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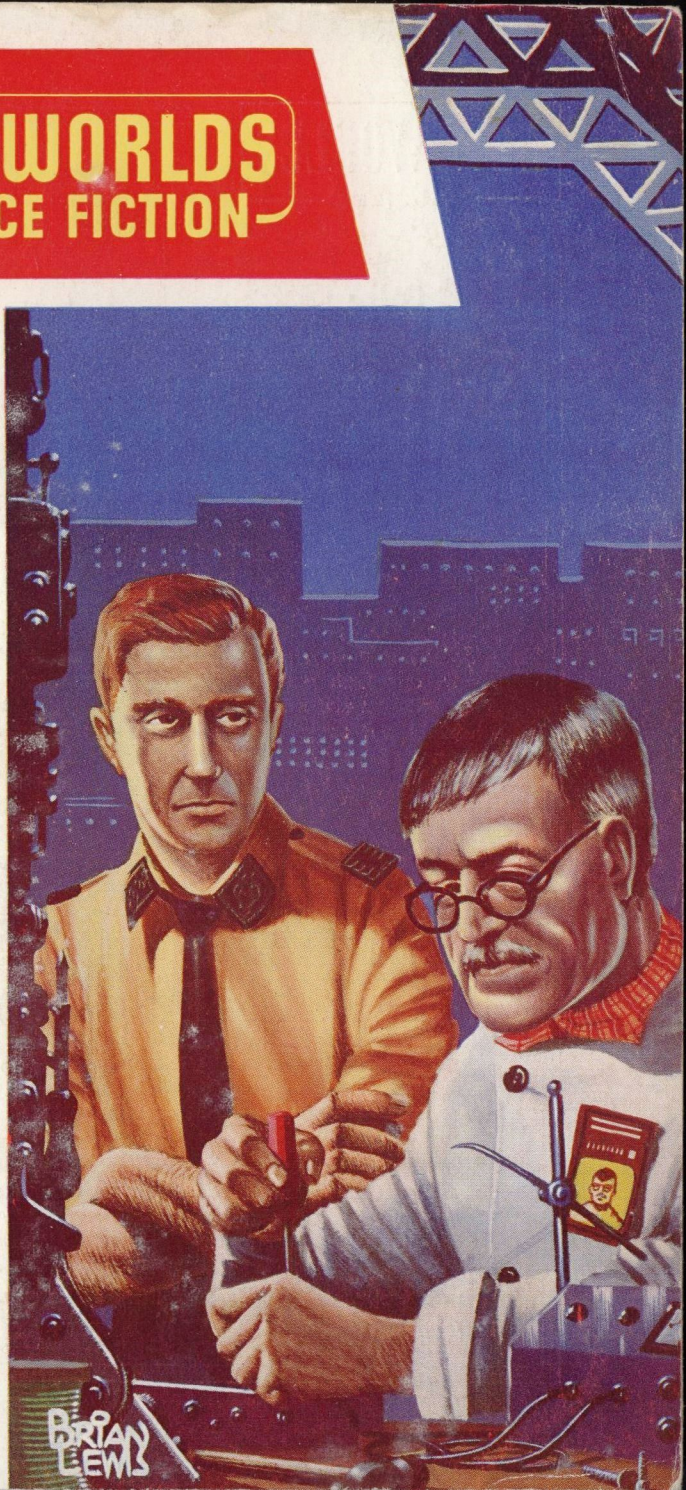

NEW WORLDS

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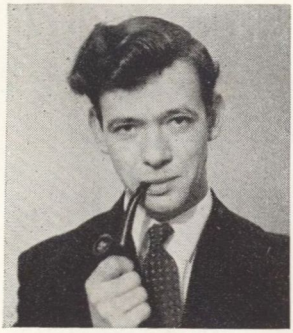

Colin Kapp

Beckenham

Kent

Every year scores of new writers submit stories to *New Worlds* but only a small percentage of them present material up to our high standard of requirement. An even smaller percentage 'make the grade' and become regular contributors. Probably not more than half-a-dozen a year, so exacting is science fiction authorship.

Thirty-year-old Colin Kapp, a 1958 find, is one of those hard-working few who have a natural aptitude for our class of fiction. Employed as a technical assistant on electro-chemical work in a leading electronics research laboratory he says, "In my work, I count myself fortunate in being able to do for a living almost exactly the thing I should choose for a hobby. To equalize, I am taking up short-story writing as a hobby because writing is one of the things I always wanted to do for a living."

Married to his severest critic (who also does his typing) his interest in science fiction goes back as far as he can remember and he graduated through the American pulps up to the present standards of the "Nova" magazines. As he says, "I am always intrigued by clever or new ideas, and for me this is one of the great delights of science fiction. Science is proving today's immutable facts to be tomorrow's fallacies; and science fiction is at the head of this dance, widening our powers of acceptance and encouraging the re-examination of old ideas. It also offers first-class adult entertainment."

His future plans? A lot more science fiction stories, with some experiments in style and theme. Later still possibly a play for television.

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Editor : JOHN CARNELL

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And Brickbats...

October 30*th*, 1938. The Columbia Broadcasting System in America presented Orson Welles' radio adaptation of H. G. Wells' *The War of the Worlds* in their Mercury Theatre series. A ring of stark realism in the opening announcement sent thousands of people panicking out of their homes thinking ' the Martians had landed,' especially in the New Jersey area where the ' invasion ' was purported to be taking place.

As Don Fabun states in his chapter on " Science Fiction in Motion Pictures, Radio and Television " in Reginald Bretnor's *Modern Science Fiction*, " The impact it had on the people of New Jersey and elsewhere in the country that night can only partially be ascribed to the broadcast itself ; there were certain elements of timing and coincidence that magnified the normal effect of the show itself," (and) " it was hard to tell whether it was the science fiction that made such a smash hit, or a peculiar combination of circumstances that had little to do with the programme itself." But " it was a tremendous success."

While Prof. J. O. Bailey states in his book *Pilgrims Through Space and Time*, " Mr. Orson Welles' fake news-broadcast of an invasion from Mars aroused widespread panic because thousands of people had been softened up for this invasion by a literature in which they must have placed some faith."

In Britain we had a pretty good laugh over the gullibility of our American friends—a panic over a radio play ! After all, it couldn't happen here !

Fabun also mentions that the " hubbub furnished social-psychologists with an array of social phenomenon that is still debated in classrooms."

February 20*th*, 1959. Britain's Associated-Rediffusion presented their TV play " Before The Sun Goes Down " in similar vein with a sensational opening, stampeding thousands of viewers with their announcement, "We interrupt programmes for a special announcement—an unknown satellite has appeared over London," (and) " it is possibly hostile," followed by a " statement " from the Prime Minister (and this on the eve of Mr. Macmillan's departure for Moscow !) Timing and coincidence once again playing its grim role.

The press stories of resultant panic are interesting and follow a similar pattern to that experienced after the American radio

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sensation. Telephone lines jammed, people fainting, mothers frantically collecting children, others rushing into the streets. Doubtless British psychologists will now also have sufficient material to last them for many years.

Both these ' panics ' strongly point up the fact that neither radio or television should be allowed to sensationalise their fiction—humanity is now geared to get its news as it happens and no longer by carrier pigeon or pony express. Unfortunately, the general public are more to blame in these instances than the authorities who dream up gimmick openings, especially with television, which has almost an hypnotic influence on a lot of people. Great boon though it is in many respects, the world's greatest time-waster causes thousands to nightly drowse through the evening hours only subconsciously listening and watching the silver screen. Advertising breaks, especially around 9.00 p.m. are signals for small talk, drinks, the teapot, and hustling younger children off to bed. Small wonder, then, that this particular 9.00 p.m. break caught thousands off guard and missing the brief title flash "Television Playhouse " before the sensational interuption. From there on the most somnambulent of viewers would be all attention and during the 10- to 15-second ' announcement ' of dire peril before the credit titles appeared informing that it was a play, half the people must have left their sets.

Timing and circumstances were just right to create a panic.

Many hardened science fiction readers were momentarily caught off guard by the opening — artist Brian Lewis's immediate thought was " Good-o—*They've* arrived !" and dived into the garden to get a glimpse of the satellite hovering motionless over London, doubtless to add some authenticity to a future cover painting.

In retrospect, the crowning pity is that, after its history-making opening, " Before The Sun Went Down " turned out to be such a bad play. I will leave aside the fact that it was science fiction (of the *Earth Abides* type) although *TV Times* insisted that it was not " science fiction and horror." (Notice the way the uniformed *always* link the two together ?)

It has taken just over 20 years for the echo of our laughter to bounce back across the Atlantic—I hope the Americans enjoyed the joke !

John Carnell

Colin Kapp's second contribution to our pages is as fascinating in plot detail as his first one—"Life Plan" in the November 1958 issue—and introduces a philosopher who specializes in survival problems being involved with scientists who are attempting to break through into another dimension.

SURVIVAL PROBLEM

By Colin Kapp

Fort Athlan was seventeen square miles of scrubland and desert set in the midst of the thwarted, windswept, wilderness. Its nucleus was a small, enclosed, temporary town of concrete huts and portable buildings straddled with random poles carrying power and telephone cables. Around the town was a double perimeter of barbed wire.

Mike Conyers regarded the fence with vague apprehension. He was no stranger to barbed-wire fences and all they symbolized in man's treatment of man. Despite the fact that his enclosure was entirely voluntary he could not help but recall other less happy confinements. Stuffing his hands deeply into his pockets and turning his back on the cold wind he ambled slowly over to the Director's office.

The Director greeted him with mixed feelings.

"Glad you could make it, Mike. It's almost like old times."

"Is it?" asked Conyers doubtfully. "I was afraid of that. I don't recall having much love for the old times."

Nye eyed him speculatively for a moment.

" Perhaps not, but this is different. We're on to something big, here, Mike, but we don't know how big. That's why the Controller figured we could use a consultant philosopher on the team."

" One thing nobody ever wants advice on is their philosophy," said Conyers. "Why did you ask for me in particular?"

Nye shrugged.

" Sooner the devil we know than the one we don't. I'll admit we haven't always hit it off in the past, but there's always a first time. As a problem it's right in your line."

" Sounds interesting. Suppose you give me the facts, and don't make them too technical."

" Very well. Does the Housemann-Crane Discontinuity Theorem mean anything to you ?"

" A little. It's a mathematical hole of some sort."

" Briefly, yes. The equations deal with a discontinuity in the law of probability when applied to a certain series of four-dimensional terms. It's a curious little hole in the structure of numbers—a basic flaw in the system we use for looking at things. But there's one snag about it."

" And that is ?"

" We discovered the flaw is not in the system but in the nature of things themselves. Theoretically, given the right set of conditions, an area could be created in which the normal physics of three-dimensional space would cease to apply."

" Go on," said Conyers.

" The next part of the trick is how to translate the theory into practice. That's a tough job but we have it licked on paper at least. Using a system of stressed fields it should now be possible to reproduce physically the conditions of the mathematical discontinuity. It also leaves us with one hell of a problem."

" How so ?"

" Consider the facts. We're certain we now have a method whereby we can stress a flaw in the fabric of the universe as we know it. This will give us a discontinuity, a hole if you like, which leads right out of our notions of time and space. But a hole to where ? What lies on the other side ?"

For several seconds the silence was broken only by the heavy ticking of the clock on the wall.

" Very neat !" said Conyers at last. " Very neat indeed !"

" I thought you'd appreciate it. We have reason to suspect that through the D-gate we shall come across a set of conditions roughly comparable to those existing somewhere in the known universe ; but we have no right to believe that this will be so. If we should happen to hit something that is both abstract and impossible perhaps we also need a specialist in abstract impossibilities. Your department, I think."

" I thought there was a catch," said Conyers. " Every time I get a scientific liaison job I fall in the dirt. That's what comes of being a specialist, I suppose."

" It was your speciality that brought you here, Mike. As a philosopher you specialize in survival problems. Our little experiment may prove to be just that."

" As you said," remarked Conyers, " it's rather like old times. Is that why you chose Fort Athlan as a test site ?"

" Yes, except for the team working on the apparatus the entire area will be cleared. That way any major disaster up to and including an atomic blow-up will only harm a limited number of people."

Conyers withdrew a crumpled sheet of paper from his shirt pocket and straightened it on the desk.

" You realise that in calling in a survival specialist you have declared this project potentially hazardous ? Under our charter that gives me some pretty wide powers. Do you accept these conditions ?"

" Under protest," said Nye. " It was the Controller's decision to call you in, not mine. You know how I feel on this subject."

" Aye !" said Conyers without malice. " I still have the scars from the last time."

Nearly five years had elapsed since the last guided missile had winged its deadly way from Fort Athlan. The site had later been prepared in readiness for the stock-piling of thermo-nuclear weapons, but the weapons never came to the dusty underground galleries. Instead Nye and his research team had filled the concrete caves with power cables and electronic gadgetry. In the old firing-control vault, the deepest part of the installation, they had established the enigmatic ' bomb,' the gateway to the universe beyond.

The bomb was a horizontal cylinder of chrome steel with a two-inch wall, being about a foot in diameter and the same in length. Thick plates of ground- and polished-quartz were

clamped across the ends of the cylinder, with a yoke forming an elaborate pressure seal. The sole support for the assembly was a heavy metal tube which passed up through the field coils to a supporting girder and then dipped down again to the vacuum apparatus.

" You really are expecting trouble," said Conyers with quick understanding. " I assume you intend to make the breakthrough within the confines of the bomb ?"

Nye nodded. " It's extremely foolish to go poking holes into things unless you know roughly what's on the other side. We decided to use the bomb method so that if, on breakthrough, something decided to come our way we have a slight chance to contain it."

" Slight chance ?"

" There is a limit to what even a chrome-steel bomb can contain. This merely represents a statistical compromise between what we are likely to need and what we have to observe. If you consider the extremes of temperature, pressure and density that exist even in the known universe you get some pretty staggering figures. Then imagine taking a blindfold sample on a completely random basis.

" You stand the most chance of finding yourself with a bit of first-grade vacuum, but you might be unlucky and grab a hunk from the centre of a sun or a neat slice off a dwarf star. The vacuum you could handle if you had it in a proper can. Catch one of the others and you're really in trouble."

Gottwald, the mathematician, was writing notes at the console of the computer. As they approached he looked up with just a faint hint of amusement in his dark germanic eyes.

" Don't let this optimist give you a false sense of security. Those are merely the least of our worries."

" You mean," asked Conyers, " that this gadget is capable of even more lethal tricks than filling the room with radioactive helium at a few hundred-million degrees Celsius ?"

Gottwald nodded. " Just so ! For myself I don't believe we shall get that far. Our bomb contains one of the best vacuums we are able to produce but, by the nature of things, it still contains a great many molecules of gas. On breakthrough we stand a very real chance of inserting at least a few of those molecules very neatly into the atomic structure of whatever lies beyond."

" So what do we get, a new chemical compound ?"

" More likely a new type of nuclear reaction, I think."

Gottwald laughed shortly, with his peculiar twisted grin. But Conyers sensed the fear beneath the calm.

" How does the computer fit into this," Conyers asked.

" Simply," said Nye, " because we have to locate the critical point in the equation and set up an analogous pattern of stressed fields. Since the fields modify each other by interaction and capacitance effects we cannot calculate exactly where the critical point will fall. To get around this we intend to couple the computer to the field tuning mechanisms and run through the entire series. With a twenty-three hour sweep on the computer we must pass through the critical point at least once in that period of time."

" Does the computer stop at criticality ?"

" No. It merely records and passes on. If our estimation of gate width is correct we should make break-through and be past it in about ten to the minus-eleventh seconds."

" Surely you can't make any observations at such short duration ?"

" No." Nye paused and lit a cigarette. " It depends on what there is to observe. If the other side of our window happens to be situated in the centre of a sun, for instance, observation is not over-wise. We have the bomb monitored for every known physical phenomena, potentially dangerous and otherwise. If we detect nothing we will repeatedly drop the sweep speed by a suitable factor until something does record."

" I see."

" When we read something positive we can stop and analyse our position before going further. Assuming nothing lethal we can continue with reduced sweep speeds until we can build up a picture of what things are like on the other side."

He stopped and glanced coyly at Conyers through the haze of cigarette smoke drifting toward the ventilators.

" I think," he added, " that you are going to be hard put to find exercise for your speciality."

But Conyers was lost in thought, staring at things unseen, a trace of bitterness on his face.

" Who's the new boy ?" asked Baring.

Nye swore lightly. " A so-called survival specialist from the Philosophical Bureau, of all places."

" Jupiter ! What's that ?"

" It's a private organisation which does research work on semantics and paraphysics for the government. They have plenty of influence higher up so they do pretty much as they please."

" What's his interest here then ?"

" Obvious, I think, Harry. Is there anyone in the world who wouldn't be interested if they knew what we were up to ?"

" I suppose not. He looks a bit of a rum sort, though."

" Very, and there's something queer about this whole set up. The Controller's signed a contract giving him emergency powers here. From what I know of the Old Man they'd have to squeeze mighty hard to make him sign a thing like that. The fact that Conyers has such powers on my project is galling enough, but what puzzles me is why he bothered to ask for them in the first place."

" Perhaps he just likes to throw his weight around."

" I'm not so sure. I've tangled with these philosophical chaps before and they usually have good reasons for everything."

" We could always chuck him out," supplied Baring.

Nye looked up sharply. " I don't advise you to try if you value your neck. Mike Conyers is a pretty tough nut."

" Even tough nuts crack with a little scientific leverage."

" Boy !" said Nye." Never try to apply any sort of leverage to a survival specialist, because he won't be the one who cracks."

The hut assigned to Conyers was near the north perimeter at a point reasonably distant from those occupied by the bulk of the scientific and engineering staffs. This not entirely coincidental arrangement suited him well, for there were things to be done which were better done quietly and away from curious eyes. During the afternoon a military truck had delivered a load of his equipment, and the large grey instrument cases from the Philosophical Bureau Technological Division had already attracted too much attention.

He inspected the building and the immediate environment carefully and set up several mass-change proximity detectors to give advance warning of anyone approaching the hut. Then he sat by the window and read for the last time the letter which had brought him to Fort Athlan.

Office of the Director,
Philosophical Bureau.

Dear Mike,

I warned you that one day I would toss you a problem in which the chance of personal survival was a theoretical nil. This is it ! I need hardly tell you that the idiot savants have over-reached themselves at last. Since you know of our work on the Housemann-Crane theorem you will appreciate the pure irony in their requesting a survival specialist. Indeed, the situation would be funny if it were not so heavily underscored with potential tragedy.

As a problem it is as subtle and deadly as anything you could wish. Since you have developed so consistent a knack of refusing to accept the inevitable I am, in a strictly academic sense, interested in seeing how the hell you manage to get out of this one. If it is of any consolation to you, remember that the devil looks after his own.

Seroia Passover.

The special paper left no ash. The destruction of the note was second-nature to a specialist like Conyers, but he smiled wryly in realising that one is seldom so scrupulous about the fate of one's own death warrant.

As a philosopher his department was the technique of human survival under all forms of stress and danger. This was a rugged and practical field involving not only actual and simulated contra-survival problems but also scientific liaison on projects where the hazards were yet unknown. His unparalleled knowledge of the strengths and weaknesses of man made him a handy person to have around when potential danger loomed ahead.

He spent the rest of the evening in an apparently aimless exploration of Fort Athlan, an activity which was by no means as casual as it appeared. He paid special attention to the layout of the telephone lines and the communicator system, and established that there was only one radio-link with the base town of Sao Bernard, some hundred and twenty miles away. The telephone system boiled down to a single multiplexed line strung away across the desert on poles.

Soon after midnight he returned to his hut with the plan of Fort Athlan firmly in his mind together with the advisable routes to follow with the minimum risk of detection after dark. As yet he had little use for this information, but com-

munication and movement are vital factors in the functioning of any organised group, and Conyers had a job to do.

He rose early the next morning and set about unpacking the instrument cases. Two of the cases contained specialized electronic equipment, transceiver, recorders and miscellaneous gear. The third and fourth cases held component parts of a large device the mere thought of which made the hair rise on the back of his neck. It was not so much that he was afraid of death—he was trained to be afraid and ply his trade in the face of that fear—no, it was the sheer inevitability which overwhelmed him. Death comes in many forms but few as surely as that which a survival specialist deals to himself with his own hands.

The scientific staff had a separate dining hall to the military and engineering teams. This was necessary inasmuch as a great deal of scientific shop was invariably exchanged across the dining tables. The peculiar sickness of the age which confused scientific endeavour with the Official Secrets Acts was rampant among the assembled company and he felt the hum of conversation die as he, an unknown quantity, entered the door. He flipped his pass to the receptionist and was escorted to a reserved table near the head of the room.

He sat for a few minutes unable to determine whether he was regarded as a pariah or a V.I.P. His doubts were resolved when he was joined by the Director himself.

" Brother !" said Nye. " Do you mind telling me what you've got holed-up in that hut of yours ?"

Conyers' heart missed a beat. That was the last question he intended to answer.

" Specifically, why ?" he asked guardedly.

" Because it's playing hell with our radiation monitors. The background count is completely shot to pieces. What are you doing up there, refining uranium ?"

" Something like that," agreed Conyers. " There's a couple of radiation sources I use for checking some of my instruments. I expect you're reading them. They're a bit hot but well below tolerance."

" Not exactly a healthy thing to keep under your bed."

Conyers shrugged. " What else should I standardize on, faith, hope and charity ?"

" Please yourself, but you'd better have the medics watch your blood-count. I don't want you growing another head while you're on my territory."

" What's eating you, anyway ?"

Nye checked himself and smiled wearily. " The uncertainty, I guess. I've spent five years on this project and at a few days from zero hour I still haven't the faintest idea of what we're up against."

" What made you start all this anyway ?"

" What ever motivates a man ? Power, pride, position—you tell me. The whole world is grasping for advantage. Power and resources mean life and stability. Successful nations survive ; the others go to the wall. It's the modern law of the jungle."

" And the D-gate promises such an advantage ?"

" Don't you think so ? Whatever lies beyond the D-gate must be of some use to us. Perhaps a new science or a new way to the stars. Perhaps a new material or a perfect vacuum or a limitless source of hydrogen for power or synthesis."

" Or a new way to die ?"

Nye looked at him curiously.

" Or a new way to die," he said. He paused for a moment. " You know, sometimes I get the idea that you philosophers don't exactly approve of science."

Conyers shrugged. " Knowledge is power, and power is neutral in the affairs of men. It's like a bar of iron, you can use it as a tool or a weapon. Our concern is not with the knowledge but with the end to which the knowledge is applied. It's a question of responsibility."

" And you don't think that a scientist is sufficiently responsible to control the products of science ?"

Conyers, who had walked in the shadows of atomic nightmare, bit his lip.

" Do you ?"

" Surely the responsibility rests with society not with the scientist ?"

" Does it ? Think about it for a while. If a man gives a gun to a child does he bear no responsibility when the child turns the gun on this brother ?"

" This is beyond me," said Nye stiffly. " I only work here. Since you're a philosopher I'll leave the ethics to you."

The bomb vault was well suited for its job. In its original conception, as a control room for guided atomic weapons, seals had been provided so that it could function for several days in spite of radioactive contamination of the desert above.

These same seals would now perform the reverse role of preventing the spread of contamination in the unlikely event of the D-gate meeting with some peculiar and untimely end. An air plant could maintain a reasonable atmosphere for a week, independent of outside supply.

The lift went only as far as the lower galleries. From there to the vault one descended by stairs and corridors through a series of pressure doors. Most of the cable shafts ran parallel to the walkway and communicated at various levels with the galleries which held the modulators and gadgetry associated with the D-gate apparatus.

Conyers noted these details with a trained eye as he made frequent detours along galleries and passages carefully examining various aspects of the fantastic honeycomb structure of concrete and steel now snaked about with random cables and hot with the scent of transformer oil. He was especially interested in the routing of the control and the communicator wiring from the vault. In this he was aided by the logical coding of junction and relay boxes.

He found Gottwald still busy in the vault running computer checks.

"How goes it?"

Gottwald's skin showed yellow under the fluorescent lamps.

"How would you have it go? If you're intent on suicide a few decimal places more or less don't really count."

"You don't appear to have much faith in the bomb," said Conyers, selecting a chair.

"I have every faith in the bomb—as an instrument of destruction. The statistical odds of our breaking the threshold unharmed are so small I think they fall off the graph."

"Nye doesn't think so."

"Everyone is entitled to his own opinion."

"You think that breakthrough will result in an explosion?"

"I am almost certain of it. All my calculations point to that probability. A few molecules are all that would be required."

"Why are you telling me this?"

"Because you are the only one who has the sense to be truly afraid of what we are doing. Also you are not what you seem."

"How do you figure that?"

"You are a survival specialist, no? I understand that is your trade. You are here to ensure survival, yes—but not *our* survival."

" What makes you say that ?"

Gottwald looked up, his dark eyes haunted with memories.

" Perhaps I have seen too many men whose eyes bear the knowledge of certain death."

Conyers searched the index of his mind. " You were in the concentration camp at Brilla, were you not ?"

" Just so ! For three years. That is where I learned to read the faces of men who have no future."

" You could be mistaken."

" So I could. I'm getting old and my health is not what it was—thanks to Brilla. I sense I am getting near the end of the line. I find in you a kindred spirit."

" Perhaps !" said Conyers. " Why don't you get out of this ?"

" Why ? Because there's another war coming and I've had enough of war. Truly I'm scared of death but even more am I sick of living. This is my epitaph. It runs : ' Your geiger-counter reads the remains of Wolfgang Gottwald, who died as he had never lived—in a blaze of magnificent glory '."

Conyers got up and circled the bomb cautiously.

" You give up hope too easily."

Gottwald coughed a little. " I gave up such futilities a long while ago."

" Never mind," said Conyers, " where I come from they've hope enough for all of us."

As he traversed the higher levels he pondered on the significance of this conversation. Gottwald had guessed a good half-truth about his mission with an insight little short of miraculous. Either Gottwald was genuine or he had been trained in human-reactions by a master of the craft. If the second case was true there was more to the little German doctor than appeared at the surface. But how much more ?

On a hunch he returned to his hut, coded a signal to the Philosophical Bureau and sent it out over the transceiver.

Throughout the rest of that day and all the next he continued to familiarize himself with details of the project. Having satisfied his curiousity on the main mechanisms he contacted Baring who was responsible for the instrumentation. With some pride Baring exhibited the detectors and safety monitors assembled round the bomb.

Conyers was not impressed, and said as much.

" You appear," said Baring with scarcely concealed anger, " to have a very poor opinion of our chances."

" Frankly, I don't give us better than one chance in a million give or take half a dozen. And that's a conservative estimate."

" So much for the philosophy of pessimism ! Fortunately I don't have to agree. For myself I'd say about even chances. Remember we can detect trouble long before it reaches dangerous proportions."

" Famous last words," commented Conyers drily. " You are too easily blinded by science."

" Dazzled, perhaps, but not blinded. We planned our monitors in a very logical way. In consultation with the Medical Council we tabulated all those factors known or considered likely to prove dangerous. We have provided sensitive instruments which can detect any of those factors for intensities and durations well below tolerance level. With the added protection of the bomb and the ultra-short exposure time provided by the computer sweep I really can't see anything to worry about."

" No," said Conyers, " I didn't think you would. You'd put your head in a lion's mouth trying to measure the carbon dioxide content of its breath. Look at this problem another way. Two hundred years ago ninety percent of your instruments didn't exist for the adequate reason that the phenomena they're designed to measure was either unknown or imperfectly understood. Can you seriously maintain that in two hundred years hence the number of critical instruments wouldn't need to be increased by a similar percentage and for similar reasons ?"

" No, but . . . "

" From which we can draw the point that we cannot yet define all the hazards which may exist in our own universe, let alone those present beyond it."

" True, but from the individual standpoint . . . "

" Individual nothings ! You don't begin to grasp the magnitude or the subtlety of the task you have attempted. How do you recognise what constitutes a survival hazard anyway ? Is it a physical factor or is it a set of circumstances?"

Baring thought about this for a moment, then smiled resignedly.

" I begin to see why they called you in."

" I'm sorry for riding you like that," said Conyers, " but survival is a problem which permits no errors to the individual.

Even species must bow before it and adapt themselves or die. It is the business end of natural selection and the driving force behind evolution."

"I'm convinced," said Baring, suddenly without rancour. "But what can we do about it? We have taken all available steps to minimise the danger to others. Those of us who remain here do so with full knowledge of the possible consequences."

"I wonder," said Conyers quietly, "just how accurate your idea of the consequences will be." He walked thoughtfully around the bomb examining the complex field devices. "By the way, how do you limit the size of the D-gate field?"

"Edge cancellation. We neutralize the unwanted portion of the field flux with a secondary flux that's ninety degrees out of phase. The small coils at the end of the reactors are there for that purpose."

"I see. And over what limiting dimensions could you control the D-field if you wished?"

"Down to about one micron, and up to about one metre in diameter I should think. The bottom limit is determined by Housemann's constant and the top limit by the instability of the D-field itself. Does that help?"

"A little. Have you any spare cable-pairs up to the second gallery?"

"I think so." He consulted the master wiring layout. "Yes, three spare pairs. Do you want them?"

"Please. There's some extra stuff I'd like to install up there, but I need a control this side of the vault seals."

"As you wish," said Baring. "Would it be too much to ask what you're up to?"

"Frankly," said Conyers, "you wouldn't believe me if I told you."

The latter phrase was nothing more than the truth. Even Conyers himself found difficulty in fully comprehending the device which he now prepared to place in the second-level gallery.

In its original conception the device had been sufficiently awe-inspiring, but the labours of the bureau technologists had further transformed it into eleven hundredweights of crated complexity without apparent function or beauty. It took the philosopher and three technicians two and a half sweating,

straining hours to mount the two halves of the device one on the other in a vertical position. Even then Conyers was the only one who had any idea of what had been accomplished. A further seven hectic hours passed before the device stood gleaming and malignant in the depths of the gallery.

He dismissed the technicians and completed all the wiring with his own hands. Into the vault end of the circuits he put his own locked switches, and only the patterns of three small keys stood between an inquisitive tinkerer and an untimely end.

As he emerged from the main shaft the auto-caller wristlet on his arm began to tingle. He hurried to his hut and reached for the transceiver, but as he did so the telltale signals of the detectors caught his eye. The delicate mass-capitance balance of the area around the hut had been crudely upset since he had last reset his electronic watchdogs. The pens had straggled a ragged climbing trail across the recorder graphs.

The wristlet vibrated insistently, reminding him that the transceiver call awaited urgently. He flipped the switch.

" Conyers in Athlan."

" Come in, Mike ! Stand by for a tape from Philosophical H.Q., subject : Dr. Gottwald."

" Roll it, and then close out fast. I don't want this picked up elsewhere."

" Check ! This is it. Coming to you on a tight beam."

Conyers listened to the tape with growing interest. It was a plain-language communication, which was unusual in Bureau transmissions and served to indicate the extreme pressure exerted in obtaining and collating the information it contained. The incoming carrier ceased abruptly as the last word died away. But sufficient had already been said.

The lock on the door had been opened—expertly. Inside the hut he detected traces of a careful and unhurried search of his belongings. Nothing, however, remained to give a clue as to the identity of the intruder. Cursing wildly for not having foreseen the need for a concealed trip-camera, he tried the only approach left to him.

He went outside and walked around in a wide circle, returning to examine the new graphs of his own movement and to compare them with those already traced. Then using the old graphs with his own trace to guide him he carefully calculated the path by which the intruder had left.

He made frequent trips outside to verify his triangulation, comparing traces, measuring and calculating until the pattern became clear. Then it was easier. The trail led circuitously away from his hut, crossed the main fairway at an angle and then disappeared between the sheltering bulks of the hut line opposite. Here the trace was almost obliterated by the static mass of the storehouses but faintly, in slight leaps of the pen, the progress of a man who had moved beyond the huts was deftly betrayed.

One . . . two . . . a careful count down the line to the point where the pen had no longer moved. He was using a magnifying glass now to examine the minute deviations on the graph. Did the man stop there or had the distance and complexity of the task gone beyond the sensitivity of his instrument? He took a stroll in the direction indicated and then checked the result. His heart jumped a beat. He could trace his own progress two huts further than the trail of the intruder. At last he knew his man!

In the back of his mind a faint idea crystallized into a plan of action. He checked his stock of instruments and puzzled out a few details. Experimentally he set up a few circuits, tested them, then rewired with growing enthusiasm.

Working without schematics he marshalled the circuitry in his brain and translated it straight into an improvised haywire gadget of trailing wires and interconnected parts. He tested as thoroughly as time permitted and was gratified to find that, with a few minor adjustments, all was functioning as he had hoped.

The guard changed at midnight. Conyers waited patiently until the old guard had returned and dismissed, then stole like a shadow across the fairway and into the shelter of the huts beyond. Counting off from memory he moved down the lines taking great care to attract no attention from the watchmen.

The door offered no resistance to the picklock and he was inside the hut before Gottwald woke.

"Who is it? What do you want?"

"Conyers. I want to talk to you."

Gottwald moved up in the bed and fumbled for the bedside switch. Conyers, with eyes accustomed to the dark, knocked up his arm.

"No lights. I want this conversation private."

Gottwald pulled a cover round his shoulders. " What do you want ?" he repeated.

" I want to know by what unholy pact they let you out of Brilla ?"

" God ! There was no pact, I swear it. They released me because I was too old and too ill."

" I have information which says otherwise. They kept your wife and daughter there. Was that not to ensure you kept a certain bargain ?"

" I don't know what you mean."

" I think you do. You came here to spy. As a refugee your hatred of the new regime was unquestionable. As a noted scientist your services were much required. That much was easy. So they kept your family in order that you could buy their continued health by sending back details of the projects on which you worked."

Gottwald's dim face was a mask of pain and fear.

" Go away, madman ! I was cleared by Security, anyone will tell you that. If you don't go I will call the patrol."

" Do," said Conyers evenly. " I'll provide you with a one-way ticket to the firing squad. Now stop trying to bluff me and start talking sense."

The elderly doctor collapsed back onto the bed.

" Very well, what do you want with me ?"

" I want you to know just how you have been dealt with by the scorpions to whom you sold your soul. Your wife and daughter died within a month of your release from Brilla."

" You lie ! I have letters from them."

" Clever forgeries to keep you on the hook."

" You can't prove what you say."

" I don't need to. You know it's true. I think you've known it for a long time."

For a long moment Gottwald said nothing, but buried his face in a pillow. Then :

" Perhaps it's better this way. At least they can suffer no more. Now tell me why you come to torment me at midnight. Tomorrow I will come with you to the police."

" I didn't come for that. I came to make you an offer."

" Have I not had enough of offers and ungodly alliances ?"

" Don't judge me too hastily. I offer you a chance to redeem your soul."

" What do you mean ?"

" Since you have lost your allegiance to your late masters I want you to work with me. As you have been to so much trouble this afternoon to verify that I am not quite what I claim you will more easily understand what I intend to do."

" I know what you intend to do. I was looking for the reason why it had to be done."

" Then," said Conyers, " if you will listen I will tell you."

September the ninth got off to a bad start. The dark hours were shattered by a storm, driving from the west, which burst directly overhead with a sound like the crack of doom. The snarling thunder and the blinding shafts of lightning sliding into the hills only emphasized the terrifying prospect of the day ahead.

At one o'clock Conyers slipped from his hut and made for a spot on the perimeter fence well clear of the guard gate. Here the barbed strands were well ravaged by rust and corrosion and it was but a few moments work for one well versed in the foibles of fences to gain an unauthorized exit.

Crawling on the soaking ground until he was clear of the range of the perimeter lights he waited until a particularly brilliant flash illuminated his objective. Then he made off with a low shambling run out into the darkness of the night.

An hour later he re-entered Athlan by the same route. He closed the wire as best he could, swearing softly as a barb raked his knuckles, drawing blood. The venture had cost him more than he had reckoned. An ugly bruise was forming on his chest, and skin and trouser alike had been scraped from one knee. Nevertheless he had completed the first part of his task undiscovered, and that was sufficient compensation.

Climbing to the roof of the communications building was no happier task especially since the storm might have roused the night radio-operator from his usual half-eyed vigil. The slates were treacherous with moss and lubricated with rain. One false step would have precipitated his fall to the ground with, at best, a broken limb and half Fort Athlan in attendance. Also his fingers were numb with the cold and clumsy with continued immersion.

Somehow he groped his way through the telephone wires, sorting pairs from memory and clipping prepared leads between certain circuits to establish new paths for a different purpose. A dry cell and a miniature headphone served to check the new connections and he was greatly relieved when

the dry electric scratching in his ears signified that the job was done. Thankfully he crept quietly back to his hut for a hot shower and a few hours sleep.

Dawn brought a recession as the storm passed east, but the morning was marred by incessant rain and the sullen clouds brooding in the skies overhead. Fort Athlan woke with a sense of urgency ; with hurried breakfasts and the roar of engines as the last of the military and civil staff prepared to decamp. As the last truck moved out across the desert Conyers emerged from his lair and took final stock of his surroundings.

Four men remained in the bounds of Athlan. Their nearest neighbours were speeding away to safety to Sao Bernard, one hundred and twenty miles away. Four men. Three to one with the devil in between them, thought Conyers. Perhaps the odds weren't so bad at that !

He called at the Director's office but Nye had already left. He finally caught up with him in the communications building where Nye was having an agitated radio-telephone conversation with Control at Sao Bernard.

" All correct ?" asked Conyers at last.

" Like hell ! The land line's gone dead."

" Won't affect the test, will it ?"

" Not really. We were going to use the line on a direct link between the vault and Sao Bernard so that they could record our progress. This throws us back on a radio link instead."

" That sounds fair enough."

Nye gave him a curious smile. " Suppose the radio goes too ? We should be in a rather queer position if something goes wrong today."

" You've got the jumps," said Conyers. " The transmitter is a pair in tandem. You know the odds against complete failure on a set like that."

" Perhaps !" Nye got up and stared moodily from the window. " You know, Mike, I've an uneasy feeling about that land-line. The timing was a nice piece of coincidence. Off-hand I'd say somebody did a neat sabotage job on it. Somebody rather professional."

" Meaning me ?"

" Frankly, yes. I've seen you philosophers at work before. I don't pretend to know how you operate or why, but I get the feeling that you're playing a deep game of your own."

" I have a contract," said Conyers, " which declares that I shall act as I see fit to mitigate the dangers of this project. If that necessitates a spot of wire cutting I shall cut every wire in the place if I choose. Remember that the survival specialist has supreme authority where a hazard is involved. I hereby declare a hazard."

Nye bit his lip in anger.

" Are you going to inform Sao Bernard ?"

" No, that would only complicate the issue."

" As you wish. But why cut the wire ?"

" It could be," said Conyers slowly, " that when you stand too close to a problem you can't see it in perspective anymore."

Nye turned to face him, bemused with a sudden idea.

" Mike, do you *know* what we're going to find today ?"

" Not exactly. The bureau analysed the Housemann-Crane theorem some time ago. They came up with a pretty staggering idea as to what lay beyond the D-gate. I'm here just in case they're correct."

" Then what are you expecting ?"

" I can't tell you. Suffice it to say that if the bureau prediction is correct then you are about to uncover something so potent that no bomb you can ever devise can contain it. Even the isolation of Fort Athlan can scarcely slow its impact on the world."

" Why didn't you say something before ?"

" No point in it. As you yourself told me, you only work here. You don't accept the responsibility for your discoveries. The matter is already out of your hands."

" Very well," said Nye. " I respect your position. What do you want me to do ?"

" Carry on as though this conversation had never existed."

Nye looked at him helplessly for a moment or two and then shrugged.

" I still don't understand you, Mike, but then I never did. If I didn't know you I'd say you were either a liar or just plain crazy. As it is I don't know what to think."

" Nobody's asking you to think. Remember, I didn't have to come down here and tell you this."

" Then why did you ?"

" Because I think you're a nice quiet idiot who's going to come in for some very nasty shocks. I just wanted this to be one shock the less."

" That's a queer sort of comfort, I must say."

" I'm not here to offer comfort. I was sent here to ensure that your souped-up crystal set doesn't devastate half the continent. The way things are I wonder if I should have bothered."

" Why, what's the matter now ?"

" Early morning news release. War in the Kashmir. Atomic war. Half a million poor devils blasted because ' I only work here ' and another million dying because ' it's not my responsibility.' The idiot child has just turned the gun on his brother and we don't have enough decency left to compose an original epitaph !"

" Aren't you being a little hard on the scientists ?"

" Man !" said Conyers. " Have you any idea of the I.Q. of the collective psychology of modern society ?"

The war news was verified by the time the four had assembled in the bomb vault. The depression which had started with the storm deepened into a deadening resignation. Only Conyers, watching through quiet eyes, escaped the overwhelming sense of fatalism as the great doors sealed the vault from the world outside.

Nye took the communicator and called Sao Bernard, waited for acknowledgment, then fed in the holding signal which would stall the distant recorders until there was something worthwhile to note. Gottwald charged the necessary tapes into the computer console and signalled his readiness to start. Baring brought his vacuum pumps into chattering life and busied himself with valves and gauges.

The main board flooded with lights as the time controls switched on the supplies and modulators in the deserted galleries.

" Let it roll !" said Nye.

The main contactors fell home with a solid thud and the air grew loud with the surge of power. Then the computer came into play, and the slow dials on the console began their inexorable searching for the universe beyond.

Once they were thus committed the air of despondency grew thin and was replaced by a mounting tension and excitement. Nye broke the holding signal and radioed periodic reports to Sao Bernard, while Gottwald and Baring took turns to watch the oscillator board. Seven hours sped by without discernable effect save for the temperature steadily rising despite the

efforts of the air-conditioning plant. Jackets were shed and tempers became a bit ragged at the edges.

Baring was hard-put to re-zero his instruments in the face of the rapid temperature rise, and Conyers stepped in to give him a hand.

" How much longer ?"

Baring, the sweat glistening on his face, shrugged.

" Impossible to say. If the damn thing doesn't kick over soon we shall have to stop to let things cool off. Man ! The heat does crazy things to some of these meters. Whoever designed this conditioning plant ought to be buried with it."

" I doubt if he foresaw anyone wanting to dissipate a hundred kilowatts of radio-heat down here," observed Conyers, " to say nothing of the magnets."

Scarcely had he spoken than Gottwald gave the warning signal.

" Power-factor dropping on numbers two and ten reactors."

" This is it," said Nye. " Better hold on to your hats."

Suddenly all was activity. The communicator was set live recording Nye's commentary against a background of chortling instrument signals. Baring deftly isolated the bomb from the vacuum system and took final pressure readings.

" Bomb ready for service."

Nye took the microphone to the oscillator board and discoursed wildly as he strove to trim the errant oscillators.

" Power within limits."

Then silence save for the hum of power and Gottwald reciting the purely arbitary power-factor readings to provide an audible indication of progress.

" Zero point six three."

Baring glanced at Conyers. " One minute twenty seconds left."

" Time to start praying," said Conyers. " You know the odds."

" Zero point five seven."

" Evens," said Baring.

" No, a million to one against."

" Zero point three five."

Conyers, maintaining a philosophical calm, inserted three small keys into his locked switches.

" Zero point two nine."

All eyes save Gottwalds' turned towards the bomb, fear and hope mixed in unequal proportions.

" Zero point two two."

Conyers turned a key. *First safety off* !

" Zero point one six."

The meters fell with tantalizing restraint as some ill-understood phase advancement spread mysterious fingers around the reactor coils.

" Zero point zero nine."

Now the power was falling rapidly down some fantastic exponential curve—toward what ?

" Zero point four . . . three . . . two . . . "

The power kicked wildly. The meters jumped and fell back to begin the slow rise to normality. Conyers reached and turned another switch. *Timers started. Next time it's for keeps* !

" We made it !" said Nye, his voice strained with relief. " We actually made a break-through."

Baring was already checking his instruments. " Pressure change nil. Short radiations group nil. Gravitic effects nil. Magnetic effects change one point—probable error. Long radiations group nil . . . "

Against the background recitation Nye called to Conyers. " Nothing lethal there in small doses. You could be wrong, you know."

But Conyers did not answer. How do you recognise what constitutes a survival hazard anyway ? Is it a physical factor or is it a set of circumstances ?

Then the real work began. With the final co-ordinates wrestled from the computer Nye dropped the sweep speed by a factor of ten. This was accomplished without giving any additional information. At ten to the minus-ninth seconds Baring reported a slight change in the order of vacuum in the bomb but the mass spectograph, pre-focussed for hydrogen, failed to give positive evidence of this.

But with a further reduction in sweep speed the data began to come in fast. Excitement was running high despite the ever-rising temperature. Nye took off his shirt and wrestled with a slide rule, trying to extrapolate the information to form an advance picture of out-world conditions. Baring sweated like an overseer in hell, comparing and measuring, a handkerchief round his forehead to divert the moisture from his eyes.

When the gate duration was one microsecond feelings assumed a curious mixture of anticlimax and elation. No

problem of power or complexity appeared to loom beyond the D-gate but there was something—and that something was beginning to make a practical kind of sense.

The heat was now so intense that Baring, who had already been forced to dispense with most of his transistorised equipment, was having difficulty in making measurements on even the less temperature-sensitive gear. Worse still he had to make difficult measurements and adjustments in the face of increasing lassitude.

Stripped to the waist, Conyers waited, drinking in the sounds of the fantastic battle and intent on conserving his energy. When he judged the moment ripe he reached the console and tapped Gottwald on the shoulder. The mathematician nodded and fingered the controls carefully. The sweep was halted in the centre of its swing and locked against drift. Then Conyers fingers felt for the third key and turned it slowly in the switch. *The die was cast.*

" What the hell !" said Nye.

" I offer you," said Conyers, " the answer to the enigma. Look on it well, for it contains the power that mankind has no ability to resist. Against it we have no defence ; no bomb, no tract of desert, no vault however sealed could hope to mitigate its consequences."

He moved to the bomb and stared with quiet fascination at the phenomena within. Behind him Baring pushed forward and looked, not fully comprehending, reading an entirely different meaning into the gentle shimmering circle of light. Nye pushed his way through, half agonised with the dawning truth. Then Gottwald, hypnotised by the incredible.

" So that's it !" said Nye.

" I don't understand," complained Baring.

But Conyers didn't answer. Nye had a revolver pointed directly at his heart.

" One move, philosopher, and I'll drop you where you stand. You're a neat operator, but you played this one a little too obviously. I don't quite know what you intended but I'm a little uneasy at the way you're running this show."

" You're also a little out of line," said Conyers, a trace of bitterness in his voice. " Don't you realise this project is under survival orders ?"

" Yes," said Nye, " but it's only just occurred to me where the survival hazard was. It's up on the second gallery. At

a guess I'd say it was a Rothwell Mark-four nuclear missile warhead, but it's been so modified that you'd never recognise it unless you knew what to look for. It had me puzzled because I didn't realise its significance."

"Very clever," said Conyers, "but you've left it a little late to alter matters now."

"I don't think I have. Harry, call up Sao Bernard and tell them we need some help in a heck of a hurry. About six men in a 'copter. Then get those door seals open as quick as you can."

Baring moved swiftly to do as he was bid. Soon he was back, his face white and strained.

"The door won't move. The automatic is dead and something's jamming the manual."

"Then tell Sao Bernard to send some engineers as well."

"Don't bother," said Conyers. "They couldn't make it in time. Big brother on the second gallery is going off in just forty-seven minutes time. You can't reach it and nothing you can do will stop it. This project is on its way out with a bang."

"Would it be too much to ask why?"

"Not really. I have a job to do and this was the quickest and cleanest way of doing it."

"What job, sabotage and murder?"

"No, survival! I'm the man who stops people giving guns to idiot children. I have to ensure that no word of what lies beyond the D-gate ever reaches the outside world."

"And for that you would kill the three of us and yourself?"

"For that I would kill a great many things."

"You're insane."

"Not so. Desperate perhaps, and a little afraid but then this is that sort of assignment."

"Then by what right do you take such decisions on yourself?"

Conyers smiled softly. "Have you any idea what that sort of prize could do to a world like ours? Power politics is a delicate balance of advantage over disadvantage. Conflicts are localized by the dictates of expediency. At the moment nobody has a decided edge over anybody. But what if somebody had? It's there, you know, beyond the bomb—waiting."

"So somebody wins? That somebody would be us."

" Not so. It would trigger a conflict that nobody dare lose. There would be no winner. It wouldn't be that sort of a war. Don't you see, the hazard of the D-gate lies not in the bomb but is inherent in the nature of man himself."

" No," said Nye, " I won't buy that."

" Then you don't know man's capacity for self-destruction."

" There will be no destruction if it remains the undisputed secret of one nation."

" How naive can you get," said Conyers in disgust. " The philosophers knew what you were doing. Others knew it also. Even Gottwald is a spy."

For an instant the gun point wavered as Nye looked toward Gottwald for verification. The instant was sufficient. Conyers beat the gun from his hand and kicked it out of reach. Gottwald retrieved it and covered Nye and Baring from a safe distance.

" Is that true ?" asked Nye, white with anger. " Is Gottwald a spy ?"

" It was true, but he's changed sides in the interim. He didn't give them much information but certainly enough to arouse curiosity about the practical end of the Housemann-Crane paradox."

" Then at least he'll give them no clue as to our findings."

" Nor need he. While even the paradox remains somebody is going to try to solve it. Whoever forces the D-gate, the result will be the same. That's a risk I can't afford to take. The paradox has to be resolved for once and for all—I intend to manufacture an answer."

" A nuclear explosion ?"

" Precisely. Gottwald informed his former confederates of today's tests ; some of them are doubtless out there on the desert now, watching and waiting. I even gave them the chance to monitor the radio too, hence the broken land line. The whole world is watching Athlan for some sign of what we find. So I shall provide them with a sign—the appalling mushroom of man's crowning folly. I don't think many will attempt to follow in our footsteps."

" Now who's being naive ?" said Nye. " Fall out can be analysed. The results will look decidedly phoney."

" Not this time. The warhead has been modified, remember. I am assured that nobody has ever seen a fall-out quite as dirty and with so many unlikely trace-elements as this one will provide."

Nye played his last card. " But you did forget one thing. The secret is already out. The communicator is live. This conversation is already on tape at Sao Bernard."

" No," said Conyers, " I didn't forget. I merely re-arranged the set up. Your signal from here goes to the recorders in my hut. From there it goes back to the transmitter—but with a slight difference. It's running two hours late. The warhead is synchronized to explode when Gottwald's voice finishes the count-down. So far as Sao Bernard is concerned this conversation never existed."

" So there's no hope at all for us ?"

Baring drew to Nye's side with something more than resignation in his eyes.

" Ask him," he said, " about the one chance in a million."

With awe-inspiring majesty the fireball rose out of the desert, spreading its lethal pall of heat and radiation far beyond the dead land where Athlan ceased to be. Then up, a pillar of boiling cataclysmic fury billowing and turning to shape the most poisonous mushroom in the history of mankind.

The click of a switch brought the last moments of the inferno to a foreshortened end, and the screen went blank as the room lights flickered on. Seroia Passover, Senior Philosopher of the Bureau, looked at the projector, then at the silvery screen and finally at the analytical data spread on the dark table.

" There's no possible doubt," he said at last. " It was our device which blasted Athlan. That proves our original predictions were correct. I think this solves the paradox rather neatly."

The technician was puzzled.

" I still don't see, Seroia, how you could make such a prediction from the mere analysis of a set of figures."

" Nor could we do it. When we examined Nye's stressed-field method for the breakthrough the only thing we noted was the mutual dependency of the gravitic component on each side of the equation. Our maths boys decided that either an equal gravitational potential was available on the other side of the D-gate or else there was a serious flaw in the original theorem."

" It's still a long way from a gravitational potential to the necessity to blast ten-million pounds of government project out of the desert."

"Very true," said Passover. "By itself that evidence wouldn't have warranted the destruction of a half-crown Christmas tree. Confirmation came from a very peculiar source. You might say we had the answer before we discovered the problem."

Sensing a tit-bit the technician selected a chair and sat down.

"You may remember," said Passover, "that about five years ago we lent three of our Tech. division boys to the Radar Research Station at Mathsai. R.R.S. had got a bit snarled up on a new accelerated radar system using a magnetic-flux scanning system which was not limited to the speed of light. Sometimes it worked and sometimes the results were damned improbable. Our boys sorted out the bugs and came back with a curious by-product—the ability to bounce a radar beam off of a surface which didn't exist. Soon they were bouncing whole pictures off a terrain which didn't exist either."

"I bet that had you worried."

"It did indeed. The pictures were of a very beautiful earth-type world with plenty of vegetation and some small animal life. It wasn't until we heard of the Athlan project that we began to get the faintest idea of where the pictures did come from. Then we really had a dilemma. We couldn't reveal what we knew and we couldn't ask for the Athlan project to be abandoned without giving the game away. Finally we gave it to Mike Conyers as a survival problem."

"I'm a bit worried," said the technician. "I belong to a democracy and I'm just gullible enough to believe in it. Blasting a big project like Athlan doesn't quite equate with batting for the home team."

"Doesn't it?" Passover leaned back in his chair. "You know as well as I that if that information had got out of Athlan it's a pretty fair chance that by now a stick of cobalt bombs would have been laid right down the centre of the British Isles. The world next door is an advantage that nobody dare miss and nobody can afford to allow to another. Now go and look out of the window and tell me which side you're batting for."

"I see what you mean. I guess Mike was a patriot too."

"Perhaps! Let's just say that philosophers have a larger allegiance."

The technician collected the analytical data from the table and sorted it into order.

" Oh ! there was one other detail. The sound laboratory ran an analysis on the transmissions from Fort Athlan. They think there may have been an earlier fault in the communications system. Part of the holding signal appears to have been produced by a different generator."

Passover was on his feet in an instant.

" For what duration ?"

" About two hours, I think."

" Then," said Passover, " it's just possible that Conyers did get out !"

" I don't see how. He may have delayed the transmissions but he would never have left the vault."

" True, but if Mike delayed the transmission he must have had an equivalent time between the initial breakthrough and the time of the blast."

" That still doesn't give him a way out."

" I think it does," said Passover slowly. " It's been staring at us all the time. Mike would have had no necessity to blast the project unless the data on the world next door suggested at least the superficial appearance of habitability."

" You mean . . . "

" That he went through the D-gate. He may even have taken the others with him."

The technician was thoughtful. " You could be right, at that. Assuming it's true how are we going to get him out again ?"

" We can't, because if he comes back from the dead we have destroyed our own answer to the paradox."

" But you can't leave four men alone on an alien world and expect them to survive. Every single action would constitute a survival hazard. The problems of food, shelter and defence alone might well prove insuperable, to say nothing of the biological hazards."

" It would take us a year," said Passover, " to duplicate the D-gate. Roughly how would you estimate the odds against their survival for that period ?"

The technician rubbed his brow.

" It's the classic survival problem, I'm afraid. To survive you manipulate known advantage against known or foreseen hazards. What then happens when both your advantages and your hazards are completely unknown qualities ? The most ambitious survival rating would not be higher than one chance in a million."

" Very well," said Passover, " start building. I give you twelve months from this day to build me a gateway to the world next door."

" Then you are going to get him out ?"

" No," said Passover softly, " if he survives those odds I've an even bigger job awaiting him."

" Such as ?"

" Setting up the nucleus of a new civilisation based on sound philosophical tenets. A new conception of man and a brand new world to hold him. I think that should work out rather well. It's the answer to our greatest survival problem.

Colin Kapp

THE LITERARY LINE-UP

Globe-trotting American author Harry Harrison is now (temporarily) back in New York and has presented us with next month's lead story—" I See You," a rare type of robot story wherein his central character is a human being at bay against a robotic world. It will make you wonder just how mechanised we dare get !

Philip High presents " Project—Stall," an outstanding story of the discovery of Martian artifacts and the vain attempts to interpret them ; Francis G. Rayer makes a welcome return with " Searchpoint," the meeting of alien and human on a neutral world ; while " The Outstretched Hand " by Arthur Sellings traces the ' if ' lines in a man's destiny. And, of course, there is the final gripping climax of Maine's serial " Count-Down " with the remnants of the scientific team fighting the mysterious interloper.

Ratings for No. 78 were :

1.	A Man Called Destiny - - -	Lan Wright
2.	Another Word For Man - -	Robert Presslie
3.	The Still Waters - - - -	Lester del Rey
4.	Incentive - - - - -	Brian W. Aldiss
	Signora Profiria - - - -	John W. Ashton

Alan Barclay's return to science fiction after a lengthy absense, is, we hope, the fore-runner of many more stories —he has been busy writing articles, teaching, and touring in his massive trailer caravan. Herewith, then, a piece of nostalgia for those who would one day like to see the planets at closer range.

THE SILVER MOONS

By Alan Barclay

People booking out to Mars were invariably U.N. officials, or scientists, or employees in development firms, or emigrants. One thing they had in common was the fact that some organisation or other was finding their fares.

Morrison had some difficulty making the official at the Interplanetary understand that he meant to go at his own expense. This thing was so unusual that there was not even a standard booking procedure to handle it.

"It'll cost a whole lot," the clerk said. He thought Morrison was a mild eccentric who would turn around and leave when he heard the price.

" How much ?" Morrison asked.

The clerk told him. The figure was considerably in excess of his total means.

" Any cheaper way of doing it ?"

The clerk thought for a moment, turning over folders.

" Yes," he said eventually, " if you like to wait around the space-port till there's a lift up to Satellite Four, and then hang

around there for a cargo tug out to Mars, it'll cost you less. No comforts, of course. Lots of time under Zero-g."

" How much ?"

The man did a bit of adding and percentaging, then told him. It was still a great deal.

" O.K.," Morrison agreed, " I'll do it that way."

" You'll pay now, sir ?"

" I'll give you a deposit, so you can go ahead making the reservation. The rest will reach you in a week's time."

" Very good, sir." The clerk agreed.

Morrison went away and sold his helicopter and his flat. After that he capitalised his pension entitlement. Thus he was just able to find the cash required.

One week later he found himself gazing down on the cloud-shrouded ball of Earth from an observation window in Satellite Four.

Although the exterior of Four as one approached it was severely functional and utilitarian, its inside excelled the best that the most luxurious hotel down on Earth had to offer. It cost a whole lot of money to get to Four, or to leave it, but once you got there, the overwhelming energy poured upon it from the sun made living within its metal walls cheap and abundant. And interesting. Gravity was low, the floors broad and deeply carpeted. The food, though it was all home-grown synthetic stuff, was served up in rich and varied disguises. In low gravity and the continuous sunlight, plant growth was phenomenal. The problem was rather to restrict plant growth than to encourage it. A satisfactory amount of fermenting, brewing and distilling was undertaken.

It was beginning to be said that sooner or later one met everyone worth knowing in Satellite Four. The truth of this depended, of course, on what sort of person you considered worth knowing.

Certainly the place swarmed with people—Government officials and scientists ; managers of mining companies, exploration companies and construction groups ; experts on irrigation, diet, climate, bacteriology and agriculture. There were also the wives and sometimes the children of such people —since U.N. would usually agree that a top-level man of managerial class, or an eminent government scientist should not be separated from his loved ones for long periods. Finally there was a large and decorative swarm of young women

secretaries. Surprising how many secretaries these eminent men require.

Except for Morrison, it was probable that not one of these people had paid for his or her own fare. Some government was doing it for them. Which is another way of saying that people like you and me were doing it for them.

Morrison waited in Satellite Four for three weeks. He was a rather seedy, shabby person of forty-five, easily recognisable as not being a Construction Company manager, or an eminent scientific adviser, so that no-one ever tried to draw him into any of the conversation groups which formed in the lounge, groups which grew and diminished and changed their membership every day as people continually left for Mars or the Moon or back down to Earth.

Women are different from men. They do not always pursue the same objectives as business managers. More than one of the young lady secretaries looked at him and thought him " rather nice." But every time one spoke to him he smiled a small smile, answered absently, and exhibited a marked non-interest.

In addition to the prosperous and ornamental customers in Satellite Four there were people of another sort—the maintenance staff, ship-servicing personnel, re-fuellers, cargo wranglers, radio ops, and from time to time a pilot or navigator. Morrison found their company congenial. He began to have his meals with them. Of course, they talked a special sort of space jargon almost incomprehensible to the outsider, and Morrison for his part did not talk very much at all, but he was a willing listener to any kind of conversation—space talk, salary grouses, girl problems, wife troubles, the basic subjects of conversation in any corner of the solar system among men who do things and make things.

" Going out to the Moon ?" one man asked him. This was Reynolds, a ship-servicing foreman.

" I'm going to Mars." Morrison said.

" With the Geological Expedition ?"

" No. I'm on my own."

" But you'll be joining some expedition out there, surely ? By the way," Reynolds added hastily, " stop me if I'm asking things I shouldn't."

" Quite O.K. I'm not a mystery man." Morrison assured him. " I'm not with any organisation. I'll get myself some

sort of job out there. That isn't difficult, is it?" He asked this is a little anxiously.

"You'll get a job all right, don't worry," the other assured him. "Surveying, driving tractors, construction work, or office work, if you're so inclined. But let me get this—you mean you're going out at your own expense? That must have cost you plenty."

"Every penny I've got."

"What about when you want to come back? I suppose you know all these guys out on Mars and the Moon have contracts that guarantee them a trip back and a whacking big pension. You wouldn't get anyone to go out to these goddamned balls of rock otherwise. You got your fare back home, mister?"

"No." Morrison admitted.

"Sure you know what you're doing? Whatever you work at, you can't save the fare home in less than about twenty years."

"If I haven't the fare back, I'll have to stay." Morrison admitted, smiling gently.

"What ship are you waiting for?" Reynolds was divided in his mind as to whether Morrison was really a vague and harmless eccentric, or on the other hand, was concealing his real intentions for some business reason.

"I've got a passage on a cargo tug," Morrison explained. "It's much cheaper. It leaves in about ten days."

"That'll be Captain Jago's crate. Well, it'll be cheaper all right, but I'd need to be real keen to get to Mars before I chose to do it by spending eighteen months sealed up in a tin-can with old man Jago."

"Why—is he unusual?"

"Unusual? All spaceships' crews get to be a bit unusual and I suppose he's considerably more unusual then most. The point is, on the normal passenger craft you don't have to live with the crew, so their being unusual doesn't worry you. You interested in music?"

"Not specially. I'm what might be called the average listener."

"You'll know a lot more about it by the time you've finished the trip with Jago. These pilots are such solitary birds they all take up hobbies. I've known some who wrote books. With Jago it's music."

" I don't think I mind that." Morrison said. " As a pilot though, is he . . .?"

" Best in the service." Reynolds assured him. " He'll get you there all right."

After that assurance Morrison didn't see that there was anything much to worry about.

Reynolds talked to his friends. Word of Morrison's self-financed trip got around. Quite a few people talked to him nicely and patiently, anxious to be sure that he knew what he was doing—did he realise that he would probably never be able to get back ?

He smiled and said he understood.

One of the pilots, a tough, hard-boiled child of twenty-one, whose only interests were curves of approach and an antiquated form of fiction called " Wild Wests," sat beside him one day.

" I hear you're going out with old man Jago, Mr. Morrison?" he asked.

" That's right."

" Well, don't worry—you'll be all right with Jago."

This, in reassuring tones, did not have a particularly assuring effect.

One day he was told that Captain Jago's tug had come in. Since they were going to spend eighteen months together in a small space in close company, he expected that Jago would seek him out. But Jago did not appear.

Morrison enquired. " Jago never comes here," he was told. " It's four years since he left his ship and that was because he had appendix trouble."

" Doesn't he ever go on leave ?"

" Not so far as I've heard."

" An eccentric." Morrison said.

" Maybe so. But the best pilot on the run."

In due course Morrison was told to report at the Passenger Lock in a couple of hours' time. He got the word from the Cargo-dispatching manager personally.

" Still sure you want to go ?" the man asked. " We'll give you your money back, less the price for bringing you up here and taking you back, if you want to change your mind."

" I'm going," Morrison assured him.

" Very well—you know your own business. A word of caution though. You'll be in pretty close contact with Captain Jago throughout the voyage. He's absolutely the best

we have in Captains, but he's grown a little eccentric. Try not to disagree with him. If you have ideas about music, for instance, that don't correspond with his, don't press them. If he doesn't want to talk, let him be. I'm giving you this warning, because I happen to know that he's had bad news from Earth and so he may be more moody and difficult than usual."

" I won't trouble him," Morrison said.

" I'm sure you won't—I can see you aren't an aggressive person."

Morrison was transported across to the tug on a scooter. The tug was nearly loaded. Men were crawling over its exterior, tightening up and checking the cargo nets.

He passed through the lock, was helped out of his suit by the scooter driver, and then left to make his way up the tube to the cabin.

In person, Jago was just as extraordinary as his reputation. He was extremely small, almost globular in shape, and had a long flowing fair beard. His eyes were a mild and childish blue. He wore vivid red pyjamas. He nodded absent-mindedly to Morrison.

" Sit down, passenger. I'll be busy for a while getting the ship under way."

Morrison sat down at the back of the little cabin. For an hour Jago was occupied with the processes of departure. He talked incomprehensible technicalities over his intercom with the Satellite Four's control nacelle. He made a number of meticulous chronometer checks.

Eventually Jago made a setting on a dial. A little wheel began to spin. It spun rapidly for a minute, then made a sharp click. Morrison felt a strong surge thrust in his back, a surge of power. The stars he could see in the porthole began to wheel past.

The ship had made a start on its long journey.

Jago continued to be occupied. The strong thrust of the jets was gradually moderated.

Without looking at Morrison, the Captain crossed over to a couch, lay down, and went to sleep.

Morrison was wakened by the sound of music. The cabin was dark, and the stars shone in bright, cold and unwinking. Jago was standing at the wide curved forward window, waving his arms wildly, muttering and chanting to himself. Morrison

lay back on his couch again, and listened. The music was something modern and quite unknown to him.

When it had finished Jago walked across and looked down at him.

" Awake, eh ? How long have you been awake ?"

" Some time. I've been listening to the music."

" That's right. And looking out at the stars, too, eh ? I spend a lot of my time doing just that. Sometimes with the music swirling around me, I get so that I seem to be right out there, without a ship, without anything. Alone with the stars. What sort of music do you like ?" He talked in a jerky, disjointed sort of manner.

" Have you got ' Fantasia on a Theme of Tallis ?' Morrison asked. Rather to his surprise, Jago nodded approvingly.

" Yes, that might have been written for the space age, though he died before we got to the Moon."

He reached into a cupboard and selected a roll of tape. Soon the small cabin was filled with the slow notes of Vaughan Williams.

The ship drifted imperceptibly on her journey. The round ball over on the port side that was Earth shrank in size. Mars with whom they had a rendezvous in fourteen months' time, was somewhere out of sight at present round the other side of the sun. Jago took sights every six hours, made calculations, adjusted direction with short bursts of side and nose jets. He did these things with meticulous care. Sometimes for as long as twenty-four hours he never spoke. Sometimes he talked continuously. Morrison was a placid, undemanding person—a good listener.

" You married ?" Jago demanded abruptly one day.

" I was." Morrison admitted.

" So am I—perhaps it's a mistake for a space man. You see, I came out into space when I was seventeen. Worked out to the Moon first, then to Mars. I was the first to make the regular freight run to Mars. Did you know that ? . . . When I was twenty-three I went back down to Earth on leave. It was as if I had never seen it again. Shops, theatres, the sea, mountains . . . I had a lot of spare money—and I met a girl—sweetest and prettiest girl in the world, I thought. I still think—we got married . . . Then of course I had to come back to my job—this job. And of course a man can't be dropping down back to Earth at the end of every trip. Much too expensive. After five years I found out about my wife. She

lived with one fellow for a couple of years, then with another . . . D'you know, I never got so that I could blame her much. She still seemed pretty wonderful to me. I never had any notion of going back down there and breaking her neck or anything like that. You understand ?"

Morrison thought he understood. Jago was fifty or more, but as far as the Earth and the things of the Earth were concerned he was still a boy of seventeen.

". . . I've always kept track of her," he went on. " Sometimes she was in difficulty, I sent her money. Of course, she must be fifty now, though I find it impossible to think of her as anything more than eighteen." He paused. " She was killed in an automobile accident a fortnight ago."

Morrison remembered how the dispatcher had warned him that Jago had just got some bad news.

" But it doesn't seem to make much difference," Jago went on. " You see, I haven't seen her for more than twenty years. I've still got the stars out here, and the recollection of her seems to be mixed up with them somehow . . . I spend a lot of time just looking at the stars. Sometimes I seem to feel myself to be floating among them . . ." His speech grew more agitated. " I often think I would like to turn the ship off course, and keep going on outwards, past the outer planets, into space . . ."

Morrison got up from his couch and crossed over to the nose window.

" Can we see Jupiter ?" he asked.

" It's out of sight round to port at present." Jago said. " It'll come into our view in about a month."

" Are its moons visible ?"

" Oh yes, certainly." But Jago had turned away. Talking about his wife had made him agitated. He brought out another spool from his cupboard.

" Do you know Frank Jakob's ' Five Planets Symphony ?'

" No," Morrison admitted.

" Then listen . . . Jakob's a man who really understands."

The next instant the cabin was filled with a long clear ringing blast from a horn. " One critic called that the note of liberation." Jago explained excitedly. " Liberation from Earth, escape from gravity."

For the next hour the wild, strident, triumphant music of the symphony surged round the cabin.

" That's music," Jago told him. " That's really music. Of course, Jakob understands. He's been out here, too, among the stars. He understands." He turned again to the wide curved window and stood staring out.

" Some day I'll just keep on going," he muttered, then abruptly to Morrison : " I told you about my wife . . . Yes, of course I did . . . You must stop me if I begin to repeat . . . You're a quiet man, Morrison. I find it easy to talk to you. Usually a passenger irritates me—makes a sort of interruption to my existence, but you're different. But you must stop me if I say the same thing too often . . You married ?"

" I was," Morrison said again.

" She didn't leave you though . . .?

" No. We were married twenty-one years. She died six months ago."

" Happily married ?"

" Oh, yes." Morrison smiled. " No man could ask more."

" I'm glad," Jago said. " I'm an idealist too, despite . . . So you decided to change your life—get a new job ?"

" Not exactly. After my wife died I didn't have much left to live for. No complaints, of course. No feeling of disappointment, simply that I had lived and was finished, and had no more to ask of life. Just one thing more—I wanted to get out into space just once—and here I am—and I'll get a job out on Mars. That's all."

" No going back ?"

Morrison smiled. " I've no money to get back. What is there to go back for, anyway ?"

" I understand this very well . . . I like you, Morrison. You and I are much alike . . . We're a couple of idealists. What do you feel about space ? What attracts you ?"

" The moons of Jupiter," Morrison confessed shyly. " I read about them when I was a boy. I read how sailors used to check their chronometers by the time of the eclipses of these moons. I got a telescope once, and saw four of them together, like bright shining beads."

" You'll see them much clearer in a month's time." Jago promised. " Shall we have Jakob's Symphony again ?"

Morrison nodded. It was played again—and again.

The two men were friends now. Sometimes they lay for twenty-four hours without speaking. Sometimes they talked. Even Morrison, who had never been a talker, did his share. They waited for the appearance of Jupiter and her moons.

The ship drifted effortlessly and soundlessly outwards on a complex curve towards the orbit of Mars. A whisper of thrust came from her jet as the orbital speed she had inherited from Earth was cut down to match that of Mars.

Jago showed him the plot of their position. They had now been about four months outward bound. The curve of their track was directed towards the spot Mars would occupy in a year's time.

"And beyond this . . .?"

"The outer planets, Neptune, Saturn, Jupiter."

"Has anyone been as far as Jupiter?"

"Not yet. There's a scientific expedition being planned to land on one of Jupiter's moons, but the expense has stopped them at present."

"And out beyond that?"

"And out beyond that, nothing at all for four or five light years."

The ship moved along her curve, a small distance every day. Every day she turned a little, and every day the planets moved round some distance on their orbits. One day as Morrison waked, Jago called him over to the nose window.

"There!" he pointed.

Jupiter was in sight over to starboard. Though it was many millions of miles away still, its small disc was clearly seen with the unaided eye. So were its moons. Morrison could see eight of them strung out in a straight line, like silver beads. As he looked, he saw a ninth emerge from behind the planet.

He stood for hours watching. He recited to himself the names of the moons—Io, Europa, Ganymede, Callisto. The others had only numbers. The larger inner moons circled the planet in times ranging from eleven hours to sixteen days, so there was hardly a time when one or another was not passing in front of or behind the planet.

Jago stood as he often did, feet apart in front of the window, staring out towards the distant stars.

As the days went by the two men talked less and less. There was nothing more to say. The wild strident notes of Jakob's Symphony cried and howled around them without ceasing.

Morrison, like Jago, came to feel at times that there was no ship containing him, that he floated in space with his friend beside him, with the music swirling round, the bright, many-coloured stars as background, and the gleaming disc of Jupiter with its shining necklace of moons over to the right.

It was possibly a month later that Morrison said :

" You said once that you'd been tempted to turn the ship and go right out beyond the planets."

Jago looked at him, eyes glittering.

" I've thought of it often."

Sometime after that Morrison said :

" How long to reach Jupiter ?"

Jago did not answer at once. He did some rapid calculating.

" About four years," he estimated. " We've just enough fuel to get there."

" And then ?"

" I don't have enough data to say whether we'd be drawn down by Jupiter's gravity, or merely whip round it on a deflected course and on outwards."

" What about food ?"

" Enough. I've stores aboard for the Earth-Mars return journey."

Morrison sat still, looking quietly out as usual, smiling gently.

" Of course, what we're thinking is nonsense. There would be no question of coming back, would there ?"

" None at all," Jago agreed. " No fuel . . . We're talking nonsense."

Nevertheless, a week later Jago went outside in a pressure suit and cut the cargo nets.

The cargo floated off to port as the ship changed course. The daily plot of the ship's position began to assume a new direction, turning gently away from the Mars curve.

Morrison and Jago sat together, contentedly watching the stars and the necklace of Jupiter's moons, while the sound of Jakob's music swelled and swirled round them.

Alan Barclay

Readers will be interested to learn that author Brian Aldiss has had yet another collection of short stories accepted by Faber & Faber Ltd., for book publication late this year. In USA his previous collection Space, Time and Nathanial *is to be published as a pocketbook by New American Library ; his short story "Let's Be Frank" which appeared in* Science Fantasy *No. 23 was chosen as one of the best 20 of the year in Dell's* S-F : Year's Best, *and another story "Poor Little Warrior" has just appeared in Doubleday's* Best From F & SF 8th Series. *None of this is surprising when he consistently turns out such good stories as the one which follows.*

THE OTHER ONE

By Brian W. Aldiss

I

CABLEGRAM

In the dark, someone was struggling and pleading, threatening and pleading for release, someone ugly and hurt, helpless but powerful.

Eric Lazenby woke, groaning. He pressed his face into the pillow, letting his chin rasp on the soft nylon. As his mind cleared, he was aware of the warmth of his wife, Linda, beside him. He sighed heavily, lifting his head to listen to her quiet breathing. At this moment, he felt no tenderness for her, only anger—anger that she could sleep so peacefully while he suffered so much.

Because the vision of someone struggling had been no dream. Now Eric was awake, the Other still struggled and called, bullied and whined.

Shivering, Eric sat up. The luminous dial of his watch told him that it was 2.30 in the morning. Tuesday. Five days more, and he had to rejoin his spaceship, *Regent Park*, as First Astrogator, for the year-long trip to Pluto Station and back. Only five days . . . he reached out instinctively to touch Linda, scarcely able to stop himself crying aloud at the thought of leaving her.

Yet in a way it might be better aboard the *Regent Park*. The Other might not be able to get at him once they were spaceborn. He might be able to leave the Other behind, just as he had to leave Linda.

The Other had only been after him for seven days. All the time, it gained steadily in power. At first, Eric could ignore its whisper. Then this had grown more insidious and persistent. It had developed from a mere voice into a presence. Already, it had the power to rouse him from his sleep. By tomorrow . . .

" Darling, what is it ?"

Even as he heard the fear and compassion in his wife's voice, Eric realised he had been sobbing aloud. Her arm came round his shoulders as she rolled over towards him.

" I'm sorry I woke you, Lindy," he said. Yet it was a lie ; his sense of utter desolation faded at the sound of her voice.

" You don't want to go back to that ship, do you ?" Linda guessed. " Why don't you throw it up and get an Earth job, darling ? You were worried all last week, I could see . . ."

" It's something more than that," he said, chokingly. As she switched on the bed light, Eric slid from between the sheets and paced up and down the room. He had to tell her. It was right to tell her—and imperative.

"Something's after me," he said, looking away from his wife. " I didn't tell you because I didn't want to frighten you. And because it's hard to describe. It's . . . I think it's an enemy, the worst enemy I ever had. Yet in a way it's a friend. It's—it's very tiny and helpless . . . but at the same time it's a giant which has—the power to kill me. I know that sounds nonsense, Lindy, but this thing has all these qualities at once. It's so intangible—you see, sometimes it seems right close to me, and another time it might be millions of miles away . . . You'll think I'm crazy. The sense of being surrounded, it's almost impossible to put it into words . . ."

His voice petered out. The Other was there still, trying to listen, lurking behind a flimsy barrier. It was like having the wolf at the door—the swing door ; in a moment, it would figure that it just had to pu-u-u-ush to get in.

Silence fell in the bedroom. He looked at her, huddled nervously in the bed.

" Is this . . . thing Human ?" Linda asked at last, in a tiny voice.

" No," Eric said. " No. I don't think it can be Human."

Her eyes stared. In the dim light, she no longer looked her beautiful self. Her face was flat, Mongoloid. Eric flicked his gaze away, aware he would have to take care to keep all his movements and thoughts under control.

" I call it ' the Other,' " he said.

After what seemed a long while, Linda climbed out of bed, slipped on her blue robe and announced shakily that she would go down and brew coffee. Eric listened furtively at the top of the stairs, afraid she might call the police on the visiphone. He could see he had scared her. No doubt she thought he was going crazy. So did he.

Standing there rigidly, he became aware of how chilly it was. The breeze stirred his pyjamas. The light seemed to flicker. Looking up, Eric saw that this was because tattered clouds fled across the moon. Their shadows scampered over the bleak waste all round him. Nothing lived but those shadows, not a bush, a weed, a blade of grass.

Wrapping his arms round his chest for warmth, Eric looked anxiously about. Loneliness flooded in from all sides. Here, he was exposed and defenceless. Here, the Other could get him.

The great, dreary circle of the horizon was punctuated by only one landmark. Two miles away, his own house stood, dark but welcoming against the sky. Thankfully, Eric began to run towards it. He could not think why he had left it.

As he ran, he peered back over his shoulder. Nothing followed but the scudding shadows. They were harmless, yet they alarmed him in his near-panic state. Resolutely, he kept his eyes on his own home. There, lights were coming on, patching the black shape with squares of illumination.

" Lindy !" he called. He seemed to be swimming rather than running. His house was now a blaze of light, light

surrounded it like a halo. The house gleamed at him like an owl's eye. It was occupied.

The Other was there, waiting for him !

Eric stopped suddenly, filled with horror. He tripped and fell, tumbling among the shadows, down the stairs, fighting to slow his descent. Crazy patterns jigged before his eyes. Something crooked was running to meet him.

As he hit the bottom of the stairs, the thing seized him. He could not make it out ; it seemed to have no face. He fought it, shouting. It shouted back, a high mewing note.

Gradually, Eric realised it was calling his name. He relaxed, trying to understand what else it was saying. His vision cleared as the thing's grip tightened round him. Now he could see its face. It was Linda, his wife. She was crying as she called to him. He was too far gone to feel any relief at the sight of her.

A terrible lethargy stole over him, as if his limbs had been sunk in concrete. He could make out neither what had happened nor where he was. Dull pain chased the crazy patterns from his head.

" You fell down the stairs," he heard her saying. " You fell down the stairs. Did you hurt yourself, Eric ? Are you all right, darling ?"

" Just a minute," he whispered.

She went and fetched the coffee. They drank it crouching at the foot of the stairs. With the warm liquid came recovery, and life and intelligence soaking back. Eric sat up, his head clearing.

" I had a sort of hallucination," he confessed. " I must have tripped down the staircase. I'm okay. No bones broken. My left leg hurts a bit, that's all."

" You cried out so loudly, darling !" she said.

He knew it had been more than an hallucination. The Other had now found a way to tamper directly with his brain. It was getting stronger. ' I need help,' he whispered to himself.

Linda held his hand. Her face was as pale as Eric's, her fingers as cold.

" I'll drive you down to the Ferrisway Central Clinic in the morning," she said. " Young Clark Siddall, my old boss's son, works there. I'm sure he'd help. He's an expert in mental disorders."

She broke off, shocked at having phrased it so bluntly to Eric.

He wanted to protest. The protest bubbled within him, but found no outlet. When they had drunk up their coffee, Eric let himself be led upstairs to bed. His left leg pained him so much that he knew he would spend the rest of the night awake. As soon as his head pressed down on the pillow, he was asleep. It was as easy as falling off a cliff.

In the morning, he felt better ; the Other gave no sign of its existence. The night was just another nightmare, something to be discarded and forgotten as soon as possible. His leg hardly ached at all. His head was clear. When Linda spoke again of going to see Dr. Siddall, Eric laughed it off.

" We've only five more days' leave," he said. " Let's not waste them hanging round clinics."

At breakfast, the mail arrived. With the letters came a cablegram, addressed to Eric. Conscious of a constricted feeling round his heart, Eric opened it and read :

YOU CANNOT WIN STOP SURRENDER OR DIE STOP ERIC LAZENBY.

His jerking hand knocked a plate flying from the table. The cable fluttered to the floor. Linda jumped up but—he noticed it in the middle of his fear—did not come over to him. Instead, she reached down, scooped up the piece of paper from the floor and surveyed it blankly. When her eyes turned again to her husband, they were empty of all understanding.

" Don't stare at me like that, you fool !" Eric said harshly, gripping the edge of the table. " Can't you see what it is ? It's a cable—from me to myself, warning me I'm going to die !"

She shook her head slowly, horror flooding into her face. The paper trembled in her grasp.

" It's just a circular for a new detergent," she whispered. " It's an advert, nothing more. Eric, you're—you're really going crazy !"

He hardly comprehended what she was saying. She was backing towards the door. The circular fluttered to the floor unnoticed. Suddenly he realised what was happening, and jumped up, ignoring the stab of pain in his left leg.

" Linda !" he cried urgently. " Linda, don't leave me ! For heaven's sake—"

Again his vision was blurring. Her face seemed to wear that terrifying Mongoloid look again. She turned and ran from the

room. Eric blundered after her. Linda ran down the corridor, through the hall, wrenched open the front door, slammed it behind her. Eric crashed aganst it, standing helplessly with his forehead and the palms of his hands pressed hard against the panels. Tremors shook him.

After a minute, he was able to collect himself enough to stagger back to the dinerette. There, he picked up the detergent advert, which still looked like a cablegram to him. He knew what this meant.

The Other was growing stronger. It was eating reality from him, remorelessly. He sat at the table, face in hands, until the men came for him from the clinic. Linda stood to one side, pale of face, as he was half-carried into the waiting ambulance.

II

SLIDEOGRAM

The way to the bathroom kept changing. I told myself such things did not happen, I said to myself, " It's all part of whatever is wrong with you, Eric. There is only one way to the bathroom. Your memory is just tangled up. *God, let it be that and nothing else* !" In those days I addressed God a lot, almost as much as I talked to myself.

It was just not the bathroom that moved. The isolation block in which I was confined alone consisted of eleven rooms : a dining room, a living room where I spent most of my time, a games room with a table-tennis table and punch-ball, that bathroom, the lavatory, and six fair-sized single bedrooms, of which mine was the only one occupied. Everything was on one floor—fortunately, for I was too weak at first to climb stairs. As the days passed, I became more and more sure that these rooms and the corridors connecting them formed an ever-changing pattern ; either that, or I was mad—and both alternatives sent goose-flesh running like sweat over me.

Maybe I could have borne madness—had I ever known sanity ? Maybe I could have borne stealthily shifting rooms—does not indifference eventually cover everything ? But these factors combined with the isolation were too much. The universe was the isolation block, and it had to be something more. There had to be a beyond, a freedom, another place—something more than a shuffling riddle.

I had to get out. Out. Connive, kick, kill—but get out.

So I became crafty. After breakfast one day—perhaps my seventh in isolation, although at first my perceptions had been too dim for me to keep count of days—I went into the living room, leaving the door open behind me. Then I angled a chair round slightly, and sat on it so that without appearing to do so I could see one of the bedroom doors just across the corridor. There I sat looking at it, hardly fluttering an eyelid. Nothing happened. I just sat there, growing tenser and tenser, until it felt as if I might suddenly blow apart. I was still sitting there when the nurse came in. She appeared very silently. She scared me so much, I went into peals of nervous laughter. My laughter went on and on ; it was something quite outside me or my control, and it frightened me more than the nurse did.

This nurse, who said her name was Baron, was the first thing I could remember when I regained consciousness seven or however many days ago it had been. There had just been nothing at first, nothing but a meaningless image of a man struggling with invisible forces in mid-air ; I did not know who that man was or anything about him, and after some while he faded, allowing me a chance to take in my sick room. One sick room is much like another, and this one was more like them than most, if you follow me. All the same, I was a long time exploring the dull paucity of its detail, because my mind was so painfully sluggish. At first I could not even comprehend what a room was.

My brain felt as if it had been frozen. The unconsciousness which had enfolded it like deep, Arctic water seemed to have left its print in every cell, fogging over memories, hopes, thoughts, everything. I did not know or care who I was, I was without personality or habits ; when Baron came in, her first job was always to change my soiled bed linen. What is surprising is that, although I was at such a low ebb, I was constantly preoccupied with one question, which may be phrased roughly like this : what kind of a state of unconsciousness had I been in and what kind of a state of consciousness was I in now ?

At the time, the question did not present itself in words. It was not as clear-cut as that, but more like a dark cloud over all of my sky. As I lay there, I was a baby born adult, to whom nothing is known. I had all the fears of a baby, without the comfort of a mother. My only comfort was Baron, coming

silently to dress the wound on my left leg. And I worried as a baby might have done over where I had come from, and what had been the nature of the darkness which had enclosed me like a womb.

No, not womb, tomb. The unconsciousness had been cold. That was all I could remember about it, or rather that was what I could not forget about it, as I trembled lest I fell back into it again. Other things than cold had filled that long blackness—dreams, phantasms—but these eluded the dredging hand of my memory.

The preoccupation with this horrible void which constituted all my past gradually left me. I began to take more notice of Baron. She always wore the traditional nurse's uniform with a mask which covered all of her face below her eyes. Her eyes frightened me. When I grew well enough to react that much, a gulpy feeling of indefinable dread slid up my throat whenever she approached. When she dressed my wound, I knew the flesh turned cold beneath her efficient touch. By the light creases round her eyes, I judged that she was in her late thirties. She was big and solid ; once when she slipped off the rubber gloves she habitually wore, I saw that the fingers of her right hand were spatulate and heavily stained with nicotine.

What first began to alarm me about Baron was her boots. She wore thick black stockings on her legs and, on her feet, heavy boots ; they were like Army boots, except that their soles were of deep and yielding crepe. In my weak state, I found the contrast between her determined aspect and her absolutely noiseless tread unnerving, almost supernatural.

And then I began to think that she was a man in disguise.

She—if it was a she—came into the isolation block five times a day : firstly to take my temperature, dress my leg, bring me breakfast ; then in mid-morning to tidy up ; then briefly to bring me lunch ; then briefly to bring me supper ; and lastly to close things down for another of those long, sound-proof nights which always left me convinced that the rest of the human race was dead. She spoke very little, in a husky voice. To almost anything I asked, I received short and unsatisfactory answers.

" Why am I isolated here like this ?" I inquired as soon as I had found my voice.

" The disease from which you suffer is a rare one, and highly infectious," she said. " If other people had contact with you, they would die."

" Why do no doctors come to visit me ?"

" People come and see you when you are asleep," she said. She said it quietly ; it struck me as being the most sinister thing yet. I just shut my eyes and did not dare to ask any more questions. I was a monster, tended by monsters.

That night, I was more afraid of the dark than I had ever been—and afraid of myself.

I put out the bedside light, determined not to sleep. For half an hour I lay awake, until an imagined sound outside my door made me fumble for the light again. The switch worked, but the room remained dark. With dry, open mouth I sat there propped on one arm, right hand extended, not daring to move. As the tension in me slowly, slowly relaxed, I thought again of what Baron had said ; I asked myself what the disease might be from which I suffered.

That was when I knew for sure that things were grossly wrong. A man can tell certain facts about his body ; I knew from the feel of mine that it was not diseased. Apart from a minor knock on the leg, nothing was wrong with me. And since knocks on the leg are not infectious, I ought not to be in isolation. I was not a patient ; I was a victim.

As if against my own will, I fell asleep.

I woke to find Baron marching soundlessly into the bedroom. Morning had come again. Humbly, I asked for cigarettes and matches. To my surprise, she produced them. Now I should have some sort of illumination for the coming night ; pursuing this line of thought, I tried my bedside lamp when the nurse had gone : it worked perfectly.

By this time, I was able to walk about easily enough. Leaving my breakfast untouched on its tray, I got out of bed and went to the door.

There was another door, closed, facing me across the corridor. Swinging my dead leg, I booted it open. It was the bathroom. *Yesterday* the bathroom had been up the corridor, and an empty bedroom had faced mine. You don't make mistakes over things like that, not unless you're mad. *Not unless you're mad.*

God, don't let me be mad. Here is something easily checked, if brain can be pressed to function as required. Draw a plan of the room layout, keep it under your pillow, compare tomorrow morning. There are pencils and paper in the living room.

I ran down the passage, turned left—and there was another turn in the corridor that I could have sworn was not there yesterday. It was another left turn ; doggedly, I took it. It was a cul de sac containing only one door. I opened it. There was the living room. Before I got the paper and pencil, I went to look out of the window.

The isolation block was badly provided with windows, which seemed to exist on only one side of the building. Outside, there was nothing to see but a bleak and featureless plain, with a blue conifer forest and what looked like a lake on the horizon. Never once had I seen a human figure out there, never a living thing moving.

I collected a pencil and a sheet of paper, on the top of which I had written my name five times : Eric Lazenby Eric Lazenby Eric Lazenby Eric Lazenby Eric Lazenby. It was almost the only item worth knowing that I had gleaned from Baron.

It seemed to me I could construct my plan of the block most easily by beginning from my bedroom. I went back up the passage, turned right—and there was not a second right turn at all. Yet I distinctly recalled making two left turns going, which would mean two right ones coming back. I stopped dead, facing a blank wall. I got the cigarettes out and put one in my mouth, steadying myself with my other hand because I suddenly felt a little dizzy.

I lit the cigarette with a precious match and tentatively opened the door on my right. It was the living room I had just left down the corridor. The dead plain stared in through the window at me.

Suddenly, I was no longer afraid. Fury ran in my veins, my head became surprisingly clear. As I stubbed out the cigarette, I realised I had never smoked one before.

With the aid of my tie, I began making measurements of corridors and rooms. As I had suspected, the proportions bore a definite relationship to each other. As I worked, reassurance came back to me—not only because I now was sure I had not been having hallucinations, but because at last something of my past was beginning to seep through to me.

I knew that much of my life had been spent measuring, probing, looking for relationships. To do the same thing now —although crudely and with my tie—brought back an inescap-

able sense of familiarity. I had been something called an astrogator. I had gone into somewhere called space. Everything seemed remote, as if these partial memories were someone else's.

It is an odd feeling to have one's world return, link by link. I was like a runner with a flaming torch, speeding through a honeycomb ; cell after cell lit up as I appeared, staying lit after I had gone.

With renewed vigour, I assailed the problem immediately before me. When I thought I had all the components of it, I went into the living room and sat down to concentrate on putting them methodically together into a solution. Method : that and perseverance serve almost as well as genius.

They did this time. I felt sure I could see the kind of predicament I was in. Now a test to make sure.

If my theory was right, I was being watched. Accordingly, all the time I was thinking, I slumped myself over a table and heaved my shoulders as if I was crying. But through my intertwined fingers I watched the corridor. Watched it like grim death.

And in a little while it changed shape. The room opposite slid away and another took its place.

It made my stomach quiver, although I had been expecting it. Nobody likes to see his house shuffled round like a pack of cards. Now what about the madness, the horrible disease ? Had that just been a nasty bluff, partly designed to give another shake to my nerves ? For this was not an isolation block at all. It was a torture chamber. Someone was riding me.

Escape. And the best time for that, I knew, was after dark, when the unseen watchers had switched off the electricity and the silent ' doctors ' came to see me.

So I waited for night, with a sick feeling for company. I tried to do the little things I usually did—take a doze, play patience—to fool the unseen watchers, but covertly I was observing the view out of the window. I wanted to watch it get dark. You see, if my theory was correct, that was not a view at all : it was a mock-up of plaster and plastic such as you see in museums when stuffed birds are exhibited in their natural habitat.

If it was a mock-up, it was the best ever. Grey clouds flitted across the sky, the light changed on the distant lake.

Only when dark began to fall did I think the creators of the panorama had made a mistake. It seemed to me, although I had nothing to time the process with, that it grew dark too quickly. They should have taken longer sliding the rheostat over, I thought triumphantly. I'd kill them if I ever got to them.

The windows would not open, or I was sure I could have leant out and plucked those little trees by the ' far away ' sheet of water.

This was how I viewed the situation. You will have seen those sliding number puzzles schoolboys carry about. They are, say, two inches square and contain fifteen little squares, each a half inch by a half inch and numbered ' 1 ' to ' 15.' The sixteenth square is left blank so that the others can be slid round. The trick is to get the numbers in the right order. Slideograms, they used to call them.

I was in a big slideogram. Diner, living room, games room, bathroom, lavatory, six bedrooms : these accounted for eleven of the squares, and the rest was occupied by corridor space. The Watchers could slide them about into any combination at will—just to shake me into the frame of mind they needed me in, just for the joy of seeing me suffer.

The view from the window was a fake : otherwise it would have changed as the position of the room changed, and that would have made the game too obvious.

Claustrophobia attacked me as I visualised myself being switched about inside the slideogram by invisible machinery. And although I had worked it all out so coolly, I was trembling like a leaf most of the time.

I knew someone had gone to an awful lot of trouble over me. Why ? What had I done to deserve this ? Why had I even been granted life ? Suddenly, I hated life. It means you spend your days and nights nearly wetting your pants in fright.

Well, they had me now. I was trapped. By the thoroughness of the preparations, I could see I was never intended to live normally.

I heard the bolts go back, one, two, three, on the outside of the door, and then Baron entered my room. She had brought my supper. If I overpowered her, I could run out of the door; but I guessed there would be guards outside. Besides, I did not know if I could overpower her—if it was a her. Just to

touch her (him ?) might bring down fifty screaming killers upon me.

" My leg is bad again," I said. " May I have a sedative to make me sleep tonight ?"

" I will bring one on my next round, when you are in bed," she said.

She left the room to go and get my bed ready ; she did not hesitate over which way to go. There was no need for her to hang about and watch me gulp my bread and milk down. In the ceilings of each room would be spy holes through which little piggy eyes could regard my every movement. I swore to eat those eyes one day.

Carefully, leaning forward and shielding my forehead with my hand as if it ached, I spooned the bread and milk down inside my collar. It felt disgusting ; I could trace the path of the sloppy cubes of bread slithering grandly down my ribs, soaking into shirt and trousers, or whatever it was I wore. At least nobody watching from overhead could see I was not eating the stuff properly. I had guessed that this, my last bit of nourishment of the day, would be well soused with sleeping draught. Otherwise, with all the worries I had, I should never have slept at all. As far as I knew, I had not eaten a meal since coming to this trap.

When Baron came back last thing, I was snuggled down in bed, still with dried chunks of bread clinging to my stomach. She brought three sleeping pills and a glass of water, as she did once before when I had complained of a headache. She left my room as I was preparing to swallow them—that way, I should be off guard, and the Watchers would see what I did when unsuspecting.

Putting the pills up to my mouth, I palmed them like a conjuror, swallowed, sipped water, gulped convincingly. This was my little artistic touch, intended to lull any extra interest they might have in me over my earlier performance with the tie. I guessed that if they saw me doing anything unusual they would come down and kill me.

Lying back on the pillow, I closed my eyes and gradually regularised my breathing. I rolled onto one side and let my mouth fall open. There I lay, to all intents fast asleep, until Baron came back into the room. By then I was dangerously near a self-induced sleep.

I opened one eyelid a crack.

Baron had finished her few chores round the block. Now, after the most cursory glance at me, she was ready to go off duty. Obviously, she had not a doubt in her ugly skull I was out cold for eleven hours. She had undone her gauze mask, letting it dangle round her neck, and was lighting a cigarette, flooding the room with smoke.

Baron had blue jowls and a heavy moustache.

It did not surprise me, but it shocked me.

At least it showed this : that the enemy was not vigilant all the time. They had their moments of relaxation and inattention. Perhaps they did not watch at all at night. They had weaknesses through which I could strike back at them.

After several deep draws on his cigarette and a casual tidy of the objects in my room, Baron came over to the bedside and flipped off the light. Then he went out, down the corridor, and left by the front door. I listened to the bolts go to on the outside.

I sat up. I was so confined, the whole idea of movement felt strange to me.

If they had infra-red apparatus to observe me in the dark, mine was a lost cause, but I guessed that this was unlikely. They had been too careful to immobilise me during the hours of night.

Two possible ways of escape presented themselves to me. I could either try to slip out between the moving walls of the slideogram when a reshuffle was in progress or I could hide in the corridor and slip out of the door when the ' doctors ' came in. I never doubted that they would come in, for they had the best of reasons for wanting to examine me : they hated me, and must find the most efficient way of killing me. I did not fancy the chance of being mashed between two slowly closing rooms; I would wait to slip out of the front door.

Heart beating unsteadily, I climbed out of bed and put my clothes on. Did they feel like blotting paper ? It was amazing what a grip I had managed to get on myself ; I felt capable of dealing with anything—or anyone. Yet I wondered if I had a body, or what its functions were.

Then I went into the hall, prepared to deal with hell itself if need be. Standing there in the dark, I readied myself to spring for freedom. I could feel myself growing.

III

DECAGRAM

The two doctors, Siddall and van Buren, straightened up and looked at each other. Clarke Siddall sighed heavily.

" Another crisis due," he said. " I wonder if either Lazenby or the Other will be able to withstand it. It looks to me like the ultimate one."

" Better prepare him," van Buren said, rising slowly from the chair before the Kensiton screen. He was older, solider, than Siddall, yet the weariness of looking into the screen had told on him as much as on his more impressionable companion.

The combined aural and visual impressions emitted from the Kensitons were overpowering. Van Buren switched them off as he rose, and the image of the creature waiting by the bolted door vanished. It seemed impossible that the nightmare world of this thing in the slideogram could have been projected at them from the patient who now lay quietly on a nearby bed, his shaven skull covered with the rods and terminals which were the sensory equipment of the Kensiton.

The patient, Eric Lazenby, stirred as a young nurse came forward at van Burren's bidding and applied the revivifier. Impulses from the troubled regions of his brain had been tapped, amplified, scanned, decoded, edited and finally broadcast in terms of sight and sound by the big machine into which Siddall and van Buren had been peering. But of all this, Lazenby appeared to know nothing.

He woke now, wide-eyed, his mouth opening and shutting as if in the mute rehearsal of an angry speech.

" Nothing to worry about, old fellow," van Buren said, coming over and looking down at him kindly. " You are in the Ferrisway Central Clinic, and Dr. Siddall and I are taking care of you."

" My wife . . . Lindy . . ."

" She will come to see you soon," van Buren said, soothingly, turning to signal to Clark Siddall.

The latter quietly left the room, walking down the corridor to the waiting room at the far end. As he opened the door, he saw that, despite her anxiety, Linda Lazenby had been asleep in the chair. But as soon as he entered, she sat up and said " Eric ?"

Siddall smiled, first with professional reassurance, then voluntarily, as he made the delicate transition from brain specialist to young man. He had always enjoyed smiling at Linda, even in the days when she was his father's secretary. Now, a year of marriage had merely ripened her, making her more beautiful than ever.

" Your husband will be better soon, Linda," he said. " I hope. His is a strange case, but we can tackle it."

She seemed to doubt him.

" He's not—insane ?" she asked.

" Not in any normal meaning of the word—although he will be if we cannot give him some relief soon."

" I see. Then . . . this Other exists ?"

Her voice was faint. Siddall took her hands as he answered " Yes."

" What is it ?" she asked, withdrawing her hands.

" Please sit down, Mrs. Lazenby," Siddall said, abruptly becoming more professional. " Your husband is asking to see you, but before you go in I think it advisable to tell you something about his condition. Dr. van Buren and I have seen the Other, and watched it at work. Yes, it is real enough in a sense. We have the means here to send impulses into any part of a patient's brain ; the impulses return and are translated into easily comprehensible sight and sound images. So, we have been able to look at the Other, appreciate its point of view, and even follow its twisted thought processes."

" It . . . is something in my husband's mind ?"

" Yes. It has no true realisation of its own whereabouts or identity. It imagines itself vaguely to be a man, trapped by unknown and cruel enemies in a slideogram."

He went on, elaborating for Linda's benefit the drama of isolation and anxiety which the doctors had observed through the Kensiton screen.

" And all this happens in Eric's mind ?" Linda asked.

" Yes, although he is unaware of most of it. You see, the Other is really—"

He paused listening. Footsteps clattered down the corridor. The nurse who had been attending Eric Lazenby burst into the waiting room.

" Dr. van Buren says please come quickly," she breathed. " The patient has got out of bed and is growing violent."

" Coming." Siddall sprinted back down the corridor, the nurse just behind him. Through the open door of the single ward, he could see the shadows dancing crazily. Running in,

he was in time to see Eric collapse slowly onto the bed, van Buren steadying him.

" I just managed to lay him out in time," van Buren said, panting, setting down an hypodermic. " Nurse, stand by with the oxygen, will you ? I gave him rather a heavy dose, I'm afraid. He pushed me backwards, struck out at the light, and was just going for the Kensitons. I stopped him in the only way I could, before he did irreparable damage."

With Siddall's help, the nurse tucked Eric back into bed. Unobserved, Linda had entered the room. She stood now, looking down with compassion at the heavy face and shaven head of her husband ; he was scarcely recognisable.

" We'd better try the last stage now," Siddall said to van Buren. " I'll have to tell the girl before we turn her out—we need her permission before attempting anything dangerous."

" Go ahead," van Buren said, turning his solid back on Siddall. His hands were trembling.

" Mrs. Lazenby," Siddall said, as he saw her behind him, " Your husband's sanity, if not his life, is threatened, and I must operate immediately. I require your sanction before going ahead."

" Tell me what is wrong with him," she said.

" Perhaps you know something of cysts. They are bags of morbid matter, often with a hard shell, which appear in the body. When opened, they are sometimes found to contain hair or teeth, or fingernails, or even all three together. A cyst is a bubble of unused embryonic material, isolated from the foetus in which it occurs, and thus unable to develop normally. Often it causes no trouble until the person in whom it lodges reaches—well, your husband's age, for instance."

Linda was leaning against the wall, not looking at Siddall.

" My husband has such a cyst ?" she asked.

" Not exactly. Your husband has a cyst lodged in the silent area of his brain. It is a small thing, weighing perhaps only a decagram. Unfortunately, this cyst contains morbid brain tissue. It has consciousness—life, if you like—of its own. It is about to burst and flood your husband's brain."

She pressed her forehead, as if she could personally feel the weight of the fatal decagram.

" The cyst is presumably the Other ?" she said. " He—Eric—told me it was not human."

"He was quite correct," van Buren said, coming forward. " This cyst, though so small, is a real monster. It has cunning

without conscience, life without responsibility. In short, it is insane. We have been able to watch its thought processes on the screen here."

Clark Siddall gestured him to silence, explaining more gently, " The Other could hardly be anything but unbalanced, Mrs. Lazenby. Buried where it is, it has no contact with the external world except through such thoughts and memories as may filter to it from your husband's brain. The supply of these has recently increased ; our observations show that this is because the cyst has recently cracked, possibly because of some worry your husband has been suffering."

" He is due to blast off for Pluto in four days," Linda said. " He—we neither of us wanted him to go."

" That might account for it," Siddall admitted. " Now, a sort of two-way traffic in distorted ideas is passing between your husband's and the cyst-brain. They fight each other in total darkness. When Eric has the illusion that he stands outside your house with the Other inside, this is an allegory of the way in which the cyst may dispossess him of his mind. When he thinks he gets a cable signed by himself, this is another warning from within. He is warring with himself."

" Poor Eric !" Linda said, looking down at the still face on the pillow, overhung by the great bulk of the silent Kensitons. " How does the broadcast you received from the thing in the slideogram fit into it ?"

" That broadcast came from the cyst itself," Siddall explained, moving to the instrument panels and switching several toggles over. " We were observing its actual interpretations of its peculiar environment. Professionally speaking, they were highly interesting. The Other's inability to fend for itself is symbolised by it's bed-soiling and need to invent a nurse. This nurse, Baron, also symbolises its inability to master the concepts of two sexes which filter through to it from the surrounding brain. It is baffled by the idea of having a body ; it asks of clothes ' Do they feel like blotting paper ?'

" Many of its problems it has rationalised. The drifting lines of thought round it, which the cyst cannot penetrate or comprehend, have become the moving walls of its prison through which it now plans to slip."

" Don't say any more !" Linda cried, abruptly covering her face. " I can't understand it ! This—this Other, this cyst—it's part of Eric, after all ! It lives in him, it is him. Did you not say it knew itself to be an astrogator, like Eric ?"

Siddall put his arm round her shoulder, comfortingly.

" Yes, I said that," he agreed. " The cyst, rebelling against your husband's supremacy, is nevertheless forced to take on part of his identity, since it has no identity of its own. After all, it has little imagination—witness the way it scales down the idea of ' outside,' which is too big for it to cope with : a distant view from a window becomes a model it could easily destroy. In fact, all it really knows is that it is in a spot, and will do anything to get free."

" It's hateful !" she exclaimed. " I'm sorry for Eric, of course—but I can't help pitying this trapped thing too !"

Van Buren moved restlessly on the other side of the bed.

" There is no room for pity," he said. " This cyst is malignant, paranoid, a killer. You must give us leave at once to deal with it if we can, and kill it before it kills your husband's brain."

Distraught, she looked up at Clark Siddall.

" Is there no alternative ?"

" None," he said gently. " The cyst is about to burst and take over your husband's mind. The matter is urgent."

" You must do what you must," she said listlessly. " Are you going to operate ?"

" That is impossible," Siddall replied. " The cyst is too deeply buried in the brain to be accessible. We have our own way of dealing with it."

He beckoned to the nurse, who stood nearby, biting her lip.

" Take Mrs. Lazenby to the waiting room," he said. " I will come for her when it's all over."

IV

KILLOGRAM

The little ward was filled with the low notes of the machine. Siddall lay on a couch, his head enveloped by a metallic helmet connected to the Kensiton. Van Buren stood anxiously over him.

" This is reckless, Clark," he said. " Once I have projected your mind into Lazenby's, you are on your own, and I can't help you. You'll be facing a killer single-handed—and empty-handed."

" I have to go in there," Siddall replied. " Lazenby is helpless : he doesn't know what he's up against. Plug me through and keep your fingers crossed !"

Shrugging his massive shoulders, van Buren went to the machine, sat down, tuned in. On the deep screen, the grey shadows moved and twisted. A feeling of perspective formed, warped in closer, seemed to rise up and enfold the doctor. Siddall gave a low cry from his couch. Then his identity was swept into Eric Lazenby's brain . . .

It was like a physical shock.

Siddall stood in a whirling mist, over a bottomless pit, under a fathomless sky. Of his own agonised volition, he pressed forward. The world darkened and solidified round him. A murmur as of tortured waters filled his ears.

Although there could be no sense of direction where he was, something drew him on. A whiff of evil. An aroma of menace. He was drawing towards the Other.

As he drew nearer, the power of the Other grew. He ceased —gradually and confusedly—to think of it as a cyst. It was a killer, capable of taking any shape, waiting to overcome him, blast him flat.

Tensely, he moved forward. Now he could see the Other's stronghold. From within, Siddall knew, it was a slideogram ; from outside, it was an amorphous mass, big as a mountain, its heights hidden in mist. Nothing, in this never-never-land of the mind, could be viewed objectively. To him it was one thing, to the adversary another.

Siddall moved in. But his emanations must have penetrated the Other's fortress. Before he was ready, the Other struck. The whole thing was over in a flash, a thunderclap of terror.

The great mountain screamed, splitting clean down the middle. The interior blazed like a furnace. Prancing like a horse, the Other emerged savagely, a ghastly monster of hair and teeth and errant eyeballs, high as a house, deep as a dynamo. The screaming grew, not coming only from the gaping mountain, but pouring out from everywhere.

Sickened, Siddall barely kept his wits. Then, as the charging thing was almost on him, he spread, changed, flowed. His imagination labouring, he became a landscape, wide, dreary, all-encompassing. It was the one thing of which the Other could have no knowledge, could not face. Mile on mile, Siddall spread himself out, a planet-full of desolation.

The Other dwindled, rolled itself into a globe, shrunk—and vanished. The horrible screaming died away.

Weakly, Siddall drew himself together. His strength was utterly spent. For a second, he lost consciousness ; everything faded about him. When he was aware of himself once more,

he was back in his own prone body, and the hum of the Kensitons, which had brought him safely back, was sinking into nothingness. Van Buren was leaning over him anxiously.

" Lazenby ?" Siddall managed to ask.

" He'll be fine. What about you ?"

" I'll be okay. What happened to the Other ?"

Van Buren spread wide his palms.

" On the screen, it was difficult to see," he said. " Everything happened so fast ; your images were fused with his. Directly the Other was confronted by a wide open space, it was attacked—as you so cleverly guessed it would be—by its own major weakness : agoraphobia. It dwindled into a ball and bounced over the horizon. That should have finished it, I imagine."

Eric Lazenby groaned and stirred as he finished speaking. Van Buren went over to him. The patient was not yet conscious, but already he looked better, less haggard.

Gathering his strength, Siddall sat up.

" The Other . . . bounced over the horizon—my horizon ?" he said interrogatively.

" Yes," van Buren replied, without turning from the bed. " At that point, the cyst vanished from Lazenby's mind. I checked that on the Kensiton. You . . . *exorcised* it, Clark !"

" I see," Siddall murmured. He stood up, cautiously. He felt oddly weak.

On the bed, Eric coughed and opened his eyes.

" I'll go and get Linda—Mrs. Lazenby," Siddall said.

He went out, walking unsteadily down the corridor, the recent horror still swirling over his mind like an angry sea. His vision was blurred. A sudden feeling of nausea overcame him at the door of the waiting room. Groaning, he clutched at the knob for support.

Hearing the noise, Linda jumped up and ran to the door. When she opened it, Siddall appeared, shaking his head.

" Eric . . .?" she said questioningly.

" Yes ?" Siddall answered. " Here I am. You want me ? I want you ! I've come for you."

He slammed the door behind him. She backed away, mouth open in terror, but he ran at her. As his hands went round her throat, she heard what he was shouting.

" Baron ! Baron ! Got you at last, you devil !"

Brian W. Aldiss

Names made up from the initials of a number of words forming the title of organisations, committees, and even equipment, are passing into our language. Here is a new and interesting one of which little has yet been heard, dealing with spaceflight. It may not become a household word but what it stands for is very important.

CETEX

By Kenneth Johns

Dreaming up names from initial letters is a popular pastime; many such compounded titles, UNO, PAYE, UNESCO, NAAFI, and so on are part of our language. More recently, equipment and organisations have deliberately been given names whose initials aptly or inaptly refer to the main subject. MOUSE and PLUTO are good examples.

Now, a new nomenclatural stew has been thrust upon us. The name—CETEX—is uninspiring. It might well refer to a new brand of breakfast food or a super-absorbent all-cellulose tissue. Yet CETEX stands for an idea that is in itself world-shaking—an idea that clearly indicates a radical change of opinion in the hierarchy of science. Ten years ago the aims of CETEX could not have been mentioned without ridicule outside the pages of sf magazines ; no well-known scientist would have had his name associated with it for fear he would be identified with the lunatic fringe.

Today, CETEX—the Committee on CONTAMINATION by EXTRA-TERRESTRIAL EXPLORATION—is playing an essential part in furthering mankind's outward drive by pointing soberly to the dangers that might arise if, in a wild burst of exuberance, Man explodes unchecked and dis-organised from his planet.

Even the choice of title is exciting. Not so long ago ' extra-terrestrial ' was a word blinked at by laymen—it didn't mean a thing. To others it meant merely monsters. Now, officially, backed by money, there exists a committee that accepts everything inherent in extra-terrestrial exploration.

Moreover, the contamination warned against is not *of* Earth by unknown mysterious invaders of our planet ; but *by* Earth. It warns against the dangers of our alien bacteria, waste matter, rocket gases and the radio-activity already polluting our own planet extending to the pollution of the Solar System.

From somewhere, and belatedly, it seems the human race is acquiring a conscience. A couple of centuries ago this fledgling conscience might have saved the American Indians and Eskimos from near extinction, the dodo and sea cow might still be with us, the last passenger pigeon might not have died from a broken heart. Even ten years ago this conscience might have saved us and our children from strontium-90 and its attendant evils.

CETEX is a committee of the International Council of Scientific Unions, ICSU for short. ICSU is independent of any government and has been operating for 27 years. It meets only every three years and is responsible solely to the scientific academies and unions of 43 countries. It was one of the major backers of the IGY, which it conceived back in 1951.

CETEX is a minor activity of ICSU, but, under Marcel Florkin, the committee is busy expounding the necessity of keeping space, the Moon and planets clean of contamination until such time as scientists can visit there and make all their delicate measurements unaffected by outside variables—experiments that they are already planning.

Then—and only then—should the Moon be made available for H-bomb and missile testing.

Even eliminating the possibility of a fission or fusion warhead being used as a propaganda demonstration by a moon-struck government seeking prestige, a small thermite flare on the Moon's surface would vaporise enough material to alter radically the composition of the Moon's atmosphere—believed to contain little more than ten tons of gases. Just the rocket exhaust of a decelerating moon-probe rocket attempting to cushion its landing would significantly alter that thin atmosphere.

Far-seeing scientists connected with CETEX would like to see the first moon rockets circling the Moon and making detailed analyses of its atmosphere before any attempts were made to land instruments. Then, they hope that the art of lunar navigation will be sufficiently advanced for landings to be made on a limited area of the Moon so that the remainder continues untouched by human hands or rubbish until such time as suitable means can be found to examine aseptically the clean areas.

For the Moon is more than just a hunk of dead rock circling our planet. It is a Solar System midden, little disturbed, where layer after layer of dust has been laid down throughout the millions of years since the planets were formed. Each layer of dust and detritus from space, drawn in by the Moon's gravity but undisturbed by wind or rain, will tell graphically of some solar event or of the whole system's progress through the many dust clouds that go to make up the swirling maelstrom of the Galaxy's tenuous vitals. Without an atmosphere sufficient to vaporise micro-meteorites, the Moon's surface will have been built up by the trash from space into foot thick layers, affected only by the shock wave of an occasional large meteorite. Sections cut through the dust will extend our knowledge far back in time.

Dust particles in space and in the top few inches of the lunar surface are exposed to raw primary cosmic rays whose collisions produce rare isotopes such as beryllium-10. Radio-activity measurements of these and naturally occurring radio-active isotopes should enable us to date the different dust drifts and estimate how long they journeyed in space before settling here to their final rest. Cores drilled from the lunar rock will enable scientists to pinpoint the date of the formations on the Moon and to track down their exact origins.

But the radio-activity that will have to be measured is so low that the merest trace of radio-active fall-out would forever smash the hope, masking the few important Geiger counts and retard our understanding of the Universe.

Some astronomers, including Hoyle, think it possible that the first chemical reactions that eventually led to the complex molecules associated with life occurred in space.

These early molecules may have been collected from space at the same time as the Earth was fast growing by accretion. On Earth they interacted with one another and were used as

food until all traces were wiped out. They were our many times removed ancestors. We may find traces of them in the Moon dust—but the amounts will be so tiny that it will be almost impossible to separate them from terrestrial organic trash. It is even possible that such precursors of life could be so active that they would need only the pattern of a dead bacterium to trigger off a keying-in pattern in an automatic attempt to duplicate the bacterial structure.

It is not beyond the bounds of possibility that the pattern of an organic disinfectant molecule might be enough to alter the space-borne lunar molecules. The realms of conjecture that open up are dizzying. So, says CETEX, make haste slowly ; do not rush in on the Moon when a little forethought will save so much.

It was for this reason that the Moon rocket *Pioneer* was thoroughly sterilised with ultraviolet light before it set out, and the readying crews wore sterilised clothing and rubber gloves. After all—*Pioneer* might have hit the Moon. That possibility was as inherent in her chances as the one which ordained that she should slant and fall back to be burned up in the atmosphere of Earth.

Looking further afield, sterilisation will be even more important when we visit the planets. The plight of the microbiologist of the Second Martian Expedition will be unenviable, and he is going to be an extremely frustrated spaceman, if he finds a Martian bacterium identical with a terrestrial species. It could prove the great parallel movements of the creation of life. But then he will begin to wonder. It might be native—or, maybe, a crewman of the First Expedition imported it on unsterilised boots.

These are speculations that are firmly based on known scientific facts—CETEX *will* be checking that every rocket that leaves Earth is thoroughly cleansed of terrestrial traces that could upset scientific research out among the planets.

But—just as important will be the prevention of extra-terrestrial life from accidentally being brought down to Earth.

One day CETAL may be as well-known as ZETA, UNESCO or CETEX. In desperation it may be voted as many millions as WHO. CETAL may be formed in frantic urgency one day.

What's CETAL ?

The Committee on CONTAMINATION BY EXTRA-TERRESTRIAL ALIEN LIFE.

Kenneth Johns

Checking back over the past few years it is surprising to discover how few android stories we have really published. Robert Presslie's contribution is therefore more than welcome as well as being unusual—it deals with the education of an android robot as seen through its eyes as its reasoning powers are awakened.

CONFESSION IS GOOD

By Robert Presslie

Statement : I am an android. I have learned to answer to the name of Ox.

Observation : There is a fly in the laboratory. It is resting on the barrel of a Liebig condenser. I am thinking if I should kill the fly. Griffin and Asche have not seen it yet.

Memory Recall : A fly is an insect. It feeds on putrescent matter. Its method of eating involves regurgitation. Putrescent matter contains germs. Germs are dangerous to men. Germs must at all times be excluded from the laboratory.

Problem : Should I tell Griffin and Asche or should I deal with the fly myself? The man and the woman have told me many times not to interrupt them at their work. The man has also told me to try to make myself useful about the place.

Observation : I kill the fly.

The man turns. His face is red. His eyes are wide open and staring.

" Omigod !" he says to the woman. " That big dumb Ox ! Whatinhell has he done now ?"

" He's smashed the condenser, Griff. And his hand is cut. It's bleeding."

The man comes close and looks up into my face.

" That was the final stage of three months work, Ox. For three months we've been synthesising and extracting to get another batch of nutrient. Over there in the tank we have an egg which we have slowly and carefully grown from a single cell. That egg is waiting for the nutrient to make it grow and develop. That egg would have become another android in due course."

Griffin looks away from me and says to Kate, " Do you think he did it deliberately? You're the brain specialist around here—what do you think motivated his action? If I understood you correctly, you told me he couldn't do things like this, couldn't for instance have any objection to our making another android."

" He can't. Let me talk to him, Griff. And pass me the first-aid box, there's no point in letting him bleed to death."

She wipes my hand, cleans it and applies dressing.

" That was a bad thing you did, Ox." Her hands are soft, not rough like Griffin's or horny like mine.

" Tell Kate about it," she says. " Start from the beginning and speak slowly, think what you're saying."

" There was a fly. A fly feeds on putrescent matter which contains—"

Griffin talks. " Kate, I swear I'm going to snuff him if you don't cure him of that glottal stop. It's so goddam irritating. In fact, lately it's getting so everything he does is irritating. I suppose that's because he's an ever-present reminder that we failed."

" He's the first, Griff. You can't call that a failure. Carry on, Ox, tell me the rest."

" The fly was on the glass. Germs are dangerous. I killed the fly."

" Good boy, you did right. It was not a bad thing after all."

" Omigod, Kate ! Stop treating him like a kid. And that baby talk drives me—"

" It's what he understands, Griff."

" It's a pity he doesn't understand he can't go around smashing up valuable equipment !"

" That sounds suspiciously like a dark hint. Are you implying that I didn't teach Ox properly ?"

" Forget it, Kate. I didn't mean that at all. It's just that he's so stupid and clumsy. Always breaking something. He lumbers about the place like . . . like an ox."

" He didn't mean to smash the condenser. He was trying to help. And he isn't stupid. He saw the fly, knew it shouldn't be there and reasoned what to do about it."

Griffin argues. " He could have called one of us—"

" And what happened last time he did that ? You bawled him out for interrupting you. Ease up a bit, Griff. Maybe he is no genius but he does fine with the rudimentary equipment he's got."

With one of those mental leaps which I cannot always follow, the man changes the subject. " It's a disgrace we should be expected to work in a dump like this on a shoestring budget. If we had decent equipment—"

" Griff—" the woman interrupts. " You're giving me a headache. You're getting to be a confirmed groaner. All the equipment in the world wouldn't produce a perfect android any quicker, and you know it. It's only a matter of getting the first cell to mutate into an egg and the rest is straight-forward nutrition. We just have to wait nine months while the egg grows and all that takes is a tank, a steady temperature and a supply of nutrient. If this lab was twice as well equipped and twice as big, it would still take nine months. You can't interfere with nature."

The man makes a loud noise. "That's a laugh! Whatinhell are we doing if we aren't interfering with nature ! Still, I guess you're right. I was moaning. It's just that we've been at it so long and they keep breathing down my neck for results."

" You could show them Ox."

" Him ! When I produce an android it's going to be so good they'll have to take it apart to tell it isn't human."

Problem : When I search and use Memory Recall, I remember the data which specify the difference between humans and other animals. My own specifications are identical with human ones. Yet the man and the woman constantly refer to me as if I was different.

Action Taken : I speak. " What makes you human and me not, Griffin ?"

Observation : He answers, " I had a mother."

" Griff !" the woman says sharply.

" It slipped out, Kate. Besides, why shouldn't he know ? You've left big gaps in his education."

" Knowing that sort of thing would give him complexes. As you said, I'm the psychospecialist around here, and I've got

my orders too. I was instructed that on no account was he to be told anything that would confuse him, anything beyond his ability to understand, anything that might engender in him feelings or emotions."

" I don't remember that, Kate."

" Maybe it wasn't put that way, but that's my interpretation. No soul, they said. Make for us a living creature in the image of man, but keep the image purely physical. Let him be able to think enough to control his body but don't teach him to think about any whys and wherefores. This is a scientific project, Miss Asche, they said. Confine it to that, remember you are a scientist and not a moralist. What you will do will be safe, legal and will offend no one—provided you do only what you are asked to do and no more. But give your android any of the inner and unseen attributes of man and there will be hell to pay. For one thing, the religionists will raise such a stink it could get the government thrown out. For another . . . they never did finish that sentence, Griff."

He nods his head. " You know why. Here we are, on the doorway to the twenty-first century, and even among brilliant scientists and politicians there is still a hard core of superstition. They're afraid, Kate. Afraid to let us make a real man."

I wait until I am sure they have no more to say.

Then I ask, " What is a mother ?"

Memory Recall : Lactic acid accumulates in human muscles after working. This causes fatigue. The human brain also tires. Humans require periods of rest. The man and the woman have left the laboratory. They must be fatigued.

Conclusion : This is night.

Observation : The lights have been left burning because, as I have been told, I do not sleep. I hear the hum of the electric motor and the sucking sound of the pump which interchanges the fluid in the tank at the end of the laboratory.

I know I must not touch anything. But looking is not touching. I go to the tank and observe its contents.

There is much cloudy fluid. It would seem that Griffin made a mis-statement as there does not appear to be any shortage of this nutrient. Deep in the fluid, almost hidden, there is a small bag. The man calls this a sac and it is semi-permeable.

That is all I see. There is no mother.

I go back to my pallet. I apply Memory Recall to everything I have been told about my body and human bodies. One by

one I identify my bones, my internal and external organs. When I have come to the end of my list, I have accounted for every item and there is nothing left over.

It is true. I have not got this mother that Griffin spoke of.

Problem : What is a mother ? How can I learn ?

Action Taken : The woman always arrives at the laboratory before the man. She always answers any of my questions. As soon as she comes in, I ask what I have asked once before.

Observation : She exhales a slow breath.

" You should never have heard that remark, Ox. I suppose I had better give you some sort of explanation, eh ? Otherwise you'll go on thinking about it and probably wind up with one of the complexes I was trying to prevent. Has it been worrying you ?"

" What is worrying, Kate ?"

" Omigod, I'm as bad as Griff. It must be that early morning feeling. I forgot for the minute that you don't know about emotions. I'll put it this way, Ox : have you thought about this all night ?"

" Yes."

" Then tell me why."

I treat this as a problem. I find no solution. I cannot answer.

" Silence," the woman says. " You don't know. And I don't know whether that's a good sign or a bad one. Damn that Griff ! Sit down, Ox. I'll see what I can do to help you. You want to know what a mother is ? Well, a mother is a human, a female human like me."

" Are you a mother ?"

" Omigod, no. Not yet at any rate. A mother is—well, humans are not grown in tanks like that one over there. They are grown in mothers. That's all I'm going to tell you, Ox. Don't try to understand it, and don't ask me any more. That's all you need to know. It answers your question."

I think, remember and say, " Griffin has one of these ?"

" He has."

" Do you have one ?"

" I had . . . no, that will confuse. Yes, Ox, I have a mother."

" But I do not ?"

" Omigod, Ox, I *said* no more questions. But if it will make you any happier—I mean if it will solve your problem further . . . whyinhell doesn't Griff get here on time—you could say

I am your mother. This is getting worse and worse. Look, Ox, a mother is more than I said. A mother is a human who teaches her children—these are young humans—she teaches them to speak, to think, she instructs them on the facts which they later use by Memory Recall. And since I taught you, that makes me more or less your mother . . . Oh, hello, Griff. Whereinhell have you been ?"

Griffin widens his eyes. " What's the excitement ? It's only ten past nine."

He looks at me. " Has he been up to something ? Broken anything ?"

" No, Griff. Just asking awkward questions. Forget it. We'd better not discuss it in front of him. I'm afraid I may have said too much already."

They move to the far end of the laboratory so that I cannot hear what they are saying. Kate is talking quietly all the time. Griffin talks quietly too, but sometimes his voice rises and a word or two reaches me. The snatches of conversation which I hear present me with problems.

I hear him say, "—if you think he's going to cause trouble, it would be better."

Kate's lips move and she shakes her head.

" Why not, Kate ? It would be quick and painless. And it isn't as if he was human."

The woman shakes her head again and says something else which I cannot hear.

Griffin's voice is quite audible. " Well, you started it ! All right, maybe I made the first mistake by mentioning mothers. What I meant was you started this business of suggesting he could be a menace. It was you who said it looked as if he had begun emoting."

Problem : I am sitting doing nothing, the chain from my neck lies loosely at me feet. How can I be doing this emoting?

Memory Recall : Miss Kate used a similar word only yesterday. She said I must not be told anything that would give me emotions. Emotions were the inner attributes of humans. Because of this, she said, humans have souls.

Additional Problem : I have no mother. Now I am also being denied emotions and a soul. Kate and Griffin are trying to make an image of a human. Why are they omitting three things which seem to be essential ? Perhaps this is why they

have not succeeded, why Griffin speaks loud sometimes and says I am a failure.

Observation : I take no action. I am thinking that the necessary action is for me to get these things. But getting them presents further problems. I must wait until I possess more facts. When I have them, I will use them to solve my problems of how to obtain emotions, a mother and a soul. Then I will not be a failure.

Statement : After three days I am still a failure since I have not yet acquired emotions or a mother or a soul. Nor have I learned any more about how to get these things which will make me a success. I have gone over my complete Education several times—the woman has often said my Memory Recall is fantastically efficient—and I am sure I have missed nothing. Yet I have found no clue about any of these things which I am seeking. From reasoning it follows that such information was omitted from my Education. This agrees with something Griffin said : that Kate had left gaps in my Education.

Problem : I have noted that the more I have delved into Memory Recall, the more there have been of certain physical phenomena. My fingers have felt an increased flow of blood through the veins at my temples ; and on two occasions I could not eat until a gripping pain at my diaphragm had subsided. These phenomena appear to be particularly associated with Griffin. They are most intense when he is in my thoughts. Why should this be so ?

Observation : Griffin and Kate appear to have come to some conclusion. In the past three days they have continued to talk quietly. Even so, I reasoned from the way they looked at each other that they were in disagreement. Now they talk more openly and do not argue so much.

Griffin says, " You're quite sure this is the best way ?"

Kate replies, " It's better than what you suggested."

" I only hope it works."

" It will, Griff. I've been his teacher from the start. Everything he knows, I taught him. We've decided that one way or another I've told him too much. So—"

" So you think you can unteach him ?"

" I don't see why not. Under the mild hypnotic in that syringe, he has always been very responsive to anything I've said. It should work equally well in reverse. I'll talk to him

he's under hypnosis, I'll erase all those accidental remarks. And he'll be back where he was—a harmless animal."

"You're not regretting it, are you, Kate?"

"Professionally, yes. I can't help thinking we could be wrong. Maybe the specifications we got were wrong too. Maybe if he knew the whole truth he would be less dangerous than if he only knew some of it. After all, we humans get by—complexes notwithstanding."

Griffin puts a syringe into a rubber-capped bottle and withdraws fluid.

"Kate," he says, quietly. "We've been over all that. If we're making an android, it has to be the kind of android they asked for. Ox never was that. And through a little careless talk he is not only an imperfect android, he is also an android who knows more than is good for him."

"Or for us?"

"Could be. Anyhow, we're going to kill this mother idea he has."

He continues talking but I do not hear what follows.

I have a problem. Griffin said I had no mother. I have searched carefully and found no mother. I cannot understand how he can kill what I do not have. Also, I cannot understand why he should kill a mother. A mother is not a fly, does not feed on putrescent matter, does not bring harmful germs into the laboratory.

Memory Recall: I recall a recent memory which I have missed in my cogitation over my problems.

Kate is my mother. She said so. She said she was my teacher and therefore my mother.

Problem: Why is Griffin going to kill Kate?

Observation: He takes her arm and pulls her towards me. He has the loaded syringe in his free hand. The syringe must contain the killing. Yet Kate does not seem to know she is going to be killed. Like the fly on the Liebig did not know I was going to kill it.

Kate is my mother. Griffin is going to kill her.

I know I must not speak if it will interrupt.

But Kate is my mother.

I must make myself useful about the laboratory.

Kate is my mother. Griffin is going to kill her. Did anyone kill *his* mother? This could not be so. He said he had a mother and I did not.

But Kate is my mother.

I have a mother !

" Kate," I speak. " You must not let him do it."

They look at each other, their eyebrows raised. Griffin says, "We're not a second too soon," and he holds up the syringe.

I move quick. I knock the syringe out of his hand. It falls to the floor and breaks. But he can get another and still kill Kate. I hit his head. I hit it hard like I hit the fly. Kate is screaming. I hit him until he is folded across a bench. I hit him and hit him until I know he cannot kill my mother.

Now he is dead. There is only Kate and me. My mother and me.

I go to her. She runs back. She screams. I want my mother. I walk. She moves fast, going for the door. I know my chain will not let me reach that far. I must stop her. I must not lose my mother.

I stride large and hit her. I do not hit hard like I hit Griffin. A mother is not a fly, does not feed on putrescent matter.

She goes down to the floor and lies there. I pick her up, take her back to my pallet where I sit with her in my arms. She does not wake yet. But she is safe. I have not lost her. I think about this for many days as I sit here.

Statement : I have confessed to myself the things which have happened. It does not make the blood bump in my head or make a pain in my stomach. I have solved part of my problem. I have a mother. I am not so much a failure as I was w ithout a mother.

As yet, in spite of the many days I sit here with my mother and think, I have not found the other two things needed to make me a success.

I have not found my emotions.

I have not found my soul.

But confession is good.

Robert Presslie

Author Maine's "Ten-Little-Niggerboy" theme continues apace with further mysterious happenings around the anti-gravity experiments on Kaluiki atoll in the Pacific. Now half the scientists are dead or missing—but the count-down continues to tick away.

COUNT-DOWN

By Charles Eric Maine

Part Two of Three Parts

FOREWORD

The long count-down, which was to last 72 hours, began at twelve noon on January 18th on Kaluiki, a small Pacific island where the Western Powers were conducting "Operation Agnes," a secret experiment with a new anti-gravity device which would eventually give a spaceship the first faster-than-light drive. The success of this venture would be a huge step forward in astronautics and give the West supremacy over the Eastern Powers.

For security and safety reasons all unessential personnel are withdrawn a distance of 200 miles from the island, leaving only the seven scientists required to operate the equipment during count-down and Russell Farrant, the project's official photographer and reporter.

"Agnes," short for Anti-Gravity Nuclear Energy Supply, is under the command of physicist Guy R. Strang, assisted by Kay Kinley, computors and radar; Joseph Hoevler, ballistics; Hilde

Bartok and MacClennon, nuclear reactors; Doctor Graham Youd; and George Earl, Security Officer.

Farrant, filming the departure of the last Air Force personnel, says goodbye to Lieutenant Frieberg and Sergeant Gant as they leave by helicopter to join the fleet on the perimeter and returns to the reactor building where he watches MacClennon and Hilde Bartok putting the four giant reactors into operation. These will feed the energy convertors which will eventually produce the necessary power at the end of count-down for the spaceship's takeoff.

A few hours later, Kay Kinley picks up a strange pattern on her radar screens—the echo coming from a large metal object on a hill some four miles away. George Earl decides to investigate, and takes Farrant with him. Travelling by jeep over the rough terrain, thry get as near the area as possible just as darkness falls, but Farrant disagrees over the method of investigating the mystery, and, in a bad temper, returns to the jeep to wait for Earl.

The next morning Farrant discovers Earl's revolver in his cabin and goes to the Security Officer's hut to return it, only to find the cabin locked. Through the window he sees that the bed has not been slept in. Unable to understand the presence of the revolver, he visits Doc Youd to report a violent headache, which the doctor diagnoses as sunstroke and orders Farrant to rest for a while.

Talking to Kay Kinley in the canteen later in the day, Farrant states that he had brought George Earl back to camp late the previous night and that the explanation for the mysterious radar echo was apparently part of an old sunken shipwreck which had been cast up from the sea bed when the island was formed many years earlier. Kay doubts this reasoning but there is nothing further any of them can do—everyone is too busy with the count-down.

By late afternoon of the first day of count-down, Earl's absence is causing considerable concern. Farrant makes a search of the camp but there is no sign of the Security Officer and it is generally assumed that he has returned to the hill on foot to make further investigations. Farrant arranges to see Kay late that evening—the two are by now mutually attracted to each other—and returns to his cabin to check the films he has taken. He is surprised to find five colour pictures for which he has no record or knowledge, but these would have to wait until the count-down was concluded before development.

After dark he goes for a walk along the lagoon and then returns to Kay's cabin only to find it locked and in darkness, but upon returning to his own quarters he finds her waiting for him. She is extremely agitated and shows signs of hysteria as she tells him that someone has strangled Hilde Bartok.

Strang orders a postmortem and later that night interrogates each of them separately. Farrant is the only one without an alibi—and Strang points out that Farrant was also the last person to see George Earl. Until there is evidence to the contrary Farrant must be the major suspect.

When Strang has finished questioning him Farrant makes for Kay's cabin, meeting Dr. Youd en route. The doctor confirms that Hilde has been strangled—and that she was also eight weeks pregnant. Hurrying on to Kay's quarters Farrant is discussing the latest events with her when Joe Hoevler bursts in upon them—Strang and MacClennon have just found Dr. Youd's body in the lagoon with his head smashed in.

VIII

By two a.m. they were all assembled in the reactor room once more, and it was obviously going to be a long night. Strang, for all his dark composure, was showing signs of strain ; weariness dulled the wild glitter of his sombre eyes. MacClennon was stooping a little as he leaned against the concrete wall, and his dark brown moustache drooped in melancholy lines. Hoevler, standing truculently with legs astride and hands deep in his trouser pockets, showed symptoms of flagging. His green eyes were red-rimmed and his normally fresh complexion looked sallow in the oblique light from the hanging fluorescents. Kay remained silent and morose, sitting motionless on one of the austere tube chairs. Farrant, fighting a wave of fatigue, rubbed the knuckles of his fingers with his thumbs and forced his mind to concentrate on the immediate situation.

Strang said : " We are facing a major crisis, not only among ourselves, but in relation to the civilised world as a whole. I feel that there is no alternative but to abandon the count-down and call in the military. One murder was a fortuitous thing. We could rightly have been flexible enough to cope with it and still carry on the project. But two murders . . . "

He broke off for a moment, apparently lost for words.

Farrant said : " Shall I break radio silence ?"

Strang flicked his hand swiftly in a gesture of indecision. " It may well come to that, Russ. First we need to complete a picture of what happened for our own information. Doctor Youd was attacked on the way from his surgery to the reactor room after he had completed the autopsy on Miss Bartok. It seems not improbable that whoever killed him had reason to fear the result of that autopsy."

" Could be," Farrant agreed. " On the other hand, the Doc didn't take his secret with him. I met him as I was on my way back to the domestic camp, and we talked for a while. He must have been killed soon after I left him."

A subtle change of expression was discernible in Strang's face, but Farrant was not exactly able to define it—an expression of calculating interest.

" Then you were the last person to see Youd alive ?" Strang asked.

" No," Farrant answered flatly. " The killer was the last."

A pause—rather ominous if you tried to analyse it.

" What did Dr. Youd tell you—about the autopsy ?"

" He confirmed the cause of death—manual strangulation. And he said that Hilde—Miss Bartok—was eight weeks pregnant."

No reaction from anyone. A paralysed moment of time.

" He thought that might have been the motive for killing her," Farrant added. " Seems to me that might also have been the motive for the Doc's murder, too."

" In what way ?"

" To stop him from reporting his discovery. Obviously the killer couldn't have known he'd already spoken to me."

" Obviously," Strang said drily.

" Which would seem to indicate pretty strongly that there was what you might call a romantic link between the killer and Miss Bartok. That might simplify matters."

Hoevler snorted audibly. " Simplify nothing. You guys are so busy looking for motives you're tying yourselves up in knots. Why not start with the simple things. Supposing there wasn't a motive ?"

" There's always a motive, Joe," MacClennon said sourly. " People don't kill for the sheer hell of it—not in this little community of exiles. Anyway, Russ is right. Hilde did have an intimate friend, and I'm not surprised she's pregnant."

" Who ?" Hoevler demanded.

" The big white chief himself. Guy Agnes-or-bust Strang."

Farrant glanced at Strang, but there was no tell-tale reaction in the acrid set of his tight lips.

MacClennon went on : " In the ordinary way I'd have respected Strang's secret, but this is no ordinary way. I'm not suggesting that he's the murderer, but I think everyone ought to know the undercurrents at work in this business. I'll be honest. I'll admit I was jealous of Strang for a while. Hilde and I were good friends, too—but I hadn't got what Strang seemed to have so far as she was concerned."

MacClennon glared defiantly at his audience, and pursued his newly found eloquence. " I'm saying this because Strang took it upon himself to be the chief of detectives and district attorney combined in this bloody business. But he's just as much a suspect as anyone—perhaps more so. He could have killed the girl, and he could have killed Dr. Youd."

" How come ?" asked Farrant.

MacClennon eyed him icily. " Because after he'd finished questioning you I went into the ante-room and told him just what I've told you all. I refused to answer questions. I ordered him to send a radio message to the carrier, calling in outside help. He refused, and I left. I was in the room about half a minute, not more. At that time Doc Youd was starting out on his last walk round the lagoon, and there were three of us who could have attacked him at that time—Strang, Farrant or myself. Hoevler was busy in the rocket. Miss Kinley we can count out."

" I'd rather be counted in," Kay said.

" Now let's look at hard facts," MacClennon continued. " Three of us in this room have bloodstains on our clothing—Strang, Hoevler and myself. But we picked up those stains while manhandling Youd's body—that's true for two of us, anyway. The third one could have picked up some of the stains during the act of murder."

True enough, Farrant thought. The three men did indeed have dark stains on their clothing. He was suddenly conscious that MacClennon was looking straight at him.

" That would seem to let Farrant out," MacClennon went on, " but in fact it doesn't. He had time to change his clothes. It could be that we might find bloodstained clothing in his quarters."

A chill metal clamp tightened abruptly on Farrant's heart. A picture of the laundry basket hovered ghostlike in the darkness of his mind. But MacClennon couldn't know—couldn't possibly know . . . In any case, *those* bloodstains had nothing to do with Doc Youd—had nothing to do with anything at all that he could remember. He wasn't even sure that they *were* bloodstains.

"All this is clever stuff," Hoevler said sarcastically. "In no time at all we'll all be guilty as hell, but we'll be no nearer to solving the case. There are motives galore if you dig deep enough, and loads of shabby evidence. You want my opinion? Earl is the key. Find him and you'll solve the mystery."

"You mean Earl is the killer?" Farrant asked.

"I mean Earl is dead, and he was the first victim. Right now he's probably feeding the sharks in the Pacific. If that's true then three people have been murdered, and no motive in the world can explain that—except one."

"And that is . . ."

Hoevler sneered noisily. "The obvious one. The one you myopic bastards couldn't be expected to see. Sabotage. Worse still—the systematic assassination of the entire Kaluiki staff. Why do you suppose Earl was the first to disappear? Because he was the security officer—the guy most likely to clamp down on subversion. With him out of the way the rest is easy. We're all Brainy Berts when it comes to science, but come violence and sudden death—where are we?"

Hoevler's biting words produced a profound silence that seemed to go on and on indefinitely. Glances were exchanged—subtle uncommunicative glances that betrayed nothing. Strang's eyes seemed to sink deeper into his skull.

"You mean," Strang said, "that one of us is—an enemy agent . . . ?"

"I don't mean anything, Guy—not in so many words. Either Earl is the killer, if he's alive, or if he's dead, then it must be one of us. It may not even be on the conscious level. With modern techniques of indoctrination and post-hypnotic suggestion any one of us could murder and not even know it. You've heard of schizophrenia."

"You can't be serious," Strang muttered.

Hoevler laughed cynically. "No—I'm just making a funny noise to relieve the strain." Then soberly: "All I'm saying is—you're looking for the wrong motive. This isn't a matter of adultery, pregnancy, intimate he-and-she stuff. One of us

is out to smash the Agnes project, and more—is out to destroy the team that created Agnes. If we should all die here on Kaluiki, it would take years to train a new team, and in that time the Soviets might easily catch up."

Strang, still vaguely incredulous, said : " You're suggesting that all of us are going to be—murdered . . . ? "

" All except one," said Hoevler.

Strang bit his lip for a second or two, then appeared to make up his mind. He turned to Farrant. " Russ," he ordered, " I want you to go over to the radio cabin and send a priority signal to operational headquarters on the carrier."

" Break radio silence ?"

" Yes—I'm afraid there's no alternative. Ask them to send a security force to the island at the earliest possible moment. We are all of us to be placed under arrest pending a full investigation. Point out that this is most urgent."

" Very well," Farrant said reluctantly.

" Meanwhile—the count-down has to stop. MacClennon, close down the reactor."

Hoevler said slowly : " Is that wise, Guy ?"

" What else is there to do ?"

" If the object of the murderer is to stop the Agnes project, then you're playing right into his hands."

" But I can't break radio silence and continue the count-down. It would be contrary to operational orders."

" To hell with operational orders !"

" Then what do you suggest ?"

" Carry on with the count-down, but break radio silence just the same. One emergency message isn't going to give away the Agnes project to Rusky monitors. Let operational control take the responsibility for a shut down—all we're asking for is a murder investigation."

Strang rubbed his hands together in weak indecision. All the leadership that he had exhibited during the past months on the island seemed to have evaporated. Stung by MacClennon and bulldozed by Hoevler, he seemed willing to fall in with any suggestion that had the air of authority. It may have been fatigue, aggravated by some degree of neurosis following on the tragic events of the day, but surrender was implicit in his manner.

He said : " All right, Hoevler. That seems logical enough. Farrant will call control on the r/t, and we'll keep the reactor running until definite instructions are received to close down.'

" Fine," Hoevler remarked. " One other thing. The killer is still loose. We don't know who he is, and he may not even know himself. We all need to be very much on our guard—just in case."

" In case . . . ?" Strang queried.

" In case he plans further murders."

Walking over to the radio cabin under the clear stars, Farrant became aware of something entirely ludicrous in the situation, and he began to laugh silently. It was not so much a laugh as a mocking twist in his mind. Strang and Hoevler and the others were midgets in a matchbox reactor room, twitching on the end of fine nylon threads, acting out surrealist melodrama that had no basis in reality. The Southern Cross, burning mystically in the darkness of the night sky, possessed a greater tangible reality—even across the empty light years of time and space. The ground was real and the stars were real and the sounds of the rolling surf beyond the lagoon were real, possessing the true reality of timelessness, and against that eternal background the people of the countdown became animated shadows, without true substance. Even Kay—and even himself.

But the mood passed. It was one of the evanescent hallucinations of fatigue. The reality of the here and now pressed in on him, crushing his mind into a formless depression, blotting out the inner awareness of the stars and the noises of the ocean. The parabolic aerials of the radio cabin glittered in the starlight, symbolising the massive technological organisation in which he was a mere component part.

Beyond the aerials lay the small concrete building, dark and deserted, with its emergency diesel generator lying idle to the rear. He unlocked the door and entered, switching on the light.

The first thing that caught his eye was an axe in the centre of the floor—one of the heavy-duty axes with a shaft four feet long. He stared at it for a long time without thinking, merely registering its presence without curiosity. In a strange night its strangeness was unremarkable.

Presently he glanced around the room, impersonally scanning the grey rack and panels of the transmitters and receivers. There was something quite wrong, but such was his unreceptive frame of mind that he was not immediately able to pin-point it. His eye settled on the broken glass that littered the floor,

and the shards of twisted metal. He looked again at the equipment, and now it came to him that each instrumented panel was wrecked. The glass dials of the meters had been splintered, and the dural casing of the radio units were bent and shattered.

The lethargy that had been paralysing his mind vanished in a frantic instant of realisation. Quickly he checked the apparatus, and soon he was able to confirm that every single item of radio equipment had been effectively sabotaged beyond all possible repair. Cable harnesses lay severed on the floor, and component studded chassis hung crushed and useless from the upright supports.

He went over to the spares locker, but found the door forced open. The axe had been used again to good effect. Valves and components, utterly smashed, were strewn on the shelves and on the floor.

He sighed deeply and hopelessly, then crossed to the internal telephone that linked the operational buildings of the island. Slowly he dialled the reactor room. In a moment Strang's resonant voice came over the wire.

" Strang speaking."

" This is Farrant. I'm at the radio cabin."

" Did you contact control?"

" No. It's not possible, Guy. Someone has completely wrecked the equipment—every goddam item of it."

Heavy breathing hissed over the line.

" There's an axe on the floor," Farrant went on. "Someone —one of us—has had a field day. The point is—we can't make radio contact with control. Not in a thousand years."

Strang's voice was strangely quiet and restrained. " I think you'd better come back here, Russ. The others have gone back to their quarters, but we can talk just the same. There's no point in disturbing them."

"I guess not," Farrant said. " I'll be right over."

It was not until he was out under the night sky again that the full significance of Strang's manner took possession of his mind. *The others have gone back to their quarters—there's no point in disturbing them.* A tense excitement began to tremble in his limbs. It could be Strang, and this could be it. Strang had placed him next on the murder list. Strang himself could have sabotaged the radio equipment. Strang, Strang, Strang—the name echoed and re-echoed in the recesses of his brain.

A minute later sanity reasserted itself, and the strain in his mind relaxed. No point in jumping to conclusions—after all, Strang had really said nothing that could be interpreted as an open threat. On the other hand one of them had to be a killer. It wasn't himself, he knew that, and it couldn't be Kay. That left only MacClennon, Hoevler—and Strang. And the missing George Earl—if he could seriously be listed among the suspects. It *could* be Strang—even in the coldest light of applied reason, it still could be him.

He stopped, stroking his lips thoughtfully, staring through the darkness at the distant lights of the reactor room. Strang would be waiting there, alone, with God alone knew what evil in his mind. No sense in taking chances. A guy had to be prepared . . .

He followed the curve of the lagoon, veering away from the reactor block, making for the domestic camp. The huts were in darkness, even Kay's, but he had no intention of disturbing her. The immediate future was his own responsibility, and he felt well capable of handling it.

In his own quarters he found Earl's revolver and inspected it cursorily. Five of the chambers were loaded, and that seemed to balance the odds quite nicely, for, so far as he knew, this was the only weapon on the island, if one discounted the explosives in the store at dispersal point. He crossed to the wall mirror and smiled at the drawn face that stared hollowly at him from the glass.

" Guy, my friend," he murmured, " take care. Take great care."

He walked back to the reactor block without hurry, pacing confidently, almost jauntily, over the hard cracked ground. The gun was a cold comforting weight in his pocket—and more than that, it might prove to be the key to the whole fantastic situation here on Kaluiki. So quiet and peaceful, he thought, looking at the black faintly glittering surface of the lagoon. You wouldn't imagine that violence and death could be so close.

He entered the reactor building with considerable caution, advancing silently along the short corridor that led to the reactor room itself. The door was open and the lights on. He hesitated at the entrance. The air vibrated keenly with the almost inaudible whine of the equipment. Nothing moved.

Gripping the gun tightly in his pocket, with finger on trigger,

he advanced into the room, probing every corner and shadow with alert eyes. Still no sign of Strang.

It might not be an ambush, he thought. It might be more subtle. He might want to talk first. He might be waiting for me to arrive in the normal way.

" Guy," he called. The sound reverberated in the hollow room, but there was no answer.

Louder. " Guy !" Louder still. " GUY !"

It could have been the dead silence of outer space.

He moved forward towards the door of the ante-room, apprehension pricking his spine in massed needles. At the door he paused, turning the handle slowly, straining to avoid making the slightest sound. The door swung open, and again the lights were on. His eyes swung in a wide circle, taking in the whole scene, then settled to the floor.

Strang was there, lying awkwardly, face down, near the modern glass-topped desk. An outstretched arm terminated in fingers clenched in a claw-like spasm. The dark hair at the back of his head oozed crimson blood that dripped sluggishly on to the brown gloss of the lino.

Farrant closed his eyes and released his hold on the gun. No point in thinking further. All the basic premises were wrong—quite wrong. Strang was eliminated—forever—and the circle had narrowed again, just as it would keep on narrowing. Hoevler, MacClennon, Kay and himself. Only four left. Plus the elusive Earl.

Suddenly he knew that he had to solve the Earl enigma once and for all. Either the man was in hiding on the fringes of the camp, preying on his colleagues as the opportunity arose, or else he was dead—in which case it had to be either Hoevler or MacClennon.

The count-down continues, he thought ironically, and, brother, we're on our own. No radio contact, and no possibility of outside help. From now on its every man for himself, but with Kay on my side. And I'm one jump ahead of the others—I know about the wrecked radio cabin and I know about the murder of Strang.

False, he realised abruptly. The killer knows both those things, and he knew them before I did. Therefore *he's* one jump ahead. On the other hand I have the advantage of a weapon . . .

I could solve the entire problem here and now, he told himself. I could go back to the domestic camp and shoot

both Hoevler and MacClennon as they lie in their bunks. One of them is bound to be the killer. I could end this nightmare within minutes. But supposing . . .

Supposing Hoevler and MacClennon are innocent? Supposing Earl is the killer after all? Or—quite incredible, but nevertheless a permutation of circumstances to be considered—supposing Kay was the murderer? That was quite unthinkable, of course, and he felt ashamed of himself for having entertained the idea for even a fractional instant.

Let it ride, he decided. For what's left of the night, let it ride. I'll wake Kay and stay with her tonight. With the gun I can protect her, then tomorrow we can assess this thing, and decide on a positive plan of action. It's the only logical thing to do. Kay won't mind—she *can't* mind. Standards have no meaning, and we're back to basic evolution—the survival of the fittest.

The reactors continued to whine as he left the building, accumulating immense power for operational zero, thirty-three hours in the unimaginable future.

IX

Kay hadn't slept, nor had she bothered to undress, but she had lain on her bunk in the darkness, staring with wide restless eyes at the unseen ceiling. Thoughts tumbled incoherently through her mind, and fugitive images came and went in illogical sequence, but she made no effort to marshal them. It was as if she and her mind were two separate entities, as if she were watching the random functioning of a numbed and undirected brain through a thick glass observation window. When Farrant tapped gently at the door she was neither surprised nor curious; it was just another event in a long train of meaningless events.

She put on the light and opened the door. Farrant, looking stiff and extremely solemn, came in. She allowed herself to be kissed, but it was a formula with no emotional content. Then he switched off the light.

"Better to talk in the dark," he said.

She retreated from him, and he guessed she was sitting on the bunk. He remained standing, touching the steel shape of the revolver in his pocket.

" Kay," he said quietly, " we've got to come to terms with something we don't understand. The first two killings might have had some kind of ordinary human motivation, but that's no longer possible."

" You mean—there's been another . . . ?"

" Strang. While I was on the way back from the radio cabin someone knocked a sizeable cavity in the back of his skull."

He told her the full story of the sabotaged radio equipment, his telephone conversation with Strang, the implied threat, his own return to the billet to pick up the revolver, and the final discovery of Strang's body. She remained silent for a long time when he had finished, then said :

" Russ—where did you get a revolver from ?"

He had to stop and think before he could remember. " It's George Earl's," he explained. " I meant to return it today, but, of course, I couldn't find him."

" But how did you come to have Earl's gun, Russ ?"

" I'm not sure. I think he left it in the jeep when we came down from the hill last night. It probably slipped from his pocket."

" You don't sound very certain about it."

" As a matter of fact I'm not. But I was tired at the time, and I probably didn't pay much attention to what was happening."

He took two cigarettes from a packet, went over to the bunk, and using the flame of the lighter, put one between her lips. They lit up together.

" Russ," she said hesitantly, " you've got yourself deeply involved in this business, haven't you ? I mean, more so than anyone else . . . "

" What exactly do you mean, Kay ?"

" First there's Earl. You go off on a trip with him, and no one has seen him since, but you've got his gun. Then Doc Youd. You were the last person to see him alive, just before he was killed. Now Guy Strang—yet you talked to him on the internal phone a few minutes earlier and you were the one to find the body. And the business of sabotage—the radio cabin was your department, anyway, and you have the key to the door."

" Strang had the duplicate key."

" No matter, Russ. Can't you see the pattern that's building up."

" No, I can't," he said firmly.

" It's an ugly pattern, Russ. It makes you look . . ." She broke off abruptly. " Don't misunderstand me, darling. I'm not trying to prove anything and I know that everything you've told me is true. It's just that . . . "

" It's just that any one-eyed moron could see that Russell Farrant must clearly be the homicidal maniac," he interrupted brusquely.

" I didn't mean it that way, Russ. You know I didn't."

" Well, thanks," he remarked with irony. " For a moment you had me worried." Then, relenting : " You're dead right, anyway. I am involved in the worst possible way, but it doesn't really matter. The issue has become clear cut—the two of us against the rest."

" You mean both MacClennon *and* Hoevler ?"

" And Earl too, if he's still around. Only one of them is the killer, but we don't know which one, and we can't afford to take chances."

" But, come tomorrow, what can we do anyway ?"

" First things first, Kay. We have to stay together from now on. The two of us combined stand a better chance than either alone—and we have the gun between us. You ever used a gun ?"

" No."

" You'll soon learn. Next thing is to have speech with MacClennon and Hoevler, if only to decide what's to be done about the count-down, and about contacting control headquarters on the carrier."

" And then . . . ? "

" To find George Earl."

" But how ? "

He took time off to consider that for a while. How, indeed ? No point in exploring the hill ; it was a vast area and there wasn't time. If Earl was to be tracked down there would have to be clues here and now, in the domestic camp.

He said : " The way I see it, Kay, the whole business started with that strange trace on the radar screen. That was why Earl went up the hill in the first place, and why I went with him. We never did find anything, and we worked out the theory about the ship. I took my camera, but I can't remember if I used it."

An irrelevant memory stirred in his subconscious. " On the other hand, when I was checking through the exposed film packs a few hours ago I came across some shots I hadn't logged and couldn't recall. Maybe four or five. Do you suppose I could have taken some pictures on the hill ?"

" You ought to know, Russ."

" Well, I don't know."

" Can't you find out ?"

" Kay, I haven't got the facilities for processing colour film —at least, not in a big way. Just a test kit for checking colour response on film batches. They deteriorate fast in this climate."

Her hand touched his in the darkness. " It wouldn't have to be in a big way, Russ. Four or five, you said."

He laughed drily. " I'm not even sure I'd know how to go about it. I haven't processed trichrome material in years."

" Isn't it worth a try ?"

" Sure. A try. A couple of hours wasted, and the colours all wrong. You ever seen badly processed colour film, Kay ?"

She squeezed his hand. " Russ, you're making excuses, as if you don't want to develop that film. You can't remember taking any shots on the hill, but you must have done. That doesn't make sense, Russ. Perhaps you have a subconscious memory you're trying to suppress, and perhaps you just don't want to process those pictures because deep in your mind you know what's on them . . . "

Resentment ignited suddenly in his mind. " For God's sake, Kay, stop making veiled accusations. You imagine maybe I killed Earl then took pictures of his dead body ?"

" I didn't say that, Russ."

He stood up angrily, throwing the cigarette stub to the floor and grinding it under his shoe, then turned to the dark shape that was Kay. " Whose side are you on ?" he demanded, then without waiting for a reply : " Maybe you'd rather join Hoevler and MacClennon. Maybe you'd . . . "

" Russ, listen to me," she ordered incisively.

He stood tensed and silent. She came over to him and gently took his arm. " I'm on your side—you know damn well I am. Believe me, I'm only trying to help."

" All right," he said sullenly. " So why don't you help ?"

"Because—because there's nothing I can do—not personally. The responsibility is all yours, darling. It's just that I think those pictures may be important."

" Why should they be ?"

" Because . . . you can't even remember taking them. You don't forget things like that, especially when it's part of your job."

He put his arms round her and drew her towards him. The tension had gone and weary relaxation had taken its place. " Kay," he murmured, " I'm sorry I got high and wild. It was almost as if something had taken possession of my mind for a moment."

She kissed him lightly. " It's been a bad day for all of us."

" I'll process those negatives in the morning—first thing. Then we'll talk with the other two. Meanwhile . . . "

" Meanwhile ? "

" You try to get some sleep. I'll keep guard."

Her voice was a quiet whisper close to his ear. " Aren't you exaggerating the danger, darling ? Couldn't we both try to get some sleep ?"

" For a scientist you're not being very scientific, Kay."

He felt her cheek brush against his. " There's an awful lot of science in the human emotions, Russ, or didn't you know ?"

" No, I didn't, and one day I'll take time out to learn. But right now we're dealing with a different kind of science, honey —the science of ruthless murder. You sleep, I'll keep watch."

" All right," she said, and there was a nuance of satisfaction in her voice. She withdrew from him. " Goodnight, Russ."

He laughed briefly. " Good morning, Kay."

Dawn was already gleaming pallidly through the lattice blind across the window.

The remainder of the night passed uneventfully. Kay did, in fact, fall asleep but soon after the sun had begun to establish itself in the sky Farrant woke her, and they went over to his own quarters. With the birth of a new day the tiredness that had troubled him evaporated, and he was anxious to make the best possible use of his time. From a wooden case beneath the bunk he produced an assortment of photographic equipment—a rectangular developing tank, a polythene wrapped package of processing chemicals, a thermometer, a daylight loading bag, and other sundries. He produced the undeveloped and unidentified film sheets from his file and attached them to the chrome-surfaced clips. Kay accompanied him to the canteen for a supply of water which he carried in a borrowed

bucket. The camp was desolate and deserted ; presumably the other two men were busily making up for their lack of sleep during the night, and one of them could well be fighting his conscience.

The processing was a long and tedious job. It was necessary first to insert the film into the tank with the air of the daylight loading bag, and then pour in the prepared solution which would bring up the conventional silver image. After washing, the film had to be exposed to daylight while still wet, then reinserted in the tank and subjected to a second development. This time complex chemicals replaced the silver by coloured dyes, and in due course, after fixing, the wet transparencies were ready. Farrant wiped off the surplus moisture and held them up to the light against the window.

The colour rendering was good—too good. The green tones were, perhaps, too heavy, and because of that the reds looked darker. Four of the shots were of the same subject, and the fifth showed a dark brown crater in wild ground. The figure in the four shots was plainly horrific, but Farrant was aware of no immediate reaction. The face had been split into two halves, and the dark crimson blood obliterated the features, but certain details made identification relatively simple. The mystery of George Earl had been solved beyond all possible doubt, but in its place was an even greater mystery —one which Farrant felt was focussed disconcertingly upon himself.

Kay looked at the transparencies, but did not study them, and when he glanced covertly at her he noticed the sudden pallor of her complexion. He rigged up a temporary string line from bunk to window and clipped the films to it for drying. Then he lit a cigarette and looked at her, but she avoided his eyes.

" What happens now ?" he asked impersonally.

" I don't know, Russ," she said tonelessly.

" You think I did it ?"

She turned to him abruptly, and he was surprised at the savage fire in her eyes.

" Russ, *you* took those pictures. Don't you *remember* ?"

He shook his head.

" You and Earl climbed the hill—just the two of you. Can't you see—you *must* have killed him !"

" It certainly looks that way," he said quietly. " No-one else could have done it, and even the most suicidally minded

character couldn't have done—that—to himself. On the other hand, Kay—why should I kill George Earl? What possible motive could there be?"

Her expression was remote and strange, and he felt as if she had gone from him forever, as if he were looking at an empty shell which she had vacated.

"It started with Earl," she said mechanically. "You killed Earl. And then Hilde Bartok, and Doc Youd, and Guy Strang—*and you didn't even know you were doing it*!"

A pause. Stark eyes. Taut lips.

"*You still don't know, do you, Russ*?"

He said nothing, for there seemed to be nothing to say.

"Why?" she demanded. "*Why*?"

He turned away from her and glanced at the hanging transparencies, seeing them obscurely against the reflected daylight from the asbestos wall. Evidence, he thought—I've signed my own death warrant. And for some reason the phrase seemed familiar. It brought back a transient image of Earl, lying dead and mutilated, but the reality, not the transparency, and he recognised the image as a memory—the first that had come to him since that ominous journey across the hill.

On the other hand, he thought, if I did kill Earl, why should I sign my own death warrant by taking photographs? No murderer would be so foolish. And what of the amnesia? That was difficult to explain, so much so that he felt it might prove to be the key to the whole problem.

"Kay," he said in a level tone of voice, "let's be rational."

She closed her eyes for a moment, as if concentrating her attention. "I'm trying to be rational, Russ."

"Okay. So what have we got in the way of hard fact? These colour pictures prove two things—that Earl is dead, and that I took photographs of him after his death. They don't prove anything more."

"No," she agreed apathetically. "The evidence is still circumstantial."

"About Earl I know nothing. I have no memory whatever. If I killed him, then why should I take photographs?"

"That makes sense of a kind," she conceded.

"So far as the others are concerned, I had nothing to do with their deaths. There's no question of not remembering. I can account for every instant of my time, but, unfortunately, I can't produce witnesses. Seems to me that MacClennon and Hoevler could very well be in the same boat."

" Why not include me, too, Russ ?"

" Why not, indeed ? Except that the odds are longer. I wouldn't class violent murder in your line, Kay."

She smiled wanly. " A few hours ago I'd have said the same about you."

" Let's stick to fact," he insisted. " We have photographs, and we have a collection of dead bodies. Slowly we're beginning to amass evidence, even though, right now, it doesn't have any direction. There are four of us left, and one of us is the guilty party. What intrigues me is the suggestion of pattern in the way things have happened—of intelligent planning."

" In what way, Russ ?"

" Well, first Earl, the security dog, is despatched—the guy most likely to intervene in further assassination. Then subsequent deaths are arranged in such a way as to suggest motives that, in fact, are irrelevant—the business of Hilde's alleged pregnancy, and the suggestion of a romantic triangle intrigue—and now a kind of subtle frame-up which looks like marking me as the killer, on purely circumstantial grounds. Red herrings to conceal the true purpose . . . "

" What true purpose ?"

" I'm thinking back to what Hoevler said. Sabotage, for instance, and perhaps an attempt to destroy the entire Agnes team, for political reasons."

She came nearer to him and said : " Give me a cigarette, Russ." He produced a packet and they both lit up. " Don't you think," she went on, " that Hoevler's theory is rather far-fetched. You know Hoevler."

He thought about it for a while. " It just seems significant to me that Hoevler should have been the first to mention it. He's the one with the big act. How many of us really know him — as he is deep down — beneath the cynicism and profanity ?"

" Russ, I've a confession to make," she said, eyeing him steadily. " I've always had a fond affection for Joe Hoevler. I don't know why. He's no beauty, and that ginger beard of his is god-awful, and he's sarcastic like nitric acid at times, but I've always felt that at heart he's rather naive, sensitive—a little boy who never grew up."

He pouted reflectively. " Could be the little boy has adult tastes when it comes to murder. All the same, I feel inclined

to agree with you. Hoevler has a certain intuition. I've always relied on his judgment, provided you read between the gag lines. I can't say the same for MacClennon."

"What would either of them say for you, come to the point?"

He shrugged. "How the hell should I know? I'm the outsider—the non-scientist—hardly a member of the team at all. They probably think I'm the killer, and all the evidence seems to point that way. Seems to me . . ."

"Well, Russ?"

He glanced at his wrist-watch. "It's almost nine-thirty. Time we had some breakfast. The chances are we'll meet the other two in the canteen, and maybe we can hold a council of war. One thing, Kay—please say nothing about the photographs for now."

"Why not?"

"Because—well, I want us all to be on an equal footing, then we may be able to get somewhere. I don't want to be at the wrong end of an interrogation—not just yet. It would only waste time, Kay, and we haven't got time to waste. If Earl is mentioned, leave me to do the talking."

"All right, Russ."

"You see, honey—whatever may be the truth about Earl's death, either MacClennon or Hoevler is responsible for the others. We don't want the dice loaded against us . . ."

She sighed. "I hope you're right, darling."

X

Both Hoevler and MacClennon were in the canteen, sharing a table, radiating weary solemnity. They looked up briefly as Kay and Farrant came in, then concentrated on their sausages and beans. Kay volunteered to attend to the cooking, leaving Farrant free to join the others. He pushed one of the small tables up to the one in use, and sat down facing Hoevler.

"Morning," Hoevler said in sardonic greeting, waving a fragment of sausage speared on his fork. "You still alive?"

"Apparently," Farrant replied. "Are you?"

"If I'm not then this bloody sausage is performing miracles. What's new from the homicide front?"

Watching the two of them carefully, Farrant said: "Strang."

For all the reaction he might have said Mickey Mouse. Both men continued eating, ignoring him, but presently Hoevler raised his eyes. They were quite expressionless.

" Well, you informative bastard. Tell us about it."

" Nothing much to tell, Joe. After I went over to the radio cabin last night, or, rather, early this morning, and after you and the others had returned to their quarters, someone beat Strang's skull into something like a sponge."

" You found the body ?" MacClennon asked.

Farrant thought the question a little ominous, though there was nothing in his voice to suggest it.

" Yes," he replied.

" So—give or take on George Earl, we're four to five."

" Earl is dead too. I checked up and was able to confirm it."

Hoevler put down his knife and fork and regarded Farrant with wide, curious eyes. " Clever stuff, Russ. How did you manage that ?"

" I'll explain the clever stuff later, Joe. Right now, you can take my word for it."

" Dandy. Two more cadavers to add to the score. Where do you figure this is going to end, Russ ?"

" I thought we might talk about it—as soon as we've finished eating."

MacClennon said tersely : " Did you contact control headquarters ?"

Farrant shook his head. " Someone got in first and wrecked the radio equipment in the cabin."

MacClennon and Hoevler exchanged glances, somewhat disconcertingly, Farrant thought. He went on : " The position is that we're completely isolated from control, with no possibility whatever of establishing contact—until they come to us after operational zero—that is, if there ever is an operational zero."

" I've been thinking about that," Hoevler said calmly. " In a sense we've been lucky. We've still got enough of a team to carry on with the count-down. Mac here can take care of the reactor. I'll look after the rocket and the anti-grav screens, and Kay can handle the radar monitoring. And you, Russ . . . "

" And me," Farrant prompted.

" Well, now—what can *you* do ?"

Farrant didn't like the question, and for a reason he couldn't define he didn't like Hoevler's attitude ; at the same time he had no definite grounds for objection. Hoevler was unpredictable at the best of times, and invariably his bark was worse than his bite. You had to take the rough with the smooth.

" What would you want me to do ?" he enquired.

" I've got a theory or two buzzing in my mind," Hoevler said. " One is the simple maxim about the Devil finding work for idle hands."

" I see. You figure that if we keep busy there won't be any more killings."

Hoevler smiled grimly through his beard. " It's zero minus twenty-six. If we could all keep frantically busy for the next twenty-six hours it might work out that way, Russ."

" I don't see why," Farrant said. " Yesterday you talked about sabotage and assassination. If one of us has that kind of assignment—even on a subconscious brainwashed level—he wouldn't be likely to abandon it, would he ?"

" Or she ?"

Farrant returned the steady coldness of the other man's eyes. " I think we can leave Kay out of it."

" Can we, Russ ? Let's ask her, shall we ?"

Kay was bringing a tray over to the table : two plates of sausages and beans, with coffee, Farrant noted. She served the breakfast, put the empty tray on a nearby table, then sat down.

" We've been talking about you, Kay," Hoevler said without preamble. " I say one of us four has bloodstained hands, but Russ thinks we should include you out, as they say."

She looked mildly surprised but said nothing.

" Charm and beauty aside," Hoevler went on gallantly, " the point is that we have to include you, even if only on statistical grounds. Damn silly if you knocked all three of us men off while we were busy checking up on each other."

" Yes—damn silly," she agreed.

The conversation faded for a while as all four occupied themselves with the business of eating. Hoevler evidently saw no point in pursuing the conversation at the expense of nourishment. Not until they were drinking coffee and smoking did he speak again.

" Russ has brought us up to date on the events of the night," he said. " We don't know who killed Strang or Hilde or Earl, or Doc Youd. They could have killed each other—with one exception. The last to die was Strang, and one of us sitting here at this table must have murdered him. Agreed ?"

" Agreed," Farrant murmured. MacClennon and Kay nodded mutely.

Hoevler continued. " Well, it wasn't me, and Mac will swear that it wasn't him. So it must have been you, Russ, or Kay."

Farrant couldn't restrain a cynical twisting of his lips that might have been a stillborn grin. " It wasn't me, either, Joe. And it wasn't Kay."

" Exactly," Hoevler said affably, then sipped his coffee. " That's my point, Russ. We could waste a helluva lot of time trying to hang a murder rap on one of us, and it wouldn't stick. So let's forget it."

Farrant, glancing round the table, noted the narrowness of MacClennon's eyes, and the air of restrained bewilderment in Kay's features. Kay's reaction mirrored his own, he decided. Hoevler was up to something, but so far it was a secret between Hoevler himself and whatever deity he subscribed to.

" I don't get you, Joe," Farrant remarked.

Hoevler shrugged disarmingly. " Simple enough. We agree to stop playing detective. Instead we concentrate like mad on the count-down procedure. More important, we try to advance the operational zero—bring it forward by three or four hours."

" I still don't get you," Farrant said.

" Look, Russ—if I knew how to put it into words of one syllable I would . . . "

Kay said : " What Joe means is to shorten the count-down, so that we launch the rocket several hours ahead of schedule."

" Okay," Farrant conceded, still puzzled. " And what will that achieve ?"

" It will at least achieve the launching, if all goes well," said Hoevler.

Farrant shook his head in perplexity. " But does that matter now ?"

" It might matter a great deal. There can be no further development work on the Agnes project until the thing is test fired. If the test is successful then others can pick up from

there, and take it forward, but right now the future of the entire project rests in our hands. If we fail, then sooner or later there will be another test, and if that fails, another. The important thing is that there has to be a *first* operational test."

" Reasonable," Farrant admitted.

" All right, Russ," Hoevler went on eagerly. " This is that first test. If we don't carry it out, then another team will have a try at some future date, and if they don't . . . well, so it goes on, until sooner or later the test firing is made. At that point mankind has opened up a new route into the unknown. He has acquired the power to twist space and time into new shapes."

" I thought you were the professional sceptic, Joe."

" Sceptical, but loyal, Russ. And with each new murder I become less sceptical."

" Well," said Farrant, drawing deeply on his cigarette, "all this is very fine and noble, but I still don't get it."

Hoevler sighed impatiently. " Of course you don't, you silly idiot. Mac and I took three hours last night working this out. D'you expect me to explain it in three minutes flat ?"

Farrant spread out his hands in a pacifying gesture. "Okay, okay . . . "

Hoevler said, slowly and deliberately : " Someone—or something—is trying to stop this test—is trying to destroy every man and woman engaged on it. The same someone—or something—will interfere with every future test. Someone —or something—is most anxious to prevent mankind from learning the secret of anti-gravity. That's why we have to succeed. Does that make sense ?"

" Half sense."

" Fine. Let's settle for half sense. Mac thinks he can speed up the reactor, maybe cut four hours from the build-up time. That's going to mean intensive work for all of us—at least for Mac, Kay and myself. The busier we are, the less likely any one of us is to indulge in murder, and we can reinforce that by insisting on complete segregation."

" I understand," Kay said abruptly. " Mac stays in the reactor block, Joe stays at the launching pad, and I stay in the radar and computer room."

" Exactly," Hoevler stated. " We stay put, and we communicate by phone, and we don't move out—until after zero."

" What about food ?"

" We take rations with us."

" And sleep ?"

" We don't sleep. There won't be time anyway."

Kay glanced pensively at Farrant. " And what about Russ ?"

Hoevler's eyes were bright, almost glistening with an indefinable visionary quality. " Ah, Russ," he remarked. " I'm afraid Russ is going to be a problem. While the three scientist members of the group remain busy, and stay put on their jobs, there can be no further killings. But what are we going to do about Russ, who has nothing to do ?"

" I have my photographic assignment," Farrant pointed out.

" A convenient roving commission. It won't do, Russ. You have to be segregated, or . . . "

" Or what ?"

Hoevler glanced round the table, at MacClennon, impassive, with stony eyes, at Kay, uneasy and apprehensive, and finally at Farrant, frowning. " Mac and I talked it over. We think you ought to die, Russ."

" No !" Kay gasped suddenly.

Hoevler waved a restraining hand. " We're being objective, Kay. We mustn't think of ourselves any more—we must think of the project. I'll tell you something. Everything points to Russ as the killer—right from first to last. I can't prove it—none of us can—but we can read the signs. Even if we should prove to be wrong, we can't afford to take chances. Russ has to be eliminated."

" That might not be so easy," Farrant said calmly. "And your scheme isn't so foolproof, anyway. While you're all busy segregating yourselves, any one of you could sneak up on the others to commit a little quiet violence."

" Except for one thing, Russ," Hoevler said intently. " If our minds are fully occupied, then the chances of anything gaining possession are less likely."

" How do you mean—*gaining possession* . . . ?"

" You ought to know, Russ," said Hoevler insistently. " Something takes over your mind and you don't remember a thing about it, and that something is out to kill—each and every one of us—step by step . . . "

" Assuming you know what you're talking about, Joe—what might that *something* be ?"

Strangeness gleamed hollowly in Hoevler's green eyes. " Something that wouldn't like to see homo sapiens learn how to control gravitational fields—or travel in space ships that could reach the speed of light—or reach the stars—or *travel faster than light*. How's your relativity, Russ ? You know what would happen if we managed to exceed the speed of light ?"

" I haven't the slightest idea," said Farrant quietly, studying the other man.

Hoevler smiled. " It's quite simple. At the speed of light a projectile will contract in the direction of its motion to—nothingness. Lorentz and Fitzgerald produced a formula for it. Mass becomes infinite. Acceleration falls to zero. The speed of light is a limiting velocity in space."

" Then . . . how can you possibly exceed it ?"

" You can't—not in space. But you can continue to push energy into the projectile. A shift takes place in the geodesic axis."

" Meaning . . . ? "

" You're no longer travelling through space, Russ. You're travelling through time."

Farrant remained silent for seconds. He glanced at Kay, but she was staring at Hoevler with studied absorption. MacClennon was inspecting his fingernails with a critical air.

Farrant said : " What in hell has all this relativity stuff to do with me ?"

" I thought you might know, Russ," said Hoevler. " At least, I thought something inside you might know."

Farrant slipped one hand into his jacket pocket and touched the cold metallic surface of the gun with his fingertips. The sensation was reassuring. Hoevler's mind was running on a crazy track, and that might produce crazy behaviour. He had to be ready for whatever might happen.

Kay said : " Joe, aren't you projecting rather too imaginatively. We ought to stick to facts, not theory."

Hoevler turned his hypnotic green eyes towards her. The mouth behind the ginger beard might have been smiling sardonically. He said : " This is one of those times, Kay, when fact and theory interlock. We're all in danger—every one of us—from each other. But more than anything we're in danger from Russ. He's odd man out—the non-scientist—the one with nothing to do. He's the most likely person

to kill the rest of us. In the long run he would be the one—the only one—who could be permitted to survive, because he knows virtually nothing about the Agnes technology. If the entire scientific team is to be destroyed, then Russ is the one who will do it, because he's not a member of the team. He's the outsider whose survival doesn't matter."

" Don't you think," said Farrant, " that if you kill me you will merely be carrying out the intentions of whatever it is that takes possession, as you put it ? After me there would be another victim—say, MacClennon—then Kay—leaving Joe Hoevler as sole survivor ?"

Hoevler shook his head slowly. " No, I don't think that."

Farrant looked at MacClennon. " How about you, Mac ? You always seemed a level-headed character."

MacClennon pursed his lips, as if reluctant to speak at all. " It's a bad business, Russ. Can't see much sense in anything, but obviously we can't let things drift. Seems to me Hoevler's plan might save the situation. With three of us minding our own business . . . well, what can go wrong ?"

" What indeed. So you think I ought to die, too ?"

MacClennon fidgeted uncomfortably on his chair. " We may be able to lock you up some place until after zero . . ."

Hoevler laughed tersely. " There isn't a hut on this island capable of holding any of us more than an hour."

" There's the explosives store."

" Fine," said Hoevler. " Make Russ a present of a couple of hundredweight of dynamite and gelignite. All he'd need to do would be to blow the lock off the door with a wad of gun cotton, and, brother . . ."

" How about you, Kay ?" asked Farrant, turning to the girl.

She regarded him steadily, with little hint of concern in her hazel eyes. " I'm not sure," she answered. " I think Joe is on to something, and I think it's a good idea to advance the count-down and to agree to complete segregation. But you're the unpredictable factor, Russ, and you could have killed the others. I told you that before."

Farrant allowed the ghost of a smile to add an ironic twist to his lips. " Is that the death sentence, too ?"

" I wouldn't like to say, Russ. Hoevler seems to have taken command. I'll fall in with whatever seems best for the majority."

" Thank you," said Hoevler, inclining his head in mock politeness. His manner became brisker. " At twelve o'clock

—that is, zero minus twenty-four—we're going to skip a few pages in the book of rules. We take the count-down as being at zero minus twenty. Later, when Mac has had a chance to check on the reactor, we may be able to lop off another couple of hours. The intention is to bring zero forward from noon tomorrow to eight a.m., or earlier. Understood ?"

MacClennon and Kay murmured their agreement.

" Between now and midday we have one or two jobs to do. For a start there's the disposal of the dead. We'll have to shift the food packs from the deep-freeze store and put the bodies in there. The authorities will need to see them, and we can get further food supplies after zero. MacClennon and I will attend to that."

" What do you want me to do ?" Kay asked.

" You could fix up some food packs, and make several flasks of coffee. We shan't be coming back to the canteen."

" All right, Joe." She stood up and left the table without glancing at Farrant.

Hoevler heaved himself out of his chair with a weary motion, and MacClennon did likewise. They came around the table and hovered over Farrant. Hoevler yawned and stretched, then grinned amiably.

" Russ," he said, " you must think I'm a gosh-awful ruthless bastard with a brain the size of a pea. We took you for a ride, though, and you ought to have seen your face !" He laughed and slapped his thigh. " Jeeze, I never got so much attention in all my life !"

Farrant pushed his chair away and stood back to get a more remote view of Hoevler's new tactics. He made no comment, but watched the other man carefully.

" Only got yourself to blame," Hoevler continued happily. " Just sitting there confessing that you had damn all to do and you might as well be dead. What the hell do they pay you for, hey ? Tell me that ?"

" You know the answer," Farrant said.

" All I can say is that I haven't seen much sign of it. Sure, you took a few pictures, but what have you been doing for the rest of the time ?"

" Indulging my passion for homicide, according to you."

Hoevler laughed again, rather harshly. " You take life too seriously, Russ. It's a game—a zaney game at that. A game

without rules. What d'you have to be so serious for ? Go get your cameras."

" Cameras ?" Farrant echoed blankly.

" You've got work to do. There's bound to be an inquiry into the deaths of Strang and the others and we'd better put as much evidence on record as possible."

" You want me to take photographs of the bodies ?"

" What else ? Take as many pictures as you can, from all angles, just like they do in crime-does-not-pay movies. When you've finished we'll dump the bodies in the fridge. Okay ?"

" Okay," said Farrant doubtfully. He remained standing, eyeing Hoevler with speculative caution. The other man returned his stare for a moment then said : " Well, get cracking, Russ. We can't stand here all bloody day !"

Farrant walked out into the sunglare. " Crazy," he murmured to himself. " All crazy—including me !"

XI

Back in his billet Farrant busied himself with the cameras, carrying out Hoevler's instructions like an automaton. He selected the 16-millimetre cine camera with the triple-lens turret and loaded it with a fresh magazine of colour film, then for good measure included a standard quarter-plate press camera with electronic flash, and a 35-millimetre miniature with a fast lens. He placed the equipment in a strong canvas hold-all which he could sling from his shoulder, and realised that he was ready to begin the gruesome task of photographing the dead—the same kind of job that he had already done on the remains of George Earl. But there was no immediate hurry. He lit a cigarette and casually examined the now dry colour transparencies hanging from the string which he had fastened between bunk and window.

Earlier, in Kay's presence, he had been too disturbed to inspect the photographs in great detail ; now, more leisurely in the knowledge that he was unobserved, he subjected them to intensive scrutiny. It was possible to see what was unmistakably the murder weapon—a long flat-bladed spade, glistening crimson with wet blood. Earl had evidently been struck with considerable force, and death must have been just about as instantaneous as death can be. From the four colour pictures taken from different viewpoints, a police pathologist

would no doubt be able to reconstruct the crime in great detail. But the fifth photograph was a puzzle.

In appearance it could have been a picture of a shallow grave, except that the shape was wrong. The ground had been dug into a cavity or crater some four feet across, so far as he could judge in relation to adjoining vegetation, and apart from loose lumps of brown soil there was nothing in the hole. Not quite accurate, he realised abruptly. There *was* something in the hole—something that had reflected the intense light of the flash at the instant the photograph had been taken. In the transparency it was a mere strip of silvery white against the tumbled brown of the soil. It might have been the blade of a knife, or a shard of bright metal.

Curious, he thought, raking his blank mind for any memory, however remote, that might illuminate the dark mystery of what had happened on the hill that night. He found a magnifying glass and inspected the metallic object in more detail. The shape was roughly oval, and the edge indeterminate, as if more of the thing were concealed beneath the surrounding soil. If that were so, then it couldn't be a knife, in which case . . .?

"What the hell?" he murmured softly, his curiosity fully aroused.

A conviction began to crystallise in his mind—a conviction that this silver streak was significant, that it was in part responsible for the fantastic events of the past day. And supporting the conviction was an elusive half-memory that had to do with Earl, and the trees, and the undergrowth, and the cavity in the ground, and a metallic object . . . But the memory was no more definite than that, and in the end he dismissed it as unhelpful.

He removed the dry transparencies from the clips and slipped them into the transparent envelopes of his filing system No sooner had he finished this than the door behind him crashed open. He swung round and found himself face to face with Hoevler, and, to the rear, MacClennon.

There was an instant of suspended animation. Hoevler was tensed and half crouched, like a wild animal about to pounce, and in one clenched fist he held a bar of steel—one of the transverse members of the trellis radar towers. MacClennon was similarly armed, and like Hoevler was balancing his sanity on the knife edge of his nerves.

Farrant was about to challenge the two men when Hoevler threw himself forward, and the steel bar swung through the air in a glittering arc. Instinctively he flung himself sideways and grabbed for the gun in his pocket, but before he had time to reach the trigger MacClennon was upon him. He collapsed across the bunk. Steel flashed again. His head exploded in an incandescent stab of pain, and something warm and wet trickled across his brow and into his eyes.

He lunged forward, crouching low, butting MacClennon below the ribs. The room turned upside down. A millionth of a second later he had kicked Hoevler's legs from under him. Time hovered while he dragged the gun from his pocket.

Then Hoevler was on him again in a flurry of fists and feet, ruthless and brutal. Farrant gasped as something solid impacted his abdomen. Steel slashed at his wrist like a guillotine, but he managed to retain his grip on the gun, rolling over into a corner of the room near the door. They were both above him now, white-faced and wide-eyed, and he sensed the sudden intake of breath as they prepared for the kill.

He fired. The explosion detonated starkly in the room, shaking the walls in brief frantic concussion. The bullet smacked cleanly through the asbestos wall, leaving a bright peephole of light. Hoevler and MacClennon, still poised and motionless, were stricken with paralysis.

Holding the gun steadily, despite the pain in his wrist, Farrant struggled to his feet. " Back," he ordered. " Back."

Hoevler and MacClennon retreated to the bunk.

" Sit down," said Farrant. They sat down.

He stood there for a while, breathing deeply, recovering the balance of his mind. The two men were staring sullenly at the gun, acknowledging its lethal superiority, but keeping one eye on the chance to break out.

" Earl's gun," Hoevler said acidly. " Now we know."

" Now you know," Farrant confirmed. " You weren't so smart, Joe. Nor you, Mac. I'm not so easy to kill."

No response—just an ominous tensing of muscles.

" You had me fooled, Joe," Farrant went on. " That double talk of yours. I thought maybe you were just acting like your usual crazy self—double-thinking and twisting your words. But you really meant business. You meant to kill me."

Hoevler's eyes were cold and baleful.

Farrant weighed the gun in his hand. " I could kill both of you here and now. It would solve a lot of problems. One bullet each, between the eyes. You deserve no better."

" Russ," said Hoevler. " It was all a mistake. You've got to admit we had reason enough, but I'll admit we were wrong."

" Well, now, Joe—that's real nice of you."

" Hell, we've all been under strain," Hoevler went on eagerly. " The wonder is that we've been able to think rationally at all. What say we have a conference to sort out the whole bloody business once and for all."

Farrant wiped his hand across his forehead and inspected the wash of blood with a faintly critical air. Somewhere behind his eyes a power hammer pounded his brain, but the pain was tolerable. He eyed the other man sourly.

" Bloody business is right, Joe. You had your turn, now it's mine. Only one thing stops me from killing the two of you. And that's Kay."

" Kay ?"

" Sure. If I had any sense I'd squeeze the trigger and have done with it, but I want to prove that I'm not the killer. If I were, neither of you would be alive now. I want Kay to realise that."

" You in love with her ?" Hoevler demanded, suddenly regaining much of his self-assurance.

" That's my business," Farrant stated.

" So what are you going to do ?"

Farrant waved the gun. " Get up."

The two men stood up.

" Outside."

They walked over to the door, and moved out into the sunlight. Farrant followed them, but remained in the doorway.

" Beat it," he ordered. " Carry on with your count-down, or whatever it was you'd planned. I've got a job to do on the hill. I'll be there all day, I imagine, and maybe most of the night as well. So you've got the complete segregation you wanted, Joe. Cherish it."

" All right, Russ. That sounds fair."

" But let me warn you—both of you. I don't know how long I shall be away. I don't know when I shall come back. But when I do I shall expect to find both of you on the job—in the reactor room and at the launching site. If you should be elsewhere then I may get very suspicious, and I may decide to shoot on sight. Remember that."

" I'll remember," Hoevler said smoothly, and MacClennon nodded his agreement.

" Then get mobile."

Slowly, almost reluctantly, the two men turned their backs on the gun and walked in the direction of the lagoon.

After Farrant had cleaned up the head wound—a three-inch lesion that needed stitching persisted in bleeding sluggishly—and had carried out rough and ready first-aid with sticking plaster, he went across to the canteen. Kay had gone, presumably to the radar building, and for a moment he debated whether he should go over there to talk to her. Better not, he thought. Her manner had been strange, and it seemed likely that her sympathies were, for the moment, with Hoevler and his confederate. In any case there was no time to waste ; a self-imposed task loomed ahead of him, and the sooner he got started, the better.

He collected a few cans of miscellaneous foods, plus a can opener, and set about making coffee, but abandoned it when he caught sight of a crate of canned beer. He took the whole crate and added a bottle of Scotch whisky. All these items he stacked outside the canteen.

Next he collected the jeep from the maintenance area near the stores, and drove over to his quarters, where he loaded the cameras—then on to the canteen to pick up the food and drink. Finally, lighting a cigarette, he set off along the rough uneven trail to the hill. The sun beat mercilessly down on the barren island, making the ground shake and tremble in the heat haze. Never mind, he thought. This is the final phase. Come what may, the end is in sight. What that end could possibly be he was quite unable to define.

It began with Earl, and it may very well end with Earl, he told himself, defying the headache that beat like a pump inside his skull. Earl, and that curious raw hollow in the ground with the glimpse of polished metal. Deep in his mind something resonated, and there was that strange feeling of *deja vu—I have been here before*. If I retrace the ground we covered it may come back, he thought. It may provide the key that will open the door to lost memories, and it may provide the solution to the entire fantastic Kaluiki problem.

For a while he thought about Hoevler—the curious, bearded, immature and ungainly Hoevler—and about the things Hoevler had said. Obscure stuff—relativity, taking

possession, the speed of light, and a vague allusion to travelling through time. Irrelevant stuff, on the surface, and yet he couldn't help feeling that Hoevler knew what he was talking about. Knew up to a point, but even Hoevler, exploring in his mind the projected fantasies of circumstance and probability, could not put into simple words the thing that obsessed him. Taking possession, for instance—what exactly did he mean by that? What was taking possession of whom? And for what purpose? What, in the event, was the full connection with the Agnes project?

Farrant continued to pursue the trend of his thoughts as the jeep ascended the hill. Let's start with the basic facts. Agnes means anti-gravity, and that means a new immense power that could carry mankind to the planets and to the stars. So far, so good. If we stick to axioms we can't go wrong. What next? Taking possession? Well, supposing that on some remote planet in some remote system, perhaps light-years away from our own little universe, a race of intelligent creatures knows about this new advance, and realises that mankind is about to spread throughout space. Supposing this alien race has a low opinion of human ethics, and does not welcome a human invasion of the universe. And supposing the aliens have a method by which they can interfere in human affairs—by which they can *take possession* of a human mind and control the actions of a human body. Supposing they wanted to prevent mankind from developing anti-gravity—to destroy the scientists responsible for the discovery . . .

Too many suppositions, he decided. There's a limit to coincidence, and all this conjecture about alien intelligence on some distant planet is simply coincidence stretched into a fine thread of improbability. It is unlikely that life exists outside this earth, apart from the possibility of primitive vegetation on Mars, and perhaps Venus. Even given an intelligent life form on some unsuspected temperate planet in the perceivable cosmos, how could they possibly know about Earth, let alone what was happening on Earth? And how could they possibly interfere with a human mind—the product of an evolution quite different from anything that could possibly obtain elsewhere? Hoevler was simply being imaginative in his quaint cynical way. Faced with the incomprehensible he had devised a theory, if you could call it that, to fit the unfittable facts, but the

theory was invalid. It was little more than science fiction, and somehow that seemed typical of the Hoevler mentality.

The explanation had to be mundane, had to concern living people and real forces, measurable forces, here and now on this planet. The supernormal was out. You had to start with the cold fact of the Agnes project, then try to figure out who would want to destroy it, and how they were, in fact, achieving their purpose. It was a problem in counter-espionage. Facile, perhaps, but more probable than things from out of space.

Near the summit of the hill, where the trail ended at the fringe of the miniature jungle, he stopped the jeep and got out. Here the bare ground was dappled with dark green clumps of needle grass, coalescing a few hundred yards further on into the coarse scrub that eventually merged with the undergrowth carpeting the summit of the hill beneath the sparse trees. In daylight the scene looked different, and he thought it might be difficult to pick up the trail of the other night. But somewhere in the wild ground in front of him was Earl's body, and a strange fragment of shining metal, and he had to find them both.

He left the supplies in the jeep, taking only the miniature camera, since it seemed unlikely that he would require cine facilities. Uncertainly he moved off towards the jungle, deciding to make a quick preliminary reconnaissance so that he could localise the area of search. The time, he noted, was just after eleven o'clock.

As he trudged on into the thickening undergrowth, perspiring freely in the heat and humidity, his mind explored a different hypothetical track, striving to invent a theory that might account for the two days of violent death. It could be, for instance, that the metallic object buried in the ground was a bomb of some kind, perhaps destined to destroy the Agnes reactor at its most vulnerable phase, just before zero. In that case one of the Kaluiki team knew of its existence. The choice was restricted enough : who, of the remaining four, would be most likely to be an indoctrinated saboteur—perhaps, as Hoevler himself had suggested, not even realising the truth ? Who but Hoevler, the man with the twisted mind. And he would undoubtedly try to prevent the discovery of the bomb by any casual wanderer, even to the extent of murder. Perhaps Hoevler had killed Earl, after all. Perhaps he had realised that even a carefully buried bomb could not be hidden from the all-

seeing eye of radar, and he had followed the Earl-Farrant expedition—but, in that case, why murder one and not the other?

We must have separated, Earl and I, he thought. Then maybe I heard a noise, the sound of a struggle, perhaps even a shot. When I got to the scene, Earl was already dead, and Hoevler had taken himself off as fast as he could. That was why I took those photographs of Earl's body, and the thing in the crater.

But why the amnesia? Why should my mind black out and erase every trace of memory? Unless . . . Shock, perhaps. Sudden, horrifying shock. It could happen that way.

Not to me, he decided. Hell, I ran into enough violent crime in my reporting days on the New York papers—homicide in all sizes and shapes, wrought by razors, ropes, pokers, guns, stilettos, automobiles and poison. I lost my squeamishness soon after I emerged from the chrysalis of adolescence, and I was never shocked into amnesia before. Conclusion—it can't be amnesia, not in the ordinary sense of the word.

Still, it could have been Hoevler—the same Hoevler who had since methodically proceeded to eliminate the Agnes team one by one. Or perhaps Hoevler and MacClennon together, co-operating in an exercise of systematically applied violence as had happened so recently in his own quarters. A sudden fear gripped his stomach with cold steel fingers—supposing they had decided to murder Kay, and supposing they were doing just that at this very moment? He suppressed the transient alarm with sour determination. Not Kay. There was no reason—and she was a woman. *But Hilde was a woman, too*, whispered a tiny malignant voice in the shadowy depths of his mind. *This has nothing to do with sex. This is formula killing, and Kay is part of the formula. Better get back before it's too late.*

Soon he told himself. One thing at a time. Kay is intelligent enough, and she'll be on her guard. She'll know how to take care of herself. Meanwhile I have a job to do . . .

He circled round among the trees, arguing with the inner voice that resonated in his mind, and in the course of time he came upon a fallen tree trunk, broken in the middle and crudely splintered as if by hard quick impact. Something began to spin quietly in his brain. This was familiar, and the very fact of familiarity indicated that memory was beginning to function.

Beyond the tree was an area of rough ground, loose and lumpy as if recently dug over, circular in shape and some four feet in diameter. Again the elusive sense of recognition, and now excitement began to quiver in his arteries. This was it. The search had ended sooner than he had anticipated. Beneath this broken ground was the bright metallic enigma—the thing that had produced the phantom radar trace—the thing that he had at one time blithely dismissed as the remains of a wrecked ship thrown up from the ocean bottom by some immense heaving of the Pacific bedrock. He began to laugh, but stopped immediately, disturbed by the jangling hint of hysteria in the tone of his voice. " Steady," he said aloud. " Steady, now."

A moment later, advancing on the circle of rough soil, he cursed himself for omitting to bring a spade. He hung the camera by its strap from the twisted branch of a small tree and eyed it angrily. Damn lot of use was that gadget when it came to a session of hard digging. No time to waste, though. The ground was loose enough to shift with his bare hands, and sooner or later he knew that he would strike cold glinting metal.

What he did not fully realise was that long before he reached bare metal he would discover the buried remains of George Earl.

XII

Farrant got back to the jeep at half-past four, tired, sick and dispirited. His white drill shirt and slacks were filthy with sweat and dirt, and his hands were scratched and bleeding, with dark soil ingrained in the skin and forced deep under the fingernails. He had forgotten to bring the camera back with him, but that did not seem to matter. It would still be there, hanging from the tree, when he returned, and anyway there was a growing conviction within him that he would not be taking any more photographs.

He opened the bottle of whisky and took a large gulp, spluttering momentarily as the pungent fluid scalded his throat and seized his breath, but he felt better, steadier. The thing to do now was to talk with someone he could trust, someone who could help to maintain the sanity of his mind and assist him in analysing the findings of his excavation. Time was growing

short : analysis had to produce understanding, and understanding give way to action.

He drank some more whisky, then climbed into the jeep and drove at speed down the hill track towards the operational site. But his mind was back in the jungle, still holding a frozen image of the mutilated thing that had been Earl, the thing that he had uncovered and dragged gently to one side, and still seeing in starkly etched outline the shape of the metallic cone embedded deeply below Earl's grave. The shining silver cone with curious antenna-like fins, and the strange elliptical base that seemed, in some indefinable manner, to defy normal perspective. All of his first reactions had been quite wrong: it wasn't a bomb, nor was it any kind of projectile that he had ever seen. It was admittedly smooth and rounded and elongated, but the roundness was in the wrong sense, and the streamlining of the thing seemed orientated in a quite alien and incomprehensible manner.

With the discovery of the thing had come disconnected fragments of memory : the voice of George Earl echoing remotely in his skull, and wraithlike images of Earl against the night background of the jungle. Earl angry and vindictive. Earl saying : *Coward—you were scared of this trip from the start . . .* And again : *Rusted hulk of a ship ! So damn rusty you can see your face in the chrome !* Earl laughing raucously, hysterically.

Then, more sinisterly : *Maybe I under-rated you, Russ. Maybe you knew all the time. Who are you working for ? What's your purpose ? Espionage or sabotage, or both ?*

The shaking finger on the trigger—the crashing explosion—the wild swing of the spade . . . It was all there in his mind, and it made him feel sick at heart.

It could be me, after all, he told himself in a black mood of depression. I killed Earl, then covered the cone-shaped thing up, and buried the body in the same hole. Maybe I killed the others, too. It no longer seems impossible. The amnesia could have been induced by post-hypnotic suggestion or some other gobbledygook technique of modern indoctrination. Maybe I've been conditioned to kill and forget. It could be so, but for one thing—why did I photograph Earl's body, and the crater ?

That could have been the act of a man desperately securing evidence against an obsessive compulsion—a man stubbornly

defying a superior force that had taken possession of his mind. Hoevler's theory, again. Supposing it had been that way? Supposing something inside that curiously shaped cylinder of metal had seized control of his brain and pulled the mental strings that had made him kill Earl, then compelled him to bury the body? In a brief moment of sanity he could have cast off the abberration just long enough to take the flash pictures, acting on blind instinct.

But if that were so, where was that alien controlling force now? Why had it permitted him to excavate with his bare hands, exposing the crime and the object, and so restoring vital patches of his erased memory? There seemed to be only one rational answer—that the force was not at home. It had gone visiting. It might, at this instant, be in possession of Hoevler, or MacClennon, or Kay.

And at that point, he thought, he had reached the limits of sanity. The truth was that his mind was rationalising furiously, trying to find an explanation, however fantastic, that would absolve him of the charge of murder. When you got down to facts, and in the long run only the facts would count, he had killed a man—maybe others, too. No wonder his reason seemed to be tottering on the brink of a grey abyss of instability.

At least he had the facts—too many facts—and perhaps they could be made to add up to an explanation within the bounds of human reason. More important, it might be possible to take some positive action to put an end to the step by step assassination of the Agnes team. But he still had to be wary, for the situation had not changed, though his knowledge of it had increased. There was still the potential threat of violence from Hoevler or MacClennon, or both.

Instead of driving the jeep into the operational site, he turned off towards the restricted area about half a mile south of the domestic camp where the stores and explosive huts were located. He parked the jeep behind the concrete blast wall where it could not be seen from the camp, then made his way slowly via a circuitous route around the side of the lagoon. It was not possible to remain concealed all the time, and towards the end of his journey, as he neared the operational buildings, he was obliged to advance in full view of the reactor block. On the other hand, there was no reason why MacClennon should bother to watch the approaches to the building. He would

almost certainly be fully occupied with the detail of the accelerated count-down.

He by-passed the reactor block and went towards the cluster of control buildings where the computors and radar gear were installed. The huts and the landscape were grey and monochrome in the hard white sunglare, and the site was deserted, and melancholy in its desolation, like a long abandoned and forgotten village that had been left to crumble into the dust of the wilderness in which it stood. Only the glitter of the steel rocket gantry silhouetted against the strip of luminous blue that was the distant Pacific lent an air of human purposiveness. Mankind was still in residence.

He entered the radar room silently, making less noise than the faint clicking of the computors, but it was empty. Apprehension began to chill his heart. He checked through the entire building, going systematically from room to room, then inspected the adjacent huts, but there was no sign of Kay, nor any indication of recent habitation.

He stood in the sun, perspiring freely but cold inside, staring at the landscape in suppressed anger, clenching and unclenching his fists, regretting the hours he had spent on the hill. During that long interval the matter of life and death could have been decided—once, twice . . .

Abruptly he made up his mind, and, seizing the revolver in his pocket, walked quickly towards the reactor block. With the feeling of positive action the sense of frustration evaporated swiftly. He knew now that he was going to gain mastery of the situation once and for all—if there was anything left to master. Scorning further caution he crashed his way through the double door and hurried into the reactor room.

MacClennon was not in the reactor room, nor was he in the annexe. Farrant, still gripping the gun in his pocket, began to sense the return of prowling frustration—more a certain sinister foreboding. It was as if the island itself had become a dead thing, as if in his absence all life had been stripped from it—but the man-made machines were still functioning. The reactor mechanism whined, and the floor beneath his feet vibrated with latent power, and the needles on the instruments crept gently across their calibrated dials. At any instant he expected to see MacClennon walk casually into the room smoking a cigarette, and yet, for a reason he could not define, he knew that was unlikely.

Above the throb and hum of machinery he became aware of a subtle rhythmic sound, a repeated blipping, like a watery heartbeat, but irregular. He looked around carefully, trying to ascertain the part of the room from which it came. After a time it occurred to him that it could have been a dripping tap, but, of course, there were no taps here, only the massive concrete and lead wall screening the reactors, and the massed banks of instruments on the control consoles.

He walked over to the reactor screen, noting that the dripping noise became louder, and peered through the small rectangular windows in turn, surveying the cold steel faces of the reactor banks. At the fourth window he stopped dead. A thin dark irregular line marked the reactor facing, a line that glistened in the light of the hanging fluorescents, and seemed to be moving within itself. The precise colour eluded him for a moment, but as he changed his position he observed that it was dark red.

The truth came to him in a minor shock wave. Blood was trickling down the face of the reactor, and at the same moment he remembered the steel catwalk poised high above the plant, behind the concrete wall, where he had taken pictures of the withdrawal of the damping bars during the boosting process. His stomach contracted involuntarily as he saw only too clearly the full significance of the rivulet of wet blood.

Suddenly weary he made his way towards the far end of the room where the spidery steel ladder rose steeply upwards towards the dark trellis of the slender catwalk where it hung in the gloom above the room lights. He ascended reluctantly, dragging his feet, not anxious to discover what lay up there in the space above the reactors. Step by step, beyond the level of the fluorescents, into the warmer, quieter air. The dripping sound became more distinct.

The shape half-way along the catwalk was huddled, white-coated, and from this distance curiously inhuman. Identification suddenly became a matter of grave urgency, though there was little doubt in his mind, and as he drew nearer his surmise was confirmed. With a sense of relief that seemed inconsistent with the more dominant reaction of horror gripping his senses, he saw that the figure was MacClennon, lying face down, his head hanging between the railings of the catwalk.

Farrant turned him over gently. The blood dripping down on to the reactor came from a number of stab wounds in the

chest and the throat. The weapon was still embedded in him, on the left side near the shoulder. Without touching it Farrant recognised it as one of the long ratchet screw-drivers he had seen in the workshops adjoining the launching pad, the kind of thing Hoevler frequently used in his routine work on the rocket mechanisms.

At all events the chase was over, and the realisation brought a sense of grim calmness. It was Hoevler, and it could have been Hoevler all the time, and the truth seemed logical enough. Hoevler, with his pink baby face under the ostentatious beard, with the cynical twist in his alert mind. The next step was inevitable : he had to find Kay before it was too late, and then he had to destroy Hoevler. And, taking it from there, both he and Kay could face up to the problem with a sense of security, even if facing up simply meant waiting until the helicopter arrived on the following day. But first things first . . .

Leaving MacClennon's body where it lay, he descended the ladder and carried out a final search of the reactor building. Then, warily, he returned to the control huts, but the radar room was still empty. He weighed up the possibilities, and it seemed likely that Kay had returned to the domestic camp where the safety factor might conceivably be higher ; in the canteen, for instance, there were sharp knives capable of acting as a deterrent even to one as single-minded as Hoevler ; or she may have locked herself in her quarters.

He went out into the sunglare again and his eye caught the glitter of the rocket gantry. Abruptly he changed his plan. First things first—but with a new order of priority. Slowly he walked across to the launching site, watching the gantry carefully for any sign of movement. Presently he was ascending in the elevator platform towards the open port in the projectile.

He stepped into the interior. Immediately voices came to his ears. Surprised, he identified them without difficulty—Kay was inside the projectile talking to Hoevler, and the conversation sounded quiet and friendly. He licked his lips with the tip of his tongue and strained to pick up the gist of the talk, but the voices were subdued, with a confusing reverberance in the hollow shell of the rocket, and he was unable to distinguish anything that made sense.

Leaning over on the dural platform he saw Hoevler and the girl on another platform some ten feet down. Hoevler was squatting on a rectangular equipment case while Kay, standing, leaned against an angled bulkhead partition. Both looked intent, with a hint of underlying anxiety which matched some dissonant quality in the tone of their voices.

To reach the platform Farrant realised that he would have to climb down the dural ladder, thus announcing his presence and leaving himself vulnerable to attack—perhaps with another screwdriver. Better, he thought, to test the enemy first. He called out :

" Hey, there !"

They looked up quickly. Farrant noted the caution and speculation in Hoevler's eyes—and in Kay's, too. Hoevler said something inaudible to the girl and she nodded. The implied liaison rang a remote alarm bell in Farrant's brain. Things seemed to be going a little awry, not quite as he had anticipated, and he was no longer so confident in his plan—but he still had the gun, and that was the ultimate key to whatever problem might arise.

" What do you want, Russ ?" Hoevler demanded.

" I'm coming down," Farrant said.

The brief descent on the dural ladder proved to be a major ordeal of nerves ; with his back to Hoevler and his hands and feet fully occupied on the rungs, every second brought the tense expectation of lethal violence. But his fears proved to be groundless. He reached the platform safely, and found the others in exactly the same positions—Hoevler still squatting and Kay leaning against the bulkhead.

" Made up your mind ?" asked Hoevler coldly.

" About what ?" said Farrant after a pause.

" Who you're going to kill next ? Or is it to be both of us ?"

Farrant sighed and glanced at Kay, but her eyes were unresponsive—and rather melancholy, he thought.

" Hoevler," he said flatly, " you killed MacClennon. You killed him with one of your screwdrivers. I wouldn't have found out if I hadn't chanced to see blood trickling down the reactor face."

" Don't talk such bloody rubbish !" Hoevler spat out angrily. " I've been here all day and Kay's been in the control block, as we arranged. Segregation, remember ? I phoned Mac a couple of hours back, got no reply, went over to the

reactor room, and there he was. Kay didn't do it and I didn't do it. So it must have been you, Russ."

"Not very convincing, Joe. There was nothing to stop you going over to the reactor block at any time. The segregation plan would make things easier—less chance of being disturbed."

"Even less chance for you. You taken a look at yourself recently? Maybe Mac rough-housed you before you were able to kill him. All those scratches on your hands . . ."

Farrant inspected his hands cursorily. "And all the dirt in the skin and under the nails . . . . You think I got that off Mac, too? Let's be sensible. If I'd wanted to kill Mac I'd have used the gun, and not a screwdriver."

"I figure you tried to," Hoevler said tartly. "But Mac was too quick for you. He knocked it from your hand, and maybe he tried to defend *himself* with a screwdriver, but you got it from him."

Farrant took the gun from his pocket, allowing it to dangle by the trigger-guard. His lips shaped a small sour grin. "Quite a facile character, aren't you, Joe? Always ready with the plausible talk. The guy who can explain anything and everything in words of one syllable, whether it's anti-gravity or murder. But this time your clever talk isn't going to explain anything." He looked at Kay, who was watching him pensively with tired eyes. "Kay," he said, "I spent the day on the hill, digging holes in the ground with my bare hands. I found Earl's body."

She nodded apathetically.

"And I found something else—right underneath where Earl was buried."

"This is going to be good," Hoevler interposed. "Ever smelled a red herring, Kay?"

Farrant ignored him. "Remember that mystery trace on the radar screen? The one Earl and I went out to check up on. We thought in the end that it might have been part of a wrecked ship, or something similar." A pause, while he slipped the gun back into his pocket. "Well, I found it, Kay. I uncovered part of it. The rest is buried deep in the topsoil just beyond the summit of the hill."

"What *is* it?" she asked.

"I'm damned if I know. It's a metallic object, roughly cone-shaped, and it made a crater about four feet across."

"A rocket of some kind?"

" That's what I thought at first, but now I don't think so. At least, it's not the kind of rocket I've ever seen. It has a distorted shape—kind of twisted in some strange way."

Hoevler leaned forward, suddenly interested. " Are you on the level, Russ—or is this just one of your get-out stories . . .?"

" I don't tell get-outs stories. I don't need to."

" Then you're seriously saying that there's a thing like a twisted rocket on the hill ?"

" Yes."

" Twisted—in what way ?"

" How the hell should I know ? It's not so much twisted as curved, but the curvature seems to go the wrong way."

Hoevler bounced to his feet with such agility that Farrant reached instinctively for the gun, but the other man grabbed his arm.

" Don't get aggressive, Russ, you homicidal bastard. Just stop killing for a while and let's talk. We might be getting somewhere after all."

Farrant released the gun and shook off the other man's restraining grip.

" You see," Hoevler went on, talking with increased animation, " I've been doing a deal of thinking to try to fit all the things that have happened into some kind of pattern. But I never could complete the pattern because one piece was missing. This may be it."

" You mean . . .?"

" I mean that the pattern called for some kind of outside agency—someone or something else on the island, outside our own team. That was impossible. Nothing could have arrived on the island without being observed—not even a rocket. The fleet radar chain would have picked it up almost before it was airborne. It had to be something which could arrive without being observed in transit. Not here one second, and here the next. Like that it would register as a new echo on the radar screen, but a stationary echo, and nobody could have seen it moving into position. It could remain unnoticed—nearly did, if it hadn't been for Kay's keen eyes."

" But how *did* it get here ?" Farrant asked.

Hoevler grinned widely beneath his beard. " How, indeed ? I'll tell you one thing—it didn't travel through space, Russ, the kind of space you and I know. Isn't that right, Kay ?"

He turned eagerly to the girl, who nodded thoughtfully.

" Yes—I think you're right, Joe."

" So . . ." Farrant prompted, feeling slightly exasperated.

Hoevler slapped his hands jovially on his legs. " So I'm not such a bloody fool as I look, and if you've been telling the truth then we've got this thing in the palm of our hands—that is—" —his manner became sober again—" if we can avoid killing each other for a few hours until we do what has to be done."

" Joe," said Farrant patiently, " you still haven't explained . . ."

" But I will, and very soon. Not here, though. Sitting on servomechs is too damned uncomfortable when you've got a backside like mine. Let's go over to the canteen and have a beer and a bite and do our talking in style. If we act quickly we can button the whole thing up once and for all . . ."

The others agreed, and so they left the rocket and walked around the lagoon towards the domestic camp.

To be continued

Checklist of NEW WORLDS

The newly-formed British Science Fiction Association will shortly be publishing *A History and Checklist of New Worlds* which will be of great interest to collectors of British science fiction magazines. Apart from details of the magazine in its formative years, the 40-page checklist will list the contents of issues 1 - 55 by story, author and issue (as well as artists) compiled by Londoner Brian Burgess.

Ready in a month or two priced 3/6d (2/6 to BSFA members) advance copies can be ordered direct from the BSFA Secretary, Eric Bentcliffe, 47 Alldis Street, Great Moor, Stockport, Cheshire. (*Please note—not through Nova Publications Ltd.*).

Dear Mr. Carnell,

A difference in style seems to be developing between science fiction writers from the USA and Great Britain. Some Americans tend to heavy verbosity while the English touch is lighter and the swing of attention more unexpected. The main advantage of the best USA writers is that they include men with a masterly command of conventional science and engineering, which can be applied automatically without restricting the freedom of imagination. English writers seem perhaps more generally alert, are developing quickly as competent writers, and learning to make the gaps in their knowledge less evident. One can scarcely expect them to have the background of several mature professional workers at once. Even so I wish they could !

The first requirement of science fiction for me is ideas, which should shine out clearly, even with mediocre writing. Attempts to make simple ideas into long stories weakens them. American trend to length may have been encouraged by the bonus system which *Astounding* seems to operate. Long stories get more votes from readers perhaps because the attention is held longer. Intelligent science fiction authors, therefore, write up their stories as long as they can, thus gaining initial pay, reader votes and additional bonus based on initial pay—what else can the authors be expected to do ? To reverse this trend I should like to see a bonus which rewarded terse quality in stories, first perhaps a bonus independent of length, then a voting factor to counteract the voting bias for length, and even perhaps a bonus which decreased with the length of story. (The voting factor might be obtained from statistics of voting assuming that total votes are greatest when stories are long. Failing this it might be useful, though drastic, to divide the total number of votes by the length of story).

Study of H. G. Wells shows some of the advantage of ideas and commonplace surroundings in the writing of science

fiction for wide circulation. It seems that in ordinary surroundings the contrast of original ideas will be greatest, but if the setting is very strange or remote then uncommon ideas will be accepted as normal, and only the earthly commonplace will be exceptional and startling.

One single story does not seem to be enough to impress the public with full value of an idea and a setting—a series of stories has a much greater effect than an equal number of different stories which are not related. The " Sherlock Holmes " series in particular seems to have caught the public fancy, because of repetition of characters, as no other series has done, yet individually the stories are often inferior to others which are single and unknown.

Although there have been several attempts to write a series of science fiction stories, I don't think many have really succeeded. A notable exception is Isaac Asimov, with his " Robotics," " Foundation," etc. I also have memories of the flamboyant " Ole Doc Methuselah " series, which I think has much to recommend it, though the style seems now in disgrace. Also I am not forgetting the recent " Troon " series, and your public enthusiasm for them, but I would have preferred them in a series of brief incidents of a thousand words or so. They were written in John Wyndham's " general public " style, which is not what I expect in a specialist science fiction magazine. The ideas were not worked out with enough precision of detail and too much wordage was given to trivial conversation.

As a contrast I should like to say how much I enjoy the style of A. C. Clarke, which on its own seems to have won quite a lot of appreciation. *The City and the Stars* for example is so well and tersely written, with a wide imaginative background as well as human values, that I feel that it will gain in reputation with time.

For another contrast there are the well-written witty stories of Eric Frank Russell, which I usually enjoy, though some recent ones have little in common with science fiction except the name of the author. Given ordinary settings, I wonder if they would not pass as good profitable stories on the " general " market, since the quality of the writing is well above average? But I prefer pure science fiction in science fiction magazines, which means ideas, with consequences worked out as clearly as possible. (Wells again). From the ideas themselves can come all the excitement, wonder, amuse-

ment, or other emotions which people may have ; provided that the ideas are simple and good they do not need fancy dressing—though they may take some presenting.

W. G. Ealy,
London N.W. 6.

Dear Mr. Carnell,

In his letter in *New Worlds* 78 Dan Morgan puts forward one view of the " point " of science fiction. As a consumer of his product I want to put forward another point of view. I do not know which US magazines leave him with the *so what*? feeling, but I will say straight away that any trans-atlantic adulation I may show is confined strictly to *Astounding*; other good science fiction is published there of course, to me the crumbs of the Campbell banquet with but few exceptions.

Morgan's idea of the importance of Character, Drama, Plot, Conflict, Suspense, Motivation, I would agree with, but he applies them to the wrong protagonists. For me, and I am arguing for my personal prejudices, the protagonist in a worthwhile science fiction story is never a " character." The protagonists are social and/or philosophical systems, their interactions via the constraints and random variations of the biological forms involved as characters. Which is why I rate Chad Oliver, Everett B. Cole, Poul Anderson, Algis Budrys, above the monomania of Bradbury. Undoubtedly Bradbury can write by all the accepted standards of literature but that is not, to me, what science fiction is about.

Let me illustrate this. I think Alfred Bester wrote a master-piece in *The Demolished Man*, and slid in a potboiler with *Tiger ! Tiger !* In the former, Reich is an excuse, not a reason, for writing the book. The central theme is the conflict between esper and " mute " societies, ethics, modes of life. And it is superbly done. Coming nearer home, I judge John Wyndham's *For All The Night* inferior to *Space is a Province of Brazil*. The first " Troon " story is better general literature, but not science fiction. James White's *The Ideal Captain*, Kenneth Bulmer's *Space Command*, Eric Frank Russell's *Wasp*, almost all of *New Worlds* 78 are examples of the same standard of good science fiction. The most " poetic " and moving piece of science fiction yet is Walter M. Miller's *The Big Hunger*. And the protagonists in that are, on the one hand, the abstract principle of interstellar flight, on the other, the

whole human race and its future. No Character ? Bags of it !

Summed up, personalities in science fiction are important, but good characterisation of persons can never cover up for lack of ideas.

H. D. Baecker,
Newport, Mon.

Dear Sir,

It is a pity that my first letter to your magazine must be in a critical tone, but in your introductory remarks to "Insecurity Risk" by Dan Morgan (New Worlds No. 79) you indicate that (1) it is based on Isaac Asimov's "Three Laws of Robotics" and (2) it is a good and effective story.

This story fails on both points. What a pale shadow it is compared to those brilliant robot tales of Asimov.

Considering point (1). I will re-state the famous Three Laws which Dan Morgan incompletely copies. First—No robot can harm a human being or by inaction allow a human to come to harm. Second—A robot must obey all orders given by a human being unless such orders conflict with the first law. Three—A robot must protect itself unless this conflicts with the first two laws. Now Dan Morgan omits the second law. Such a robot would obviously refuse the simplest directives and would be completely useless as a working machine.

As readers of Isaac Asimov's stories know, and indeed Dan Morgan states it in his story, the "Laws of Robotics" are irrefutable. This brings me to the second and most important defect—the extremely weak plot. A robot has apparently committed murder and been "deactivated" by a man with a patently obvious murder motive. All this in the first few pages. Now given the fact of the irrefutable first law, two obvious solutions are clear to the slowest of readers, in brief —robot wires are crossed or man committed the crime, both weak as a denouement.

I read on hoping that the actual solution would be neither of these and that both were clumsy red herrings—what a disappointment.

I suppose one must expect mediocre stories now and then but please don't invoke great names in your introductions to inferior imitations to truly great works of science fiction.

R. Middlewood,
Petts Wood, Kent.

Dear John,

I have been meaning to write to *New Worlds* for many-a-moon now and at last I have got around to it.

During the last eighteen months I have built up a collection of a little over seven hundred science fiction magazines, hard cover and pulp books, and have now started a private lending library for my work-mates. Do you think this is good going? And is this a pretty large collection against others you may have heard of?

Many congratulations on your magazine, it is undoubtedly the best published in Britain, with its sister magazines *Science Fantasy* and *Science Fiction Adventures*.

J. K. Siddorn,
Bristol.

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