master; a sketch or draft that has, nevertheless, crystallized into an integral, finished product with its own specific rules of style.

Some of Chekhov's sketches, studies or portraits which at first sight claim to do nothing more than play up some curious incident in everyday life, depict some accidental meeting or conversation, photograph some moment in the lives of very ordinary people, suddenly and quite unexpectedly reveal a broad picture of Russian life to the reader.

Writers of world renown have spoken admiringly of Chekhov's ability to create an unforgettable story out of simple, everyday material. The British writer, John Galsworthy, said in 1918: "Chekhov's great success is in his ability to make tranquillity exciting in the same way as prairies or deserts excite those who see them for the first time."

As early as the eighties, the formative period of Chekhov's short story *genre*, he had already evolved a clear-cut system of aesthetic views that enabled him to give frequent advice and act as guide to other writers. In 1883, writing to his brother he said that it was not the personal, the subjective that was important in literature, but "Stress... that which is vital, that which is eternal, which stimulates genuinely human and not petty feelings."

"To the people you must offer people and not yourself," said Chekhov in another letter.

He also spoke of his ideas on short story writing. "The short story consists of a beginning and an end," he asserted, "and understatement is better than overstatement." A writer should try to be clever, but should not be afraid to write nonsense. "Only he who is not afraid to write nonsense," he assures us, "is a freethinker."

'Brevity is the sister of talent'

At the time when he wrote his short stories Chekhov's aesthetic ideal was brevity. "Brevity is the sister of talent; talented writing is terse writing," Chekhov said.

Chekhov's own writing in the 1880-1886 period was a brilliant realization of this ideal. He had no rivals in his own sphere. Even such great masters of the short story as Merimée, Mark Twain, Turgenev and Maupassant could not conceive of a story no more than one and a half pages, a single page or even three-quarters of a page in length. At times Chekhov's stories really did consist solely of a "beginning and an end."

The civil servant Chervyakov, an official of the type produced in countless numbers by the bureaucratic machine of old Russia, one day sneezes on the bald head of a general sitting in front of him in the theatre ("Death of an Official"). He is seized with mortal terror. He must apologize, he must explain to the general that it was not his fault. The general's wrath will have terrible consequences for him, a petty clerk of no importance. He goes again and again to apologize until the general, losing his temper with him, drives him away. Chervyakov is beside himself with horror, goes home... and dies.

Everything is there in this tragi-comic story of a civil servant; it is brief, compressed to the limit, but nothing can be added to it—Chervyakov is a real-life type, a tremendous generalized character drawn full scale, life size.

Chekhov deliberately avoids giving an extensive, all-round description of a character. He does not draw a portrait, does not relate intimate details of his life and does

not give the reader his biography, his previous history. One moment only out of a mass of vital facts and events is seized upon and that moment is reproduced as a story. The artist is not interested in anything that does not bear on the episode—the sneeze and the pseudoconflict with the general—everything else is outside the framework of his creative thought.

The image possesses a certain schematism, for it is simplified to the extreme. But this simplification is the delicate method of an artist, it is the principle underlying his creation of a type. The figure of Chervyakov retains only that which determines the very nature of the soul of officialdom, a soul that has for ages been trained in unaccountable fear for its own fate, in submission to authority and in absolute humility.

By exaggeration, amounting at times to hypertrophy of the humility, fear and crushed spirit of the civil servant, in places even by a caricature of it, Chekhov reveals in him that which he himself so aptly defined in a single phrase: "Russia is a land of officialdom."

A new outlook on the surrounding world compelled the artist to make new demands of the short story and to revalue many such concepts as "subject", "character", "event", etc.

Chekhov wittily ridiculed the old, generally accepted principles of structure in story and descriptive writing that had become established in literature. "The subject must be new but there need not be any plot," he said.

Chekhov's parodies broke down old stereotyped methods



INCOMPARABLE STORYTELLER. It was only after 1886 that Chekhov found the necessary leisure and independence to give full expression to his imaginative experience and ideas in his stories. In

the next few years he attained perfection in his style and produced a series of masterpieces. Above, illustrations from current Russian editions of Chekhov's stories. From left, "The House with the

courageously and purged literature of outmoded traditions. In many respects Chekhov had learned from Turgenev, had inherited much from him, but nevertheless he realized that Turgenev's school of writing was a thing of the past. "Descriptions of nature are good, but... I feel that we have already outgrown that sort of description and need something else."

And all Chekhov's creative writing showed what that "something else" was. His descriptions of nature are devoid of floweriness, ornament and excesses; they are severe, simple, artless and sometimes deliberately terse. "The sun came up," "A drizzle of rain began," "The frogs in the pond called to each other angrily, exerting themselves, and you could even make out the words: 'And so are you... And so are you'" "A rumble of thunder as though someone were walking barefoot over an iron roof"—and these unbelievably simple, everyday words build up pictures that no reader is likely to forget.

Such stories as "Happiness," "Dreams," "Huntsmen," "In the Shed," "Dead Body," "Sorrow," and others are amazing in their simplicity and their powerful lyricism.

In "Happiness" there is no subject; action, as usually understood, does not develop; nevertheless there is a clearly discernible overgrowth of lyricism. Three people, lost in the great open spaces of the steppe, ponder over and speak of happiness—can it be reached and how is it to be found?

"Happiness" is a popular local term for buried treasure supposed to be hidden somewhere in the steppes. It is quite obvious, however, that the story is not about buried treasure but about human happiness in the fullest meaning of that word; it is elusive and fantastic, it is beyond the reach of man, but he will never stop seeking it and yearning for it...



Drawings by Kukryniksy

Maisonette", "Lady with the Dog", and "Grief". Drawings are joint works of three artists who sign themselves "Kukryniksy", from the first syllables of their names: Kuprianov, Krylov and Nikolai Sokolov.

While the characters are talking, the darkness of night is gradually dispelled, the sky grows pale, the stars are extinguished and suddenly, over the horizon, "the blood-red sun makes its appearance surrounded by a light haze." All nature smiles and flaunts her gay colours to welcome the sun, and this picture of sunrise conquering the darkness of night seems to give the story an enthusiastic note, confirming the legitimacy and reality of man's dream of happiness...

Chekhov employs an endless variety of methods. His ability to reveal the simplest and most ordinary things in a new way is a great art and one that he mastered to perfection. He compels us to see the world through the eyes of Semushka the Fool, who was, in reality, possessed of the wisdom of a simple artless soul ("Dead Body"), or through the eyes of a child who sees his environment more perfectly and profoundly than adults who are burdened with petty cares and greedy calculations and are strangers to real poetry ("Vanka," "Event," "The Runaway," "The Cook Gets Married," "Grisha," "Worldly Trifles," "Steppe," and other stories about children); or, lastly, through the eyes of animals with their own specific "philosophy" ("Kashtanka," "Whitebrow," "Boarders").

Outstanding in Chekhov's artistic method is his ability to incorporate a grand picture of human life, intricate, full of contradictions and drama, with all its manifold entanglements, in a subject that is often extremely simple. That is why his longer stories are accepted by readers in all countries as a great *genre* that deals with life's most complicated problems; you feel in them the movement of the "human ocean" behind the life-stories of individual characters.



In his longer stories Chekhov introduces us to characters who are tormented by their search for truth, characters filled with vague alarm and anticipation ("The Teacher of Literature," "The Duel," "My Life," "On Business," "Three Years," "The Bride" and others).

The uneasiness felt by the characters is passed on to the reader. Chekhov accomplishes this by his original manner of telling a tale that is outwardly calm but inwardly always tense and disturbed. The reader is confronted with questions that cannot be avoided. Gorky once called Chekhov's stories "a book that worries", precisely because of the way they trouble the conscience of the reader by asking him, "Why have you lived your life?"

In an article entitled "Chekhov", Thomas Mann shows with typical insight what it is in the Russian writer's work that makes him kin to the best writers abroad. He says that even today Chekhov has "brothers of the tormented soul" because the conditions of life "under which there exists an impassable gulf between truth and reality have still not been eradicated from society. These writers are tormented by the knowledge of their inability to answer the question, 'What is to be done?' They are unable to say what meaning their work has, but despite this they go on working and they work to the very end."

Readers throughout the world are amazed at the power and lyricism of Chekhov's writing, his ability to pose precisely and sharply those questions that trouble people everywhere, whatever their nationality or language.

They are equally astounded at the striking simplicity of Chekhov's words and the meaningfulness that can be understood by all. The decadents of Chekhov's time, both in Russia and abroad, declared that the words available to a writer were all worn out, they no longer expressed anything and did not, therefore, possess the power to create the tensest dramatic situations.

John Galsworthy spoke of the kinship of Chekhov's manner of writing to that of authors in other lands: "Throughout the past twenty years Chekhov has been the strongest magnet for young writers in many countries."

The Danish writer Bang dedicated the Russian translation of his novel "Without a Country", published in 1911, to Chekhov. "I want this book to be dedicated to Anton Chekhov," he wrote. "I dedicate it to the memory of one for whom I feel a stronger love than for any other Russian writer... He was connected with the deepest roots of the people, he shared the sufferings of the people... He offered the people the creature of his genius in which the heart of the people themselves was beating... The grandeur of his creative work was in its humanity... His soft voice was heard far beyond the bounds of the Russian land."

PATAGONIA

PARADOX OF DESOLATION AND PROSPERITY

by E. Aubert de La Rue



T

here are places in the world whose names set the imagination afire. Among them are those at the southernmost tip of Latin America. Patagonia, the Strait of Magellan, Tierra del Fuego, Cape

Horn—all these conjure up a remote and desolate land with a harsh, hostile climate; a land swept by winds and storms; a land of forbidding shores lashed by giant breakers. This, undeniably, is the general run of weather on this frontier of the inhabited world, where swirling waters have tossed many a ship on the rocky shores. Yet this narrow extremity of the American continent, stretching down towards Antarctica, is not an utterly desolate place, but abounds in natural beauties and resources.

Western Patagonia belongs to Chile which now has plans for integrating the region's three hitherto isolated and neglected provinces of Chiloé, Aysén and Magallanes, more closely into the economic life of the nation. This mountainous and maritime region is a kind of Norway of the south where the mighty Andes and the Pacific Ocean seem to intermingle as the coast of southern Chile breaks up into a maze of islands.

It contrasts strongly with the eastern side, adjoining the Argentine border, which comes into the Pampas belt and comprises many plateaux and plains, culminating in

the flat or slightly undulating country on either side of the Strait of Magellan.

Chilean Patagonia covers an area of some 96,000 square miles, or roughly a third of the whole country, but only a small percentage of Chile's population lives here (about 220,000 people out seven million). As a first step in their plan of integration, the authorities in the Chilean capital, Santiago, intend to carry out a vast survey of the southern territories and to make a detailed inventory of the varied natural resources of the area. This is a job calling for more funds and technical personnel than Chile can provide, and the government hopes that some help will be forthcoming from the United Nations Special Fund for Technical Assistance, and in particular from Unesco.

In appointing me to carry out a preliminary on-the-spot survey and to report on the means for putting the main project into operation, Unesco added a new region to the many in which it has already operated.

Patagonia is situated at a latitude which, in the northern hemisphere, offers an essentially temperate climate, a latitude on which most of the great capital cities lie, yet it has a cold climate characterized not so much by severe winters as by the absence of summer heat. It has only one town of any size, Punta Arenas. Other than this, there are only small, isolated settlements, cattle-breeding stations and scattered farms, separated by vast empty stretches of country which is difficult to cross and still often unknown territory.

Because of its immense icefields, this rugged region



Photos © Paul Almasy

cannot be linked by road with the rest of the country. The air link from Santiago to Punta Arenas covers 20 degrees of latitude and takes just over five hours. The flight is a remarkable experience. Chilean pilots have every reason to consider the route one of the most dangerous in the world, but to the passenger it offers a fantastic panorama of volcanoes, lakes and fjords, wild valleys, lush forests, jagged coastlines, snow-clad peaks and glistening ice-fields.

Santiago in summer enjoys constantly fine, hot weather and shimmers in a dazzling light. The last traces of snow on the nearby Andes have melted away, leaving only a few glaciers perched on peaks at altitudes of 16,000 to 20,000 feet and glistening in the sun. Taking off for Patagonia, the plane climbs steeply over the vast patchwork of crops in the irrigated fields of the Central Valley, bounded on the Pacific side by the slopes of the coastal mountain chain and on the East by the main mountain range. Rising up on this side are the spectacular series of volcanic peaks which have laid dormant—with the exception of the gently-smoking *Viela Rica*—since the memorable eruptions of 1932.

The aridity of central Chile soon gives place to a more humid, verdant region dotted with rivers and lakes. This is Chile's "Switzerland," the most attractive part of the country. Here the climate is pleasantly cool and grassland alternates with forests. It is an agricultural and cattle-raising area, much frequented in summer by holiday-makers.

Then, like a sentinel standing guard at the ramparts of the grim wilderness of Patagonia, the cone-shaped outline of *Osorno* with its snow-capped peak comes up on the horizon. Beyond it are other famous mountains—*Tronador*, followed by the gaping crater of *Calbuco*.

Thus, after a two-hours' flight, the aircraft reaches *Puerto Montt*. At this point the continent suddenly breaks up and Patagonia begins. From here on, the Central Valley, garden and granary of Chile, gives place to a fantastic labyrinth of promontories and islands, narrow channels and fjord-like inlets. It seems incredible that ships on their way to the far-off Strait of Magellan can manage to wend their way through this maze, beset as they are by violent currents, blinding rain and, as they get ever further south, snow squalls. Navigation along this coast is indeed a delicate and dangerous enterprise.

First of the endless chain of islands which run parallel to the continent and extend down to Cape Horn, fringing the coast for hundreds of miles, is *Chiloé*. It is overpopulated and its people cling to the past, observing archaic customs and traditions. Living in a few old-fashioned townships or a multitude of tiny country villages distinguished by picturesque wooden houses, the *Chilotes*, a people of mixed Indian and Spanish blood, are spreading to all parts of Patagonia and now form the main element of its population.

In their home country their main occupations are fishing, cattle-breeding and farming, but the archaic methods they use give but poor results. Many of the



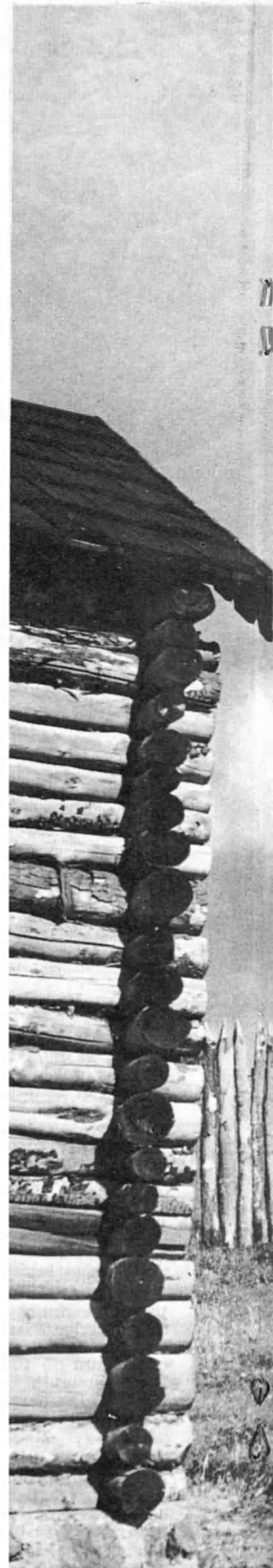
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MOST SOUTHERLY EDGE OF AMERICA

Patagonia gets its name from the Spanish word *patagones* (big feet) for there is a legend that the Indians who once lived there were giants with huge feet. Today despite a century of immigration into the area the population density of most of Chilean Patagonia is less than one person per square mile. Some descendants of the Indians have mingled with the immigrants and have become lumbermen and fishermen. Others (above and left), continue to live like their ancestors in shelters made of wood, brush and tarpaulins. Among them are the Yaghans, the southernmost people in the world, now reduced to a handful and living in the extreme south of Tierra del Fuego. Abundance of timber in the region is shown by wooden houses of Fuerte Bulnes, a village on the continent's tip.





DESOLATION & PROSPERITY

(Continued from page 17)

Chilotes live poverty-stricken lives. Yet their island enjoys a mild climate and is free from frost and snow. Cereals ripen well there and the island is noted for its potatoes. It is, in fact, from Chiloé rather than from the high plateaux of Bolivia and Peru, that the first potatoes are supposed to have come.

Today, the Chilotes have settled in most parts of southern Chile. In the Chonos islands, where they have become lumberjacks, they fell huge quantities of cyprus trees and turn them into fencing posts most of which are bought by Argentina and used to build sheep pens. Others have set up colonies along the coasts and the more protected valleys of the nearby mainland, and often live nomad lives on the channels in search of the few remaining otters and seals which have survived the wholesale slaughters of the past.

Still other Chilotes work for small fisheries, canning sea-urchins, spider crabs and all kinds of shellfish, including the *mariscos*, giant mussels which are also dried and smoked. Countless heaps of shells marking former camping sites along the coasts show that these mussels were a staple food of the original Indian inhabitants of these regions. Today *mariscos* are in great demand throughout Chile. Chilotes are also employed as shepherds on all the farms, and are regarded as good workers.

As the outlines of Chiloé become dim and blurred by the fluffy cumulus clouds over the Pacific, the aircraft, winging its way south, now flies over the startlingly green western slopes of the Andes. The southern forests which cover them are usually dripping with moisture for here torrential rain falls on an average of 300 days each year.

Senseless squandering of Nature's wealth

WITH its evergreen trees and its undergrowth of *quila*, a species of bamboo which forms impenetrable thickets, the forest has all the luxuriance of a profusely growing tropical one. Beginning on the coast, it can be seen extending unbroken along the valleys and up the mountain sides.

Yet this fine, thick carpet of verdure is sometimes scarred by dull streaks and patches of grey where forest fires have left nothing but bare trunks, some still upright, others strewn over the ground. Flying over Patagonia I saw forest fires from Chiloé down almost to Cape Horn. Most are started by isolated farmers who find flames an easier tool than the axe when they wish to clear land for cultivation. Unfortunately they disregard the strong winds which fan the flames and spread the fires unchecked over huge areas.

Hundreds of thousands of acres of forest have been destroyed in this way during the past century of settlement in Patagonia. The ostensible reason for the fires is to open up more land for pasturing, but in fact they are often started quite uselessly and at the risk of setting off the deadly process of soil erosion. The authorities are well aware of this danger and of the senseless squandering of this source of natural wealth, but so far no laws or regulations have put an effective stop to the practice.

Beyond the grim, majestic Aysen fjord the character of the landscape becomes far more harsh and severe. The glaciers become larger and soon one is flying over a polar landscape which continues almost uninterruptedly as far as Tierra del Fuego. Here, at an equivalent Southern Hemisphere latitude to that of the European Alps, the famous San Rafael glacier and many others run right down to sea level, forming a patch of the fantastic blue colour, which appears to be a peculiarity of the glaciers of Patagonia.

Amid the dazzling snow-capped peaks and glaciers, mighty granite needles stand out and two in particular, Fitzroy and Cerro Paine, mark the end of the crossing of the Great Cordillera and the beginning of the



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1-2. LAST LARGE CITY. Punta Arenas, with a population of 50,000, claims to be the southernmost city in the world. (Ushuaia, in the Argentine part of Tierra del Fuego, is further south, but has only 7,000 inhabitants.) Situated on the Strait of Magellan, Punta Arenas has a free port status and exports large quantities of wool (above).

3. LAST GROUND. Among the tufted grasses of Diego Ramirez island—last terrain of Patagonia—a colony of albatrosses installed in its nesting quarters. Albatrosses usually lay their single eggs on the bare ground. These birds in rainy Patagonia have learned to keep their eggs dry by building raised mounds of mud as nesting places.

4. LAST KITCHEN GARDEN. In this vegetable patch at Puerto Williams on Navarino island, lettuce and potatoes grow well as long as they are protected by wooden screens from the sweeping westerly winds. Puerto Williams is the world's most southerly established village.

5. LAST FLOWERS. Primroses growing on Lennox Island, near to Cape Horn. The nearest terrain to the south of here is the vast icy wasteland of Antarctica with its scientific observation stations.



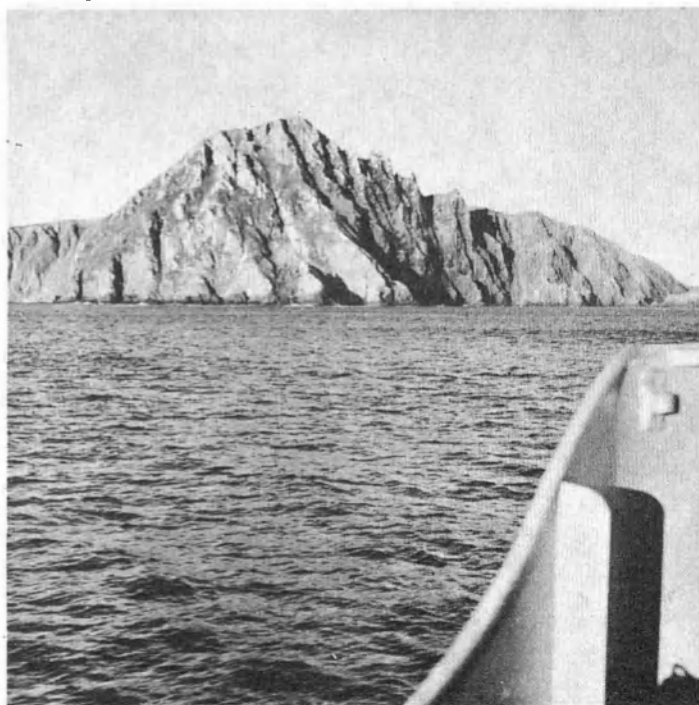
LAND OF FIRE LAND OF ICE

Explorers, navigators and scientists are remembered in the names given to many places on the southernmost part of the American continent in and around Tierra del Fuego (The Land of Fire). Exploits of Ferdinand Magellan, the Portuguese navigator and the first European to sail these waters, are commemorated in monument (right) at Punta Arenas, capital of province of Magallanes, also named, together with Magellan Strait, for this explorer. Below, Cape Horn, given its name in 1616 by William Schouten, a Dutch sailor, for his native town of Hoorn. Photographed on a calm, sunny day, the towering cliffs seem to belie their sinister reputation as the scene of so many shipwrecks. Far right, the Italia glacier, one of several which appear to hurl themselves down from the Darwin Cordillera (named for the great scientist) and crash into the Beagle Channel, which recalls the voyage of H.M.S. Beagle during which Darwin gathered the material on which he based his "Origin of Species". The centenary of its publication and the 150th anniversary of Darwin's birth which coincided last year were marked by celebrations with which Unesco was associated.



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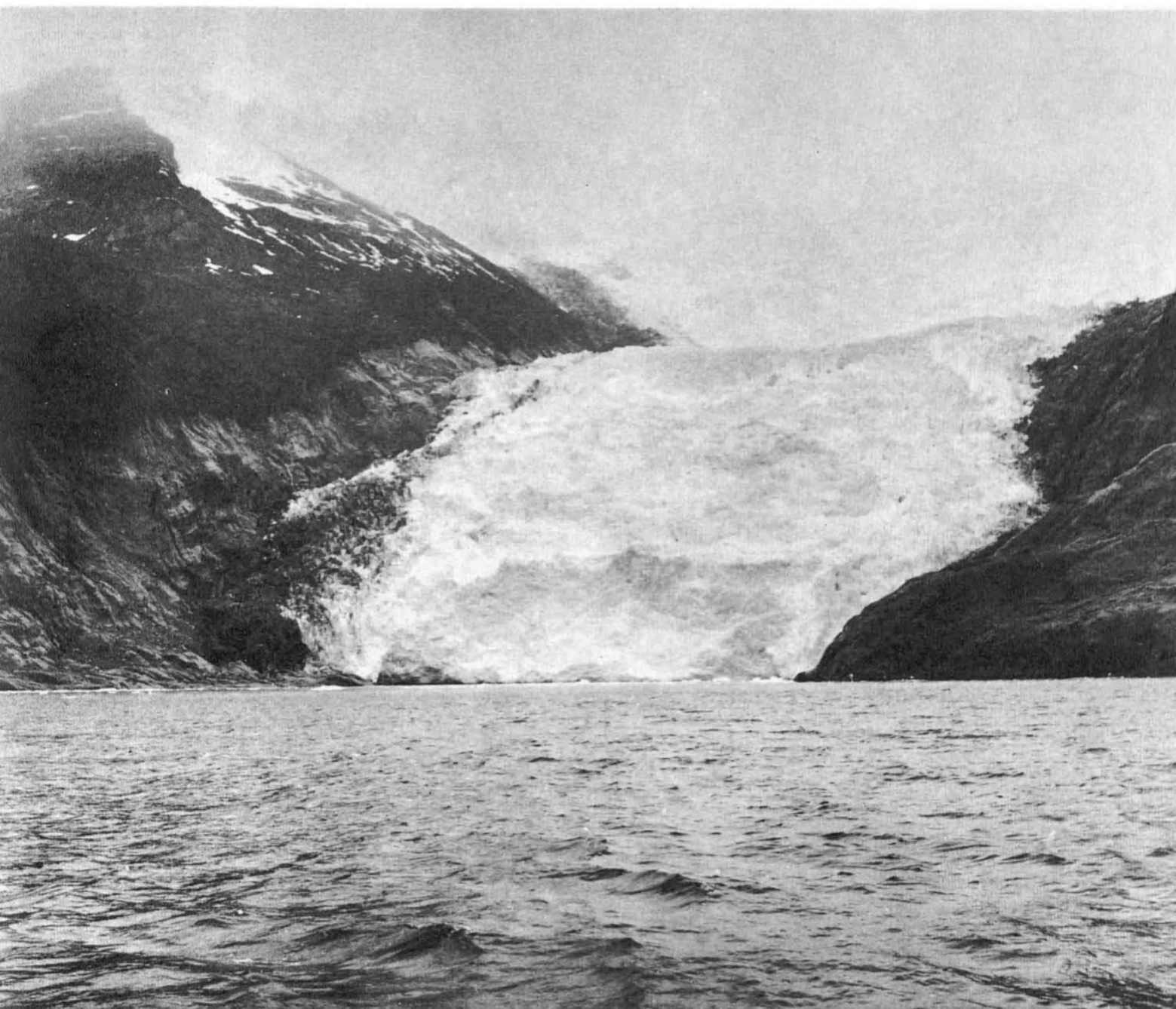


dun-coloured steppes extending as far as the eye can see to the Strait of Magellan and beyond.

Now the flight is almost ended and as the plane loses height it is possible to see details of the pampas below, squared off into enclosures containing thousands of sheep looking from above for all the world like ants' eggs. There are between two and three million sheep in Chilean Patagonia and the breeding industry which supplies wool and frozen meat for export is still the main economic resource of the southern provinces. The white-walled buildings of the sheep farms, protected against the perpetual westerly winds by screens of trees or planks, are connected by dusty tracks with Punta Arenas which now appears in the distance as a large red patch lying at the foot of mountains still decked with snow. A final circuit over the Strait of Magellan, broad at this point and flowing between foam-flecked shores, and the aircraft lands on the airfield of Chabunco.

After the wild solitudes of the Patagonian Andes, it is astonishing to find a modern city the size of Punta Arenas so far from civilization. Much changed within the past few years and still developing, Punta Arenas has a population of close on 50,000. Some of its prosperity is due to the discovery of oil in nearby Tierra del Fuego which has brought an influx of technicians.

The city, capital of the province of Magallanes, also enjoys the status of a free port. This right was granted in recent years so as to aid the economic development of the southern provinces. It allows the importation, duty



free, of all kinds of foreign goods that are inexistent or prohibitively expensive in the rest of the country, where their importation is strictly controlled. But customs officials can sometimes be tolerant, and more and more people find it worth while to come all the way from Santiago to do their shopping in Punta Arenas.

The town manages somehow to remind one both of Canada and Central Europe because many of the houses are built of wood—though this practice is now dying out—and many of the inhabitants came originally from Yugoslavia, drawn here at the end of the last century by the discovery of gold in Tierra del Fuego. Descendants of these people now run most of the local trade and Dalmatian and Croatian names abound in all the streets.

Punta Arenas lays claim to several distinctions including that of being the cleanest and best-kept town in Chile and the one with the highest living standards. It also boasts of being the capital of the province with the smallest proportion of illiterates and, lastly, of being the southernmost town in the world. This it may well have been at one time, but its position has now been usurped by Ushuaia, a rapidly growing town in the Argentine part of Tierra del Fuego, which already has 7,000 inhabitants. In Puerto Williams, however, Chile can still boast of having the most southerly established village in the world. Round about, there are still a few cattle farms and also the tiny Mejillones reserve where some twenty to thirty Yaghans, the last survivors of the Fuegians, live to this day. (For the story of what happened to many of

the Indians see THE UNESCO COURIER, issue N° 8-9, 1954.)

From Puerto Williams on Navarino Island—on the farthest tip of Chile where aeroplanes can land—I boarded a Chilean naval vessel which took me through the Beagle Channel to the surrounding islands and round the ill-famed Cape Horn. On the beautiful calm day when I saw it it had nothing sinister about it whatever.

This trip around the channels of Patagonia was followed by long excursions on foot through the forests of antarctic beech which clothe the mountains of Navarino Island, where the only living things one meets are flights of parrots with their shrill calls and herds of the graceful *guanacos* which inhabit these solitary parts.

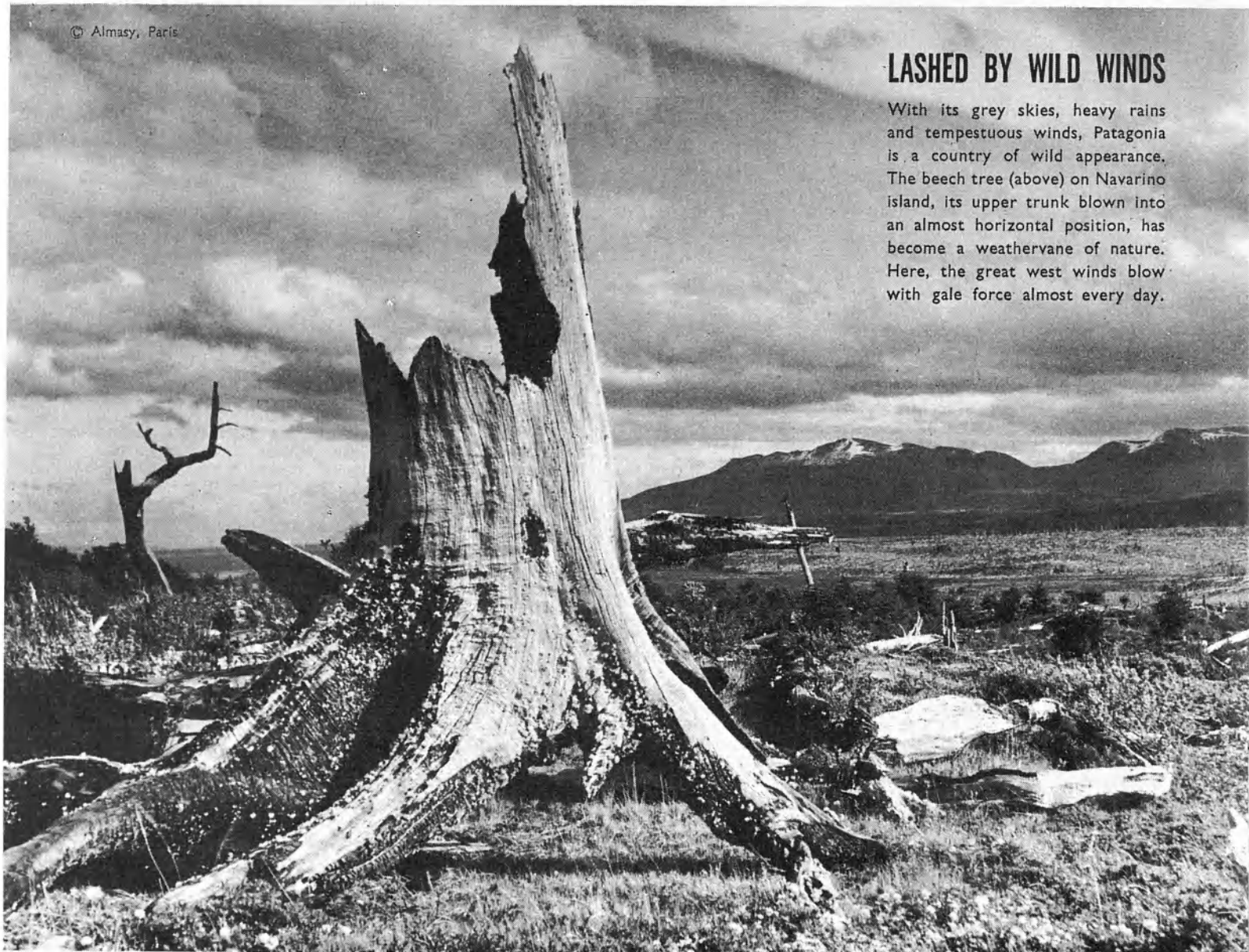
I also went to look at the glaciers which seem to hurl themselves down from the heights of the Darwin Cordillera and then crash into the Beagle Channel. Travelling by lorry along the roads and tracks of Tierra del Fuego, where hundreds of wild geese take flight as one approaches, I visited several ranches, the Sombrero oilfields and also the fishing-grounds off Useless Bay.

Back again on the mainland, I crossed the particularly arid steppe country—the home of sheep and wild ostriches—which borders the Strait of Magellan on the Atlantic side. Further north, I visited several lignite mines. Today these are worked on a scale sufficient to meet local needs only, through the area between Punta Arenas and Puerto Natales has enormous deposits of this mineral.

New treks on foot across the pampas brought me to the



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LASHED BY WILD WINDS

With its grey skies, heavy rains and tempestuous winds, Patagonia is a country of wild appearance. The beech tree (above) on Navarino island, its upper trunk blown into an almost horizontal position, has become a weathervane of nature. Here, the great west winds blow with gale force almost every day.

At an altitude of 1,500 feet the blanket of forest is so exposed to the furious westerly winds that trunks become twisted and tormented into a tangle through which it is almost impossible to pass.

© E. Aubert de la Rue



Children at Punta Arenas play among the bare timbers of a wrecked vessel. Patagonia is one of the stormiest regions on earth, and its swirling waters have tossed many an unlucky ship to disaster on the rocky shores.

© Almsy, Paris



beauties of the Cerro Paine region, whose mountain torrents, like many of the icy streams in the south, abound in salmon.

Crossing into another province, I visited the island of Chiloé where some of the old-established settlements irresistibly recall parts of Canada. If the resources of the "Big Island" as the local people call it—its forests, farms and the sea around it—were properly exploited, it should be possible to raise the present low living standards of the people.

In the few summer months I spent travelling all over Chilean Patagonia, using every kind of transport, I was able to see the striking contrasts offered by this country. Calm sunny days, sometimes even hot ones, alternated with spells of icy rain, snow-squalls and hurricanes.

This preliminary survey, including as it did the possibility of sounding out and listening to local viewpoints, was an invaluable first step to working out a programme of research along the lines envisaged by the Chilean Government. Great hopes are placed on the rational exploitation of the resources of its southern provinces.

These resources are complex, bearing on such varying activities as cattle-breeding and agriculture, lumbering and marine biology (to aid the development of the fishing industry) and tourist travel for which the grandeur and beauty of certain areas would be an undeniable attraction. Of considerable importance, too, are the prospection for mineral deposits and the use of Patagonia's widespread potential hydro-electric resources—vital elements in the industrialization of some sectors of the country's economy.



THE WORLD'S KNOWLEDGE

INSIDE A CIGAR BOX

by *Ritchie Calder*

WHEN, in 1801, Jacquard invented a loom, in which a series of punch cards enabled a machine to weave figured fabrics which had once depended on the art and skills of hand-weavers, he nearly lost his life in the riots which followed. In Britain, when Kay devised the flying shuttle, the weavers destroyed his house. When Arkwright, Hargreaves and Crompton further mechanized weaving, the workers rose and burned the factories. The poet, Lord Byron, intervened impassionedly on behalf of the despairing worker, whose livelihood was being taken from them by the machines.

Yet these machines eventually meant work for millions, cheaper goods for the people, and economic prosperity.

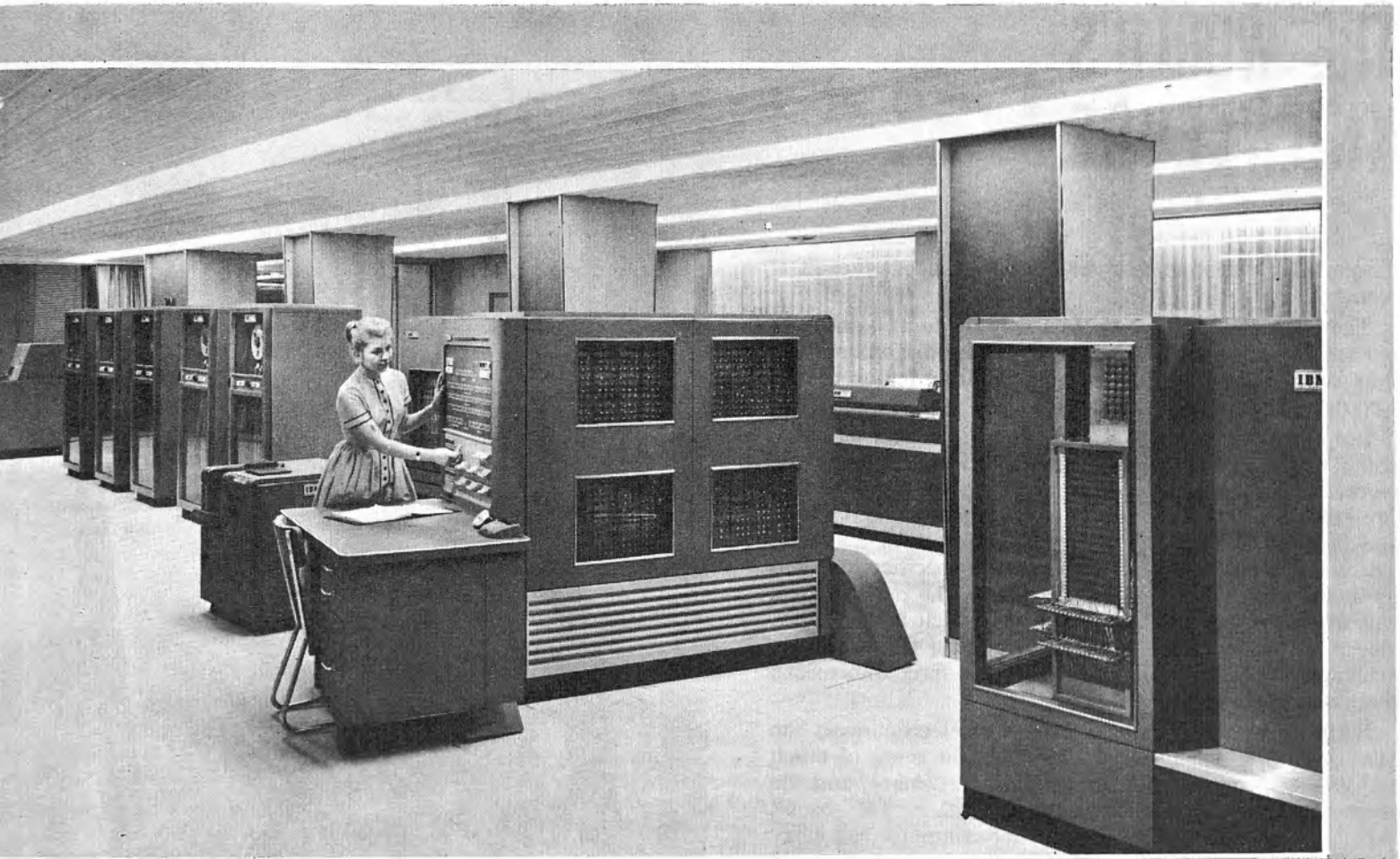
Until about fifteen years ago, the great engineering advances were in machines to relieve men of muscle drudgery. What this means might be illustrated by the fact that the turbines of an ocean liner of today represent the muscle-efforts of three million galley slaves, pulling on oars. And the average modern worker in an up-to-date factory can, with the flick of a switch, have at his disposal work-power equivalent to a hundred human slaves.

But, in the past dozen years or so, new types of machines have come into existence which are causing uneasiness not only among workers who see "automation" replacing their skills but also among philosophers. The machines are called Electronic Computers and the name suggests what they were originally, just calculating machines, or glorified electrical versions of the "bead-frames" on which children

learn to count. The name now is quite misleading because these machines do not just do arithmetic. They imitate many of the functions of the human brain and control and direct other machines which replace, not only muscle effort, but the human senses.

At the International Conference on Information Processing, organised by UNESCO in Paris (June 15 - 20 1959), the two thousand scientists and engineers who attended were seriously discussing machines which would memorise all the knowledge in the world and in which the equivalent of an individual human memory could be reproduced on a piece of glass, 5" by 6"—the size of a photographic plate. They were describing machines which can produce business decisions and be "taught" to think for themselves and to form valued judgments. As Dr. Edward Teller, of California University, pointed out, once a machine can form value judgments, it is conceivable that it will develop emotions.

TWENTY years ago, all this was impossible. Even electronic calculations seemed impracticable. Three hundred years ago, the French mathematician Blaise Pascal invented a mechanical calculating machine. Over a hundred years ago, Charles Babbage, an English mathematician, worked out a machine which could do mathematical calculations and analyses on a punch card system—like that which Jacquard employed in



Photos IBM, Paris

POWERFUL AND RAPID calculation instrument, this electronic data processing machine is usually used to solve scientific and engineering problems. It is really a set of interconnected machines composed of an input unit, processing unit and output units. From the console,

the operator, can supervise the performance of millions of data-processing steps by the units. Opposite page, part of a plate of magnetic core storage (the "memory" unit) composed of thousands of tiny doughnut-shaped ferro-magnetic rings threaded on wire.

his loom. Cash-registers and mechanical comptometers, hand-operated, were doing complicated calculations before the Second World War. But the first of the electronic computers began to function only twelve years ago. Radio valves replaced the cogs of the mechanical comptometers (or, more elementarily, the beads of the counting-frame).

The early machines consisted of massive racks of radio tubes and tangles of wires but they could do addition, subtraction, multiplication and division and work out, in split seconds, mathematical equations which would have taken hours, or days, of pen-and-paper calculations. Today, regardless of the number of digits in the sum a computer can average ten thousand operations in a second. The latest are a thousand times faster than those of three years ago and a million times faster than those of ten years ago. The only limit to their ultimate speeds is the velocity of light which is 186,000 miles a second but the distances the signals have to travel in a computer are not reckoned in miles but in fractions of millionths of an inch. So that "the Computer People" can talk glibly of getting results in hundredths of millionths of a second.

The machines, in terms of work-capacity are getting bigger and bigger but the components are getting smaller and smaller. Instead of having radio valves they are being constructed with transistors no bigger than grains of rice.

But even that is gigantic compared with recent advances. In what is called the "cryotron", the cells which store information are a 250th of a millionth of an inch in diameter. The circuits consists of "wires" of similar

dimensions—a spider's web, which only an ultra-powerful microscope can see. These circuits and "cells" are printed on glass and a temperature of 270 degrees below zero is maintained by "deep-freezing" the units in liquid hydrogen. At that temperature certain metals offer no resistance to the currents of electricity which can therefore go on flowing, at the speed of light, indefinitely and without loss of signal-strength.



WHEN one gets down to those dimensions it will be possible to store all the information of all the books of all the libraries of all the world in a space no bigger than a cigar-box.

The problem then is how to get it out. Humans are forgetful when they cannot recall information which is in their memory. Too so, the problem in the electronic brains is how to retrieve it, when, and in what form, one wants it. As one expert at the conference put it "An electronic computer is a bank in which information is deposited, put away in a vault, and eventually paid out."

To "pay in" the information the computer expert has it typed out as punch-holes in a paper tape. And on the tape also he gives instructions as to how it is to be used. This is called "programming". The information is then recorded on a magnetic memory by the computer. It will pay it out exactly as instructed by the programmer. It will transfer its information again to a punched tape which will

THE WORLD'S KNOWLEDGE

(Continued)

automatically operate a typewriter, so that the result is readable.

The computer began as a fast way of doing arithmetic but any logical process can be converted into numbers and thus into a code by which all kinds of information can be stored or processes executed.

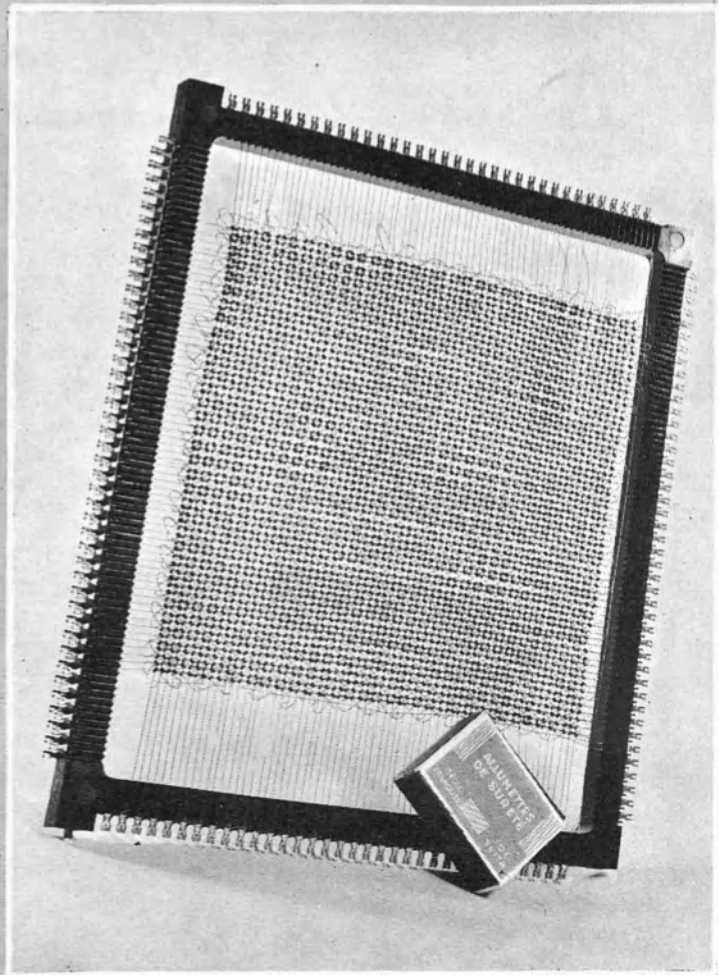
For example, a computer can be put in charge of a machine which is working on some large and complicated piece of machine cutting—like carving, to precisions of thousandths of an inch—a huge block of metal into the solid and complex shapes of a supersonic aircraft, or a rocket. The computer will help to work out the specifications and the mathematical contours of the part. The programmers will then feed into it the instructions which it has, itself, helped to produce and it will then control the automatic machine-tools which will cut the metal in three dimensions simultaneously.

With its electronic allies, like photoelectric eyes; the Merton grating (which gives a machine the sense of touch and greater accuracy than any skilled craftsman); and the servo-motors which manipulate parts (with a "feed-back" like a mechanized nervous-system) the computer can carry out, if need be, any job a human operator can do. In other words, it can work out the details of a computer more advanced than itself and then control the machines to make those parts and (eventually, if not yet) assemble them. It could, in fact, reproduce itself—breed other computers.

INTENSIVE work by linguists, mathematicians and engineers, is going on all over the world to secure mechanical translation of languages—from Russian into English, Japanese into French and so on. The progress is slow because one does not just exchange words; there is the grammar and structure of sentences and idioms which are peculiar to each language. But in translation of scientific works, articles have been transferred from one language to another in terms which are quite comprehensible to experts in the branch of science concerned. Success has already been achieved in the translation of work into the language of the blind, Braille.

What the experts are now seeking is "pattern identification" which means that the computers, instead of having to be fed with punched tape, would be able to read directly from a printed page or identify the sound-pattern of the spoken word and then to translate into the other language. That is still some years off.

But the scientists and engineers have already given to the computer enough human attributes to worry many people. The president of the Paris Conference, Dr. Howard Aiken, of Harvard University, wanted to reassure them. He said that, while they must always bear in mind their social responsibilities, the scientists and engineers could feel that, so far from making men the slaves of the machines, the machines were liberating them from slaving at tasks that were drudgery, making possible a higher standard of life for everyone, and leaving people free for creative work.



AN INFALLIBLE MEMORY MADE OF TINY RINGS

To store information it receives the electronic data-processing machine on the previous page uses plates made up of tiny rings (shown here in comparison to a matchbox). One memory unit is composed of 36 plates made up of 4,096 rings each. The core storage is the most powerful and the fastest working memory of the machine.

IBM, Paris

Letters to the Editor

THE AIR WE BREATHE

Sir,

I should like to bring to your attention a rather important error which affects two statements in your March issue on Air Pollution. Your introductory article states: "Each adult needs 1 cubic metre of air, i.e. 1 kg..."

If we take it that a man breathes on the average 16 times a minute ($\frac{1}{2}$ litre of air per breath) he breathes in 11,520 litres a day. Expressed in weight (1 litre of air at normal atmospheric pressure and 0 degree C. weighs 1 gr. 293) this gives 15 kgs. in round figures.

Thus 1 m³ and 1 kg. 5 indicated in your article should read 11 m³ 520 and 15 kgs.

In a second article by Professor A.J. Haagen-Smit (whom I admire for his many works on questions of pollution) it is stated: "The air we breathe is a part of our diet, and there is every reason to be as particular about the quality of the air as we are about our food. The amount of air we inhale per day is in the order of 30 cubic feet, weighing about three pounds. An air pollutant at a concentration of only one part in a million adds one milligramme to our daily diet..."

By reason of the previous calculation these indicated quantities should be multiplied 11 to 12 times and thus the example of the toxic substance with a millionth-part concentration in the air breathed becomes increased to a daily dose of 11 to 12 milligrammes instead of 1 milligramme. You must agree that there is all the more reason to make these corrections since they considerably strengthen the viewpoints expressed.

J.J. Laffargue
National Council Against Air Pollution
Uccle-lez-Brussels, Belgium

DON'T HIT HIM—TELL HIM

Sir,

It was late afternoon and I hailed a cab. "Lady what do you think of the U.N.?" asked the cab driver. "I'm in no mood for an argument", I answered, "I just did a long day's work." "No, no kidding, I'm not going to argue" said the talkative guide, "I really want to know. I don't think the U.N. is any good. They don't do nothing."

"Are you willing to listen?", I asked. He said he was and this is what I told him:

I was a nursery teacher. The children used to come into school in the beginning of the school year and if they wanted a toy which another child had, they would hit the child in order to get it. We used to say to the children, "Don't hit him; tell him."

Each day for the whole year we said: "Don't hit him, tell him." At first the children paid no attention. They would

strike out with a block or shovel. After a few months of patient repetition of our favourite phrase, the children began to say, "Don't hit him; tell him." But they still continued to hit. About the eighth or ninth month, one could see the change take place. The children not only verbalized but they actually did "Tell him". You could often hear them saying "I want that. Give me that." And so that is what the United Nations is for, young man, It's to teach the world "Don't hit him, tell him."

We arrived at my destination. The taximan got out and opened the cab door for me. "No kidding," he said, "I never understood before."

Esther Schattman
New York

TRUE WAY TO PEACE

Sir,

There is an opinion frequently voiced that in order to safeguard peace one must resort to nuclear deterrents, and that peace among men can be maintained through superiority in the production of the means of war. Are we not only deceiving ourselves when we adopt so-called "expedient" policies of imagined "strength" which bring but fear and mistrust to international life? We would do well to remember in this connexion E.B. White's remark that, "the bomb has given us a few years of grace without war, and now it offers us a few milleniums of oblivion."

It is time that citizens all over the world and particularly those of the nuclear nations should begin to reflect and resolve the dilemma in a moral and humane way. In 1952, when the controversy on bacteriological warfare was boiling, the Federation of American Scientists denied the charges that BW (Bacterial Warfare) weapons had been used by the U.N. forces in Korea, and put the issue squarely as follows: "The question raised in the world's mind is not so much whether we did use BW in Korea but whether we are in fact prepared and willing to use it in the future." The question in the case of nuclear warfare is the same. It is not the question as to who might in future become guilty of starting a nuclear war: The responsibility and guilt for this unimaginable holocaust lies right now and here on the shoulders of everyone and every nation which produces and possesses the bombs and which conducts its policies accordingly. The bombs and the missiles and the air bases have become the challenge to our conscience and to our sense of mercy. There is an alternative way, a non-violent policy of reconciliation, of co-operation and mutual aid; it was practised by men like Gandhi, and in more recent years of Middle East conflict by Ralph Bunche, and it was incorporated in the U.S. Point Four programme not to mention the projects carried out by non-governmental agencies. It is up to us

to take the initiative instead of waiting for others to do better.

Herbert Jehle
Lincoln, Nebraska, U.S.A.

RIGHT TO PEACE & QUIET

Sir,

In a recent issue you published an article concerned with the basic right to listen (to news broadcasts, information etc). I wish you would also devote an article to the right "not to hear", the right to silence, to peace and quiet. This is a right which is ignored or trampled on in our so-called civilized countries.

J. J. Lontan
Geneva, Switzerland

Sir,

Your issue on radio lacked one more article—subject: "the right not to listen." It was bad enough when we had to contend with echoing floorboards, walls which let through every sound and the neighbour who insists on listening to opera on his radio with all his windows open. Now we have the transistor radio which means that any solitary and peaceful spot can be spoiled by din. The author of another of your articles offered a radical answer to this—wear ear plugs. I for one refuse to adopt this defeatist solution before even any action has been taken against people who have no thought for their neighbours. When shall we see an issue of THE UNESCO COURIER on the subject of noise, or rather, of silence?

Jean Delannoy
Biarritz, France

MENTAL ILL HEALTH

Sir,

In your special issue on the problems of mental ill-health (May 1959) I frequently came across such terms as "psychological", "psychiatric", "neurotic" etc., but nowhere did I find the term "psychoanalysis". I am therefore wondering if psychoanalysis is considered as a therapeutic method that can be used by psychiatrists.

G. Haine
Haine-St-Paul, Belgium

Editor's note: Psychoanalysis is so used in many European and American countries. In certain others—the Soviet Union, for example—it is not accepted as a method of treating the mentally ill.

Sir,

I read the whole of your special issue on mental illness with the greatest interest. But why is it that no publications, medical or otherwise, speak of that other great problem—the mentally retarded—and the possibility of a cure in such cases?

P. Simon
Caen, France



MOBILE LIBRARY 'SETS UP SHOP' IN THE VILLAGE SQUARE.



Photos K. Paphalides © Elkin, Athens — "Pictures from Greece" magazine



CHILDREN MAKE EXCITING FINDS IN THEIR OWN SECTION.

MY library was dukedom large enough," says Prospero in Shakespeare's "The Tempest," and happy is the modern man who is able to build up his own library at home. But in the rural districts of Greece where books are scarce and the means for establishing permanent libraries scant, the weekly visits of Mrs. Stella Peppas-Xephouda with the Mobile Library is looked upon as an important event in the life of every community. The joys of literature and the benefits of education by means of technical books are being brought to the doors of the villagers in the Greek countryside.

The Mobile Library of the Ministry of Education today possesses ten thousand books in Greek and other languages and operates in a car donated by UNESCO.

Soon it is anticipated there will be at least ten cars and over a hundred thousand volumes. Everything must have a beginning and in this case the beginning was the book-lending centres in various country districts and the activities of those great propagators of Greek cultural development, the schoolteachers...

BOOKS ON WHEELS

A library comes to a Greek village



VILLAGE TEEN-AGERS IN PARTICULAR FLOCK TO SEEK INFORMATION ON EVERYTHING FROM COOKERY TO RADIO TECHNOLOGY.

If you happened to be in the picturesque little village of Villia when the Mobile Library arrived, you would see a constant procession of young and old returning books and taking out new ones. And you would be astonished at the type of books that are frequently asked for.

They are not novels, thrillers or romances as you might expect. They are technical and agricultural books, books on electrology, radio, technology, handicraft, handbooks on child-care for mothers, and cookery or domestic science books for young girls.

Six thousand five hundred people are at present registered readers of the Mobile Library, which maintains a total of seventy-eight book-lending centres in Central Greece, Euboia and the Peloponnese.

According to the programme drawn up by Mr. Kournoutos, Director of Art and Letters in the Ministry of Education, the Mobile Library will gradually extend its activities to the rest of the country. In addition, this institution will serve as a kind of adviser in the founding

of local lending libraries. Such libraries are starting to operate in Kiato in Corinthia and in Menidhi and Koropi in Attica, and will refer for information and guidance to the collection and catalogues of the Mobile Library.

In Polydrosos there is already a local library possessing ten thousand volumes. While other villages are not so fortunate, in such places as Bralos, Amphikleia, Hairo-neia, Karya and Aliartos, the villagers' interest in books increases day by day.

The people running the Mobile Library are doing a good job and doing it enthusiastically and with a smile. The cultural warmth that radiates from the Mobile Library of Mrs. Peppa-Xephouda is a conquest over the arid intellectual soil of some of the country districts and more and more people are coming to realize the importance of books as companions in everyday life.

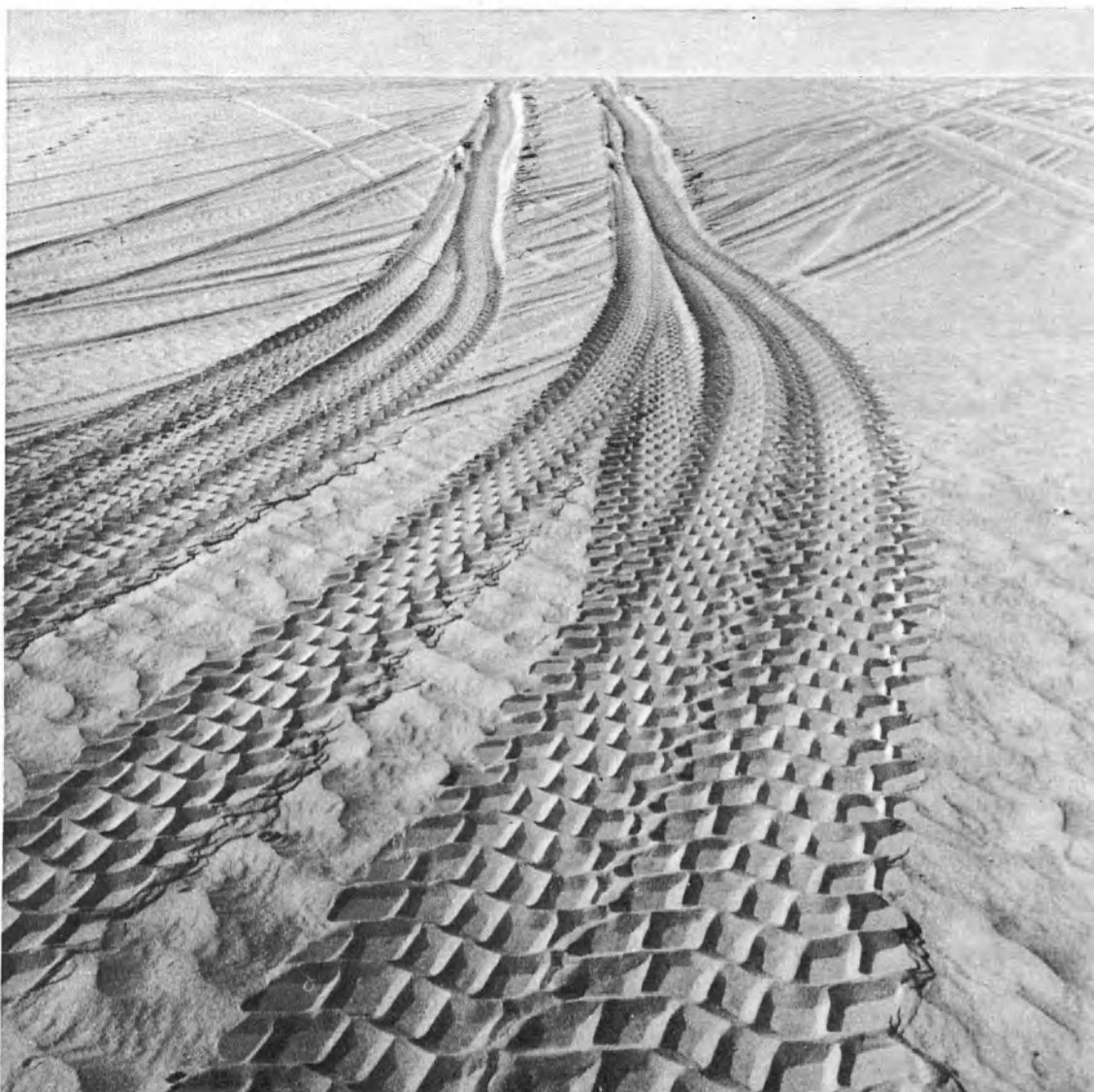
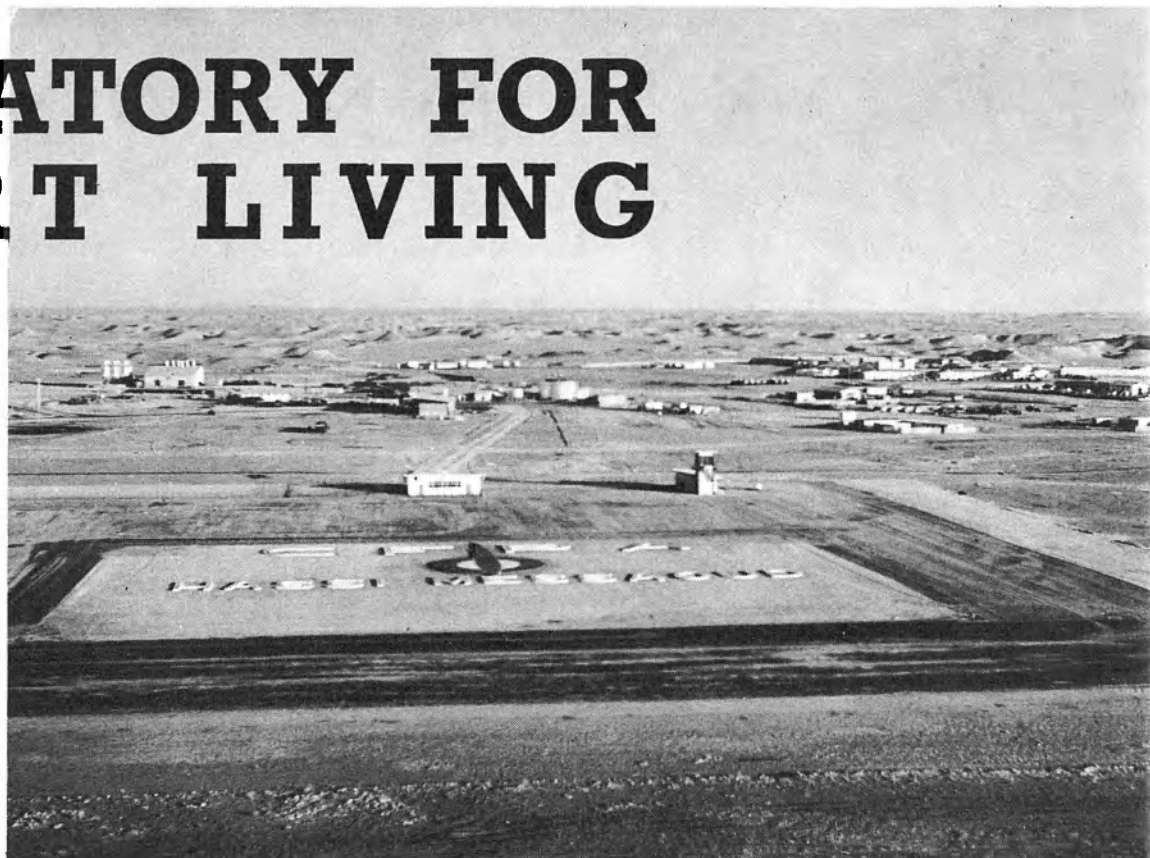
Rome was not built in a day, nor are kingdoms and dukedoms established in so short a period. The Mobile Library has begun a work of enlightenment among the small communities that is undoubtedly contributing to the cultural progress of the country.

LABORATORY FOR DESERT LIVING

by
Daniel Behrman

SAHARA OIL TOWN. A city of several thousand people has grown up around the oil wells at Hassi Messaoud in the heart of the Sahara. Problems of desert living, ranging from family life and housing to diet and working hours are under constant study here.

Photos CFP.



THIS is a world where science shatters a myth a day . . . and the latest one to go by the board is the old illusion of the Sahara Desert as a trackless inhuman waste producing only sandstorms and tales of adventure.

"Man can work in the Sahara without any visible harm to his health, and his productivity there can be as high as it is in Europe . . . provided certain conditions of diet and housing are met."

This statement came from Dr. Georges Lambert, a young French medical man who is assistant director of "PROHUZA"—a word made up of the French initials for "Study and Information Centre for Human Problems in the Arid Zones."

Prohuza, financed by the French African Industrial Bureau and companies developing the Sahara, is attacking many aspects of the problems raised by transplanting modern industrial civilization into the heart of the desert.

Its studies on the adaptation of European workers to the Sahara were carried out at Hassi Messaoud, some 500 miles inland from the Mediterranean and sixty miles from the nearest oasis, where oil was discovered in 1957.

Experiments were carried out with three five-man teams of oil drillers, Dr. Lambert explained. He believes that these were the first scientific experiments on the adaptation of man to a desert climate actually carried out in the field and not under simulated laboratory conditions.

"Unlike what most of us have always thought, the climate in the Sahara is not too harmful for skilled workers," Dr. Lambert said. During the experiments, careful measurements were made of food intake and losses of men in the oil fields working around the clock in three eight-hour shifts.

In the heat of a desert summer, it was found that the 3,500-calorie diet offered in the ultra-modern dining room at Hassi Messaoud camp was quite adequate for skilled workers on a difficult job. Protein consumption rose slightly above what it would have been in Europe.

"The main food problem at Hassi Messaoud is psychological," Dr. Lambert admitted somewhat ruefully. "You see, when the oil company started hiring men for the Sahara, candidates were promised good jobs and good food. Fats should be avoided in the desert—they're hard to digest—but the men want to eat well. You find some oil prospectors eating *pâté de foie gras* and sardines when it's 122°F. (50°C.) in the shade!"

As for the dining-room, it offers the same menu as a good Paris restaurant. "Look what they had for lunch one day last August," said Dr. Lambert, flipping open a notebook, "*Charcuterie* (that is, sausages and *pâté*) and lettuce for an appetizer, followed by *escalope à la crème* (veal steak with a cream sauce), vegetables, Camembert cheese and fruit. We'd like to change this menu, but it's hard to go back on our promises."

The ideal meal for desert workers, he explained, would consist of a mixed salad, an appetizer, grilled meat, then cheese and fruit, with a heavy accent on fresh vegetables. Actually, such a menu would be very expensive since the fresh fruit and vegetables on which it is largely based, cost 110 francs (\$0.20) a pound just to fly in.



European oil drillers in the Sahara are heavy drinkers . . . of water. They lose 14 litres (more than 3 gallons) a day in perspiration and they drink an equivalent amount of Evian or Vittel water brought into Hassi Messaoud in special cardboard or aluminium containers.

There is water at Hassi Messaoud, but it contains too many minerals to be drunk safely in large quantities. So, paradoxically, the salty water on the spot goes unused while salt must be added to the diet in the dining-room.

Scientific research has shown that the traditional food of the Saharan nomads is an excellent desert diet. It is rich in spices—salt and pepper—and contains very little fat (the meat is usually roasted on a spit).

Diet is only half the story in providing suitable working conditions in an arid zone. The other half is housing and, of course, all quarters must be air-conditioned. The system, however, is different from that used in most towns.

The usual method of air conditioning, Dr. Lambert explained, consists of a compressor producing very cold and very dry air. In the Sahara, this would dry out the skin immediately. Instead, an evaporation system is used. Based upon the principle that water absorbs heat when it is evaporated, it consists simply of a powerful turbine blowing water through air. It cools a house—bringing the inside temperature down to 86°F. (30°C.) when it is 122°F. (50°C.) outside and, at the same time, it humidifies it.

This air-conditioning costs much less to run and install than a conventional system. There's just one hitch: it can only be used in the Sahara or in a similar climate where the humidity of the air is less than 10 per cent. In New York or Bombay, for example, it wouldn't work.

Each Sahara day is like another

"PROHUZA" has studied certain other factors affecting the adaptation of man to desert conditions. At present, employees have a choice of three different schedules: three weeks at Hassi Messaoud, then one week in Algiers; nine weeks in the desert and three weeks in France; or six weeks on the job and two weeks in Algiers or in France. In each case, they work seven days a week without any time off on Sundays or holidays.

Studies show, Dr. Lambert stated, that the three to one system is the least advisable. "Three weeks are just enough time for a man to adapt himself to the desert—he's hardly settled in and it's already time to go on leave," he explained. "In the end, he adapts himself neither to the job nor to the leave."

This raises a series of psychological problems which are just as important as food or housing. Scientists at Hassi Messaoud have observed a rapid increase in the rate of labour turnover in recent months.

But according to Dr. Lambert that is only normal. The first oil workers in the desert were young men with an itch for adventure. They were excellent during the prospecting stage but now that a city of 2,000 has grown up around the oil wells, they have become restless.

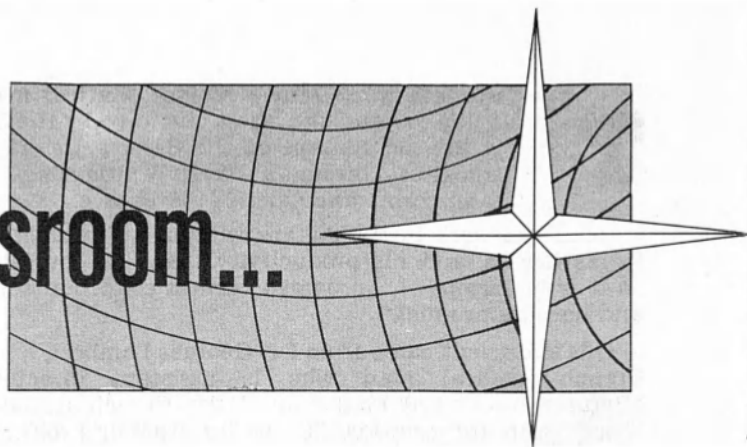
This has led to the hiring of older men to handle the job of extracting and shipping oil—and the appearance of a new set of problems revolving around family life and housing.

"Everyone has his own opinion on the matter," Dr. Lambert said. "The basic problem is that men are too far from their normal environment of friends and families."

Three possible solutions are now being studied: leaves of absence long enough to enable the oilmen to return to Europe; bringing the families to Algiers; or bringing them to Hassi Messaoud.

No decision has yet been taken, but Dr. Lambert believes that all three will be used, varying from one individual case to another.

From the Unesco Newsroom...



NEW DEPUTY DIRECTOR-GENERAL FOR UNESCO: Mr. Vittorino Veronese, Director-General of Unesco, has decided to re-establish the post of Deputy Director-General which no longer existed since 1952. Mr. René Maheu, Assistant Director-General since 1954, and a member of the Unesco Secretariat since 1946, has been appointed as Deputy Director-General, from December 1, 1959.

■ FORTY YEARS OF AIR TRAVEL :

Forty years of international co-operation in solving problems of air transport were commemorated last year when the International Air Transport Association marked the anniversary of its foundation in 1919. The Association was formed by six European airline companies, meeting in the Hague. Today its members number 90 companies and their routes link points all over the globe. Some idea of the growth is shown by the fact that the smallest helicopter service now transports yearly more passengers on its interurban lines than all six IATA companies carried in 1920. The IATA has worked to eliminate problems posed by differences of language, laws, currency, commercial systems and technical and economic regulations.

INDIA'S FIRST TV STATION: New progress in the development of television in South Asia has been marked by the inauguration in New Delhi of the first Indian TV station which has been set up with the co-operation of UNESCO. The station is likely to serve as a kind of pilot project for the development of TV generally and educational TV in particular

THE UNESCO PHILATELIC SERVICE

FOLLOWING the announcement in our December number of the issue of a new United Nations stamp honouring World Refugee Year, many philatelists have asked us where they can obtain United Nations stamps. Unesco's Philatelic Service has stamps and first day covers issued by many Member States to commemorate important events in the history of Unesco and the U.N. (inauguration of Unesco's New Headquarters, Human Rights Day, World Refugee Year). As the agent in France of the U.N. Postal Administration, Unesco's Philatelic Service stocks all the United Nations stamps currently on sale. Information on items available, their price and the methods of payment, will be sent on request by Unesco's Philatelic Service, Place de Fontenoy, Paris 7^e.

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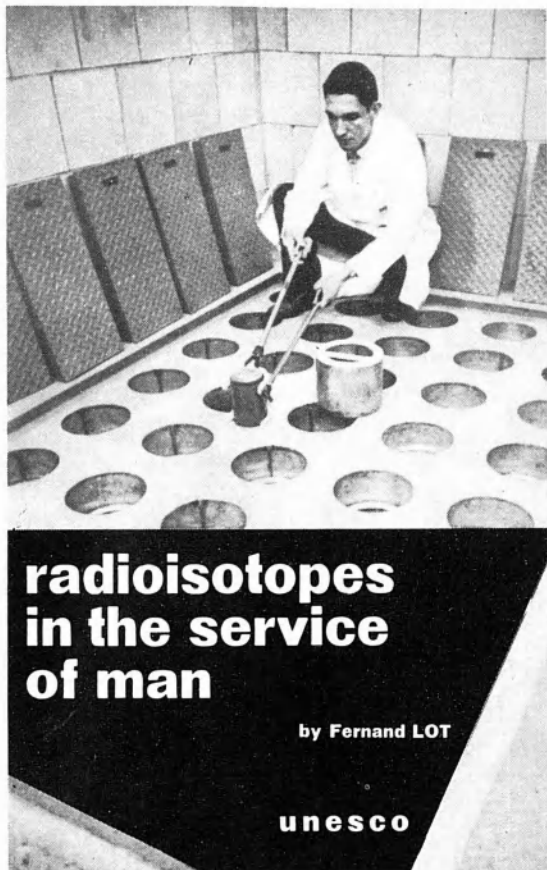
in the South-east Asian area. UNESCO's interest in the project dates back to 1957 when it was able to provide India with information on experience gained in rural viewing in France, Japan and Italy where tele-clubs have been set up with aid from UNESCO. Such information was particularly valuable to India where community viewing will be the principal form of reception.

■ 'A LITTLE UNITED NATIONS': At the George Washington High School, New York City, teaching and learning about the United Nations is a practical as well as an academic activity, for the 5,000 students include boys and girls from 52 member countries of the U.N. Students at the school, which has been called "a little United Nations in itself" take part in U.N. campaigns and organize a variety of activities to promote knowledge of U.N. work and greater international friendship—essay contests, pen-pal programmes, plays, displays of posters and a student club which meets fortnightly to discuss world affairs.

WORLD NEWSPRINT HUNGER: World demand for newsprint will more than double by 1975, rising from 11,280,000 tons in 1955 to 17 million tons in 1965 and 26 million in 1975 reports the U.N. Food

and Agriculture Organization. Experts state that world production can meet present needs and expansion plans should take care of increased consumption up to 1965, but supply and demand trends must be reviewed regularly if the expected growth after 1965 is to be met. Pulp and paper industries must be developed in the economically less developed countries, where increased supplies are an essential factor in economic, educational and social progress.

■ HELP FROM A TO B: Young polio victims being treated in Bombay are to benefit from modern aids and equipment purchases through the efforts of students, teachers and citizens of Amsterdam, Holland. After UNESCO passed a request for aid from the Bombay Society for the Rehabilitation of Crippled Children to the Netherlands, the Unesco-Centre in Amsterdam, the municipal authorities, teachers, children and their parents adopted this UNESCO gift project. From their efforts a first instalment of UNESCO Gift Coupons worth some 7,500 dollars has been handed over. In addition Dutch students sent letters to the children they were helping, thus fulfilling another important aspect of the UNESCO Gift Coupon programme—direct and informative exchanges between persons in different countries.



radioisotopes in the service of man

by Fernand LOT

unesco

Never a day passes without newspapers and magazines reporting some new application of artificial radio-active elements: tumours removed by radio-active iodine or treated by "cobalt bombs," insecticides developed by "marked" mosquitoes, hitherto impossible diagnoses today achieved through radio-active isotopes. Isotopes play an ever-increasing part in an ever-widening range of fields: analysis of metals and lubricants, petroleum research, oceanographic investigations and even the fixing of geological and

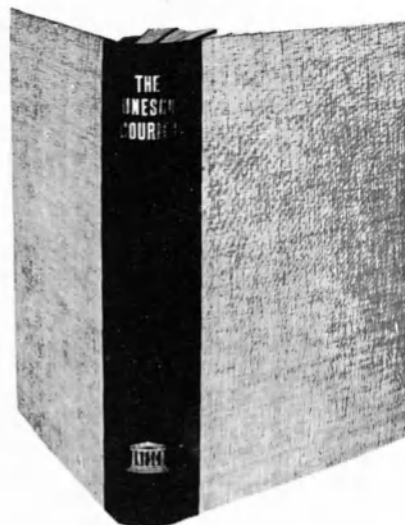
historical events. How is all this made possible? The answers are given in an 80-page publication, "Radio-isotopes in the Service of Man," in the series "Unesco and Its Programme." The author, Mr. Fernand Lot, traces the history of the new "pure gold" of modern alchemists, from the discovery of natural radio-activity to the latest uses of the latest discoveries in that field.

The author leads the reader into the heart of the atom, shows how the atom disintegrates, how the radiations are produced, how reactors operate, how physicists, medical doctors, biologists, chemists and agronomists make use of the astonishing results of the experiments of Becquerel, Rutherford and the Curies which have given us the amazing key to a new era.

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