FRANCIS GEORGE RAYER

FROM BEYOND THE DAWN

Radio contact with Beings of another world came at a time when Earth was invaded by robots. There was a link - somewhere - for the Others had the answer to the robots destruction.

THE sun was sinking between the crests of the two distant hills and Derek Faux shivered at its redness and the chill wind which was coming up the slopes. The sky was ominous with heavy tints in wide blots of colour; towards the zenith and East the colour faded into a thick blackness which seemed to press down upon the hills, unrelieved by either stars or patches of light-reflecting cloud. It gave promise of a wild night with rain lashing down from the overcast sky as the blanket of cloud piled thicker and a cutting wind whining across the hills to sigh a moan about his laboratory where it stood on the lone peak.

Faux drew his collar up about his ears and his footsteps hastened along the stony path. He half wished he had not come out - but he had wanted to clear his thoughts and a walk over the hills in the evening air was the best way. He must think - try to get clear in his mind the full significance of that which had happened in his laboratory. Even now he could not fully realise that he had contacted something - he could put no other word to it - and that, whatever kind of being it might be, had replied. With his back now to the wind and occasional rain- drops, he skirted a granite quarry which would stand against the elements until the earth was old. Radio waves would take minutes to reach any of the planets and return; years to plumb even the shallowest depths of the distant stars. It was because of that that he had radiated every evening for over twelve months now, and scarcely expected an answer even if there was any intelligent life in the vastness of space and it could hear and reply.

Then that evening he had received an answer - it had been distorted almost to the point of illegibility and weak as if it had come a vast distance. But it had come instantaneously and his directive apparatus would give nothing but a null reading on it.

Faux bit his lips as he passed the quarry and turned up the slanting path which led to the laboratory. The rapidity with which the answer had come cut out the possibility of it originating on even the nearest planet. It had presented a dealock between logic and the actual fact he had experienced in the radio room which had made his mind reel and sent him out on this walk through the growing darkness.

GAINING the laboratory he let himself in and returned to the radio room. The daylight

tubes in the ceiling still flooded the chamber with brilliant illumination and a man with a bony face, almost bloodless in the glare, was swinging one leg rhythmically from his seat on a tall stool. His eyes glinted as Faux shut the door and he raised a hand in greeting.

" So you have given up your attempt to contact other worlds! I though this was the time for your listening session."

Faux crossed the room, ignoring the faint irony in the other's voice. He nodded. " I have not given up. I have succeeded."

Daker's face showed surprise. His stiff attitude vanished.

" What've you contacted? "

There was tense excitement in his voice. Without looking at him Faux crossed before the mass of apparatus which stretched along one wall of the room and stared out through the curved window, trying to make his thoughts coherent. Beyond the laboratory the hills stretched in undulation upon undulation and in the far distance the evening bright- ness was fading from the sky. At last he turned to face Daker, who was now tapping impatiently with his fingers upon the stool.

" I do not know. I cannot tell from where the reply comes- it's a full hour since I heard it and still I can't decide."

Daker made an impatient gesture, interrupting.

" Let me hear for myself."

Without a word Faux returned to the bench before the apparatus and depressed a switch. Tubes glowed blue and a gentle humming filled the chamber. With fingers which trembled slightly he took up the tapper key he had used because an alien would find speech incomprehensible. Conscious that Daker was sitting, hands on knees, and every nerve tense, he keyed three dots.

There was a bare moment's silence, save for the gentle humming, then three dots, wavering and distorted, came through the reproducer like a whisper from some world beyond.

The breath hissed from between Daker's lips. " Perhaps it is a reflective echo from some planet."

Faux shook his head. " Too rapid, and listen . . ."

He keyed three dots, then two, then three more.

There was a pause, then eight evenly-spaced dots came back to his anxious ears.

Daker licked his dry lips, stirring uneasily. " So you have actually contacted some intelligence and it can add. Where does that get you? "

" Everywhere - yet nowhere. It is no fool playing a trick because directive apparatus would show the location of the station replying."

" But an alien world could not reply so quickly," objected Daker after a moment's silence. " Radio waves at the speed of light are slow travellers in the vastness of space."

Faux frowned without replying. The other had put his finger immediately on the strangest and most significant point. The explanation of what was happening baffled his imagination.

" What does the directive apparatus show? " continued Daker as he slipped from his stool.

" It shows nothing," replied Faux, watching for the amazement he knew must come to the other's face. " Or, if you prefer, it shows that the transmitter answering is in this very laboratory."

Daker swore. " You're joking! "

" You may try the readings for yourself. I've checked and re-checked and it's as -I say. How this comes about beats me - but it accounts for the promptness of the reply."

With a growl Daker shook his head as if his reason could not grasp the significance, if significance there was. For a moment he prowled round the room, then he took up a position by the window.

" So you needn't wonder I needed a walk," said Faux, switching off the apparatus with a flick of his finger. " It'll take some time to grow accustomed to the idea that the person replying is here. When I have I'll start the routine tests I planned based on numbers. All reasoning beings must understand numerical items - two and two must make four everywhere in space or eternity."

Daker seemed not to be listening. He was staring fixedly out of the windw and his mouth had dropped open. He uttered an exclamation.

" What in the deuce is this ! "

Leaving the bench Faux crossed to the window beside him and followed the pointing finger with his eyes. Although it was dusk there was still enough light to see and he started in surprise.

UPON the edge of the quarry below them there rested something which looked like a giant metal cigar. For the moment the idea of a spaceship flashed into his mind, but both ends of the object were pointed and there was no sign of anything which could possibly be propelling tubes. The whole thing was, in fact, as featureless as an elongated ball- bearing without any suggestion of port, door or rocket tube.

Daker rubbed his eyes. " Am I crazy! One second it wasn't there - the next it was! "

Mastering his astonishment Faux looked sideways at him. " It must come from somewhere! Out of the sky - or the earth."

" It did not! " retorted Daker with something which sounded like an oath. " I was staring at the quarry and it just appeared like light when a switch is pressed! "

" Then we'll go and see what it is! "

" Wait! " Daker caught his arm as he turned. " Something is happening! "

Faux stared again at the featureless object and became aware that a slim dark circle was visible on its side. As they watched the circle grew thicker and thicker, the centre portion seeming to bulge from the vessel. It looked as if something was unscrewing a circular door from the inside, he realised with a shock.

All at once the bulging metal fell to the ground; a purple radiance streamed out through the doorway it had filled, spreading over the depths of the quarry like a searchlight beam. In the beam, partly obscuring it, something moved ponderously, grotesquely reminiscent of a man. It was large and shone metallically in the purple light from behind it. Upon the very edge of the door it stopped as if seeming to look down into the quarry which came to its feet.

Daker gave a whistle of increasing surprise. " The whole thing's slipping! "

It was so. With eyes still staring from the shock of the unexpected Faux scanned the long, gleaming cigar. It was poised upon the sloping granite lip of the quarry and one end was slewing. They were too distant to hear the crunch of stone on metal or me grating shock of its movement, but it was steadily slipping down and down. Suddenly the poised end dropped, overbalancing. There was a fleeting glimpse of flailing metal limbs as the being from inside struggled to save itself, then together the two toppled over the edge. Across the quarter of a mile of sloping hillside came a rumble and the

floor quivered beneath their feet as dislodged rocks ind stones followed the vessel and its inhabitant into the depths of the quarry.

Faux jumped into activity. " We must see what it is! "

They raced down the slope in the face of the wind and pattering rain. From the lip of the quarry they could see nothing; inky blackness filled the depths and no purple radiance relieved it. With the lamp he had snatched up in his hand Faux picked his way down the steep incline leading round the quarry to its shallowest end. There they slithered down a stony declivity and his searching beam picked out the metal cigar.

They approached carefully. It was full twelve feet in diameter and twice as long and was sloping across a bed of weeds and rocks where it had fallen. They picked their way amongst the rubble, scarcely knowing what to expect. Daker whistled.

" The thing is crushed under the ship! "

It was. Faux advanced cautiously. Was it living? he wondered. Were there more creatures of the same kind inside? But nothing stirred and at last they were standing over the prone body. As he played the light upon it Faux realised here was something which had never lived in the true sense - it was a robot. The crushing weight of the vessel had pulped its body, revealing an intricate mechanism, the head - as he mentally named the topmost section - was split open, showing more mechanisms. As he stooped to look his the touched something which glinted pinkly in the torchlight and he picked it up. It was a queerly-shape crystal. Raising the torch beam he looked for the door. Dare they look inside?

AT that moment Daker gave a cry, grabbing his arm fiercely so that the fingers bit into his flesh.

" Look, Faux! There's more! "

Upon the lip of the quarry there was a twinkle of purple lights as if from a score of opening doors. With a start Faux realised the vessels must have appeared there just as mysteriously as had the first while they had been scrambling down into the quarry. As he gaped upwards each twinkle of purple was shadowed over by a moving form- -the robots were emerging.

" Let's get out of here! " yelled Daker as he still stared and they turned, racing back the way they had come. It was a scramble to get back on to the lip of the quarry, even at the shallowest place. Faux paused, panting, and looking above. Now many more purple lights were visible. Every step up tnc hillside brought more into view until when they had gained the slopes by the laboratory the whole of the hillside below them was dotted with purple circles which merged into one hazy pattern. Daker was coming

behind him and they paused, both gasping from the race uphill.

" Look! " he muttered. " What now? "

The purple radiance was still there, but above it, like a blanket covering all the vessels and all the creatures which had lumbered from them, was a deep yellow glow. It seemed to shimmer and Faux had the impression that it was only a shell - a hollow-dome of light beneath which the robots and mysterious ships could rest as if below a protective shield.

AFTER two days the robots had made no move except on the morning following their appearance when two had left the yellow dome under the protection of a similar shimmering defensive radiance. The alarm had spread by then and fearing an attack upon one of the neighbouring cities the government had sent a small squadron of planes over. As the robots strode down the hillside towards the valley the planes had released their bombs. From high up in the laboratory Faux had watched the flashes and the swirling clouds of dust. At last the smoke cleared away- to reveal the robots slowly making their way back under the yellow shimmering radiance. They were unharmed.

As he pondered upon what had happened and was likely to happen Daker entered. His eyes were tired and he took a place on one of the stools.

" What do you make of these robots? " he asked as he produced a cigarette.

Faux considered a moment. " I don't know. They seem alien in their construction, yet there are no metals used in them which are not found on this earth. It is lucky one was damaged in the quarry - otherwise we should have known nothing of them." " And over a thousand have appeared," added Daker in a thin voice. " We have not destroyed one. That yellow light must be a force screen and that one fell into the quarry before his was active. The strongest bombs the military dared use were like rain drops on a battleship, They seem indestructible." Faux nodded. " They are. I wonder if they herald an attack by living creatures? They have not harmed us yet but seem to be awaiting a signal. And we cannot destroy them. I feel that although an atomic bomb would remove the hill it would not touch the yellow dome."

" You are right," said Daker in a heavy tone. He breathed a whisp of smoke from his nostrils pensively. " What do you make of the crystal from that robot? It seemed to be its vital centre."

" Nothing, it is beyond my understanding." Faux frowned, glancing at the crystal he had picked up by the robot. It was as big as a man's fist and cut with a thousand dissimilar facets. Inside adjoining facets glowed through the pinkly transparent material. But what it was, or what its purpose, he did not know.

" It is similar to a piezo-electric crystal," he added after a moment. " Electrical impulses make it vibrate mechanically and mechanical stresses produce an electrical output."

" I see." Daker nodded his head.

At that moment the laboratory shuddered. Rising Faux stared down through the window, conscious that there was a dull thrumming of planes overhead. In the distance the yellow dome of light was visible and as he watched a string of flashes straddled it as a stick of bombs fell. The laboratory shuddered again and the dull rumble of the explosions echoed loudly even in the almost soundproof chamber. The dome remained intact and the robots did not move.

" Do you connect them with your radio signals? " asked Daker, coming beside him. " You had your first reply just before they appeared."

" No, they don't seem to be connected. 1 have found they know all kinds of calculations, and what colours are. I transmitted numbers representing the wavelengths of the colours of our spectrum, pur- posely missing out some, and they filled the gaps." He dropped silent. It was strange that although he had contacted this other intelligence he had no method of learning much about it. They had established a common knowledge of mathematics by their code and there they had reached a dead end. Something which might have been speech had come over once, but it had been absolutely unintelligible and they had reverted to tapping our numbers.

The laboratory quivered again and a dull rumble interrupted his thoughts.

" The fools are still dropping the largest bombs they dare use," grated Daker. " It's obviously useless."

Faux nodded. " What will happen if they attack? " " Heaven help us! " Daker shrugged and waved his hand towards the apparatus. " Is there any chance of using television to find out what your contact is like? "

" No."

They dropped silent. It was damnable nothing could be done to touch the robots outside, thought Faux. They were waiting now, as if for a storm which must break sometime, and which would be the fiercer for its delay. At the back of his mind was the feeling that perhaps the radio signals did have some relation to them, and that the key which would save them from the threat was there if only he could find it. As he pondered three staccato dots came through the reproducer above the appartus and he picked up his notebook, already half-filled with figures.

" THAT is the signal they always eommence with. We can't touch the robots so we may as well listen." More dots followed and he counted, scribbling down the numbers. Daker was silent and there was no other sound except for the occasional rumble of explosions. At last the numbers were finished; there was a pause after which they began to come again.

Faux examined his notebook with a frown. There were the figures 35, 66, 91, 91, 91, 139. He showed them to Daker. " What d'you make of this? "

" It's a series. But why three 91s? "

Faux pondered before replying. " I imagine they want to throw that number into relief - underline it, let us say."

" And where does that get us? " demanded Daker, frowning.

For reply Faux paced up and down the chamber a few times, his forehead held in his hands. It got them nowhere - and yet meant everything.

" Those figures are the distances of the major planets from the sun, not including the farther ones," he said, turning to face Daker. " If we translate the numbers we get Mercury, Venus, Earth, Earth, Earth, Mars. The meaning is clear."

The other man's face paled. "You mean they are telling us they are on the third planet-Earth! "

" Yes. That, with the null directive readings, proves they are on this hilltop."

" Lord! " Daker screwed up his face grotesquely. " I can't believe it! "

" That's how I felt at first, but it's proved now. I even hope they may help us, even 'if we never know just who, or what, they are."

Daker stared. " How? "

" I somehow feel they are more intelligent than we. I've sent them all the data, in numerical form, of the robot's pink crystal. They may be able to add to it - to give us some factor we haven't thought of. A pink crystal seems to be the centre of being of these robots and soon they will attack."

He took down the crystal, each facet of which had been measured. Already he had transmitted every factor he could think of in addition - its weight, volume and transparency. He began again, hardly conscious that the bombing had stopped, using

figures which the others must understand.

Only once did he stop as Daker stirred uneasily. " The robots are beginning to come up the hill," he murmured.

ANTIGVO stared out of the plastic dome, a thousand questions in his brain. The sun, red as fire, was just sinking between the crests of two distant hills, sending sloping rays across the mouldering cliff's where once a quarry had been. Now it was but a tiny indentation covered with grass and rubble.

Behind him there was a quiet exclamation and Antigvo turned to meet the penetrating eyes of a slender man with a head almost as wide as his shoulders. Passim smiled so that the skin wrinkled everywhere on his hairless face and motioned towards and airsprung seat.

" Come and listen, Antigvo. I do not know what they are trying to tell us."

Antigvo turned to the seat, arranging his head upon the rests which all earthmen used to relieve their necks of a brain evolved into the largest part of their bodies by a half-million years of civilisation.

Before him the receiver whirred, a mass of intricate apparatus which lulled his eye. For a moment, as he often found himself doing, his gaze lifted to a pressed plastic case above the apparatus, which had stood there ever since he had become a student in the gleaming experimental laboratory many years before.

In it was a crystal, a trifle larger than one of his own slender hands. It had a thousand dissimilar facets and glowed pinkly in the radiance of the tubes in the ceiling. It, with a thousand others, had been found five hundred feet below the crumbling rock of the hillside where an indentation showed a quarry had once been.

They had kept that crystal, and the others, wonder- ing whose hand had designed them and how they had lain there untouched, protected by the soil and the rock, for a period which would rust to nothing even the toughest steel. Geology had dated them nearly half a million years old, judging by the strata where they rested and to Antigvo they did not seem to fit the age from whence they had come - an age when civilisation was new with none of the things necessary to modern life as he knew it.

From the crystal he looked down at the mass of figures the machine had recorded. In a flash his mind calculated their possibilities, trying to find the reason for them. Surely, he thought, this intelligence they had contacted would not send them unless they had some significance?

But they were pot cubes or squares; not in arith- metical progression, or logs or

antilogs. In short they were figures which seemed to bear no definite relationship one to another, and they presented no mathematical picture to his mind. They seemed as incomprehensible as had been his young child's scribblings when it had first held the psychoscribe to its little bald pate.

Passim had returned to the mobile chair he used to rest his weakly legs and sank his domed head back into the rest with a sigh of relief.

" Why do they transmit this incomprehensible information? "

Antigvo slewed in his seat. " The inference is that it is not incomprehensible and that they attach great importance to it."

Passim smiled. " Yet not for five thousand years has there been a problem our human minds could not solve."

" So perhaps it is data of some material thing they think of importance."

" Possibly." Passim pressed a button which sent his chair skimming round and towards the receiver. " Do you think they realise the importance of null directive readings. They must have noted that."

" I imagine so," returned Antigvo with sedate con- sideration. He looked at the machine again; the long series of figures had been repeated, but they were still without apparent sense. " I suggest we have Kabek up."

"Yes." Passim touched a button in his chair. " Kabek? "

" Yes? " A three-dimentional image of an old man, seated in a body chair with his head hanging heavily on the rest, appeared before them.

" Will you come here? "

The image made a tiny gesture with one hand. " Yes." It faded from view. A few moments later the door of the chamber snapped open and Kabek appeared inside. He manouvered his chair smoothly across the floor until he was by their side.

ANTIGVO studied the mathematician for a second covertly. Kabek had proved himself a genius fifty years previously, but now his health was failing. But the brilliant brain in the bald domed head was not losing its ability and arrangements were already being made to transfer it to a receptacle in the great bank of specialised brains which were kept alive and still worked through psychoscribes.

" We do not know what these figures mean," murmured Passim respectfully.

Kabek examined the record, his head still hanging in its rest as if he no longer had the strength to raise it; at last a tiny smile crinkled the parchment of his face.

" I have seen this data sheet before, excepting in that it is less complete," he murmured. " It is the data of any one of the crystals such as were found in the excavations made by my grandfather when he was building the foundations of this laboratory. It is remarkable."

Antigvo's eyes flickered up to the crystal in the case. It had stood there since the laboratory had been made, a kind of sign to show that there had been wonders in the past, as well as the present. They had long since tabulated every characteristic of it, even down to the way a radio wave of a certain frequency would turn it deep green and make it vibrate as if it would shatter to atoms.

" What data is missing? " asked Passim from his chair.

Kabek's brows drooped and Antigvo seemed to feel the power of the intelligence behind them so that his own thoughts were but like a breath of air in a cyclone.

" The missing data is the frequency which makes it vibrate," stated Kabek.

Passim laughed. " They are trying to test our intelligence! Let us repeat the factors with our extra one added."

" Excellent! " agreed Kabek with rare vivacity. " We will repeat our new figure several times so that they will not miss it."

He whirred his chair round so that Passim could take his position at the apparatus. Slowly leaving his chair Passim placed himself on the airsprung seat, his head in the rests but his slender tapering hands upon the controls.

" I can remember the figures," said Kabek, and as he numbered them Passim's fingers sped in a complicated pattern over the keyboard of the transmitter.

" THE robots will soon be at the top of the hill," stated Daker with an underlying fear. " Nothing can stop them."

Faux turned from the last repetition of the figures of the pink crystal and looked out through the window. Advancing towards the laboratory, beneath a protective yellow blanket which shimmered more brightly than the sun, came a row of machines; none hurried and none faltered although above them jet-craft circled. No bombs fell - it was as if the authorities had at last realised that they were as helpless against the robots as a flutter of sparrows.

Misery was in his heart. It seemed impossible that anything could sweep humanity from the earth. The reproducer crackled an he returned his attention to the receiver, listening.

"They have stopped in a body just above the quarry," said Daker from his position of vantage.

" It looks as if they are waiting and will then all advance together."

With sinking spirits Faux nodded. No one on earth could do anything against their enemies. The people in the towns would panic; the machines could kill and kill - if they wished - without suffering themselves.

His attention flashed back to the apparatus. A new factor was coming with the data which he had repeated but a few minutes before. It was repeated once, then again, as if to make it stand out.

" What is that? " asked Daker without turning.

Faux pondered as he stared at the new number. " It can't be any other measurement because we have tabulated them all. We've also found its density and weight, and everything else we could think of."

" Couldn't a crystal like that have any other characteristics? "

" It might have a resonant frequency," admitted Faux dispiritedly, " but it is so complicated that does not seem possible."

Daker turned from the window. His face was pale and tinged with a golden hue which was reflected up from the yellow dome of light below. " What are the figures they send? "

" They are two large figures repeated several times," said Faux, consulting his notebook. " If it were one figure it could be a frequency which would affect the crystal, but two figures are impossible."

Daker slapped his knee. " No! Perhaps the vibrating frequency is both together."

Faux put his head upon his hands to think. He groaned. The complications which were amassing seemed too much! They made his head swim. But he must force himself to think. The crystal might have a complicated resonant frequency and the intelligence they had contacted might be aware of it. If not, why did they repeat the figures?

" We may as well try," he said at last. " It will mean breaking communication with them, but that does not matter now. Soon the robots will over-run us anyway."

He adjusted his apparatus, taking the figures from his notebook. Almost at once Daker gave a great cry.

" Look! "

Following his pointing finger Faux saw that the crystal on the shelf had turned green and was vibrating with a fierce hum as if it would tear itself to shreds. The facets quivered and trembled, but suddenly there was such a reverberating rumble from outside that he jumped up and looked instead out of the window.

The yellow radiance which had enshrowded the robots since their landing was gone. The ranks of the robots themselves were splitting; machine after machine stumbled and jerked spasmodically, as if out of control. Their arms waved wildly and they lumbered one into another, flinging themselves down upon the ground and sometimes seizing up their companions.

" They're running amok! " cried Daker.

It was true. They were stumbling and falling down the slope towards the quarry, some to fall over with flailing arms and some to be pushed or thrown over by their comrades in the wild bedlam of battling machines which blundered ever farther and farther down the slope.

Upon the shelf the pink crystal still rang as if it would jump from the ledge and shatter itself upon the floor.

Outside dropped complete silence. Not a single robot was left upon the sloping hillside above the quarry and in the depths to which they had slithered, machines gone mad, nothing stirred.

" So that was their one weak spot," murmured Daker.

PASSIM swung himself round in the chair, the rest moving with his head upon its swivel.

" Curious," he murmured. " They have not replied to our numbers. But it does not matter, we will begin again tomorrow."

Antigvo sighed. It had been rather exciting and he was tired. And tomorrow his nephew Nigro would be coming to discuss the new theory with Kabek so as to prove to them that time was like a loop which might turn back on itself- that would be the

greatest discovery of man, if it were true. Then they would begin to design the robots which Nigro claimed could be controlled by the queer crystals from the old quarry. He smiled as he swung his chair round. It man was mortal his envoys need not be - they could be robots who could travel through the farthest depths of space, and in fact to any time in all eternity as well, if Nigro was right. Antigvo chuckled. If time was a loop where was its beginning? He must remember to ask Nigro that.