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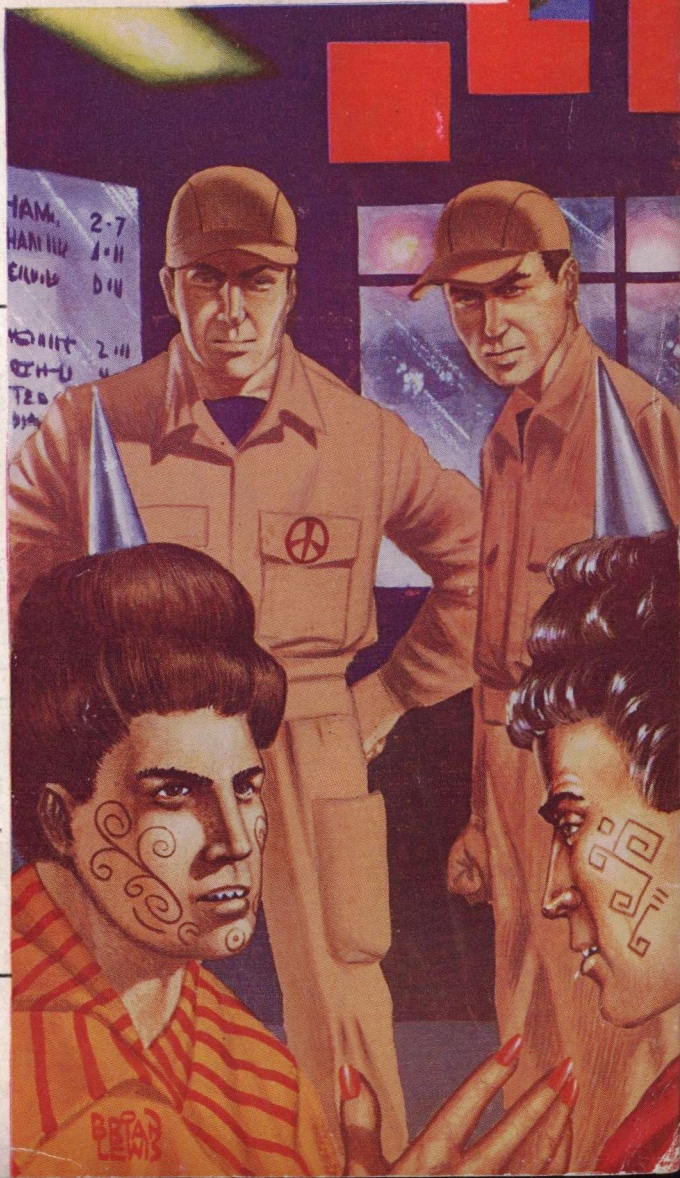

E. C. Tubb

London

Back writing science fiction after nearly two years absence, we asked author Tubb how the genre appeared to him now that science was treading on the heels of science fiction.

"Writers of science fiction are in very much the same position as the Red Queen—they have to run as hard as they can in order to stay in the same place. That place, obviously, is ahead of present day scientific achievement but, with the rapid strides made by science in what used to be the happy hunting grounds of the imagination, the writers are now having to run very hard indeed.

"It has been said that the business of science fiction isn't prophecy but speculation. One, of course, covers the other; make enough speculations and automatically prophecy is taken care of, some of them are bound to be correct. The difficult thing, now, is that fact is catching up on speculation.

"The question is simply not how fast we can run, but where should we run to? In other words, in a space age era, what is science fiction?

"There are many answers but most of them founder on the necessity of logic. Science fiction stories, above all, must be logical. It is a discipline which has become instilled into the medium, to its betterment, but it adds another burden to the harrassed author. Imagination, now, isn't enough. It must be logical imagination, logical speculation, logical development of story ideas.

"It is a challenge, of course, and one which will be met, is being met as any comparison with early and present stories will show. Fact has sliced down a great area of imaginative speculation and that area will be even more narrowed as further discoveries are made. But imagination cannot be sliced down, only channelled. The results should be interesting and the readers can only benefit.

"Which, of course, is as it should be."

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Editor : JOHN CARNELL

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TWO SHILLINGS AND SIXPENCE

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My Own . . .

Last months Editorial on "Plot-Nots" has, as expected, brought some fascinating correspondence, but a letter from Dr. Arthur Weir, of Westonbirt Village, Glos., deserves a more prominent position than at the back of the magazine in the "Postmortem" section.

"Dear Mr. Carnell," he writes, "your Editorial in *New Worlds* No. 90 has impelled me to write in a criticism, for the first time since I made the acquaintance of *New Worlds* No. 3.

"First: my own Plot-Nots, for which I draw examples indifferently from *New Worlds*, *Science Fantasy* and your chief rival *Astounding* BRE:

"(1) Stories of people enmeshed in an incredibly complex and/or corrupt society, which they can neither understand nor control, e.g., Wilson's "It's Cold Outside," Aldiss's "The Towers of San Ampa," Poul Anderson's "The Long Way Home," or van Vogt's "Weapon Shop" stories, while Asimov's "The Currents Of Space" was barely saved from this by superb writing.

"(2) Stories in which humankind beat the aliens by stupidity or luck, when they in no way deserve to do so, e.g., Damon Knight's "Idiot Stick," Eric Frank Russell's "Wasp," (and many shorts of his such as "Plus X," "Nuisance Value" or "Basic Right"), while even Murray Leinster has fallen into this gulf with "Short History of World War III" and to some extent with "Pirates Of Ersatz."

"(3) Computers capable of thinking qualitatively (as opposed to quantitatively or faster) ahead of their creators, e.g., Harrison's "I See You" or Stanley Mullen's "Guppy."

"Your own Plot-Nots," he continues, "strike me as ill-chosen, since if adhered to they would have debarred a number of your more conspicuous successes, and other very noted examples of s-f of recent years; for example:

B.E.M.s:—This would bar out all James White's "Sector General" stories, as also the highly successful "Jacko" series of Alan Barclay.

Presentday Power Blocks:—This should have debarred John Wyndham's "Idiot's Delight"; in any case to overlook or to refuse to admit the existence of presentday power blocks is a very dangerous kind of wishful thinking.

Atomic Wars and Post-Atomic Civilizations:—This would have ruled out E. C. Tubb's "Tomorrow," (one of the most striking stories *Science Fantasy* ever printed) and also the last

. . . Petard ?

two of Wyndham's " Troon " stories ; it would also disqualify such masterpieces as John Wyndham's " The Chrysalids," or James Blish's " A Case Of Conscience," either of which, I fancy, you would have been thankful to serialize, had you had the chance !

Mad Scientists :—This would have debarred another success: Colin Kapp's " Life Plan."

Flying Saucers :—And here, for once, we are in agreement, since, like guided missiles as observed by the U.S. engineer in 1946, " there ain't none !"

" It is an interesting point that your greatest infractions of your own Plot-Not rules seem to appear in *Science Fantasy*, which I suspect to be the reason why it has acquired more high mentions in international award competitions than *New Worlds*. In any case it is the most dangerous thing to try to mould your contributors to a set pattern, since this immediately leads to monotony of style, which is the beginning of the end for the s-f periodical.

Surely it would be better to put your advice to your contributors (or would-be contributors) in this form : *Nothing is forbidden, and anything will go if done well, but all the commoner plot situations have been done so often that they can only be accepted if done supremely well—which is not likely with a newcomer to the highly-specialized craft of science fiction writing.*

" Luckily, you neglect your own precepts at least as often as you fulfil them ; e.g., the story that I would describe as the best you have yet published, James White's " Tableau," is doubly damned by the standards of Editorial No. 90, since it introduces a B.E.M and also is exactly situation No. 11 in the U.S. writer's list :—J.S. and the alien stood facing one another, both unarmed. Which, of course, also applies word for word to Alan Barclay's " The Real McCoy " and " The Thing In Common."

Agreed (*a*) *your advice to would-be contributors, although this was inferred in the last paragraph of last month's Editorial,* (*b*) *your conclusion that I neglect my own precepts—I do whenever the story is a good one, and* (*c*) *the infractions are greater in* Science Fantasy—*but that Editorial didn't apply to that magazine* !

Disagreed—your Plot-Nots (1) *and* (2) *; such situations are too true to real life.*

John Carnell

Remember the film "Seven Days To Noon?" Here is an even more dramatic story of a bomb due to go off —a bomb triggered by psychology, which could only be deactivated in the same manner. Perhaps.

ENIGMA

by COLIN KAPP

"Emergency! Emergency! Disposal squad M seven-four report to Operations Control. I say again—disposal squad M seven-four report to Operations Control."

Roger was off his bunk and dressing before he was fully awake, his actions triggered by a subconscious response which selected his call detail alone from the all-night squawking of the speaker. Further down the serried rows of bunks two other figures were also battling with equipment harness.

"What's up?" asked Mark, as they reached the door.

"Search me. Must be something big to rate an emergency call. Looks like another Major Gruman special. Just my luck, I was due to start leave tomorrow."

The three men were running now, down the broad concrete tunnel towards the Operations Control room. They had the passage to themselves at this hour of night, save for the restive sentries guarding certain strategic doors. Yet the silence was deceptive, for the Nuclear Defence Centre never slept. Above them, on the higher levels, all the resources of modern communications were being utilised to clear an unending stream of critical information, which was being analysed, condensed, and issued seconds later in a coded digest to the master planners of the tactical H.Q. division.

This was war—a strange atomic stalemate in which neither side dare use to full advantage the super-weapons from the

stockpile lest the prize be spoilt by radio-contamination and the global fallout raised to even more intolerable heights. It was a war to be won on the golden harvest fields or lost in the crippled assembly line. The art of warfare was to immobilize the critical producing areas without actual destruction —except as a last resort. And it was with this ' last resort ' that men such as Major Michael Gruman were concerned.

Gruman was already at Control discussing the map indices with the Controller when the three men entered. He greeted them with a nod of recognition. The assembly of that particular team was no accident. Whenever a ' special ' needed attention somebody sent for Gruman and Gruman called for the best backing he could get. It wasn't a matter of preference, it was a question of survival.

" Here's the pitch," said the Controller. " A sneak strato-raider beat the radar chain about an hour ago, penetrated south-coast defences and delivered an egg before a homing missile caught up with him."

" A nuclear egg ?" queried Roger.

" Yes. Something believed to be an Ne-pattern nuclear mine has been dropped at Crawdon. It's come down on a site including in its immediate range a heavy vehicle assembly depot, the airport, gas, water and electric utilities supplying areas right down to the coast, one of our largest munitions factories and one hundred and thirty-two industrial plants."

" And a quarter of a million homes," added Grumen gravely.

" Precisely. In other words it has effectively put out of action facilities far out of proportion to its actual striking power. We not only have to evacuate the blast area but we also have to clear the flash radius. If it is an Ne then it doubtless remains under remote control in case they should ever choose to fire it. Thus we are forced to maintain complete evacuation for a full seven mile radius and civilian evacuation for a further five. That precludes any sort of productive operations on over four hundred and fifty square miles of territory."

He looked up desperately. " That sort of shutdown we cannot afford. If it was not for the existing radiation level we should detonate it and to hell with the damage, but with the fallout and background counts up where they are we must try every available method to draw the bomb's teeth instead.

Major Gruman, it's your pigeon. Disarm that bomb and we'll name a day of the week after you."

" Nobody's ever succeeded in disarming an Ne before." Gruman slyly glanced at his watch. " We'd better get moving, it's nearly Grunday morning."

The transport detail had assembled and was ready to move off. Two bomb-disposal trucks and a host of miscellaneous service vehicles, including the huge Telecommunications trailers, had speedily mustered in response to Gruman's crisp instructions. At a signal they were off, jarring the silence of the night with clashing gears and the roar of powerful engines.

Soon they encountered heavy traffic in the opposite direction as an orderly evacuation programme cleared the danger area. The outriders sped ahead to important intersections to ensure absolute right of way to the military convoy. Nobody protested at the priority, for the fearful odds of Gruman's undertaking were no subject for complaint.

At the five mile limit the trucks began to disperse as the military replaced the civil police and the area came under martial law. Two miles from the bomb the Telecom trailers shed their frantic diesels and began to settle into service. One mile, and the remnants of the convoy halted. Even disposal men must walk the last mile in.

Last handshakes with the drivers, and then Michael Gruman and his men were on their own. The clear night was breaking into early dawn, and the dark, squat bulks of factories, dormant and dead, were the only witnesses to the four wary men bearing the burden of a lonely, desperate war.

The bomb had fallen on a factory site cleared a few months previously by a small H.E. guided missile. Whether this fact was intentional or coincident was yet uncertain, but the bomb stood large and clear almost centrally in a wasteland of rubble and crumbling masonry which was a sinister preview of an even more malicious intent.

Breaking clear of the factories, Michael Gruman surveyed the area carefully. Soon he found what he was looking for. At one edge of the clearing was part of a reinforced concrete shelter, now opened-up like an oyster by a capricious blast effect from the earlier H.E. This would form a base from which to operate, and was duly dubbed as safety-point, a relic of the time when disposal squads could operate from a protected shelter. He and Roger then made a preliminary study of the

bomb through the field telescope while Jed and Mark ran telephone lines and co-axials back to the mile radius for linking up with Telecom.

An hour later it was light enough to take the necessary photographs without having to use a flash camera. Jed developed the high-fidelity tele-photos in a photographic bag and Gruman then began the highly specialised and tentative task of predicting the bomb's characteristics from the distinctive configurations on the globular hull. When he had finished his analysis he was even less keen on the whole project.

" We're in trouble," he said. " It's certainly a basic Ne-pattern bomb, a fusion-initiated theta reaction, but the detector array looks a real swine. There's a spread of light sensitive elements from the bomb equator up to the vertical axis in all directions. From the way they're placed there doesn't appear to be a blind spot, and I'd say it was a dead certainty that anything causing a sudden light fluctuation at a height above three feet from the ground will cause detonation. Walk within a hundred yards and it'll spot you sure as hell."

" That means we crawl," said Roger in disgust. " What about natural light variations ?"

" Providing it's a slow-change phenomenon the bomb will equalise to allow for it. But anything breaking the skyline or causing a sudden reflection as, for instance, a swinging window, would be fatal. We'd better check the factory behind us and warn Control to keep all aircraft out of the district in case we get a shadow across the bomb."

" Has it got capacitance response as well ?" asked Roger,

" Certainly some high-sensitivity capacitance-change heads but they're all set pretty high. They must be pretty sure of this bomb because the radar dishes are high also. Neither will affect us much if we take the usual precautions and stay below the equator, but we shall have to be mighty careful if we bring up any radio-screening mesh. Below the equator there appears to be only a few ultrasonic reflection traps and I think we can deal with those by the normal procedure. However," he looked up with serious eyes, " those aren't the worst of our worries."

" Something new ?"

" Not really. It's something that Petersen described at Hanover. He was still describing it when it took him into the stratosphere as radio-carbon fall-out. See here, there's a ring of small cylinders around the equator. They're obviously detectors of some kind, but what? Can't be infra-reds because the angle would be too limited. Probably not magnetics, either, because you'd do nothing for a magnetic detector by sticking it out in a can. The other thing that Peterson noted is here also. Look at the antennas."

Roger studied the picture carefully. " I don't see . . . Hell, yes ! The antennas."

" Precisely ! What kind of communications setup needs six independent aerials? Better get the radiotectors set up and see if Telecom can find out what it's receiving or transmitting. There's something decidedly peculiar about this bomb and I don't mind admitting I'd sooner be anywhere but here."

Four hundred and fifty square miles of enforced inactivity. An Ne-bomb was a beautiful weapon in the war of nerves and productivity. Maintain an Ne-mine involate from the desperate fingers of the disposal squads and you could paralyse an area indefinitely. The harassing potential of the weapon, threatening but unexploded, was a thousand times greater than its destructive power. If you found the right instrumentation formula for nuclear mines you could paralyse a whole country without once having to release the deadly radiation. The incorporation of a radio trigger increased the air of uncertainty about the bomb, and precluded the resumption of normal life by the simple expedient of walling it round and ignoring the danger.

The phone flashed a call-signal silently. Gruman listened intently and replaced it with a sigh.

" We're out on a limb," he said. " The bomb is transmitting some complex mush which doesn't even have the hallmarks of a code. Telecom are still trying to break it down, but at the moment it's pretty hopeless. We must assume the bomb is already receiving some transmission which is holding the trigger. The advice is that we don't attempt to screen off the radio signals until we have some further information to give us a lead. Roger, I want you to go out there and look it over from about two hundred yards."

" Check !" said Roger, " but I won't see much of value from that distance."

" Take the non-metallic binoculars and see if you can get a line on those cylinders. They must have some function and we daren't make a closer approach until we know just what they are. I've a feeling they tie in with the antennas somehow. If we can identify them it might help Telecom to break the transmitter code. Use an earth-screened cable on the intercom and keep as flat on the ground as you know how."

Roger moved off cautiously across the broken ground. The going was rough and the intercom cable with its trailing earth-dogs kept snagging in the concrete piles and broken debris. Finally Mark followed him out and kept the thin black line moving. The morning sun was gaining strength and the broad areas of broken concrete made a sun trap, agonizingly hot to a crawling man dressed in black disposal trappings. Roger found it a good opportunity to exercise his vocabulary.

" Two hundreds yards." Roger's voice broke suddenly rational over the intercom.

" What do you make of it ?" asked Gruman.

" It's an Ne-pattern all right. The lower half, at least, looks fairly conventional. There's a damper hatch with easy access and I don't think it's jimmied. Quite definitely a fusion job with a cobalt jacket. If this ever goes off the fallout should clean out an area right down to the coast."

" Swines !" said Gruman. " What about the detectors ?"

" Pretty much as we thought. They all look like standard items except the cylinders. You don't suppose they'd have fitted this thing with microphones ?"

" Possible, but I don't see why. The bomb would be too susceptible to accidental detonation if they were using a sound-pickup trigger. A bird or a bee at very close range would be quite sufficient to set it off. Remember, they don't want that bomb to explode unless it's being actively interfered with. They can't afford the wanton increase in radio-activity any more than we can."

" True, but they look awfully like high-sensitivity sound transducers from this angle. Shall I go forward for a closer look ?"

" Not yet," said Gruman. " Come back to safety-point. There's too many mysteries attached to this damn bomb. Let's wait a while and see if Telecom comes up with anything new."

" Check !" said Roger. " The sooner I get off this red hot rockery the happier I shall be. Lord, how I'd love to throw rocks at that thing !"

" It would save you the trouble of crawling back," said Michael Gruman sadly.

" Call from Telecom," said Mark, handing him the phone.

Gruman listened incredulously. " Three ?" he asked. "Are you sure ?"

" Like I said." Lieutenant Sandor of Telecom was an exact and sensitive man. " I tell you that bomb of yours has three individual transmitters all pushing out incomprehensible mush."

" And you can't crack the code ?"

" It isn't a code—at least not in the usual sense. It's apparently random noise. All the transmitters were churning it out at full steam about half an hour ago."

Gruman's jaw snapped shut. " Can you give me a time check on that ?"

" Sure. Output stepped up at eleven-sixteen and dropped back at eleven fifty-one."

" That coincides with Roger's trip out to make observations. Look, Sandy, that bomb is observing us somehow, and it's passing the information on. If it could spot Roger crawling through the rubble at two hundred yards then what's it going to do when we try to get up close ? You have to crack that signal and tell us what it means and what type of phenomena it's likely to be observing. I suppose it isn't a video transmission of some kind ?"

" No, we thought of that but there's no evidence of any synchronisation pulses. Besides which, you couldn't pack any useful video information into frequencies as low as that. We've taken sample recordings of all the three transmissions and we're trying to break them down in every possible way. I'll call you again if we get any likely answers."

" Hell !" said Gruman, replacing the handset. " This gets worse and worse. While Telecom are playing with a problem in inverted information theory we have to live with the fact that the blasted bomb has some way of knowing when someone is out on the site. Not only that, but it has an extremely tricky way of passing the information on to whoever's in control. Viewed from any angle it's a mighty unhealthy position to be in, especially since we don't know what media it's using for observation nor how detailed is the information it's passing on."

" Can't we test it ?" asked Roger. " Try a sound, a light, a radio pulse, and so on, and see to which it responds ?"

" What ? Give one signal that's sensible to any of the automatic detectors and we'd never get the chance to give another. They aren't fools who made that bomb. Only Telecom can give us a lead from here on in."

" I can't stand this inactivity," said Roger. " I'd like to go out again. Try to get up to a hundred yards, to see if I can make sense out of those cylinders."

Michael weighed the prospect carefully.

" Okay ! I don't think you can trigger it if you stay at that radius and stay low. But don't get any closer. Its designers must have anticipated every move we make. They know they've given us an enigma and I don't doubt they've made sure that curiosity kills."

On the hundred yard radius Roger stopped and studied the bomb carefully. The large, uncompromising piece of destructive engineering had sudden death etched into every line and angle. Every recess or projection on the roughly spherical hull held some kind of sensory detector, something to watch the thin dividing line between accidental and deliberate phenomena. It was like an animal, he reflected, a sick brain trying to rest ; a brain tortured by delusions of persecution and ready to defend itself by the only means at its disposal—self destruction.

" You're mumbling." Mark's voice in the earphones aroused him from his reverie.

" I know," said Roger. " I'm just getting the feel of this thing. Besides which, it's hotter'n hell out here on these stones. I want to go in apace farther. The resolution of these glasses isn't so hot and I'm still worried about those cylinders."

" I shouldn't go in yet," said Mark. " Michael's just gone to meet a truck from Telecom to pick up some stuff. I think they've broken the code. Come back to safety point."

" Nix !" said Roger. " I didn't come all this way for the good of my health. Just a few more yards and I'll see what I want."

" You're taking a hell of a risk. Why not lay out till Michael gets back ?"

" No point. Ten minutes and I'll have all I want to know. Keep your fingers crossed."

Now even more conscious of the need to keep flat on the ground, Roger slithered forward only to find the direct approach barred by a section of ruined wall over which it would have been dangerous to attempt to pass. He turned instead into what had once been a corridor in the old building. The rubble was thicker on this side of the site, having been bulldozed into heaps, and from the ground he had no means of judging the progress he was making towards his goal. Only when he once again drew out into the open did he realise he had overshot the mark.

Behind a pile of powdering bricks he sweated quietly. He was near the bomb now, nearer than he'd intended—not more than fifty yards, perhaps. And the nearer he went the less he liked it. The detectors on the bomb gave it an observational capacity which was almost . . . sentient. As if the damn thing was watching and perhaps even laughing a little, deep in its warm plutonium guts. He was in a spot, but at least he had a better chance of seeing what he had come for. This might be the turning point.

Suddenly Gruman's voice struck back tinnily in his headphones.

" Fall back, Roger. We've another line on this thing."

Roger moved uncomfortably on his stomach. " Can't you give me the gen out here ?"

" No. Come back to safety point immediately. This is an order. And another thing—don't talk. That damn bomb is listening !"

" Don't be so blood . . . !" Roger choked the words into twisted silence, and quelled the emotion, pressing his sweating forehead hard into the dust. Then slowly, painfully, he wormed his way back to safety point. Once in the shelter his feelings released themselves in a flood of anger.

" For Heaven's sake, Michael, was it necessary to call me right back here ? Ten minutes more out there would have made no difference and I might have learned a lot. You don't know what it's like, crawling out there like a blasted jellyfish across that rubble."

Gruman met his gaze squarely. " No," he said, " I don't know what it's like. Furthermore I don't care. My job is to get you operating on that diabolical machine with a reasonable chance of success. If that means you fall back a hundred times it's still all right with me. If you can't take it then say so and I'll get somebody else."

" It's all right for you," said Roger. " You just sit back here nice and cool and give the orders. You want to try sweating it out on your stomach."

" Look," said Gruman, " did you ever have to send a man out on a mission which could have consequences as disastrous as those awaiting us ? Try it some day. It's not as easy as it seems. I want that bomb disarmed, not blown up in our faces, and I shan't spare you or anyone to achieve that end."

" You're scared, that's why you won't let me near it."

Gruman looked up sagely. " Yes, I'm scared. So are you and so is everyone else within contamination range. Anyone who says different is a liar. But I don't intend to let anyone stay out there when I have further information which could affect the issue."

Roger looked deeply into Gruman's face, trying to find some sign of the weakness he felt certain must lie therein. But the eyes were as ever, uncompromising, completely in control.

" I'm sorry," said Roger finally.

Gruman did not even bother to acknowledge the apology. Nor was it expected. Both men knew the face of death so intimately that harsh words passed as words unspoken.

" Here's the score," said Gruman. " Telecom have broken the code transmissions from the bomb. It's a cunning piece of work, that's why they took so long to crack it. The modulated carrier is produced by the phase difference of three separate transmissions. Listen to any one and all you hear is mush. Run the three together and analyse the composite signal and it makes sense. This sort of sense—"

He snapped on the tape recorder and a wave of high-fidelity sound gushed out. Ordinary sounds. Birds high-calling above the rooftops, the nearer brush of wings—and the sound of a man crawling and cursing in rubble.

" Hell !" said Roger. " That's me when I was out there earlier. But I didn't get closer than two hundred yards."

" I know," said Gruman. " That's a measure of the technology we're up against. There must be transducers on that bomb which could detect the dropping of a pin at ninety yards. And it broadcasts every sound it hears."

" But why ?"

" Search me. It's logical to suppose that the bomb could be detonated by radio as soon as its operators hear a disposal squad approach, but somehow that doesn't ring very true.

You wouldn't need that sort of sensitivity to detect a man with a monkey wrench. Then again, it could be a red-herring. If they build in enough false gimmicks we're bound to make a few wrong guesses. And our first mistake would be our last. The more they can keep us worrying the longer the area stays closed."

"Could they be using the level of sound to measure our nearness to the bomb?"

"I don't think so." Gruman bit his lip. "I suspect the bomb's transmitters are on automatic gain control. Listening to this recording there's a fair indication that a sound made next to the bomb wouldn't be broadcast materially louder than the same sound at about a hundred feet away. The only difference that distance would make would be in the detection of sounds having a very low noise value. Such threshold noises would only be picked up if they occurred very close to the bomb."

"Such as?"

"Heartbeat," said Michael Gruman.

"God! Could it detect that?"

"If our figures are correct it could detect a man's heartbeat at about three paces, assuming it was operating on maximum gain. It would make a wonderful trigger—a rhythmic pulse falling within a clearly defined range of frequencies. It wouldn't be too difficult to build in an acceptance circuit which would react to a heartbeat and to nothing else in the world of sound."

Roger thought for a moment. "But you could build the trigger into the bomb. Why transmit as well?"

"I don't know," said Gruman. "That's what has me worried. Sandor suggests that our recent bomb disposal achievements may have been so staggering that they rigged up this joker to try and find out how we did it. That would account for the broadcast being in code."

Roger smiled sourly. "I can imagine them sitting at a receiver and listening to every bloody curse and every prayer. They wouldn't learn half as much about our methods as they'd learn about blasphemy and Christ."

"I think I've figured out about the radio," said Gruman. "It's a clever gadget. If you recall, the Southall bomb was primed to fire on reception of a radio pulse. They fixed that one by simple radio shielding. The Sheerhaven bomb was different. That was apparently primed to fire when they

interrupted a foreign transmission by attempting to shield the bomb. The Sheerhaven crew never came back.

" They couldn't work that trick twice. Once we find out the signal to which the bomb is responding it's a simple matter to duplicate it with a local transmitter and then shield off their signal. That gives us control of the radio-fuse and we can work on it at our leisure. This bomb goes one stage further."

" How come ?" asked Roger.

" As I see it," said Gruman, " the transmissions from the bomb are picked up by a monitoring station on the continent and the same signal is re-transmitted back but on a different frequency. The monitoring station is probably a robot unit using, presumably, a similar type of phase-difference carrier. In other words, the sounds picked up here are returned to the bomb identical but on a different carrier frequency by the robot station. All the bomb needs is to compare transmission with reception using a coincidence detecting circuit to hold the trigger.

" If we try to interfere with either transmission or reception the coincidence balance goes haywire and the whole lot goes up. That means we are prohibited from erecting a radio shield around the bomb."

" Very neat," said Roger. " And they can sit in comfort and listen to us sweat it out and send us to hell any second they choose. Even a bloody thunderstorm could trigger-off a set-up like that."

" I checked on that," said Gruman. " Met office says this is a good time of the year. No storms forecast in this area and sunspot activity at a minimum. We've called a blackout on all equipment in this region which might cause interference. Since we've no idea how much tolerance the coincidence detectors might allow it's difficult to estimate what electrical phenomena might cause it to trigger or how long it will remain stable assuming it isn't deliberately fired."

" I'm no communications man," said Roger, " but can't we pick up the incoming signal and re-transmit it locally. Then we could hook-in a rig to feed the bomb's signal into our transmitter and erect the usual screens to cut out the foreign transmissions altogether."

" There's just one snag," said Gruman. " As yet we don't know which, of all the mush inhabiting the ether, is the incoming signal. There are at least eight stations on the

continent all transmitting what is apparently mush. So far we haven't been able to find which ones beat together to provide a practical carrier frequency. Until we have that information we can't monitor it for local transmission. We can do absolutely nothing except pray."

The telephone call-light flashed and Gruman picked up the phone and listened gravely. When he put it down he turned to Roger.

" That was Telecom. They think they're getting somewhere but they can't be sure. They've located two transmitters which beat together and they're looking for the third. Until they have all three they can't reassemble and detect the signal. But if they knew what signal they were looking for it would be easier to detect a transmission of mush with a similar modulation."

" So what do they want ?" asked Roger. " Somebody to go out and sing to it ?"

" Not exactly. They want somebody to crawl out there and beam a P.A. loudspeaker on to the bomb, deliberately feed it with a wide range of sound frequencies. Then we have also to supply Telecom direct with the same information over the landline so that they can run a comparison with suspect transmissions."

" Hell," said Roger, " it's getting so that you need a degree course in electronics to even isolate a bomb these days. Where's the P.A. system coming from ?"

" There's a police car at mile radius with a speaker and amplifier. They can't drive it any closer in case the car ignition system triggers the bomb. Somebody's ripping the equipment out now and they want us to walk out and collect it."

" Let's go," said Roger. " Anything is better than standing here waiting."

The sun was hot, hotter than anything Roger remembered even when lying on the hot concrete and rubble on the site. The amplifier had never been made for manual transport, and the awkward squat black box had sharp edges which cut into his fingers and gouged into his side. The large horn speaker was heavier than he would have believed possible, and his arms were soon aching with a fatigue which twisted his jaded nerves near to hysteria.

Major Gruman was similarly bedevilled. Under each arm he carried a car accumulator, the acid from which was creeping onto his wrists, making him put down his load frequently to spit on his arms and rub them on his trousers. Round his neck was a coil of cables and connectors, and slung awkwardly from his shoulder by a piece of rope was a gramophone turntable with a record taped into place and threatened with constant damage as it swung against his side.

But, unlike Roger, Gruman still held the clear-eyed look of a man completely in control. Nothing either physical or mental ever seemed to penetrate the bland facade. Roger wondered idly how much of the composure was real and how much assumed. Michael was forever just a little to the rear, chivvying, encouraging, organising and ready to slap down the slightest dissent or panic in his crew with a heavy impersonal hand. He was not the most lovable of characters but in the midst of harrowing stress and danger he was completely unchangeable and unmoved, an island of stability in the midst of chaos. If Michael had ever come near to breaking, Roger was glad he had not known.

At the site Gruman pointed. "I want the loudspeaker about halfway out on that concrete slab. Try and sight it directly at the bomb and wedge it with a few bricks. Then come back for the cable."

Roger nodded and crawled forward on the scorching ground with the speaker horn dragging awkwardly in the crook of his arms. It was a painful method of locomotion, with his weight supported by his knees and elbows, but no alternative was possible if he had to keep below the equator of the bomb. After what seemed an eternity of agony he reached his objective and secured the speaker with broken breeze-block cemented with hopeless prayer. Then, although he knew it was impossible, he returned and dragged out the cable, making the connections with fingers long since incapable of such delicacies.

Gruman had been busy at safety-point rigging the amplifier and record player and trying to clean the adhesive tape from the record with a tea-soaked handkerchief. He cracked open a connection box on the land-line and jury-rigged a second circuit to Telecom. Then he turned the switch and the magnified rasp of his finger on the needle crashed out over the startled arena of death.

"This is it!" he said, turning up the volume.

The fierce hiss of the needle in the opening groove threw the starlings from distant perches as a prelude to the panic when recorded track began. It was a quick-repetition frequency test record, running up through the entire audible spectrum once every second. The deep rumble of sixteen cycles broke immediately into a whine and then a scream rising to the limits of audibility. The effect was that of a weird, inhuman cry beating back and forth in echoed confusion and rolling mightily across the blasted waste.

The telephone call-light was winking before the record had finished. Gruman replied impatiently.

" No, I can't do a thing about the echoes, and I can't move the speaker closer to the bomb. They've magnetic detectors on that thing which would certainly detonate if we moved the speaker closer than a hundred paces. Even the cable would be a risk because of mass-capacitance changes. Once an Ne-pattern has had a chance to reach equilibrium with a static terrain you can't afford to fool about any more."

He slammed down the phone. " Blasted imbeciles ! They're moaning about echoes and the time-lag caused by the distance between the speaker and the bomb. They'll just have to balance it their end with a delay line and a compensating circuit. Where's Jed and Mark ?"

" Out on the perimeter shooting cats to keep them off the site," said Roger.

" Well, work round and tell them to take over here. Then follow me back to Telecom. I'm going to see what they're playing at back there."

Telecom, in this instance, was comprised of five huge trailer trucks in a line on a deserted highway two miles from safety-point. The first mile was carried-out on foot, since no vehicle was permitted at closer range to the bomb. But once the clear mile was past, the watchers and service units were only too pleased to arrange transport for disposal personnel. Gruman reached Telecom in a jeep and Roger followed soon after on a dispatch-rider's pillion.

One of the vans housed the generators and power-supply units for the rest of the group. Here a lone army technician sweated profusely in incredibly close proximity to his thundering charges. And above the bellow and roar was the soul-destroying scream of a two-thousand cycles converter wallowing in waves of anguished sound.

The other four were communications vehicles, roofs heavy with parabolic aerials and inside, almost built into the welter of electronic paraphernalia, were the radio techs, battling with their untidy, complex instruments. Lieutenant Sandor signalled the disposal men to enter the centre van and, although there was scarcely room to stand, he managed to close the door to isolate them from the noise of the generators. Sandor was barely twenty-three but he handled his bewildering technicalities as if they were extensions of his own being. He nodded to the rack of oscilloscopes, adjusting the amplification to illustrate the points he was making.

" That scope shows the audio characteristics of the combined transmissions from the bomb. In terms of sound it gives this . . ." He snapped a switch and they heard the clear rising signal from the speaker near the bomb, coupled with the complex echo pattern of the bomb site. Then silence as the record was changed at safety-point. A lark then, calling from on high, the hiss of the gramophone needle and then the rising tones once more.

" This scope shows the characteristics of a transmitter at Ulzen, near Bremen. In terms of sound it is mush but the trace has a pattern parallel to that from the bomb. Next is a trace from a transmitter at Kiel, and again it's mush but the two beat together. Our third station is still an enigma."

The convoy intercom phone at his elbow crackled. " Try Celle on two nought twenty-seven point eight. Looks promising." " Will do," said Sandor. He made rapid adjustments to the vernier tuning scales and switched in another pair of oscilloscopes, groping for a bunch of coaxial cables to complete the connection.

" Ah yes ! Celle looks as though it's going to complete the pattern. Now perhaps we can reconstitute the carrier and get some sense out of this."

He gave some rapid instructions over the intercom and began to make a hasty rearrangement of his plug connections. The speaker vibrated with a raw, sibilant hiss, then quitted and finally broke into the repeated rising sequence of the test record.

" Done it !" said Sandor, with a note of triumph. " That is the signal the bomb is receiving from the monitoring transmitters in Germany. It's a curious thought that a single note or the lack of it is all that stands between us and a radioactive death."

" Cut it out !" said Gruman. " We've got to go back and work on that thing."

" Then you're lucky," said Sandor. " With that type of bomb the near ones and the far ones are the luckiest. You either die quickly or not at all. It's the ones in the middle who die the hardest way."

" Nobody's going to die," said Gruman, " if you can give me a few good answers."

Sandor looked up, his eyes betraying a little of the fear deep in his heart. " I'm sorry ! I shouldn't have said that. I couldn't work up-front if I tried. Even the sight of the thing scares me paralytic."

" You and me both. How much tolerance would the bomb's coincidence detector have to allow for that system to remain stable ?"

Sandor adjusted a double-beam oscilloscope.

" Top trace is from the bomb, the bottom one is from Germany. See the grass at the foot of the bottom trace— it amounts to about ten percent of the total signal. I would say the tolerance would be not less than another ten percent on top of that. Not much of an allowance when you consider the difficulties of keeping the three German transmitters on a tight phase-stagger. There must also be a slight time delay to nullify interference from transient phenomena such as a distant lightning pulse."

" Good !" said Gruman. " Do you figure you can give us a local lash-up to keep the bomb quiescent while we screen it from the German stations ? That way we can work on it at our leisure without them hearing us and blasting the thing at the critical moment."

" Sure, that I can do, but it strikes me as being a little too easy. They must have known we'd figure that far. I wouldn't mind betting there's another gimmick in this somewhere— something with a sting in its tail. I'm going to run an audio-frequency spectrum analysis to see if anything shows up."

He switched the frequency analyser and reset the calibration with a signal generator.

" Now let's see what we get. Ah, yes, I thought as much !"

" Trouble ?" asked Gruman.

" Sure thing ! They're monkeying with the signal, cutting octaves to an apparently random pattern at seven second intervals. I expect it's a preset sequence allowed for in the bomb coincidence circuits."

" How does it affect us ?"

" Simply," said Sandor, " since we don't know the sequence to suppress we cannot duplicate the German transmission. It's quite impossible for you to attempt to shield the bomb."

" Can't you crack the sequence ? It must be repetitious or based on some formula."

" Given about three weeks and a good computer we can break down anything. How long can you afford to wait ?"

" So what's the next move ?" asked Roger. The full moon was high and bright and the bomb was a malignant gleam against the background of the farthest shadows. The whole scene held an atmosphere of unreality and the night air was clammily chill after the heat of the day. Safety-point, falsely so called, was a cold comfort.

" Let's face it," said Gruman. " Whatever we do has to be done with the bomb transmitting and receiving freely, and our movements are going to be heard by the bomb's controllers. Chink a monkey-wrench at a hundred paces and they'll blow it up in our faces. If only we could break that link all we'd have to worry about would be the automatics."

" Can they keep listening all the time ?"

" They'd have to, because they never know when we might move. I wonder if this could become a lesson in applied psychology ?"

" How do you mean ?"

" I mean," said Gruman, " they've introduced the human element into bomb control, and humans being what they are it might prove to be the weakest point in the chain. Only that distant operator prevents us from having a crack at the ordinary mechanisms of the bomb—and he has to listen to precisely whatever we want him to hear."

Roger sat up suddenly. " Holy Moses, what an idea ! Our test record must have driven him nearly round the bend."

" Precisely," said Gruman. " But that's nothing to what we could use on them if we tried. If we can feed the right stuff and for long enough they'll either quit listening or blow us up to relieve the monotony."

He woke up Jed and Mark with the toe of his boot and explained the point quickly. His enthusiasm was infectious and the plan was carried with sleepy-eyed unanimity.

" Hold the fort," said Gruman. " I'm going back to get some assistance on this. Two of you meet me at one mile point

at six hundred hours to give me a hand with the equipment. By the time I'm through they'll wish that radio had never been invented."

This time a handcart was available and the new equipment was piled precariously high on the platform. In a satchel Gruman carried his secret weapon in the shape of a flat tin containing a closed loop of pre-recorded tape. The three men trundled their treasures back through the quiet streets towards safety-point with spirits higher than for a long while past. This was action at last.

After breakfast they set up the new rig. The morning sun had yet to gain its power and the thirty-two loudspeakers, high flux density re-entrants of advanced design, were assembled in an open ring around the bomb on a two hundred foot diameter. The cables were dispersed radially to a safe distance to minimize capacitance effects and then run home to safety-point.

Later a volunteer party of sappers arrived with a cartload of amplifiers, batteries, a hydrox battery charger and a crate of beer. When the area was clear again, Gruman had a final circuit check and then taped-up the recorder.

" Better put your ear plugs in. This is going to be a bit rough."

It was. A mountainous, strident voice rocketed around the site, vibrating with nauseous enthusiasm. It was a deliberately bad recording with a shrill background whistle which jarred and tweeted inside the ear. But if the sound effect was shattering, the sense concept was several stages worse.

" Use Swosh for all your wash !" enthused the voice. " A swish makes clothes as clean as you wish. Only Swosh contains the new optical bleach that really makes your wash glow in the dark. True white Swosh for all your wash ! Only super-white Swosh can make your clothes really glowing, gleaming white, for only Swosh contains the supersonic ingredient MK 64 which produces a whiter, brighter whiteness that you can even see in the dark."

" It also rots the fabric," shouted Roger, his face glowing with sweat. " This is murder !"

" Remember, a swish in Swosh for the glowing wash. Only Swosh really puts that whiter than white wonder into washday. Use Swosh and really see what optical whiteness means. A swish in Swosh will make your whiter washday dreams come true. Here's the chance for YOU to shine !"

" You can't do this to them," shouted Roger, ramming the

ear plugs further into his ears. " It's againt the Geneva convention."

" All's fair in love and war," mouthed Gruman.

" For washday white that's sheer delight it's Swosh for the wonder whiter wash !"

" Hell !" said Roger. " How many times does that go out?"

" Sixty times an hour. I checked with a psychologist and he reckons it to be humanly impossible for anyone to maintain close attention to a transmission of that for longer than about forty-five minutes. After that they either take off the headphones or go into a stupor."

" But why the volume ?"

" The bomb transmitters are on automatic gain control. By keeping the sound level unreasonably high we force the gain, and thus the sensitivity, right down low and we can crawl up real close without detection. Any noise we make will only amount to a small fraction of the total barrage of sound. We inserted the whistle in the recording to cover the gaps between the words. If we can only get through and jimmy the damper controls we can take the rest to pieces at our leisure. Of course they'll hear when we touch the bomb, but if they have to resort to occasional spot-listening, as I hope, then we may have the few minutes grace we need. It's a fifty-fifty chance."

" That's the best odds yet," said Roger.

Over and over with never-flagging enthusiasm the nameless voice bellowed in marvellous tones about virtuous washing. All through the long, hot and perfectly wonderful drying-day the chant was repeated. At safety-point the crew fidgeted and sweated ; unwilling, because of the heat, to keep their ears permanently plugged, and unable, because of the noise, to suffer the agony of having to listen. At sundown Gruman had even the service auxiliaries cleared back beyond radiation range. Then, in the light of a clear but darkening sky he signalled for the operation to begin.

Roger led the way across the site, crawling round obstructions with an expertise that betrayed familiarity. Jed and Mark followed at hundred foot intervals easing the metal-shielded intercom cable out after Roger and pegging new earthing flexes into the soil whenever the ground allowed.

Roger was equipped with a throat microphone and large, sound-insulated earphones, but even so communication with Gruman at safety-point was a difficult and tiresome process. Once he entered the ring of speakers it became quite impossible.

He slipped the intercom cable and signalled Jed and Mark back to safety-point. As much as he needed Gruman's confidence and advice this was going to have to be a one man job.

Despite the phones on his ears the noise level was soon uncomfortable, the booming tones rasping into his brain and the shrill whistle cutting into his senses. So far he had been able to move swiftly, confident that the slight sounds of his movements were indetectible against the speaker output, but as he drew further past the speakers and nearer to the bomb the situation was rapidly reversing. Somewhere ahead was a point where the slight noise of his movements would stand out against the background recitation. From that point to success or failure was simply a matter of time and luck.

It was only as he approached the bomb that the peculiar difficulty struck him. He froze against the cooling earth. panic clawing at his heart. The earphones were efficient, they attenuated the cacophony from the speakers to an almost endurable level, but they also prevented him from hearing the noise of his own operations. Without hearing he could not judge when he passed the point of no return—the point where silence must be sacrificed for speed. He clawed the headphones off and regretted it instantly. The sound beat against his eardrums in blocking, crescendo waves, and the pain was like needles in his ears. At this level of noise there were no words, only pain and pressure, rising and falling, overwhelming the senses and threatening the brain with the protective blackout of unconsciousness.

He dragged forward uncertainly, wanting desperately to writhe and scream with his hands over his ears but unable to relieve the tension by any act more complete than clenching his teeth and sweating. The bomb seemed removed by a mile, bloated and blotched with malignant windows and sinister tell-tale lumps. The detectors, set like pimples on an egg, listened with incredible electronic ears to his weeping in the sand.

Then he was ten paces away. The naked steel seemed to watch every movement, the surface radiating malice like a cold, metallic sun. He held steady then, planning the move of every muscle for the interval to come. *First earth the casing—conductive pressure tape, no magnets allowed here. Ignore the automatics, stay below the bomb equator where the earth shields a man from the personal radar. Thank heaven for carbon-treated*

clothes which bleed away the static ! What about infra-red ? No use to worry, the ground is still quite warm. If the detectors spot the change there's nothing I can do.

Now move ! No, not yet. What's that grille near the damper hatch ? I thought so. An ultrasonic reflection trap just waiting for a casual hand to deflect a pulse back into the cavity. The first time I met one of those I sent it microphonic. Bad moment ! Need a pressure-sensitive absorption pad to cover that. And the dampers ? Pray they're servo driven and not powered by explosive charge. That extra three seconds makes all the difference and I can't have the bomb going critical—not after all this !

Damn the speakers ! I can't take much more. Nearly blacked out then. If I faint I've had it—we've all had it. Hell ! I can't think straight any more. I'm going in now regardless. Do you hear me, you bloody great gasholder ? I'm going in and there's nothing you can do to stop me.

" He's in trouble," said Gruman. " He's out on twenty foot radius moving like a drunken fly."

" Want me to follow up ?" Mark looked questioning.

" No, it's too late. He either gets through or he doesn't and there's little we can do to improve the odds. Why did the idiot have to take off his headphones. He might have known the sound intensity would knock him groggy."

" That's a point of view," said Mark. " But you know as well as I that when you're out there only a hairsbreadth from eternity you don't see things at quite the same angle. Little, imperceptible things assume overwhelming importance. Even over the intercom you can't explain it. The mind assumes a hypersensitivity. Something you hadn't noticed looms up as the rare division between life and death. At such time you play hunches like they were instincts."

" He's moving," said Gruman. " Glory, He's going in ! Good boy ! He's working on the detectors and moving like a fiend. I think he's uncovered the dampers. How's the German signal ?"

" Still holding," said Mark. " They still haven't heard him. No, it's stopped. By God, they've stopped sending !"

" And we're still here. Roger must have . . . Hell ! He's fallen down. Cut the speakers, I'm going out there. If he didn't fix all the dampers it could still run critical."

" Want any help ?"

" Only the usual prayers."

He had no thoughts for Roger. His eyes were sizing up the bomb as he ran. The light was poor but he could see the door of the damper hatch, dark against light, wide open as he ran. The end of something metallic protruded from the damper chamber.

How do you fix a damper control rod that's starting to move? You clamp it or bend it. If you clamp one quickly you may get the time to clamp another. At about four seconds each Roger might have had time to clamp . . . three perhaps before he fell.

He made lightning calculations as he threw himself over the rubble, miraculously maintaining his footing without conscious attention. If three dampers had remained in place, then the fusion could only proceed at a controlled rate with a slow build-up of heat until the cadmium rods fused and dripped out of effective range. *With a reactor that size the process would take seconds—no*, minutes. *These minutes* !

He flung himself at the damper compartment, making his fingers tell him what his eyes could not readily see. Three damper rods clamped and a fourth one bent with a wrench. With four out of eight dampers in place the chances were against the bomb going critical only . . .

His mind clouded with fascinated horror. One of the control rods was inching upwards despite the bite of the knurled jaws of the clamp. Little slivers of metal were falling on his fingers as the impatient metal moved slowly up, drawn with sinister power by some unrelenting mechanism. With frenzied, racing brain he imagined he could feel the radiation building up, penetrating his body with tongues of flame to engulf him in the final conflagation.

How to stop it moving? He had no more clamps and no time to search for Roger's. There must be a way. The wrench? No, the auto grip was locked solid onto the bent rod and jammed against the roof of the compartment by the same mechanical compulsion which was tearing the teeth from the clamp. If only he could see ! *Hell* ! *What was that*? *A flaw, a dimple, no, a hole—a blessed hole through the rod. A punch, a nail, a screwdriver—anything would do.* A small screwdriver met his frantic fingers in a pocket and he thankfully thrust it into the hole only an instant before it fetched up short against the clamp. The anguished whine of a baffled servo told him the steel had served him well.

Three and a half dampers and he was still this side of hell. If only he could reach the servos and drop another damper. Idle speculation, it would need a heavy workshop to punch a way

through there. *How long to criticality? No use, the calculation carried too many unknowns. Certainly no time to go and get a cutting torch. Then how to cut a three-eights inch chrome-steel rod with bare hands and a prayer? Oh Christ! Oh bloody Christ! Lord, Why hast thou forsaken me?*

The damn things are moving again—all of them. This is it! This is what happens to everybody else, never to you—only once. This is the edge of eternity, the sense beyond sensation, the falling house that never falls . . . falling . . . falling . . .

Of the two men, Gruman's condition was definitely the worse. Roger was treated for shock and damaged ears, and accepted his hearing-aid with a philosophical heart. He had blacked out under the pressure of sound and stress, but as he fell he had known with certainty that Gruman would save the day. Why? Well, Michael Gruman always did. Nothing rattled Michael.

But Gruman was undergoing treatment for deep shock, and for many days his position was desperate. Narco-analysis revealed his firm acceptance of death. He *knew* the bomb had exploded. He'd had his hands on the dampers, felt them move, knew the imminence of criticality in the reactor. Then he'd known only darkness. That was death, wasn't it?

It took the services of a skilled psychiatrist many patient weeks to convince him back to life. The dampers had moved, undoubtedly. But in the confusion and mental turmoil of the moment facts had become confused. Movement was important but so was direction.

Lieutenant Sandor at Telecom, hearing the German signal die, had rapidly applied his own transmitters. Since the bomb had not exploded but had obviously already been triggered he figured he had nothing to lose. The sequence of octave cutting had been roughly determined during the afternoon but no equipment was available to duplicate it automatically. Sandor therefore sweated it out quietly, manually inserting octave filters into a haywire circuit at seven second intervals, and slowly losing his nerve as he heard Gruman's anguished battle relayed by the pickups on the bomb.

Yes, Gruman felt the dampers move, all right—but moving down into the safety position as the bomb reverted to steady-state under the influence of the new transmission. And Gruman, when he was strong enough to accept it as a fact, agreed it was a perfectly sound approach.

Colin Kapp

New author Derek Lane presents an interesting Time paradox theme in his first story—a time scanner which automatically selects a person's future life-line. Gear this into a TV show and you have a new version of "This is Your Life."

THE DESTINY SHOW

by DEREK LANE

I wondered how many of Manley V. Goodfellow's three hundred million odd fans would have recognised him at that moment. The fleshy face which radiated charm on the screens of the world was distorted with rage as he thumped a fist on my desk.

"Show! You call that travesty a show? Some drip works his way up to be manager of a supermarket, marries the girl who has lived in the next block all her life, and settles down to raise four of the most unattractive brats you ever laid eyes on. It's not good enough, Jackson. I've got a reputation to think of."

I remembered Goodfellow when he didn't have any reputation. The trouble was he had come up too fast, made big by the success of the show. When *This Will Be Your Life* first went on the air, he was just another news magazine interviewer. His function was merely to talk to the person who was the subject, and provide continuity dialogue between the taped dramatic incidents. If there was any real star in the show it was the Strogoff Time Viewer—not the mocked up monitor screen you folks see at home, but the real one, that nobody but production staff were allowed near.

The viewer supplied the material for the show, scanning through the future time line of the subject. But the public easily become confused about that sort of thing ; and they had come to look upon Goodfellow as some sort of godlike creature, who created the future with his own hands. Judging by his conduct over the past few months, he was beginning to agree with them. I was having increasing trouble through him trying to interfere with the production side of the show, demanding certain camera angles, or modifications of the script.

" It's no use your getting worked up about it," I said. " The Stranmore time line is full of good human interest material, and whether you like it or not, we're going to use it."

" Human interest, my eye !" bellowed Goodfellow. " You can't go on getting away with that corny success story stuff forever. It was all right when the show started ; but people are more sophisticated these days, they want something with real red meat drama."

" Of course they do. We're all the time researching to find them something new," I said. " We've wasted weeks tracing the time lines of subjects who looked as though they might have interesting developments, and then had to scrap all our work when we came up against a hiatus. The surprise element is something we shall always be short on, because of the very nature of the tools at our disposal."

Our difficulty was that despite the fact that the Strogoff viewer was infallible in what it showed of the future of a subject, it could only give a limited picture. We had found that although the broad outline of a human lifetime was laid down in advance, there was still room within that framework for a certain amount of free will on the part of the subject. There were decision points in the time line of each individual, like little by-ways down which he could stray before joining up with the main highway of his time line again. This meant that although we might be able to pinpoint dramatic incidents in the life of a subject, we were quite often left with motivational blanks instead of the causative chains we needed to make these incidents dramatically meaningful.

The picture of a person's life that we got from the time viewer was something like a jigsaw, with certain pieces missing. We called those blank screen passages hiatuses—we called them other things too, when they came right in the middle

of a good story line, because we couldn't fill them in ourselves. The show had to be complete truth, and if truth didn't make a good show, then that was just too bad.

Goodfellow knew all this as well as I did, but he was in no mood to listen to reason.

"You've had plenty of good stuff and refused to use it," he said. "I've spent some time in the research department too, don't forget."

"We've scrapped a lot of time lines as unusable for various reasons, sure," I said. "For one thing, we have to think about possible libel actions."

"How can the truth be libel?"

"That's not the point. Until the law is changed, and time viewer recordings are admissable as evidence, we shall always lay ourselves wide open to actions like the one Cortman brought against us."

"And a year later he was certified insane," Goodfellow said.

"Sure he was—and everything we had used on the show was proved to be true. But then it was too late. We had lost the case, and it cost Global a whole heap of money."

"So what? They get it back in ad rates. We should be showing life as it is, everything that goes on . . ."

I sighed. This was the old Goodfellow routine, and I was getting pretty sick of it. We had the Strogoff viewer on licence from the government. We were the only commercial users, because (a) the top brass at Global had pull with the government party, and (b) we had been lucky enough to have Strogoff on the payroll when he perfected the instrument. Even so, there was still quite a bit of opposition at the top, and lobbying from rival companies. We had to be careful, and keep our noses clean—otherwise our licence would be revoked, and *This Will Be Your Life*, the biggest money making show in the history of TV, would be off the air.

"Look, Manley, I've been sweating out this job for the past eighteen months," I said wearily. "What makes you think you can do better?"

"You don't realise the possibilities!" he shouted. "This show is the greatest thing that ever happened in mass communication. The government wouldn't dare to interfere, whatever we put on."

"I wouldn't count on that."

" You're too preoccupied with the mediocre," Goodfellow said. " Don't you realise that hundreds of millions of people, living boring lives, wait anxiously through the week for the two hours of *This Will Be Your Life* to give their existence some meaning ?"

I rose to my feet and looked down on him, which was something he didn't like. I was nowhere near as broad as him, but I was nearly six inches taller.

" All right, Manley. If you're finished, I've got work to do."

" And you still insist that you're going to use that Stranmore show ?" He looked up at me, his eyes narrowed.

"Whatever you may think, the show is still topping the ratings—and I'm still its producer. Now what say you do your job, and I do mine, huh ?"

" And if I refuse to take part in this certain flop ?"

I shrugged. " That's your privilege. But I'd talk it over with the legal department first, if I were you."

He looked at me for a moment, his head sunk between broad, bull shoulders, then walked out of the office without another word.

" Wow ! You really put his lordship in a tantrum," said Terry, as she came in the door. Terry Nichols had been my secretary for a couple of years, which meant that she had been in at the conception of *This Will Be Your Life*. Even so, I sometimes got the impression that she didn't approve of the way we pried into people's private lives, although she had never said as much in so many words. Anyway, for some reason of her own, she had never quit the job, whatever her feelings about it. I was glad of that—she was more than decorative, with her small, large eyed face, and mop of short cut black hair.

" Maybe I did, but he's got to learn who's running this show," I said.

" Oh, oh !" Terry raised one eyebrow. " You're not so happy yourself, are you ?"

" I've got enough to do putting a show together, without dealing with that pompous clown."

" I'd watch my step with him, if I were you, Peter," she said quietly. " He's got an awful lot of pull up at the top these days. People tend to forget the hard working backroom characters like us, when the personality kids like Goodfellow are around, you know. They're the ones who get their pictures on the screen and in the newspapers."

I remembered Terry's words when I unfolded my newspaper the next morning. The first thing that caught my eye was a picture of Goodfellow, bang in the middle of the front page. But it was the other photograph that made me forget all about breakfast and set off straight away for Global Television House.

The whole impact of the show depended on the fact that the subject knew nothing until he was actually in the theatre, confronted with Goodfellow saying : ' This will be your life . . . ' All our research and preparatory work was kept top secret up to that moment, and no one but the staff who actually worked on the show knew who the subject was to be until then.

Apart from its suspense value, this secrecy had the added advantage of ensuring that all our work was not wasted. Nobody, so far, had shown the moral courage to refuse to allow themselves to be used as a subject for the show. Whereas, if they had been given time to consider, instead of being so confronted, quite a number of them would probably have preferred not to have their future lives exposed on a world-wide telecast.

Stranmore, the subject of the coming show, felt that way, because for the first time in the history of the show, someone had talked out of turn. Underneath his and Goodfellow's photographs was a statement from Stranmore. He said that he would not take part in the show, and that if any such show was screened without his permission, he would sue Global for invasion of privacy.

Arriving at Global I took the elevator up to the twentieth floor and hurried along to the office of Macklin, the Vice President in charge of Production. He was a short, stubby man, with the complexion of a two day old corpse and dark brown eyes that saw everything. He nodded a reply to my ' Good morning ' and got down to business.

" I've put security onto tracing the leak. But the important thing is the show. We've only got thirty-six hours to go. Do you have a substitute ?"

There was no use hedging with Macklin. He had come up the hard way, and I respected his ability, if not his morals.

" No. Since we went on a weekly schedule we've used up subjects as fast as we can get hold of them."

" But you should have been prepared for something like this," he said bluntly.

" I agree. But at the moment it takes us a full seven days to scan through the time line of a subject and tape what we need. If we had another Strogoff we might be able to get ahead of the game."

" So where do we go from here ?" His eyes were on me as he picked a cigar from the box on his desk. " We can't afford to cancel—the show is too big."

" There's certainly no time to produce a different subject," I said. " The only thing I can suggest is that I run through the tapes of previous shows and make up a kind of anthology of high spots from them."

He was silent for a moment, turning the cigar between his thick fingers, then he said : " I don't like it, but it might work, just this once. How soon can you have it ready for me to see ?"

" Six o'clock this evening ?"

" Make it four," he said, reaching across his desk for a filing tray full of papers.

Terry and I had been at work in the tape editing room for about an hour when Goodfellow came in.

" Rough about Stranmore," he said. " What are you using for a substitute ?"

I told him.

" And Macklin agreed to that ?" he said.

" What else could he do ?" I said irritably. " Now give us a break, will you, Manley ? There's a hell of a lot of work to be done right now."

" For what ? Just to put on another corny repetition of the mixture as before ? It will knock the rating thirty points."

" Perhaps so, but even that's better than a cancellation."

His heavy face broke into a smug smile. " Maybe you won't have to do either."

I slammed off the switch on the tape viewer I was using. " Now look, Goodfellow. I haven't got time to waste playing games with you. When Macklin says four o'clock this afternoon, he's not kidding. What's on your mind ?"

He said : " Harry Vince and I have been taping some stuff that would make a better show than this junk. If you'll come along to his room you can see for yourself."

" All right. I'll give you ten minutes," I said, rising. " When did you do these tapes ?"

" Harry and I have been scanning along this subject's time line for the past month or so, at odd intervals," he said. " It was a kind of experiment in the sort of thing I had in mind for the show. It's only rough at the moment, but we could whip it into shape in time."

Harry Vince, our chief researcher, had been a pupil of Strogoff's. He was a narrow-featured little man, with a black fringe of hair round a pale, bald head.

" Get those Kraus tapes out, Harry," Goodfellow said. " Peter wants to have a look at them."

" I still haven't had time to break that hiatus," Vince said, blinking rapidly.

" That's not important," Goodfellow said. " I can talk round it."

" I don't know . . . there's nothing for fifteen whole months," Vince said, as he picked a reel of tape out of its case and began to fit it on the deck.

" Whereabouts in the time line does this hiatus come ?" I asked.

" That's the point," Vince said. " It starts from tomorrow night."

I turned on Goodfellow angrily. " Didn't I tell you I had no time to waste ? If we used this subject, what would we show for the first quarter of an hour—a blank screen ?"

" I've already thought that one out," Goodfellow said. " We open with some interview, background stuff, and show some of Kraus's past that we've taped. Then we can cut into the first dramatic incident. Believe me, when the viewers see the kind of material we've got for them, they'll be past the stage of asking critical questions."

Vince dimmed the lights and the tape began to run through on the monitor screen.

Goodfellow had been right when he said that Paul Kraus was something different from the average subject we used on *This Will Be Your Life*. The tape showed that Kraus had spent three years of his adolescence in reform school, and graduated a hardened criminal. At nineteen he was already organising the prostitution and dope peddling of a large section of the city, and now, at twenty-two, he was moving in on the dock labour rackets.

That was only the background stuff. After the fifteen month hiatus, the incidents on the tape really began to hot up in their visciousness. Murder, rape, robbery with violence, at one time or another during his career Kraus would be involved in all these crimes and more. The appalling thing about watching the tape was the knowledge, that having been taken from the time viewer, it was an inviolable record of what was going to happen in the future, and there was nothing any human being could do to stop those events happening.

" All right, cut it there," Goodfellow said. He turned to me. " See what I mean ? This Kraus is so hot he makes Capone look like a Sunday school teacher. You name the racket and Kraus, at some time during his future, is the kingpin."

There was something about his enthusiasm that made me feel slightly sick. " And you really expect me to use filth like this on *This Will Be Your Life* ? I'd rather see the show go off the air. It's bad enough to know that these things are going to happen, without spreading them all over the screens of the world. Any decent, public-spirited citizen would go out and kill this Kraus right now, and be doing humanity a service . . . "

" You know as well as I do that's impossible," Goodfellow said. " What we've got here on the tape is the way his life is going to be. There can be no doubt about that. It's a terrific story !"

" Perhaps you think so, but I'm still the producer of the show," I said. " Maybe we *have* played unmercifully on the old sentimental standbys in the past, but we never turned out poisonous filth like that, and we're not going to." I walked out and hurried back to the tape editing room. I still had a show to prepare.

It was some way from completion when Macklin called on the interphone and said he wanted to see me right away.

" Goodfellow tells me that you refused to use the material he offered you for a substitute show," Macklin said.

" Of course I did. It was unusable."

Macklin grimaced as he stubbed out the chewed remnants of a cigar. " In its present form, perhaps. But it could be cleaned up a bit."

" You're joking !" I said.

His brown eyes narrowed. " I never joke, Jackson. Goodfellow called me an hour ago. I've seen some of the tapes he's made."

" And you think they could be used on the show ?"

" With editing, yes."

" How can you edit stuff like that ?" I asked. " Whichever way you look at it, the theme of any show about Kraus would have to be ' Crime *does* pay.' You can't put a message like that on hundreds of millions of screens, it's not moral."

" It will be the greatest sensation we've had since the show started," Macklin said. " I want you to scrap the work you've been doing on the anthology show and co-operate with Goodfellow on the Kraus story."

" And if I refuse ?"

His pale face showed no flicker of emotion as he said : " Goodfellow will produce the show on his own."

" You'd do that ?"

" Why not ?" Macklin said. " I told you before, the show's the important thing—not your damned conscience."

" And after tomorrow night ?"

" We'll wait and see," Macklin said, and I knew what he meant. If tomorrow night's show was a success, I would be out. Maybe it would be a good thing, at that.

" Thanks a lot," I said, and walked out of his office.

Terry was indignant when I told her what had happened.

" You're not going to let them get away with this, are you ?"

" What else can I do ?"

" Several things," she said fiercely. " Like for instance checking up and getting full proof that Goodfellow was the one who let the story of the Stranmore show out. This whole thing was deliberately planned by him. He didn't just happen to have that Kraus show ready."

It was dirty, but not too dirty for Goodfellow. Maybe she was right.

" Stranmore worked for some supermarket on the North side, didn't he ?" I asked.

" Here you are." Terry thrust a piece of paper with the address on it into my hand.

I was at the supermarket within half an hour, asking for Stranmore. I recognised him immediately. After all I had spent a whole week looking at his face on the viewer, editing the tapes for the show. He was a thin, pleasant looking young

fellow, with thick dark hair and he was wearing a warehouse coat, because as yet he was only one of the helpers in the market.

" Look, mister. I've seen enough of you newspaper fellows today." He looked worriedly over his shoulder. " The Manager's kicking about all the time I've wasted, and he's liable to fire me if there's any more of it."

" All right, son, don't worry," I said. " He isn't going to fire you. I'd bet anything you like on that."

" You sound pretty sure."

" I should be," I said. " You're going to be the manager here yourself, within a few years."

He eyed me suspiciously. " What sort of a line are you peddling ?"

" No line, Stranmore. Those are the facts. I'm not from a newspaper—I'm the producer of the *This Will Be Your Life* show. "

His face went very pale. " Then you can get to hell out of here !" he grated. " You're the prying ghoul who's behind all this, are you ? Who do you people think you are, anyway—spying on people's private lives ?"

" Now wait a minute, Stranmore. Some people are grateful to know about their futures . . . "

" Some people, perhaps—but not me. Now get out !" he shouted. " What I said in the papers is final. I don't want any part of your filthy show."

For the first time I began to really understand the feelings of the people who were the victims of the show. Always before they had been merely ' subjects,' whose time lines I had followed through the impersonal medium of time viewer tapes; people whom I only met briefly during the actual show, and never saw again. Always preoccupied with the production of the show, I had never taken time out to think about the reactions of a person whose future life was exposed to the vulgar curiosity of the mass audience.

" All right, Mr. Stranmore. There's no likelihood of your ever being on the show, after what has happened. All I want to know is how you found out that we intended to use you as a subject."

" The first I heard, was when the reporter from the *Globe* called at my home last night," he said.

I thanked him and hurried out. My next stop was the *Globe* offices. But my premonition that I could have saved myself

the trouble, was justified. They had no intention of divulging the source of their information, and I had no way of forcing them to do so. In any case, I doubted whether they knew the source themselves. More than likely the tip had come from an anonymous phone call. I had been stupid to imagine that Goodfellow would be likely to leave behind any possibility of exposure.

I went to the office the following morning as usual, despite the fact that the preparations for the night's show were out of my hands. There was an idea in my mind that had been growing all night—something I just had to do.

" I'm finishing with the show whatever happens," I told Terry. " Talking to Stranmore yesterday made me understand for the first time just what we do to these people we bring up here as subjects."

Her face had the kind of look I had been hoping to see there for a long time, as she said : " You've really seen it at last ? I was beginning to lose hope."

" Yes, but before I quit there's one more show that has to be done—even if it's never broadcast. Are you willing to start work on it with me, as soon as the viewer is free ?"

" Is the subject who I think it is ?" she asked.

I nodded. " Goodfellow's is one time line I must scan through. I've got to know just how long he can go on getting away with this kind of dirt. Then maybe I'll begin to believe in something again."

She reached out and touched my arm gently. " I'll give you something to believe in, Peter, I promise."

I began to think how wonderful it would be to live a normal life with a woman like her, away from this chrome and plastic jungle.

" Thanks, Terry," I said. " I'll take you up on that, when we've finished this last job."

The show went on the air at eight o'clock, but all activity was focused around the auditorium for some time before that, and there was nobody nearby as Terry and I let ourselves into the time viewer room.

I switched on the instrument, and we both sat waiting for it to warm up.

" You're sure we're doing the right thing ?" Terry asked.

" For the first time that's something I'm really certain about," I said.

The screen became a blur of light, then a picture began to form. It showed two men getting into a taxi.

" Harry must have been working on that hiatus point right up to the last minute," I said. " That's Kraus, with Barney Wilson. Barney will be bringing him to the show."

" You mean that the hiatus has been dissipated ?"

" Could be. Perhaps some decision point has been passed during the last few hours."

" Maybe the fact of his being on the show ?" Terry suggested

" Possibly—anyway it's not important. The Kraus show is finished as far as we're concerned." I bent over the control panel and began to make the necessary adjustments. I had spent so much time in there with Harry Vince, scanning subjects, that I knew my way around the controls pretty well, and the instrument was soon set to pick out Goodfellow's time line.

But there was no picture . . .

" That's funny ! There must be a hiatus around about this point on Goodfellow's time line, too." I accelerated the scanner, covering a period of six months in a few seconds, then waited for the picture to steady. But there was still nothing but a blur.

" Try further ahead," Terry said tensely.

I flicked the accelerator again, covering a whole year this time.

" No good."

" Are you sure you have the right tuning for Goodfellow ?" asked Terry.

" Of course, I've done this sort of thing before dozens of times." I decided to try an experiment. Changing the setting back to Kraus, I re-tuned to the point at which I had picked him up in the taxi with Barney Wilson, the contact man. Then I eased the accelerator a hair's breadth. The picture blurred, then steadied again, to show Kraus and Barney walking together down the aisle of the *This Will Be Your Life* auditorium.

" This will be your life . . . Paul Kraus !" The face of Goodfellow, his interviewer smile shining in the spotlight, loomed large in the screen.

" Do we have to go through all this ?" Terry asked.

" It may be important," I said.

Goodfellow and Kraus were up on the stage now. Goodfellow was talking to the audience, giving them the usual introductory patter to the show. He was standing with his back to Kraus.

The face of the crook was pale and rigid, the eyes deep in his head as he fell into a half crouch, like some animal about to spring.

"Peter! What's he doing?" whispered Terry.

Kraus was slipping one pale, long fingered hand into the inside breast pocket of his jacket. As I watched the action I suddenly knew the answer to the seeming paradox of society allowing him to continue with his criminal activities after they had been exposed on the show.

The reason for the hiatus in Kraus's time line was the decision he had to take at this moment—the decision that would *prevent* his future being shown. But right up to that moment, to the development of the new situation, the hiatus had remained. And the hiatus in Goodfellow's time line . . .

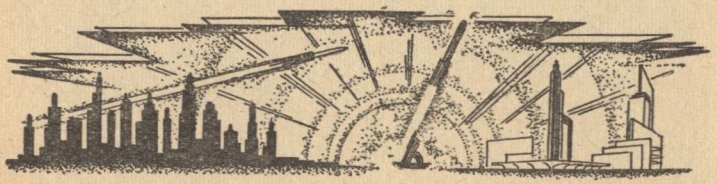
"You stay there, Terry!" I shouted, and rushed out of the viewer room. The viewer was running slightly ahead of true time, just how much I was not quite sure—but there still might be a chance.

I reached the door at the back of the auditorium and pushed it open. Up on the stage, something bright flashed for a moment in Kraus's hand. Goodfellow stopped suddenly in the middle of his speech, his mouth dropping open soundlessly. Then, like some dynamited tower, he began to topple slowly forward into the orchestra pit.

As he fell, I saw the haft of the knife projecting from between his shoulder blades. There had been no hiatus in his time line—it had no future.

The stage lights went off, and the curtain began to ring down. Around me, women were screaming . . .

Derek Lane



Given one example of meeting a superior alien race in space and overcoming it (by war) how combat a second without the disaster of armed might ? Especially when the opposing side is telepathic !

SURVIVAL DEMANDS

by E. C. TUBB

There was a new girl at the desk, a pert young blonde with full lips and calculating eyes. They narrowed a little as I stated my name and errand.

" Captain Tolsen ?" Her pause was as artificial as the routine checking of the cards. " I'm sorry, Commander, but I'm afraid that he's on the restricted list."

" I know that." Surely the girl would have been briefed ? " If you will look again," I said gently, " you will find that I am on the list of permitted visitors." Then, as she hesitated. " Contact Professor Malkin and inform him that I am here !"

She didn't like it, I could tell that. She considered herself too young, too beautiful for any man, let alone a grizzled old space commander to have used that tone with her. But it had been a long journey to the Institute, my leg ached and I was short on patience. So I snapped at her as I would to a crewman and, like a crewman, she obeyed.

Malkin was pleased to see me. He crossed the reception hall, hand outstretched, his old, crinkled eyes beaming with pleasure. It was good to see that pleasure, good to feel the firm grasp of his hand.

" John ! It's good to see you." He tilted his head towards the desk. " Trouble ?"

" Bad liaison," I said. " She didn't know that I was permitted to visit Tolsen."

" I'll fix that." He walked towards the desk, he didn't trouble to lower his voice. " Commander Hamilton is to be permitted to visit Captain Tolsen whenever he wishes. Is that understood ?"

" Yes, sir."

" Then mark it on your cards." He rejoined me. "A new broom," he explained. " Mary went off to get married and we've been saddled with this would-be tri-di star. She thinks it smart to be awkward, but she'll settle down."

Knowing Malkin I could believe that. He ran his Institute as I ran one of my ships. I could have felt sorry for the girl but then I saw her eyes and knew that pity was a wasted emotion.

And, knowing that, knew that it was more important than ever that I visit Tolsen.

Malkin led me from the reception and into the body of the Institute proper. We walked down white corridors, past green-tinted rooms, striding on the soft foam plastic of the floor, the air-conditioned atmosphere tinged with pine.

It was a quiet, restful place, a modern counterpart of a medieval monastery, though here men did not seek the salvation of the world by means of prayer. Instead they tried, by seeking understanding of the workings of the mind, to find a means of salvation for the human race.

Malkin talked as he always did, saying the same things that I had heard before but which both of us knew was essential that I should never forget.

" A lot of people have the wrong impression of our work here," he said. " Our title is probably the cause of that. The Institute for the Study of Mental Abberation means only one thing to the majority—we care for the insane."

" The trick being to define insanity."

" As soon as a man, or woman, stops thinking as the majority thinks he should think, then that person is considered to be insane." Malkin sounded bitter. " So much for the tolerance of the human race."

He paused before a door, slid open a panel, gestured for me to look inside.

It was a small room, the floor, walls, ceiling, even the furniture all covered thickly with green-tinted foam-plastic. A woman sat on the low bed. She wore a loose smock which hid the lines of her body. Her hands rested limply on her lap. Her head was tilted back a little and her eyes, wide and unblinking, stared at something no one but herself could see.

" A dreamer," whispered Malkin. " A visionary, a woman divorced from reality—and one of the finest examples of prescience I have ever met. Insane ? Or merely cursed, or talented, with unusual mental powers ?"

He closed the panel, led the way from the room.

" There are others," he continued. " So many others. " All, in a greater or lesser degree, possessed of extrasensory powers, precognition, levitation, telepathy, every psi faculty you can mention ; we've got them all." His voice became even more bitter. " We have them, and yet we haven't. We know what they have and what could be done with it but always there is something which eludes us. A matter of communication, of understanding, a failure to detect the undetectable with the instruments we possess."

" Is that because most of them have a low intelligence ?" It was a theory to which I had given some thought. " I mean, a man could be very bright in one field and absolutely dumb in another. Could it be that possession of these faculties hampers normal intellectual development ?"

" Perhaps," his assent was grudging. " But the evidence isn't conclusive. And we have examples which deny that theory."

" Tolsen ?"

" He and others, but Tolsen is the prime example."

Malkin was intelligent and one of the fairest men I have ever met but he was human and could not wholly deny his heritage. I sensed the wash of anger, the radiated hatred for what had happened. I rested my hand on his arm.

" It couldn't have helped, Malkin."

" I suppose not."

" We had no choice," I said. " No choice at all."

" There is always a choice," he said flatly. " Don't take the coward's way, John, you know better than that."

I felt my anger rising. I quelled it ; anger had no right in a place like this. And Malkin was right, there had been a choice, but it was one which I had not dared to take.

Tolsen sat in his usual position, leaning back in his chair, a magazine on his lap, his eyes staring through the window towards the fluffy white clouds drifting against the blue of the sky.

He looked normal enough, clean, neatly dressed, his mouth firm, his features placid, but it was the little things which betrayed what he was and why he was here.

Nothing of space had been permitted to enter this room. No pictures of the planets, not even the wonderfully beautiful, soul-stopping pictograph of Earth as seen from the moon, a copy of which could be found in almost every household. Even the magazines had been vetted so as to eliminate all news of other worlds, the books were mostly historical romances or pre-space texts. There were no souvenirs, no statues, no newspapers even with the outer-world news. There was nothing to remind him of his past, not even anything from his actual service with the fleet.

And, on the table, was the large bottle of big tablets which had given his features that look of drugged tranquility.

He looked up as I entered, some of the calmness leaving his face and giving me a glimpse of the tormented mind beneath. But the drugs were strong and, after that one betraying moment, the defences of his detachment returned to build a wall between us.

" John !" His smile was genuine. " I'm glad to see you. How's everything ?"

" Much as usual. Work, work and still more work." I sat down, resting my leg, letting some of the peace of this place enter into me. " And yourself ?"

He shrugged, it was answer enough.

I lit a cigarette, conscious of the trembling of my hands, hating myself for what I had to do and yet knowing that it had to be done. Memory is a tricky thing and the determination of yesterday becomes the compromise of today. Sometimes it is essential to return to that yesterday to bolster that determination. And Tolsen was my yesterday.

" We have contacted a new race," I said quietly. " The Lhassa. Small, humanoid, something like a furry monkey but with a highly advanced civilisation."

He turned and stared out of the window. His features twitched. The wall of detachment between us showed the first crack.

" Preliminary investigations have been completed." I did not meet his eyes. " Soon now a fleet will be dispatched—you know why."

" Telepathic ?" The crack widened.

" Yes."

" Like the Frenzha ?" A segment of the wall crumpled into dust.

" Mentally, yes."

" My God !" It was a cry from the heart. " My God !"

" We want to be friendly," I said. " The fleet is—just in case."

" Dear God !" he said. " Dear God, not again !" Now he met my eyes, the wall had totally vanished.

I looked at a man who lived in torment.

A man who had saved the entire human race from total extinction.

It had begun when the first rocket reached for the moon and, after that, there was no stopping. Never mind the reasons given at the time, the military expediency, the lust for prestige, the rivalry of opposed cultures. The bare fact was that man had broached a new frontier and, man being what he is, he had to go all the way.

The moon was the hardest, Mars and Venus hard but not as hard as Jupiter and Saturn. New drives had been invented by then, old problems solved and new problems recognised. It was only a matter of time before the AG drive gave us the stars. It was inevitable that man should discover that he was not alone in the universe.

The Frenzha were humanoid but stemmed from reptilian stock. They walked upright, had four limbs, smooth, rounded skulls and were totally devoid of hair. They spoke in a lisping series of sibilants—when they spoke at all. Normally they did not speak, there was no need. The Frenzha were a race of telepaths.

Earth and Frenzha met and faced each other like cat and dog. Diplomats were exchanged and some trade permitted. Commerce flowed for a time and then ceased as both races came up against the same barrier.

The Frenzha were telepaths. Terrestrials were not. The Frenzha, used to honesty and understanding in their dealings with each other were at a loss when it came to dealing with Terrestrials. They could not go below the spoken word. They could not gauge the honesty and sincerity of a statement.

That, in itself, would not have been insurmountable. The thing they could not understand was the cruelty of the human race.

A man does not tolerate a boy pulling the legs off flies. The boy may think the insect has no feelings, the man knows better. A telepath is acutely sensitive to physical and emotional pain. The harshness, inconsiderateness, sheer disregard for others and blind pursuit of self-gratification which is a part of the normal make-up of the human race sickened the Frenzha.

So, five years after the first meeting, seven years earlier, I had commanded the fleet of ships which orbited above the world of the Frenzha.

Tolsen, newly created as a Captain, was with me in Control.

" They think of us as cripples," he said bitterly. He was young and had a Terrestrial's normal pride. " Insanely cruel and hopelessly vicious. They hate us, Commander."

" Hate isn't enough," I said. " We have to be certain."

He nodded and slumped back, eyes closed in the effort of concentration. Looking down at him, feeling around me the humming life of the ship and, beyond the ship, the entire fleet, I felt aloof, distant, almost God-like. I could be excused that feeling, I had more power at my disposal than any other man in history. The power, literally, to destroy a world.

But Tolsen had the real power.

Tolsen was the one to pass judgment.

I had never met a telepathic human before. I had heard of them, read reports of what they could do, but they were rare and worked mostly at the Institute.

Telepathy, like the other paraphysical sciences, had been ignored and derided for so long that even now, when concrete proof had been given as to their necessity, recognition was slow. True, Malkin had his Institute backed by government funds. He had chased down all the material he could but even so the results were poor. Tolsen was the best he could give me.

He opened his eyes and met mine.

" Well ?"

He shrugged and held his head in his hands. I gripped his shoulder.

" Listen," I snapped. " I know it's hard but it has to be done. You've been down there, met the Frenzha, caught their thoughts and probed their emotions. They can't read our minds and we can't read their's, only a few—"

" Freaks, Commander ?"

"—unusual types can do that." I ignored the interruption, it was too close to truth to be comfortable.

" They hate us, Commander, I told you that."

" We can live with hatred."

" They despise us." Tolsen bit his lip. " It wasn't pleasant learning the truth of how they feel about us. It made me feel almost—ashamed."

" How they feel about us isn't too important." Control was air-conditioned, I shouldn't have been sweating. " What do they intend doing about it ?"

" They want to isolate us."

" And ?"

" They want to have nothing to do with us, expunge us from their memory. They want to pretend that we don't exist, have never existed, and yet they are a logical race. They know that denying the existence of a thing doesn't eliminate it." He stared at me, his eyes wild. " They feel revolted at ever having met us."

" So ?"

" They intend destroying us."

It had come, the thing which had to be faced, the thing which I had hoped not to hear. The Frenzha were logical. To them we were a diseased race of mental cripples, cruel, thoughtless, causing hurt and pain and not even aware that we had done so.

So, like a surgeon deciding to cut out a malignant growth, they had decided to eliminate us.

" I see."

" They mean it, Commander." Tolsen had misread my expression. " They can do it too."

" I know that." I looked down at him, sitting slumped in his chair, a unique individual into whose hands fate had placed the destiny of a world.

" Be certain," I urged. " You know what we're here for and what we can do. Check again, you may have made a mistake."

" There's no mistake."

" Check anyway."

He sighed and closed his eyes again and concentrated on the wash of mental thought rising from the planet below. He had tried to explain to me how it felt, this reception of two billion minds. It was akin, I imagined, to hearing the distant murmur

of a crowd and yet it was more than that. Emotions came sharp and clear, individual words were lost but a telepathic race had a gestalt inconceivable to others. It was a crowd, perhaps, but a crowd with a single voice, a single emotion.

There had been no mistake. The Frenzha intended to destroy us, eliminate us completely. Tolsen was certain of it.

So I gave the orders which would eliminate them first.

And, as the bombs tore the very atmosphere from their world, Tolsen went insane with the dying impact of two billion minds.

It was something we had never thought about, a possibility we had never considered. A telepath can read the mind of another telepath, can sense and feel the emotions and pain of that other. Tolsen didn't stand a chance. He suffered the immediate sensations of two billion deaths and lived to know the guilt of a murderer two billion times over. And some of it, inevitably, washed over to those around him.

They, superficially at least, had recovered. Tolsen never would.

He was calm enough, drugs had seen to that, but drugs could only make it easier for him to remember, they could not make him forget. Even so his hand was shaking as he reached for the bottle with the big tablets. I passed him water as he swallowed half a dozen and waited as he drank it.

" Not again, Commander !" His eyes were those of a child who begs not to be beaten.

I lit another cigarette.

" You can't do it again," he said wildly. " You can't destroy another race just because they are what we should be. Because we are crippled, mentally I mean, surely that must now be obvious. First the Frenzha, now the Lhassa, all telepaths. How many other races are there the same ? How many like us ?"

" Perhaps none." I studied the smoke of my cigarette. Space is a lonely place, it gives a man time to think. " Maybe, somehow, we took the wrong turning. Or perhaps we, as a race, had to work a little too hard for survival. Telepathy was a luxury we couldn't afford—you can't feel sorry for the animal you're killing for dinner. Both Frenzha and Lhassa are—were—soft worlds. The inhabitants herbivorous. They could afford to be gentle."

" But we are past all that now."

" I know, but our heritage is a part of us. An unknown number of years, an unknown number of generations, all have made us what we are. We simply couldn't afford the psi powers, we had to deny their very existence in order to survive." I crushed out the cigarette, conscious that I was talking more than I should.

" Then—"

" There won't be another Frenzha."

I rose, it was time to go, my visit to yesterday had stiffened my determination.

Malkin met me outside.

" Well ?"

" Will he recover ? Fully, I mean ?"

" Never." Malkin took my arm. " As an individual he is lost to us, but all is not lost. His seed bears the gene pattern which made him what he was." He gripped my arm. " We'll find him a girl, one as near like himself as possible, together they will have children." He took a deep breath. " No, Tolsen is not wholly lost."

" I'm glad of that."

" And you ?"

" What do you mean ?"

" Rumour gets around. What about the Lhassa ?"

" I am in command of the fleet which will be sent to Lhassa," I said slowly. " On the theory, perhaps, that what I have done once I can do again."

" John !"

" You said that I'd had a choice when dealing with the Frenzha," I said. " But it was no real choice and you know it. It was them or us. Did you expect me to wipe out my heritage and permit the destruction of my race ?"

" Do you think that you can avoid it ?" Malkin was bitter. " We aren't alone in the universe. How many races do you think we shall be permitted to destroy before we are destroyed?

" Isn't that up to you ?"

" How so ?"

" You, not I, have the answer. It is up to you to produce the telepaths who will be accepted as ' normal ' by the aliens. They must be our diplomats, our spokesmen. They must be our shield." I stared him full in the face. " Produce enough telepaths and we are safe from retribution and everything else. No telepathic race could ever bring themselves to destroy a similar culture. If you doubt that then go and look at Tolsen."

" Is that why you came, John ?"

" Yes. There won't be another Frenzha."

On the way out I stopped at the desk. The blonde was still there, still petulant, still hurt at the treatment I had given her. She was snapping at someone on the phone. She slammed down the receiver as I halted. She looked up, her eyes calculating and wary.

" I'm sorry," I said. " I wish to apologise."

" For what ?"

" For not understanding you."

" I don't—"

" I didn't know that you were new here. Someone obviously forgot to make out the correct list of permitted visitors. I shouldn't have lost my temper but the truth is that I've a game leg and it makes me impatient."

She softened. Her eyes lost the wary, calculating expression. She smiled.

" I'm sorry to hear that," she said. " I didn't know." She hesitated. " In space ?"

" An accident. They gave me a plastic bone but it gives me hell at times. You know how it is."

" I know," she confided. " To tell the truth I'm at fault too but my shoes are killing me."

" Then you forgive me ?"

" There's nothing to forgive."

We smiled at each other and parted. Outside the air was warm with the heat of the late afternoon. The exchange had taught me something—people can be easy to get along with providing they know a little more about you than you are normally inclined to tell.

As with people so with races.

The Lhassa threat had been exaggerated. Since the destruction of Frenzha Earth had armoured herself against any invasion. But it was as well for everyone to believe otherwise. It was essential that the driving need to develop our psi powers should not slacken.

Earth needed telepaths. Seemingly every other race was naturally telepathic. Therefore it was logical to assume that humans, too, had those latent powers.

The need for survival had dictated against their development but that need was past.

Now it was time we caught up.

Survival demanded it.

E. C. Tubb

Most authors write about Earth-type planets where human beings can at least exist fairly comfortably. Author Rayer writes about one which is the equivalent of Hades—its soil disintegrated siliceous rock and powdered quartz and mica, light enough to float under static repulsion. Try living in that *atmosphere !*

STATIC TROUBLE

by FRANCIS G. RAYER

Joe opened the hut door. The heat leapt in at him like a physical thing and he shielded his goggled eyes with a dustproof gauntlet. A hot wind blew against this side of the building, carrying the usual gritty powder that clogged every pore. He pulled down his dustproof nose-and-mouth protector, and closed the door, standing outside.

The wind had not driven away the customary hovering layers of dust and visibility was a mere three or four paces. Away to Joe's left lightning flashed redly, its exact position hid, and thunder roared above the wind and shook the hut door. Joe hoped that Dr. Orekden and the others were safe.

A second flash came very close, and Joe plodded along besides the hut. Dust clung to his goggles and clothing, attracted and held by the static that was the bugbear of the planet. Joe swore to relieve his feelings, and halted where the hut joined another. His back sank into the two or three inches of dust that covered the vertical walls. Other particles came, clinging, blending him into the background of brownish grey.

A man came from the second building, hooded as against a snowstorm, cursing and beating his arms to dislodge the dust. From an arm's length he stared into Joe's face.

" It's not wise to have any men out in a wind like this, Captain Merity," he shouted. " You should know that."

Joe lifted the mouth protector and spat dust, irritated. " The wind's risen since they left, Mr. Wyatt." Why add that he had come out to find them, but could scarcely see the end of the hut ? His reasons weren't Wyatt's business.

Wyatt put his back to the pushing wind, garments flapping like flags. " Is Dr. Orekden with them ?"

" He is. The choice was his."

Joe lowered the protector. This was no place to talk. He slapped his long, loose-jointed arms, dislodging dust clouds, and examined the heavens. Two hours to sunset, but the dust would bring darkness sooner. The planet's sun, from Earth an insignificant dot at the North limb of the Hercules group, was filtered to a ruddy glow. He lifted his mouth piece, his back set to the wind, his bony jaw gathering a beard of dust.

" It's getting late, but Taylor has radio."

Wyatt grunted ill-humouredly and returned to the hut. The doorway spilled light momentarily, outlining Wyatt's broad, heavy body. His antagonism was not insignificant, Joe thought. Men this far from home needed to work together harmoniously ; divided, individuals could not survive. The door closed, leaving gloom.

Joe swallowed. His throat was rough. Nothing but enveloping dust ever since the *Wallace* had landed, he thought morosely. Nor had Dr. Orekden christened the planet Heisswelt for nothing. The thermometer in the hut stood at over a hundred, and that was not unusual.

Beyond the end of the huts, shadows moved in the dust, merging, growing into three men who staggered like exhausted desert travellers. Joe went towards them, eyes searching for the fourth.

The leader of the three halted, shaking dust from the folds of his hood and garments. Grit-inflamed eyes peered out at Joe, and the man rubbed the windows of his goggles, as if unable to see.

" Where is Orekden ?" Joe bellowed at him, facing the wind.

The other rubbed hands over his face and chin, lifted the protector, and spat.

" Lightning got him, Captain."

Joe felt shocked, incredulous. "Our luck can't be that bad!"

" It wasn't luck." Taylor's face was smeared with sweat and dust. " You told us to keep low, and we did. But Dr. Orekden had some notion of finding how strong the static is, or getting a view above the dust. He wasn't much higher than any of us when it happened."

" You're sure he was dead ?" Joe knew the question hopeless : Taylor was reliable.

" Dead as this." Taylor swung a respirator from his belt—its metal was melted, its plastic parts destroyed. " He never knew what happened."

Joe nodded. It was not unexpected. A dim halo was beginning to form round the three men's heads, and the danger on higher ground would be a thousand times more severe.

" Let's all get inside," he ordered.

The static discharge clung round them as they walked, eerie tongues of faint blue fire that were ten times stronger on the lightning conductors of the huts. The hot wind carried them along, and Taylor closed the door and stood with his back to it, shedding dust.

" Heisswelt is too hot a spot for men," he said. " It was too hot for Dr. Orekden. A man can adjust and endure—but only within limits."

" And you think conditions here fall outside those limits ?" Joe asked, removing him face protector.

" I do—well outside."

Joe thought Taylor might be right. " One of you tell Mr. Wyatt."

He sat on the edge of a bench, listening to the rush of wind and powdery sand upon the walls of the building, and the murmur of the motor driven air purifier. Seats, bench, papers and equipment were covered with a fine, grey dust, and the room was hazed as with cigarette smoke. Speaking left a gritty earthy taste in the mouth. It was six weeks since the *Wallace* landed, and the air had never been free of the dust . . .

Watson Wyatt dwarfed the crewmen physically, and in Joe's opinion he had been almost Dr. Orekden's equal. But there was a hard, dogmatical side to his character that Joe did not like. Taylor had moved from the door, letting Wyatt in.

" As I see it we're finished here now Dr. Orekden is dead, sir," Taylor said.

Joe noted the flat helplessness that had not sounded in Taylor's voice while Orekden lived.

" You believe the dust has us beaten ?"

Thunder echoed, but more distantly. The wind was dropping. Taylor's red rimmed eyes met Joe's gaze.

" I do, sir. It never settles. It's the dryness, heat, and friction causing mutual repulsion between particles, Dr. Orekden said. We can't do anything about that. If it were ordinary dust we might beat it. You can get clear of ordinary dust, but not this stuff. And it never settles."

" That's true." Joe recalled long, airless days when the dust hovered in layers, kept there by mutual repulsion. The dust particles had like charges ; so did the surface of the covering of dust which obliterated the planet. Those like charges caused repulsion, and the dust never settled. But the moment man, machine, or building touched the ground there was an electrically neutralised target for all the charged, floating particles drifting by. They sped like dust towards a rubbed ebonite rod, and clung.

Wyatt moved on his stool, and it creaked. " I agree with Taylor," he said heavily. " In my view Dr. Orekden should have been warned not to go out." He gave Joe a censorious glance. " But it's too late now. We'll never beat this dust, and there's the risk of serious and permanent damage to the *Wallace* or other equipment. We can't survive in a perpetual dust storm."

Taylor nodded and two of the other men grunted agreement. Joe let the remark about Orekden pass. Taking it up would only cause argument.

" I'm convinced Dr. Orekden had at least some half-formed idea about beating the dust," he said factually.

Wyatt made an abrupt sound. " I doubt it ! And we'll never know."

An argument was brewing. Not the first, Joe thought. There had been disputes in plenty—sometimes between Wyatt and himself ; sometimes between Wyatt and Orekden ; sometimes between Wyatt and some of the men. But always, it seemed, with Wyatt prominent. Of late, the men had seemed to be siding with Wyatt, and Wyatt obviously had noticed it.

" I expect Captain Merity still thinks we should stay here and choke to death," Wyatt's voice declared above the murmur of discussion.

Joe stood up. " I'm not yet convinced failure is as inevitable as you make it seem," he said, and moved to the door. As he let himself out, he heard only half of Wyatt's rejoiner.

The wind had dropped as suddenly as it had come. That was the usual pattern of storms. Electrical tension grew and grew until lightning came. Quick winds sprang up, dying when the electrical discharges from sky to earth ceased.

The sun was probably just on the horizon, judging by the lurid red of the heavens. In six weeks Joe had not seen the sun from ground level, or witnessed a sunrise or sunset which was not a dull ruddy hue filtered of other colours by the suspended dust. Only occasionally from the top port of the *Wallace* could the sun be seen. The dust then lay like a sea below, undulating slowly, concealing huts, vehicles and men.

Joe bent, taking up a palmful of settled particles. It was gritty, almost an extremely fine sand. Analysis had shown it to be mostly disintegrated siliceous rock, with an admixture of powdered white quartz and mica. A deadly combination, light enough to float under static repulsion. Gravity made a carpet-like layer, and that layer was so good an insulator that its surface remained charged, preventing the other dust from settling.

There was still sufficient tension to make a rim of blue along the edge of the roof. Joe slapped his gauntlets together, and dislodged dust from his face protector. He wondered if he were too young to be captain of a ship like the *Wallace* with all the responsibility that brought. Long boned, with a lean, quizzical face, his habit of never giving up had earned him that position. He did not plan to change his character merely because Orekden was dead and Heisswelt no paradise.

The planet had no satellite and starlight could not pierce the hovering dust. When darkness came it would be complete. Joe let himself into the second building. When they had lowered the sections from the ship six weeks before, and erected the hut, they had supposed the dust was temporary, raised by some spent storm.

Inside, a man with a lean, sad face was working on the air purifier motor. A cable brought current from the ship. This was the third time in six weeks Hughes had stripped and replaced the brushgear, Joe thought. Nothing could keep all the abrasive dust out.

Hughes wiped his sweaty face with a rag. " Wyatt try to blow you up, Joe ?"

" A bit, Andy."

" He's got influence on Earth—the kind that makes folk listen. He's accustomed to having folk listen, and thinks you should too."

Joe shrugged. He moved the motor casing with a toe. A thin cloud of dust rose.

" How long shall we last ?"

Andy Hughes sat back on his heels. " Perhaps another six weeks. After that some spares will be so low it'll be wise to leave—unless we can rid ourselves of this dust. It penetrates everything. Where there's air, there's dust. Oil filters theoretically good for thousands of hours have to be changed twice a day. It's not rained in six weeks and probably never will, Toby says. There's no water, or we might improvise some kind of bubble filters, to save our spares and us."

Joe helped him replace the cover. They started the blower that was supposed to drive cleaned air into the building. To Joe's ear it lacked its usual smooth hum.

Hughes nodded. " The working life of any machine is only a fraction of normal. We have to beat the dust, or leave."

The words came often to Joe's mind before he slept that night. Unfortunately there was no other planet within light years of Heisswelt, discovered five years before by an exploring ship that carried Orekden. A port would thus have been of great value. Joe wondered whether the next day's routine explorations away from the camp would discover anything new. He doubted it. The planet was flat, dead. There were no mountains, no hills, no water. A surface stone large as a man's hands was an object for comment. When the planet cooled there had been too much soft rock at surface level. If valleys had existed, dust had filled them flush.

Joe awoke with the usual taste of gritty dust in his mouth. Andy Hughes was talking to Toby Farrel, expedition's meteorological officer, who was preparing to leave the hut. A morning breeze, hot and parching, carried dust past as they opened the door. Farrel pulled up his hood.

" The weather sample we've had is representative of conditions all the year round," he said. " I'd hoped otherwise. This planet has no tilt, and hence no equivalent of Earth's yearly weather cycle. It's hotter near the equator, a bit cooler near the poles, that's all."

He went into the second hut. Hughes's fingers closed momentarily on Joe's arm, preventing him from following.

" I've a word or two, Joe."

" We'll go to the end of the huts."

They halted there. Dawn was as dull red as sunset had been, and Andy Hughes's face had the strained, ruddy appearance of a man regarding an open furnace door.

" The men don't like it, Joe," he said. " I'm on your side. So is Toby. Taylor is a bit doubtful. Wyatt impresses him. The others are pretty much on Wyatt's side. They're beginning to feel they risk their lives by staying on here, and that there's no hope. If Orekden couldn't solve this difficulty, how can we ?"

Joe studied him. Gritty dust had already blended hood, mask and clothing into each other. Joe felt sad.

" So Wyatt has half convinced you, Andy ?" he said.

The eyepiece glasses blinked momentarily as Hughes shook his head. " If there's argument or trouble, I'm on your side. But there are times when a man should admit he's beaten."

" I didn't gain my captain's rank by giving up !"

" So Wyatt keeps telling the men." Hughes spat, lowered his mouth piece, breathed deeply, and raised it again. " He's saying you're afraid to admit defeat."

Joe agreed it could look that way. " That all ?"

" Not quite. Dr. Orekden was technically leader of this expedition. Wyatt is inclined to consider himself your superior—"

" The devil he does !"

" I'm afraid so. He worked with Orekden years ago, and his influence half financed this trip. If the men are on his side, he may try going over your head."

It could work, Joe thought. There were twelve men, all told. Boredom, fear, hopelessness, the eternal dust—all made Wyatt's hints that it was folly to stay seem good listening.

Hughes went in, but Joe did not follow him. It would soon be necessary to choose between two evils : admit Wyatt was right, and leave ; or defy him and stay.

A figure appeared ten paces away in the dust, and Joe wondered who was out. The man, unclear because of the poised dust, was moving uncertainly and seemed to be studying the huts. Joe raised his mouth protector to call, but hesitated. Limited as visibility was, he suddenly felt that the figure was too short and slender to be one of the party.

Excitement ran through him. He stepped forward, had covered several places before the other saw him. For moments longer the figure was still. He had a very thin, tanned face and wore a compact, belted jerkin. At almost touching distance Joe halted. Eye to eye, they watched each other. Then someone opened the hut door and called Joe by name. He glanced at the building, and when his gaze returned he was alone.

A native, Joe thought. This put everything in new perspective. Where other beings could live, so could men ! Elated, he turned back to the hut.

Andy Hughes stood outside, waiting for him. " We've been wondering if you'd cancelled today's expedition—"

" Cancel it !" Joe chuckled. " Not after what I've just seen —a native, or I'm Dutch ! The first living thing we've found !"

Wyatt and Taylor came from the hut. Wyatt's gaze was heavy behind his protector.

" And where is this native ?"

" He went that way." Joe realised it looked weak. Worse, he saw that neither Wyatt nor Taylor believed him. For the moment, their disbelief seemed unimportant.

Wyatt placed his thumbs in his belt. " I'll believe you when I see for myself." He shook dust from his mouth protector, lowering it to breathe, then lifting it again. " Even if it is true, how does it help us ?"

Joe felt his elation fade. As Wyatt said, it might not help. Living things could adapt, and it was possible that the native could exist in conditions impossible for men.

" Our task now is to find where they live," Joe said.

He had not imagined it would be easy. Their expeditions were on foot, by compass bearing, and visibility was never beyond twenty yards. At that limit a man might be seen as a dim, shadowy form. The heat was extreme. Penetrating dust stuck to their skin, and reached nose, mouth and throat. The first day was calm, but they found nothing. On the day after the native had appeared an electrical storm drifted slowly overhead, with lightning playing frequently beyond the pall of dust, and they stayed in the huts. The following day the expedition was again fruitless.

Wyatt and the men grumbled openly. Hughes looked miserable. Joe longed for a clear day, or even one brief hour of visibility. As that hour would never materialise, the only

possibility was to bivouac at nightfall, instead of returning, and thus increase the radius of exploration. Joe decided he would take Hughes, Farrel and Taylor, leaving the other seven men with Wyatt. A watch of three usually occupied the ship and the seven could break the day on duty there.

The camp buildings were almost immediately lost behind the dust poised in the hot, still air. Though their journey was towards the direction from which the native had appeared, Joe feared their chances of discovering him, or others, was minute. They walked as fast as the powdered earth would allow, with pedometer and compass to check distance and direction. Laden, masked against the dust, only a very strong man could average as much as three miles in each sweltering hour.

Andy Hughes moved with a swinging stride economical in effort. Toby Farrel carried a minimum of instruments, and Taylor walked stolidly, mechanically, with the short-range radio. Talking was an effort and their progress was strangely silent over the carpet of dust.

Joe wiped his goggle windows often. The ship's supply of anti-static cleaning tissue had long since been used, and dust found and adhered to any bare surface almost immediately. The hovering particles made a grey brown fog, but the normal fog-penentrating equipment of the ship had proved useless against so much solid material in suspension. Sweat ran down Joe's cheeks, and out under the mask, where the clogging dust stuck.

When the sun was high the heat was extreme. Dust hung in layers, according to particle size and composition, swirling round them as they moved, clinging so that they had to beat their hoods, face protectors and garments.

They halted after noon, resting. Taylor lifted his mask, holding his breath, and wiped his face. He expectorated.

" We could pass a native within spitting distance and not see him," he stated.

The mask was replaced. Joe beat his clothing, silent, half agreeing. Toby took readings with sealed instruments, making notes.

" The aneroid's stuck at about 31.2, as usual," he said. " This is permanent."

His free hand took in the surrounding clouds of dust. With his mask back, only his slighter build distinguished him from the others.

Men could not live in such conditions, Joe thought dispiritedly. Heat, dryness, dust, air parched of moisture, and the planet's surface worse than a desert. His eyes were sore, but he dare not remove the goggles. When he held a hand before his face he could see tiny charged particles, drifting near, speed towards it, each infinitely small, but building up the inch of enveloping dust that slowly cloaked them all. The effect was worst during the hours after noon, when the mutual repulsion between particles was strongest. Dust disturbed by their weary feet did not settle, but hung in their wake like brown smoke, held aloft by electrical stresses which overcame gravity.

The sun was red at mid-day, and a dim, ruddy brown at sunset. Never before had they been so far from camp. They could go a little farther on the morrow, but must then turn back.

They marched until the grave risk of losing contact in the murk brought them to a standstill. The gritty dust of one spot was as good a bed as that of any other, and they settled down to rest, three trying to sleep while one watched.

Heavier particles were settling, and would continue to do so until dawn. It was unsafe to lie still for more than half an hour, and in that time the blanketing layers of dust blended a man into his surroundings. At about midnight Joe rose for the sixth time, slapping his clothes and mask, sneezing through his filter, and certain he knew the form Hades would take. Farrel was standing a yard away, just visible by the dimmed glow of the battery lamp hooked on his belt. He lifted his mouth protector.

" I've given up hope of ever seeing more of this planet," he said quietly. He breathed, raised the protector again. " It's as bad for machines as for men—everything has to be sealed, dust-proof, self contained."

Joe grunted agreement. When coming into orbit and landing they had observed enough to make them belive their experience of conditions was representative of the whole planet.

He watched while Farrel lay down to rest. Fatigue might make a man sleep too long. Taylor was groaning, and Joe roused him, sweeping his hood and filter clean of dust. For a long time Taylor sat with his arms round his knees, then he lay down again, on one side. The night dust began to rain on him, slowly building up its obliterating blanket.

Dawn came as a slow relieving of the complete darkness. Joe, his watch over, had dozed, sitting with his pack at his back. Hughes had taken his place, and Taylor had watched until dawn. Andy Hughes seemed very tired, Joe thought. His lean figure sagged, and when he spoke he revealed thin, haggard lips. Toby Farrel, first to take watch, was still lying in the gloom. Joe went to rouse him, dropped on one knee, and knew it was too late. The dustfall was a full inch thick over mask, body, hood and filter. Expiration, the only way of clearing the dust when a man slept, had ceased.

Hughes's face was grey under the protector. " He was sitting up when I finished my watch."

Taylor stood ankle deep in the dust. " I didn't notice anything amiss with him—"

Fatigue robbed his voice of regret. It was a statement of the inevitable. They scooped a shallow channel, took the notes, covered the dusty body with handfuls of dust, and stood a moment with bowed heads.

" We can allow two more hours outward march, at the most," Joe said morosely.

They ate briefly, grit and the taste of it accompanying their food. When they were ready to go, dust had obliterated the spot where Toby lay so that never again could human eye or hand discover it.

An hour after they had started thunder began to rumble distantly, and a wind sprang up, whipping dust from the carpet over which they laboured. Soon lightning flickered behind them, flashes near but hidden. A corona began to glow round their heads and shoulders, and Joe felt his hair striving to rise.

" It was like this when Orekden was killed," Taylor said, mask momentarily raised.

Somewhere very near a double flash discharged to earth. An upright man was a conspicuous earthed pole. They lay flat waiting, ruddy light playing around behind the dust and thunder shocking their ears.

The storm moved very slowly. During a lull Joe suggested Taylor radio their base. Hunched over the equipment, his back to the blanket of flying dust, Taylor seemed occupied with his message. But when he came quickly to Joe's side, and sat down, he was shaking his head.

" The set's not radiating," he said under his raised mask. He pointed to the electrical discharge seeking the short extended aerial rod. " It's not built to stand that kind of thing—"

" You can't get it working ?"

" Not out here. Not if our lives depend on it."

Joe felt uneasy. Directional readings from the ship could help a homecoming party.

Thunder still rumbled quite near when they rose, going on. The dust was slightly thinner, as always after a storm. The return journey would have to be by compass and pedometer. A bit chancy, Joe thought.

He was plodding on, leading, when Andy Hughes's call brought him about. Hughes pointed to something too far behind for Joe to see.

" Somebody's coming !"

Two outlines showed unclearly, rising and falling, seeming to grow taller.

" Wyatt !" Andy Hughes said under his mask.

The wind was behind the newcomers, pushing them on in the wake of skimming clouds of dust. They halted, unsteady. Joe swore, lifting his mask, dislodging dust caked with sweat.

" You damn fool Wyatt ! What's the idea ?"

Wyatt slapped his clothing. He was exhausted, but drawing on reserves of strength. He raised his mouth protector, revealing dusty lips that snarled.

" The idea's sound enough, Merity ! I never believed your tale of a native. So I decided not to risk your coming back with some lie I couldn't disprove." He spat, lowered the mask, breathed, and lifted it again. " It's as simple as that. I'll see any fantastic report you send in isn't believed. Alternatively, if you've found anything, show me."

Joe studied him, his tingling eyes furious. " Your job was to help watch the ship and camp, not to follow and bring away another man too !"

Wyatt grunted, derisive. " What you say doesn't go any more—and that applies to both me and all the men back at camp."

A retort came to Joe's lips, but he left it unsaid. Boredom, lack of progress, discomfort, and Wyatt's glib tongue, had all done their work. He shrugged, checked his compass bearing, and began to go on. Hughes speeded up, walking by his side. But Taylor drifted back, following Wyatt as a token indication of where his allegiance lay.

" We'll soon have to turn back, if we're to make it," Andy Hughes said gruffly after ten minutes.

" I know. I give us another couple of miles."
" You're determined."
Joe wiped his face. " I saw that native. Remember ?"

They had covered a mile when static began to crackle audibly in Joe's ears. The arid dust clung with unusual tenacity, and aurora streamers shed a dancing hue high above the hovering, choking clouds. The heat was intense and when Joe rested to study pedometer and compass he found the needle of the latter making a slow revolution. His eyes prickled, he shook his mask, coughing. A magnetic storm of this intensity had never before been encountered.

They rested, while Wyatt and Taylor grumbled audibly. The needle became still, oscillated, then turned sixty degrees and came to an uncertain halt. Joe watched, fascinated. The reading wavered, then the needle slowly drifted back twenty degrees.

Wyatt got up. Dust had added two inches to his bulk in each direction, obliterating every detail except the goggle windows and mask filter. He slapped the mask, dislodging a cloud which hung round his head.

" It's time to take us back, Merity," he said.

The words had a suppressed snarl, and Wyatt's face under the mask was set. Only his lips moved, showing teeth coated with dust.

Joe coughed, spitting grit. " If we move far before the compass settles we'll never get back."

He expected argument, but Wyatt sat down a couple of paces away, exchanging occasional growls with Taylor. The unseen sun was higher, and heat struck down through the suspended particles. As electrical stresses slowly grew the lower layers of dust began to rise into the air, reducing visibility until Taylor and Wyatt were mere shadows.

Men needed moisture, clear air to breathe, Joe thought. His clothes were saturated with sweat, but the blanket of dust adhering to him prevented evaporation. The heat was intense. Andy Hughes finished his water and flung the container away. Walls of dust surrounded them, hot, dry and impenetrable.

Just after noon the compass settled, but ten minutes later it had again deviated by nearly fifteen degrees. Joe doubted whether any of them would ever see camp or ship again.

He began to wonder if the native had been an illusion. Nothing could live in the dust. The dust covered the planet : therefore it could not support life.

It was a full hour after noon when Joe got up. If the camp was not reached and found by the next morning their chances would be minute. Hughes followed him, and the others, walking like men with burdens.

After two hours march the compass moved five degrees and Joe knew only luck could save them. They might pass within twenty yards of the huts or ship, and not see them, even assuming they could cover the distance, which he doubted.

Taylor's nerve seemed to be going. Once, he stopped, cursing Joe. When he had finished Wyatt pushed up his own mask.

" You've made your suicide our funeral too."

Joe glared at him. " You didn't need to come."

" The hell I didn't, after your damn lying tales."

Joe walked on, leaving Wyatt muttering that the expedition had no leader worth following, with Orekden gone. Once, when they rested, Hughes came near and sat in the dust, arms over knees in a position of extreme fatigue.

" You—did see a native ?" he asked quietly.

Joe closed his eyes, sweating, exhausted. " I saw him."

" How could natives live in this dust ?"

" If I knew that, I'd know how to get a useful base on this planet." Joe wiped his filthy goggles. " I'm convinced Orekden thought it possible. Unfortunately, he didn't talk much."

They went on again, very tired, close together as if each feared to lose his companions. During the afternoon the dust and heat were worst. Joe doubted whether they were within ten miles of their calculated position. It was at least thirty more to base. They had set out fresh from camp, and gone too far.

Towards evening he knew that human endurance had its limits. Multi-coloured lights drifted amid the hovering dust. His feet dragged. He could not maintain his course, nor the step upon which the pedometer depended.

They rested, sitting in a huddled heap, not daring to lie down because the nightfall of dust was adding its layers to the air around them, slowly settling as tension decreased.

The hours of darkness were torment. They walked slowly until the light was so poor that contact would be lost.

" If we ever get back I'll see you're dismissed for risking your men's lives," Wyatt said unevenly once.

Joe let it pass. Without rest and water they could never reach camp. Between bouts of near delirium, caused by heat, he struggled up and slapped away the settling dust. He feared Andy Hughes would not last long. Taylor kept up muttered obscenities, behind his mask.

Dawn came as a slow lightening beyond the dust. With no water, they were too parched to swallow. Visibility was perhaps fifteen paces, but decreasing as the sun grew higher and the night dust began to rise.

They walked because to remain still was to admit defeat, and Joe tried to maintain course, though he knew they could never reach their camp now. He had risked everything to find a means of beating the dust, and failed. Fragmented memories drifted across his mind. Dr. Orekden, sure the planet could be used. Images of Earth, of his father, white-haired, smiling : " Never give up, Joe." This time, refusing to give up when Wyatt wished, had been fatal.

Noon passed, dreadful with overhead heat. Charged particles clung to them, and Hughes began to stumble and fall. He pushed his mask half aside when Joe lifted him.

" Leave me here—"

Joe supported him, walking slowly, heavily, ankle deep in dust. It was the static charge, and hence the attraction of any earthed body, which had defeated them, he thought.

The afternoon was torrid. They lost Taylor, but he came stumbling up behind, unaware they had gone from sight. Heads sunk, shoulders drooping, they crept on.

It was about two hours to nightfall when Joe's smarting eyes seemed to find a break in the wall of dust ahead. His brain refused to comprehend, but as he walked automatically the break grew to a clear patch where sun shone, and to a city where people a little shorter than men moved, with clear sky above them, trees shading the low buildings, and a dust free atmosphere.

They halted, taking it in, not believing it was real. The far limit of the city could not be distinguished, but beyond it was a hint of green. Near at hand the falling sun threw reflections from what appeared to be a wide moat.

" Water—" Wyatt said hoarsely.

He moved forwards, but Joe caught his shoulder, trying to hold him. " It can't be water."

Wyatt pulled away, stumbling into a run. He reached the edge of the moat, knelt down, screamed, and went head first over the side, sliding down a curved glassy surface. A long, blue spark reached out from the near rim of the city, playing on him, and he lay still.

Joe followed slowly, bending where Wyatt had slipped. The moat held no water, but was empty, hard and shiny, surface as glazed as that of a high voltage insulator.

An insulator, Joe thought. Probably silica glass. The planet abounded in the necessary raw material. The city was not earthed, but at the same potential as the drifting dust. Like charges repel. There was no dust over the city, only clear air, high as the sunlit heavens. Men could do the same.

" I—I think they're coming out to help us," Andy Hughes said weakly.

Figures were moving across a high, shimmering bridge to their left, where the moat was wider. Joe turned from the edge.

" Let's go to meet them."

Never give up, he thought as he walked. He squared his shoulders, walking more briskly, the others following.

Francis G. Rayer

THE LITERARY LINE-UP

Next month commences Brian W. Aldiss's new serial " X For Exploitation, " which we have been holding back until Philip Dick's story is finished. Like the Dick story, it has been worth waiting for, but has a galactic setting and tells of the exploitation of the human race by a corrupt Galaxy.

Story ratings for No. 87 were :

1. The Railways Up On Cannis - - Colin Kapp
2. The Patient Dark (conclusion) - Kenneth Bulmer
3. The High Road - - - - - James White
4. Continuity Man - - - - George Longdon

What mental process is it that can make a man greater than his neighbour ? Pride perhaps ? And if he had nothing of which to be proud . . . ? Alan Guthrie returns after a lengthy absence to offer this cameo concerning Earthmen pilgrimaging among the stars.

THE SHRINE

by ALAN GUTHRIE

The ship came from darkness, drifting down like a snowflake, all cones and planes and spires of polished metal, spotted and mottled with patches of golden light. It drifted soundlessly and gently towards the tiny world and settled on a rolling green lawn, seeming to sigh as it settled, as the big engines which defied gravity muted into silence, as the metal of the ship relaxed after the journey.

The sigh was echoed in the control room.

" Journey's End." The Captain wasn't human and he spoke Universal with a liquid sibilance, but he was intelligent and had about him something of the mystic. The Navigator respected his mysticism.

" Journey's End," he repeated. He wasn't human either but his form was as different from that of the Captain as a man's is to a frog. He spoke with a harsh bark and his native, polysyllabic name as translated, in Universal, was Aarne. He glanced through one of the ports.

" They've improved the place," he commented. " Some new trees, a wider lawn, and wasn't that a pool we saw on the way down ?"

" Possibly."

" Money's been spent here," said Aarne. " A lot of money. All this refashioning of a hunk of dead rock into a miniature world." He stamped the floor. " Gravity even, they didn't have all this in the old days."

" They didn't have a lot of things." The Captain sighed again as he stared through the port. He was wondering at the power of Faith. It was something, so he had once heard, which could move mountains. It had certainly, in this place, done more than that.

" Well," said the navigator. He was from a young race and the weight of tradition rested lightly on his shoulders. " What now ?"

" We wait."

" Wait ? Is that all ?" It was his first trip to this place. It was the captain's fifth. The magic of it grew stronger each visit.

" We wait until the Pilgrims have done what they came to do," explained the captain. " Then we take them back to the place from which they came."

" And find more Pilgrims ?"

" If we are fortunate enough—yes."

" I see." Aarne was young and had the impatience of youth. He moved restlessly about the control room. " You like this journey," he blurted suddenly. " You like this travelling backwards and forwards with the Pilgrims, don't you ?"

" Yes."

" But why ? They pay, that I'll admit, but you could earn more on any regular commercial run. What's so special about this route ?"

" I like to see miracles," said the captain simply.

" Miracles ?"

" You will see."

Deep in the bowels of the ship the Pilgrims were gathered. Unlike the captain and crew of the ship they were human, in fact it was almost all they had in common. Caris Weston, old, dried like a withered prune, her eyes brimming with the sense of a wasted life. Jud Murdock, crippled, his hands trembling on his cane. Joe Melish, young but bitter, Cynthia Hildergard, face pale and shoulders drooping, they and fifty more, all gathered in the bowels of this strange vessel, all human, all having that and one other thing in common.

All human and all without pride of race.

" They sold me out," said Murdock fretfully. " Gave all my life to building up that store and then those Rigellians came and sold me out. It takes the heart from a man a thing like that."

". . . knew I didn't have a chance the minute I saw that Vegan. An Earthman just isn't wanted when they've got others to pick from . . ."

". . . said he loved me and then when he found out just what I was he didn't want to know any longer . . ."

". . . guess it's bad enough not having a home world without them wanting to sit on a body . . ."

The complaints sighed like a wind in the motionless air, a dirge of misery and lack of confidence, the sound of the persecuted who are persecuted only in their imagination, the fretful cry of those without hope and without pride.

Don Carlin had heard it all before, so often before. These people were without faith and without purpose. He had found them, one by one, had talked to them and had pursuaded them, one by one, to join him in this long trip out to the edge of the galaxy, far away from the warm, comfortable worlds.

So many worlds. So many races each with their own home and one race, scattered now, with no home of its own. It was a peculiar feeling this, to be of a race without a home. Earthmen were wanderers, merging into little groups, keeping, despite themselves, their own heritage. They were a race without a planet, resident on any world with the tolerance to accept them, humble with the need of accepting charity.

And yet not all were humble. Some there were who could walk upright and lift their eyes to the stars and glow with the inner conviction that they shared something wonderful and noble, something no other member of any other race could share. And those who could do that were respected and were the happier because of it.

A bell sounded and a voice requested his presence in the Captain's cabin. He sighed. Kleenahn, as usual, was curious. It must be almost time for the Pilgrims to visit the Shrine.

The captain was curious, but his politeness over-rode his curiosity. He gestured Don to a chair and the liquid sibilants of their common language rustled the air like the sportive leapings of many fish.

" You have been here many times, Earthman Carlin."

" As you well know, Captain."

" As indeed I do." Kleenahn paused, searching for the right thing to say. " A strange place this world. You call it a Shrine ?"

" Yes."

" A Shrine, as I understand it, is the repository of something sacred."

" That is correct."

" Something sacred to Earthmen ?"

" Yes."

There was a pause. The sounds of sportive fish died as they were touched by the wand of silence. Through the cabin port Carlin could see the figures of men, dwarfed by the distance, advancing over the low horizon towards the ship.

" I know of the history of this place," said the captain abruptly. " Five thousand years ago men of your race discovered it. Their ship had wandered far from the regular space lanes, indeed had wandered far from any inhabited sphere. There was no reason or logic for them to have come here. What brought them ?"

" An accident. Their ship was not as this ship is. It was old, unreliable. They had faulty engines. They were off-course. They landed here to affect repairs. Some of them stayed."

" And Earthmen have remained here ever since," Kleenahn mused. His eyes were thoughtful. " Accident, Earthman Carlin ?"

" It could be so termed, Captain Kleenahn. Providence would be a better word."

" Why is it that no person, other than of Earth, is permitted to visit the Shrine ?"

Carlin remained silent.

Why is it that no Earthman who has visited the Shrine will tell of what he saw ?"

Again Carlin gave no answer.

" Earthmen !" Kleenahn gave a gesture which, in a man, could have been a shrug. " Will we ever be able to fully understand you ? A homeless race, their own planet destroyed by war, wandering over a dozen worlds. You should have no pride, no ambition, and yet there is something within you which we can never know. The same thing, perhaps, which gave you the stars and yet destroyed your own world. The

furious lust for progress, the driving pursuit of knowledge which should have waned by now but which has not."

"We are an old race," said Carlin.

"You are children," corrected the captain. "When you first ventured into space we were there to greet you."

"You had space travel," admitted Carlin. "But we improved your ships. You had a stagnant culture; we exploded it into a thriving spate of commerce. You took ten thousand years to lift yourselves from steam to atomic power; we took a few decades. It does not become you or those like you to despise the people of Earth."

"The fault I think, lies within yourselves," said Kleenahn mildly. "You despise yourselves and imagine that you are persecuted. Too many of your race lack pride. Too few remember their accomplishments."

"That is true." Carlin glanced through the port; the figures outside were now very close. "The Custodians approach," he said. "Have the Pilgrims your permission to leave the ship?"

"Naturally."

Kleenahn sighed as Carlin went about his business then rested an appendage on a button to summon the navigator. He felt a strange reluctance to be alone.

"They have been gone a long time." Aarne paced the room. "Are they always as long as this?"

"They have crossed half the galaxy, we should not be impatient."

"Odd." Aarne could not contain himself. "Did you see those Custodians?"

"Of course."

"The way they were dressed!"

"They dress in the way of a fashion five thousand years old." Kleenahn stared speculatively through the port. "In a sense we have travelled back through time. This place, to Earthmen, is sacred, they have kept a part of it, at least, isolated against change. Their clothes, other things."

"The Shrine?"

"And the Shrine."

"Odd," said Aarne again. "Very odd." He halted before the port. "Tell me, Captain, have you never been tempted to join the Pilgrims?"

"Often, but it would be useless. I am not an Earthman."

" Some races look much like those of Earth," hinted the navigator. " It would be interesting to discover just what it is they keep in their Shrine."

" Interesting ? Perhaps." Kleenahn did not look at the other. " And perhaps dangerous as well. Remember, this is the only sacred thing the Earthmen possess."

" A tiny world, a superstition, a ritual !" Aarne snorted. " The dying remnant of a dying race."

" You think that ?"

" What else ? You saw them leave the ship. Did they inspire respect ?"

" They cannot inspire what they do not themselves possess," said Kleenahn. " When they left this ship the Pilgrims respected neither themselves nor their race."

" And when they return ?"

" You will see."

The captain leaned forward towards the port. Outside the world was deserted, the Custodians and the Pilgrims had passed from sight in a long, straggling line. They had gone—somewhere. They would do—what ? They would return—different.

It was all he knew, all he would ever know.

What they would do, where they had gone, how they would be altered, these things were questions an Earthman would die to answer. Kleenahn was not human, in him the fires of curiosity burned low, an intellectual warmth rather than a consuming flame. Aarne too, despite his apparent impetuosity, was the same. Of all the races in the galaxy none could rival that of dead Earth for the driving need to *know*.

That terrible need for knowledge had lifted them to the stars, had destroyed their own planet and left them resident guests on tolerant worlds. That same need dragged them half across the galaxy to a place discovered only five thousand years before, in a segment of space which could never have been visited since Creation.

Such a race could never forget. Individuals, perhaps, but the race never. And yet the race was judged by the individual. Why then did so many individuals lack pride ? Why then, did the race as a whole, command such respect ?

Kleenahn sighed and waited as he had waited so often before.

And, after a long while, the Pilgrims returned.

They came over the low horizon as if they marched to soundless bands beneath the flutter of invisible banners. They came with faces set with purpose and with shoulders stiffened with pride. They had left the ship a defeated rabble—they returned a victorious army.

" Incredible !" Aarne stared at them, then at the captain. " They aren't the same people."

" I told you to expect miracles."

" But this !" The navigator shook his head. " I see it but I simply don't believe it."

" They have pride," said Kleenahn. " They left without pride, they return with it."

" Is that what their Shrine does for them ?"

" Perhaps."

" A thing which gives them pride ?" Aarne shook his head. " Can such a thing be ?"

Kleenahn gestured towards the Pilgrims.

" I see them," said the navigator. He looked unhappy. " But how ?"

Kleenahn flipped a switch. Mechanical ears on the hull aimed themselves at the marching Pilgrims. Voices trickled from the speakers like the rushing surge of long-trapped waves.

". . . so *old* ! That's what got me. So *old* !"

". . . ten million years at least and there's no arguing about it, not with that desposit all over him. Can you beat that ! Ten million years ago we . . ."

". . . it shows who is the oldest. And did you see his eyes ? Blue, just like mine. I wonder if, maybe, he and me could be . . ."

". . . makes a man feel warm inside just thinking about it."

". . . and he thought that *I* wasn't good enough for *him* ! Why, the johnny-come-lately, if he only knew . . ."

". . . keep it to ourselves though. You heard what the man said, just keep it to ourselves. No sense in causing a lot of bad feeling, making them feel . . ."

The voices died as if the Pilgrims had become aware of the mechanical ears listening to their excited words. The speakers rushed with a blur of meaningless sound. Kleenahn waited a moment then closed the switch.

" Is it always like that ?" Aarne had understood little.

" Always."

" Will it last ?"

" It will last." Kleenahn gestured towards the Pilgrims. " You may meet these people again and, when you do, they will not have altered. A little quieter, perhaps, but that will be all. They will stand as straight and stare as hard and, within themselves, they will carry something stronger than anything we know."

" Pride ?"

" Yes."

Aarne looked at the Pilgrims through the port, wondering, with the dull curiosity of his race, what it was they must have seen. He had, up until now, tended to feel a little sorry for the Earthmen, a little impatient and, sometimes, a little disgusted that they should be so devoid of racial pride. That had been on the journey out. The journey back, he knew, would be very different. The Pilgrims no longer regarded themselves as inferior.

" They are still a long way off," he suggested. " Should I send out the flitter to them, Captain ?"

" No," said Kleenahn. " I like to see them march."

Alan Guthrie

In a desperate attempt to solve the mystery of the "Where Will The Little Green Man Be Next?" contest, Ragle Gumm's sole objective is to get out of town. Somehow or other, all roads are barred. It is as if he is not intended to get out at all.

TIME OUT OF JOINT

by PHILIP K. DICK

Conclusion

FOREWORD

Time : 1959.

Location : a typical small town somewhere in the American middle west.

Characters : Ragle Gumm, 42-years old, ex-Army weather man, lives with his sister Margo and brother-in-law Victor Nielson and their small son Sammy. Nearby neighbours are Bill and Junie Black who spend most of their spare time in the Nielson's, while on the street corner lives Mrs. Kay Keitelbein, in charge of local Civil Defence. The last of the central characters is Mr. Lowery, a representative of the local newspaper, the Gazette.

The story so far : The setting is normal everyday small-town life. Vic Nielson manages a large down-town grocery store, while Bill Black, a social climber, is an executive on the City Water Development Corporation. Margo Nielson spends much of her time on civic duties, notably trying to have a large ruined site in the centre of the city cleared as it is a hazard for children who play there. Ragle Gumm, who occasionally casts an appreciative eye over attractive Junie Black, earns a living by solving a daily newspaper contest entitled "Where Will The Little Green Man Be Next?" From obscure clues supplied he pinpoints his

answer in space and time. Because of his constant success a certain amount of collusion has crept in between himself and the Gazette *newspaper and Mr. Lowery occasionally calls to settle minor difficulties.*

Pursuing his daytime friendship with Junie Black in the local park, Ragle has a frightening experience—while waiting at a soft-drink stand it suddenly disintegrates before his eyes and in its place he finds a slip of paper with printing on it. He places it with five others he has accumulated under strange circumstances. As the world returns to his vision he wonders if he is losing his sanity and decides that he ought to get away from the city for a few days.

That evening Sammy shows him some old papers he has found while playing in the ruins. Ragle recognises the printing as being similar to that on the slips he has collected and later that night visits the ruins and digs up some more. Intrigued by the strangely named telephone exchanges in the book he has found he tries dialling some of the numbers but in each instance only gets an exchange operator. The magazines are even more inexplicable —he, Margo and Vic puzzle over the picture of an unknown film star named Marilyn Monroe, But Bill Black says that he has heard of her and borrows the magazines and the telephone book to do some checking. He telephones Lowery and tells him of the find—and they wonder if Ragle is becoming sane again !

Sammy builds a crystal set and instals it in the shed in the garden and the family listen to a series of strange radio messages. Some of them refer to Ragle Gumm ! Ragle decides to leave town right away. Calling a taxi he goes to the local bus depot but after hours of waiting in line he is still no nearer obtaining a ticket. Talking to two young soldiers he tries to get away in a jeep but a flat tyre complicates matters. Borrowing a truck he tries to find an all-night garage but discovers that he is being chased by a police patrol. This he eludes and manages to get into the local hills before the truck breaks down.

On foot he discovers an inhabited house but is shocked to discover that the two residents resemble Mrs. Keitelbein and her son, although they say their name is Kesselman. Suspicious, Ragle locks them in a cupboard, but while he is looking through various newspapers and magazines, they escape, He has just got to a copy of Time *dated January* 14, 1996, *with his own picture on the front cover labelled " Ragle Gumm—Man of the Year " when a group of men arrive to collect him and he remembers nothing of his attempted escape when he wakes up back in the Nielson's house.*

eleven

The following morning, Junie Black called him on the phone.

" Were you working ?" she asked.

" I'm always working," Ragle said.

Junie said, " Well, I talked to Mr. Hempkin, my attorney." Her tone of voice informed him that she intended to go into the details. " What a cumbersome business," she said, sighing.

" Let me know how it comes out," he said, wanting to get back to his puzzle solving. But, as always, he was snared by her. Involved in her elaborate, histrionic problems. " What did he say ?" he asked. After all, he had to take it seriously ; if she took it to court, he might be hailed in as the co-respondent.

" Oh Ragle," she said. " I want to see you so badly. I want to have you with me. Close to me. This is such a grind."

" Tell me what he said."

" He said it all depends on how Bill feels. What a mess. When can I see you ? I'm scared to come around your place. Margo gave me the worst look I've ever had from anybody in my life. Does she think I'm after you or your money, or what? Or is it just her naturally morbid mind ?"

" Tell me what he said."

" I hate to talk to you over the phone. Why don't you drop over here for a while ? Or would Margo be suspicious ? You know, Ragle, I feel so much better now that I've decided. I can be myself with you, not held back artificially by doubts." She became silent, then, waiting for him to contribute something.

" What about this Civil Defence business ?" he said.

" What about it ? I think it's a good idea."

" Are you going to be at the meeting ?"

" No," she said. " What do you mean ?"

" I thought that was the idea."

" Ragle," she said with exasperation, " you know, sometimes you're so mysterious I just can't follow you."

He gathered, at that point, that he had made a mistake. Nothing remained but to drop the business about the Civil Defence classes. It was hopeless to try to explain to her what he meant and what he had thought when Mrs. Keitelbein approached him.

At two o'clock he climbed the flight of unpainted, sloping steps to the porch of the Keitelbein house and rang the bell.

Opening the door, Mrs. Keitelbein said, " Welcome, Mr. Gumm."

Past her he could see a shadowy collection of ladies in flowery dresses and a few ill-defined thin-looking men ; they all peered at him, and he understood that they had been standing around expecting him. Now the class could begin. Even here, he realized. My importance. But it brought him no satisfaction. The one person important to him was missing. His claim on Junie Black was slight indeed.

Mrs. Keitelbein led him up beside her desk, the massive old wooden desk that he and Walter had lugged up from the basement. She had arranged a chair for him so that he would face the class. " Here," she said, pointing to the chair. " You sit there." For the class she had dressed up ; her long silk robe-like skirt and blouse, with billows and lace, made him think of school graduations and music recitals.

" Okay," he said.

" Before they ask you anything," she said, " I think I'll discuss a few aspects of Civil Defence with them, just to get it out of the way." She patted him on the arm. " This is the first time we've had a celebrity at our meetings." Smiling, she seated herself at her desk and rapped for order.

The indistinct ladies and gentlemen became quiet. The murmur stilled. They had seated themselves in the first rows of the folding chairs that Walter had set up. Walter himself had taken a chair in the back of the room, near the door. He wore a sweater, slacks, and necktie, and he nodded formally to Ragle.

I should have worn my coat, Ragle decided. He had sauntered down in his shirt-sleeves ; now he felt ill-at-ease.

" At our last class," Mrs. Keitelbein said, folding her hands before her on the desk, " somebody raised a question concerning the impossibility of our intercepting all the enemy missiles in the event of a full-scale surprise attack on America. That is quite true. We know that we could not possibly shoot down all the missiles. A percentage of them will get through. This is the dreadful truth, and we have to face it and deal with it accordingly."

The men and women—they responded as a body, images of one another—put on sombre expressions.

" If war should break out," Mrs. Keitelbein said, " we would be faced, at best with terrible ruin. Dead and dying in the tens of millions. Cities into rubble, radioactive fallout, contami-

nated crops, germ-plasm of future generations irretrievably damaged. At best, we would have disaster on a scale never before seen on earth. The funds appropriated by our government for defence, which seem such a burden and drain on us, would be a drop in the bucket compared with this catastrophe."

What she says is true, Ragle thought to himself. As he listened to her, he began to imagine the death and suffering . . . dark weeds growing in the ruins of towns, corroded metal and bones scattered across a plain of ash without contour. No life, no sounds . . .

And then he experienced, without warning, an awful sense of danger. The near presence of it, the reality, crushed him. As it fell onto him he let out a croak and half-jumped from his chair. Mrs. Keitelbein paused. Simultaneously all of them turned toward him.

Wasting my time, he thought. Newspaper puzzles. How could I escape so far from reality?

" Are you feeling unwell?" Mrs. Keitelbein asked.

" I'm—okay," he said.

One of the class raised her hand.

" Yes, Mrs. F.," Mrs. Keitelbein said.

" If the Soviets send over their missiles in one large group, won't our anti-missile missiles, by the use of thermonuclear warheads, be able to get a higher percentage than if they are sent over in small successive waves? From what you said last week—"

" Your point is well made," Mrs. Keitelbein said. " In fact, we might exhaust our anti-missile missiles in the first few hours of the war, and then find that the enemy did not plan to win on the basis of one vast single attack analogous to the Japanese attack on Pearl Harbour, but planned rather to win by a sort of hydrogen ' nibbling away,' over a period of years if necessary."

A hand came up.

" Yes, Miss P.," Mrs. Keitelbein said.

A blurred portion detached itself, a woman saying, " But could the Soviets afford such a prolonged attack? In World War Two, didn't the Nazis find that their economy wouldn't support the daily losses of heavy bombers incurred in their round-the-clock raids on London?"

Mrs. Keitelbein turned to Ragle. " Perhaps Mr. Gumm could answer that," she said.

For a moment Ragle did not grasp that she had addressed him. All at once he saw her nodding at him. " What ?" he said.

" Tell us the effect losses of heavy bombers had on the Nazis," she said. " From the raids on England."

" I was in the Pacific," he said. " I'm sorry," " I don't know anything about the European Theatre." He could not remember anything about the war in Europe ; in his mind nothing but the sense of immediate menace remained. It had driven everything else out, emptied him. Why am I sitting here ? he asked himself. I should be—where ?

" It's my understanding," Mrs. Keitelbein said, in answer to Miss P., " that the German losses of experienced pilots were more serious than the losses in planes. They could build planes to replace those shot down, but it took months to train a pilot. This illustrates one change in store for us in the next war, the first Hydrogen War ; missiles will not be manned, so there will be no experienced pilots to be depleted. Missiles won't stop coming over simply because nobody exists to fly them. As long as factories exist, the missiles will keep coming."

On her desk, before her, lay a mimeographed sheet. Ragle understood that she had been reading from it. A prepared programme made up by the government.

It's the government that's talking, he thought to himself. Not simply a middle-aged woman who wants to be doing something useful. These are facts, not the opinions of a single person.

This is reality.

And, he thought, I am in it.

" We have some models to show you," Mrs. Keitelbein said. " My son Walter made them up . . . they show various vital installations." She motioned to her son, and he got to his feet and came toward her.

" If this country is to survive the next war," Walter said in his youthful tenor, " it will have to learn a new way to produce. The factory as we know it now will be wiped off the face of the globe. An underground industrial network will have to be brought into being."

For a moment he disappeared from sight ; he had gone off into a side room. Everyone watched expectantly. When he returned he carried a large model which he set down before them all, on his mother's desk.

" This shows a projected factory system," he said. " To be built a mile or so underground, safe from attack."

Everyone stood up to see. Ragle turned his head and saw, on the desk, a square of turrets and spires, replicas of buildings, the minarets of an industrial enterprise. How familiar, he thought. And the two of them, Mrs. Keitelbein and Walter, bending over it . . . the scene had occurred before, somewhere in the past.

Getting up he moved closer to look.

A magazine page. Photograph, but not of a model ; photograph of the original, of which this was a model.

Did such a factory exist ?

Seeing his intensity, Mrs. Keitelbein said, " It's a very convincing replica, isn't it, Mr. Gumm ?"

" Yes," he said.

" Have you ever seen anything like it before ?"

The room became silent. The shapes of people listened.

" Yes," he said.

" Where ?" Mrs. Keitelbein said.

He almost knew. He almost had an answer.

" What do you suppose a factory like that would turn out ?" Miss P. said.

" What do you think, Mr. Gumm ?" Mrs. Keitelbein said.

He said, " Possibly—aluminium ingots." It sounded right. " Almost any basic mineral, metal, plastic or fibre," he said.

" I'm proud of that model," Walter said.

" You should be," Mrs. F. said.

Ragle thought, I know every inch of that. Every building and hall. Every office.

I've been inside that, he said to himself. Many times.

After the Civil Defence class he did not go home. Instead, he caught a bus and got off downtown, in the main shopping district.

For a time he walked. And then, across from him, he saw a wide parking lot and building with a sign reading : LUCKY PENNY SUPERMARKET. What an immense place, he thought to himself. Everything for sale except ocean-going tugs. He crossed the street and stepped up onto the concrete wall that surrounded the parking lot. Holding his arms out to balance himself, he followed the wall to the rear of the building, to the high steel-plated loading dock.

Four interstate trucks had backed up to the dock. Men wearing cloth aprons loaded up dollies with cardboard cartons of canned goods, mayonnaise bottles, crates of fresh fruits and vegetables, sacks of flour and sugar. A ramp composed of free-spinning rollers permitted smaller cartons, such as cartons of beer cans, to be slid from the truck to the warehouse.

Must be fun, he thought. Tossing cartons on that ramp and seeing them shoot down, across the dock and into the open door. Where somebody no doubt takes them off and stacks them up. Invisible process at the far end . . . the receiver, unseen, labouring away.

Lighting a cigarette, he strolled over.

The wheels of the trucks had a diameter equal to his own height, or nearly so. Must give a man a sense of power to drive one of those interstate rigs. He studied the license plates tacked to the rear door of the first truck. Ten plates from ten states. Across the rockies, the Utah Salt Flat, into the Nevada Desert . . . snow in the mountains, hot glaring air in the flatlands. Bugs splattering on the windshield. A thousand drive-ins, motels, gas stations, signboards. Hills constantly in the distance. The dry monotony of the road.

But satisfying to be in motion. The sense of getting somewhere. Physical change of place. A different town each night.

Walking around to the front of the supermarket he passed through the electric eye, causing the door to swing wide for him. Past the check-out stands, in the produce department, Vic Nielson could be seen at the onion bin ; he busily separated the unsavory onions from the rest and tossed them into a round zinc tub.

" Hi," Ragle said, walking up to him.

"Oh hi," Vic said. He continued with the onions. "Finished with your puzzle for today ?"

" Yes," he said. " It's in the mail."

" How are you feeling today ?"

" Better," Ragle said. The store had few customers at the moment so he said, " Can you get off ?"

" For a few minutes," Vic said.

" Let's go somewhere we can talk," Ragle said.

" How about the American Diner Cafe ?" Vic said.

" Fine," Ragle said. He followed Vic out into the street, into the aggressive late-afternoon traffic ; as always, Vic showed no hesitation at competing with the two-ton cars for the right-of-way. " Don't you ever get hit ?" he asked, as a

Chrysler passed them so close that its tail pipes warmed the calves of his legs.

" Not yet," Vic said, his hands in his pockets.

As they entered the cafe, Ragle saw an olive-green city service truck parking in one of the slots nearby.

" What's the matter ?" Vic said, as he halted.

Ragle said, " Look." He pointed.

" So what ?" Vic said.

" I hate those things," he said. " Those city trucks." Probably the city work crew digging up the street in front of the house had seen him go down to the Keitelbeins'. " Forget the coffee," he said. " Let's talk in the store."

" Whatever you want," Vic said. " I have to go back there anyhow, sooner or later." As they recrossed the street he said, " What have you got against the city ? Anything to do with Bill Black ?"

" Possibly," he said.

" Margo says that Junie showed up yesterday after I left for work. All dressed up. And saying something about an attorney."

Without answering, Ragle entered the store. Vic followed him. " Where can we go ?" Ragle said.

" In here." With a key, Vic unlocked the check-cashing booth at the far end of the store, by the liquor department. In the booth Ragle found a pair of stools, nothing more. Vic shut the door after them and dropped down on one of the stools. " The window's shut," he said, indicating the window at which the cheques were cashed. " Nobody can hear us. What did you want to say ?"

" It has nothing to do with June," Ragle said, on the stool across from his brother-in-law. " I have no sordid tale to tell you."

" That's good," Vic said. " I don't feel much in the mood anyhow. You've been different since the taxi driver carried you in the door. It's hard to pin down, but Margo and I talked about it after we went to bed last night."

" What did you decide ?"

Vic said, " You seem more subdued."

" I guess so," he said.

" Or calmer."

" No," he said. " I'm not calmer."

" You didn't get beaten up, did you ? In that bar."

" No," he said. " I know that I almost got away."

" From what ?"

" From here. From them."

Vic raised his head.

" I almost got over the edge and saw things the way they are. Not the way they've been arranged to look, for our benefit. But then I was grabbed and now I'm back. And it's been arranged that I don't remember enough clearly for it to have done me any good. But—"

" But what ?" Vic said. Through the check-cashing window he kept his eyes fixed on the store, the stands and registers and door.

" I know I didn't spend nine hours in Frank's Bar-B-Q. I think I was there . . . I have an image of the place. But for a long time first I was somewhere else, and afterward I was somewhere up high, in a house. Doing something, with some people. It was in the house that I got my hands on whatever it was. And that's as well as I can detail it. The rest is lost forever. Today somebody showed me a replica of something, and I think that in the house I saw a photograph of the thing, the same thing. Then the city brought its trucks around—"

He broke off.

Neither of them said anything, then.

Vic said, at last, " Are you sure it's not just fear of Bill Black finding out about you and Junie ?"

" No," he said. " That's not it."

" Okay," Vic said.

" Those big interstate rigs out back," Ragle said. " They go a long distance, don't they ? Farther than almost any other kind of vehicle."

" Not as far as a commercial jet or a steamship or a major train," Vic said. " But sometimes a couple thousand miles."

" That's far enough," Ragle said. " A lot farther than I got, the other night."

" Would that get you out ?"

" I think so," Ragle said.

" What about your contest ?"

" I don't know."

" Shouldn't you keep it going ?"

" Yes," he said.

Vic said, " You have problems."

" Yes," he said. " But I want to try again. Only this time I know that I can't simply start walking until I walk out. They won't let me walk out ; they'll turn me back every time."

" What would you do, wrap yourself up in a barrel and have yourself packed with the broken stuff going back to the manufacturer ?"

Ragle said, " Maybe you can make a suggestion. You see them loaded and unloaded all the time ; I never set eyes on them before today."

" All I know is that they truck the stuff from where it's made or produced or grown ; I don't know how well it's inspected or how many times the doors are opened or how long you might be sealed up. You might find yourself parked off somewhere for a month. Or they may clean the trucks out as soon as they leave here."

" Do you know any of the drivers ?"

Vic considered. " No," he said finally. " Actually I don't. I see them, but they're just names. Bob, Mike, Pete, Joe."

" I can't think of anything else to do," Ragle said. And I am going to try again, he said to himself. I want to see that factory ; not the photograph or the model, but the thing itself. The *Ding an sich*, as Kant said. " It's too bad you're not interested in philosophy," he said to Vic.

" Sometimes I am," Vic said. " Not right now, though. You mean problems such as What are things really like ? The other night coming home on the bus I got a look at how things really are. I saw through the illusion. The other people in the bus were nothing but scarecrows propped up in their seats. The bus itself—" He made a sweeping motion with his hands. " A hollow shell, nothing but a few upright supports, plus my seat and the driver's seat. A real driver, though. Really driving me home. Just me."

Ragle reached into his pocket and brought out the small metal box that he carried with him. Opening it he presented it to Vic.

" What's this ?" Vic said.

" Reality," Ragle said. " I give you the real."

Vic took one of the slips of paper out and read it. " This says 'drinking fountain,' " he said. " What's it mean ?"

" Under everything else," Ragle said. " The word. Maybe it's the word of God. The logos. ' In the beginning was the Word.' I can't figure it out. All I know is what I see and what happens to me. I think we're living in some other world than what we see, and I think for a while I knew exactly what that other world is. But I've lost it since then. Since that night. The future, maybe."

Handing him back the box of words, Vic said, "What do you want to do, try to get hold of one of the trucks ?"

" Could we ?"

" We could try."

" You want to come along ?" Ragle said.

" All right," Vic said. " I'd like to see ; sure, I'd like to have a look outside."

" You tell me then," Ragle said, " how we should go about getting one of the trucks. This is your store ; I'll leave it up to you."

At five o'clock Bill Black heard the service trucks parking in the lot outside his office window. Presently his intercom buzzed and his secretary said,

" Mr. Neroni to see you, Mr. Black."

" I want to talk to him," he said. He opened the door of his office. After a moment a large muscular dark-haired man appeared, still in his drab coveralls and work shoes. " Come on in," Black said to him. " Tell me what happened today."

" I made notes," Neroni said, setting down a reel of tape on the desk. " For a permanent record. And there's some video tape, but it hasn't come through. The phone crew says he got a call from your wife at about ten o'clock. Nothing in it, except that he apparently thought he'd run into her at his Civil Defence class. She told him she had a date to meet a girl friend downtown. Then the woman who runs the Civil Defence class called to remind him that it was at two o'clock this afternoon. Mrs. Keitelbein."

" No," Black said. " Mrs. Kesselman."

" A middle-aged woman with a teen-age son."

" That's right," Black said. He remembered meeting the Kesselmans several years ago, when the whole situation had been dreamed up. And Mrs. Kesselman had dropped by recently with her Civil Defence clipboard and literature. " Did he go for his Civil Defence class ?"

" Yes. He mailed off his entries and then he dropped by their house."

Black had not been told about the Civil Defence class ; he had no idea what its purpose was. But the Kesselmans did not get their instructions from anyone in his department.

"Did somebody cover the Civil Defence class?" Black asked.

" Not to my knowledge," Neroni said.

" It doesn't matter," he said. " She gives it herself, doesn't she ?"

" As far as I know. When he rang the bell she opened the door herself." Neroni, at that point, frowned and said, " You're sure we're talking about the same person ? Mrs. Kesselbein ?"

" Something like that." He felt on edge. Ragle Gumm's actions of the last several days had permanently upset him ; the sense of the shaky, day-to-day balance that they had achieved had not left him with Ragle's return.

We know now that he can get away, Black thought to himself in spite of everything, we can lose him. He can revert gradually to sanity, make plans and carry them out ; we won't know until it's too late or almost too late.

The next time, we probably won't manage to find him. Or if not next time, then the time after that. Eventually.

Hiding deep in the closet won't save me, Black said to himself. Burying myself under the clothes, in the darkness, out of sight . . . it won't do me any good.

twelve

When Margo arrived at the parking lot she saw no sign of her husband. Shutting off the engine of the Volkswagen, she sat for a time, watching the glass doors of the store.

Usually he's ready to go by now, she said to herself.

She got out of the car and started across the parking lot toward the store.

" Margo," Vic called. He came from the rear of the store, from the loading docks. His pace, and the tension on his face, made her aware that something had happened.

Vic caught hold of her arm and led her back to the car. " I'm not driving home with you." Opening the car door he nudged her inside ; he got in after her, shut the door and rolled up the windows.

Behind the store, at the dock, a giant two-section truck had started to move in the direction of the Volkswagen. Is that monster going to sideswipe us ? Margo wondered. One touch of that front bumper, and nothing would remain of this car and us.

" What's he doing ?" she asked Vic. " I don't think he knows how to handle that. And trucks aren't supposed to use this exit, are they ? I thought you told me—"

Interrupting her, Vic said, " Listen. It's Ragle in the truck."

She stared at him. And then she saw up into the cab of the truck. Ragle waved at her, a slight flip of his hand. " What do you mean, you won't be driving home with me ?" she demanded. " Do you mean you're going to take that big thing to the house and park it ?" In her mind she envisioned the truck parked in their driveway, advertising to the neighbours that her husband worked in a grocery store. " Listen," she said, " I won't have you driving home in one of those ; I mean it."

" I'm not driving home in it," he said. " Your brother and I are going on a trip in it." He put his arm around her and kissed her. " I don't know when we'll be back. Don't worry about us. There're a couple of things I want you to do—"

She interrupted, " You're both going ?" It made no sense to her. " Tell me what this is about," she said.

" The main thing I want you to do," Vic said, " is tell Bill Black that Ragle and I are working here at the store. Don't tell him anything else ; don't tell him we've left and don't tell him when or how we've left. Do you understand that ? Whatever time the Blacks show up at the house and ask where Ragle is, say you just talked to him down at the store. Even if it's two in the morning. Say I've asked him to help me do an inventory for a surprise auditing."

" Can I ask you one thing ?" she said, hoping to get at least a trifle of information ; it was obvious that he had no intention of telling her much more. " Was Ragle with Junie Black the other night when the taxi driver carried him in the door ?"

" God no," Vic said.

" Are you getting him off somewhere so that Bill Black can't find him and murder him ?"

Vic eyed her. " You're on the wrong track, honey." He kissed her again, squeezed her, and pushed open the car door. " Say good-bye to Sammy for us." Turning toward the truck he yelled, " What ?" Then leaning back in the Volkswagen he said, " Ragle says to tell Lowery at the newspaper that he found a contest that pays better." Grinning at her, he loped over to the truck and around to the far side ; she heard him climb up into the cab beside her brother, and then his face appeared next to Ragle's.

" So long," Ragle shouted down at her. Both he and Vic waved. Roaring and spluttering, sending up black exhaust from its stack, the truck started from the lot, onto the street. Cars slowed for it ; the truck performed a laborious, awkward

right turn, and then it had disappeared beyond the store. For a long time she heard the heavy vibrations of it as it gained speed and departed.

As the truck moved through the early-evening traffic, Vic said to his brother-in-law, " You don't think these big rigs vanish a mile outside of town ?"

Ragle said, " Food has to be brought in from outside. The same thing we'd do if we wanted to keep a zoo going." Very much the same, he thought. " It seems to me that those men unloading cartons of pickles and shrimp and paper towels are the connection between us and the real world. It makes sense, anyhow. What else can we go on ?"

" I hope he can breathe back there," Vic said, meaning the driver. They had waited until the others had gone, leaving this one. While Ted, the driver, was inside stacking cartons on the hand truck, he and Ragle had closed and bolted the thick metal doors. It had taken perhaps one minute, then, to get up into the cab and begin warming the diesel motor. While they were doing that, Margo had arrived in the Volkswagen.

" As long as it's not a refrigerator truck," Ragle said. Or so Vic had said while they waited for the other trucks to leave.

" You don't think it would have been better to leave him in the store ? Nobody looks in some of the back storerooms."

Ragle said, " I just have the intuition that he'd get right out. Don't ask me why."

Vic did not ask him why. He kept his eyes on the road. They had left the downtown business section. Traffic had thinned. Stores gave way to a residential section, small modern houses, one storey, with tall TV masts and washing hanging on lines, high redwood fences, cars parked in driveways.

" I wonder where they'll stop us," Ragle said.

" Maybe they won't."

" They will," he said. " But maybe we'll be across by that time."

After a while Vic said, " Just consider. If this doesn't work out, you and I will face a charge of felony kidnapping and I'll no longer be in the produce business and you probably will be asked to resign from the Where Will the Little Green Man Be Next ? contest."

The houses became fewer. The truck passed gas stations, tawdry cafes, ice cream stands and motels. The dreary parade of motels . . . as if, Ragle thought, we had already gone a thousand miles and were just now entering a strange town. Nothing is so alien, so bleak and unfriendly, as the strip of gas stations—cut-rate gas stations—and motels on the rim of your own city. You fail to recognize it. And at the same time, you have to clasp it to your bosom. Not just for one night, but as long as you intend to live where you live.

But we don't intend to live here any more. We're leaving. For good.

Did I get this far before ? he wondered. They had got to open fields, now. A last intersection, a minor road serving industries that had been zoned out of the city proper. The railroad tracks . . . he noticed an infinitely long freight train at rest. The suspended drums of chemicals on towers over factories.

" Nothing like it," Vic said. " Especially at sunset."

The traffic now, had become other trucks, with few sedans.

" There's your barbecue place," Vic said.

On the right, Ragle saw the sign, Frank's Bar-B-Q and Drinks. Modern-looking enough. Clean, certainly. New cars in the lot. The truck rumbled on past it. The place fell behind.

" Well, you got farther this time," Vic said.

Ahead of them, the highway led into a range of hills. Up high, Ragle thought. Maybe somehow I got up there, up to the top. Tried to *walk* across those peaks. Could I have been that tanked up ?

No wonder I didn't make it.

On and on they drove. The countryside became monotonous. Fields, rolling hills, everything featureless, with advertising signs stuck at intervals. And then, without warning, the hills flattened and they found themselves rolling down a long, straight grade.

" This is what makes me sweat," Ragle said. " Driving a big rig down a really long grade." He had already shifted into a gear low enough to hold back the mass of the truck. At least they carried no load ; the mass was small enough for him, with his limited experience, to control. During the time that they had warmed the motor, he had learned the gear-box pattern. " Anyhow," he said to Vic, " we've got a horn loud as hell." He blew a couple of blasts on it, experimentally ; it made both of them jump.

At the end of the grade a yellow and black official sign attracted their attention. They could make out a cluster of sheds or temporary buildings. It had a grim look.

" Here it is," Vic said. " This is what you meant."

At the sheds, several trucks had lined up. And now, as they got closer, they saw uniformed men. Across the highway the sign flapped in the evening wind.

STATE LINE AGRICULTURAL INSPECTION STATION
TRUCKS USE SCALE IN RIGHT LANE ONLY

" That means us," Vic said. " The scale. They're going to weigh us. If they're inspecting, they'll open up the back." He glanced at Ragle. " Should we stop here and try to do something with Ted ?"

Too late now, Ragle realized. The state inspectors could see the truck and them inside it ; anything they did would be visible. At the first shed two black police cars had been parked so that they could get onto the highway at an instant's notice. We couldn't outrun them, either, he realized. Nothing to do but continue on to the scale.

An inspector, wearing sharply pressed dark blue trousers, a light blue shirt, badge and cap, sauntered toward them as they slowed to a stop. Without even glancing at them he waved them on.

" We don't have to stop," Ragle said excitedly, with insight. " It's a fake !" He waved back at the inspector, and Vic did the same. The man's back was already to them. " They don't ever stop these big carriers—just passenger cars. We're out."

The sheds and sign dropped back and disappeared. They had got out ; already, they had done it. Any other kind of vehicle would not have got through. But the genuine carriers passed back and forth all day long . . . in his rear-view mirror Ragle saw three more trucks being waved on. The trucks parked in a line at the sheds were dummies, like the other equipment.

" None of them," he said. " None of the trucks have to stop."

" You were right," Vic said. He settled back against the seat. " I suppose if we had tried to get by them in the Volkswagen they would have told us that we had some variety of insect infestation clinging to the upholstery. Japanese beetles . . . you have to drive back and get sprayed and apply for a one-month permit for re-inspection, subject to indefinite withdrawal."

As he drove, Ragle noticed that the highway had undergone a change. Now that they had passed the inspection station the highway had separated into two distinct roads, each five lanes wide, absolutely straight and flat. And no longer concrete. He did not recognize the material over which they now drove.

This is the outside, he said to himself. The outside highway, which we were never supposed to see or know about.

Trucks behind them and ahead of them. Some carrying supplies in, some empty and leaving, as they were. The ant trails leading into and out of the town. Ceaseless movement. And not one passenger car. Only the rumble of diesel trucks.

And, he realized, the advertising signs had vanished.

" Better switch on your lights," Vic said. Evening gloom had settled onto the hills and fields. One truck coming toward them along the other road had its lights on. " We want to obey the laws. Whatever they are."

Ragle switched on the lights. The evening seemed quiet and lonely. Far off, a bird skimmed along the surface of the earth, its wings rigid. The bird lighted on a fence.

" What about fuel ?" Ragle said.

Leaning past him, Vic read the fuel gauge. " Half full," he said. " I frankly have no idea how far a rig like this can go on a tank. Or if there's a reserve tank. Without a load we should go fairly far. Depends a great deal on what kind of grades we run across. A heavy vehicle loses a lot on grades ; you've seen trucks stuck halfway up a grade, moving ten miles an hour in its lowest gear."

" Maybe we better let Ted out," Ragle said. It had occurred to him that their money might be worthless. " We'll have to buy fuel and food—we don't know where, or even if we can. He must have credit cards on him. And money that's good."

Vic tossed a handful of papers into his lap. " From the glove compartment," he said. " Credit cards, maps, meal tickets. No money, though. We'll see what we can do with the credit cards. They're usually good at—" He broke off. " Motels," he said finally. " If they have them. What do you think we'll find ?"

" I don't know," Ragle said. Darkness had obliterated the landscape around them ; in the open spaces between towns there were no street lights to give them clues. Only the flat land, up to the sky, where lighter colours, a bluish-black, began. Stars had appeared.

" Do we have to wait until morning ?" Vic said. " Are we going to have to drive all night ?"

" Maybe so," Ragle said. On a curve, the headlights of the truck lit up a section of fence and scrub plants beyond it. I feel as if all this had happened before, he thought. Reliving it a second time . . .

Beside him, Vic examined the papers that he had brought out of the glove compartment. " What do you make of this ?" He held up a long paper strip, brightly coloured ; Ragle glanced at it and saw that it read :

ONE HAPPY WORLD

At each end, in luminous yellow, a snake coiled into an S-shape.

"Has glue on back," Vic said. "It must be for the bumper."

" Like 'make mine milk,' " Ragle said.

After a pause Vic said in a low voice, " Let me hold the wheel. I want you to look at it closer." He caught hold of the steering wheel and passed the bumper strip to Ragle. " At the bottom. In type."

Holding the strip near the some light, Ragle read the words: *Federal law requires that this be displayed at all times.*

He passed it back to Vic. " We're going to run into a lot more we don't understand," he said. But the strip had disturbed him, too. Mandatory . . . it had to be on the bumper, or else.

Vic said, " There's more." From the glove compartment he lifted out a stack of strips, ten or eleven of them, all alike. " He must glue it on every time he makes a trip. Probably rips it off when he enters town."

At the next stretch of empty highway, when no other trucks could be seen, Ragle drove from the road onto the gravel shoulder. He stopped the truck and put on the hand brake. " I'm going to go around to the back," he said. " I'll see if he's getting enough air." As he opened the cab door he said, "And I'll ask him about the strip."

Nervously, Vic slid over behind the wheel. " I doubt if he'll give you a right answer," he said.

Walking with care, Ragle made his way through the darkness along the side of the truck, past the great wheels, to the back. He climbed the iron ladder and rapped on the door. " Ted," he said. " Or whatever your name is. Are you all right ?"

From within the truck a voice said indistinctly, " Yeah. I'm okay, Mr. Gumm."

Even here, Ragle thought. Parked on the shoulder of the highway, in a deserted region between towns. I'm recognized.

" Listen, Mr. Gumm," the driver said, his mouth close to the crack of the doors. " You don't know what's out here, do you? You have no idea. Listen to me ; there isn't a chance in the world you'll run into anything but harm—harm for you, harm for everybody else. You have to take my word for it. I'm telling the truth. Someday you'll look back and know I was right. You'll thank me. Here." A small white square of paper slid out from between the doors and fluttered down ; Ragle caught it. A card, on the back of which the driver had written a phone number.

" What's this for ?" Ragle said.

The driver said, " When you get to the next town, pull off the road and go phone that number."

" How far's the next town ?"

A hesitation, and then the driver said, " I'm not sure. Pretty soon now. It's hard to keep track of the miles stuck back here."

" Can you get enough air ?"

" Yeah." The driver sounded resigned, but at the same time highly keyed up. " Mr. Gumm," he said, in the same intense, beseeching voice, " you just got to believe me. I don't care how long you keep me cooped up in this thing, but in the next hour or two you've just got to get in touch with somebody."

" Why ?" Ragle said.

" I can't say. Look, you apparently got it figured out enough to hijack this rig. So you must have some idea. If you have that much, you can figure out that it's important and not just somebody's smart idea, building all those houses and streets and those old cars back there."

Talk on, Ragle thought to himself.

" You don't even know how to drive a two-section rig," the driver said. " Suppose you hit a steep grade ? This clunk carries forty-five thousand pounds when it's loaded ; of course it ain't loaded right now. But you might sideswipe something. And there's a couple of railroad trestles this thing won't clear. You probably don't have any idea what the clearance of this is And you don't know how to gear down a grade or anything." He lapsed into silence.

" What's the bumper strip for ?" Ragle said. " The motto and the snake."

" Christ's sake !" the driver snarled.

" Does it have to go on ?"

Cursing at him, the driver managed finally to say, " Listen, Mr. Gumm—if you don't have that on right, they'll blow you sky-high ; so help me god, I'm telling the truth."

" How does it go on ?" he said.

" Let me out and I'll show you. I'm not going to tell you." The man's voice rose in hysteria. " You better let me out so I can stick it on, or honest to god, you won't get by the first tank that spots you."

Tank, Ragle thought. The notion appalled him.

Hopping down, he walked back to the cab. " I think we're going to have to let him out," he said to Vic.

" I heard him," Vic said. " I'd just as soon he was out of there, in any case."

" He may be stringing us along," Ragle said.

" We better not take the chance."

Ragle walked back, climbed the ladder, and unfastened the door. It was swung back, and the driver, still cursing sullenly, dropped down onto the gravel.

" Here's the strip," Ragle said to him. He handed it over. " What else do we have to know ?"

" You have to know everything," the driver said bitterly. Kneeling down he yanked a transparent covering from the back of the strip, pressed the strip to the rear bumper, and then rubbed it smooth with his fist. " How are you going to buy fuel ?"

" Credit card," Ragle said.

" What a laugh," the driver said, standing up. " That credit card is for in—" He ceased. " In town," he said. " It's a fake. It's a regular old Standard Oil credit card ; there haven't been any of them for twenty years." Glaring at Ragle he continued, " It's all rationed, kerosene for the truck—"

" Kerosene," Ragle echoed. " I thought it took diesel oil."

" No," the driver said, with massive reluctance. He spat into the gravel. " It's not diesel. The stack is fake. It's turbine. Uses kerosene. But they won't sell you any. The first place you go, they'll know something isn't right. And out here—" Again his voice rose to a screech. " You can't take no risks ! None at all !"

" Want to ride in front with us ?" Ragle said. " Or in the back ? I'll leave it up to you." He wanted to get the truck into motion again.

The driver said, " Go to hell." Turning his back, he started off down the gravel shoulder, hands in his pockets, body hunched forward.

As the shape of the driver disappeared into the darkness, Ragle thought, it's my own fault for unbolting the door. Nothing I can do ; I can't run after him and hit him over the head. In a fight he'd take me apart. Take us both apart.

And anyhow, that isn't the answer. That isn't what we're looking for.

Returning to the cab, he said to Vic, " He's gone. I guess we're lucky he didn't jump out of the back waving a tyre-iron."

" We better start up," Vic said, sliding away. " Want me to drive ? I could. Did he stick the bumper strip on ?"

" Yes," Ragle said.

" I wonder how long it'll be before he gets word to them about us."

Ragle said, " We would have had to let him out eventually."

For another hour they passed no sign of activity or habitation. Then, suddenly, as the truck came out of a sharp descending curve, a group of bright bluish lights flashed ahead of them, far off down the highway.

" Here's something," Vic said. " It's hard to know what to do. If we slow down or stop—"

" We'll have to stop," Ragle said. Already, he could make out the sight of cars, or vehicles of some sort, parked across the road.

As the truck slowed, men appeared, waving flashlights. One of them strode to the window of the cab and called up, " Shut off your motor. Leave your lights on. Get down."

They had no choice. Ragle opened the door and stepped down, Vic behind him. The man with the flashlight had on a uniform, but in the darkness Ragle could not make it out. The man's helmet had been painted so that it did not shine. He flashed his light into Ragle's face, then Vic's face, and then he said,

" Open up the back."

Ragle did so. The man and two companions hopped into the truck and rummaged about. Then they reappeared and jumped down.

" Okay," one of them said. He held something out to Ragle, a piece of paper. Accepting it, Ragle saw that it was some sort of punched form. " You can go ahead."

" Thanks," Ragle said. Numbly, he and Vic returned to the cab, climbed in and started up the motor, and drove off.

Presently Vic said, " Let's see what he gave you."

Holding the wheel with his left hand, Ragle fished the form from his pocket.

CERTIFICATE OF ZONE BORDER
CLEARANCE 31. 4/3/98

" There's your date," Ragle said. April third, 1998. The balance of the form consisted of IBM-style punches.

" They seemed satisfied with us," Vic said. " Whatever it was they were looking for, we didn't have it."

" They had uniforms."

" Yes, they looked like soldiers. One of them had a gun, but I couldn't tell anything about it. There must be a war on, or something."

Or, Ragle thought, a military dictatorship.

" Did they see if we had the bumper strip on ?" Vic said. " In the excitement I didn't notice."

" Neither did I," Ragle said.

A while later he saw what appeared to be a town ahead of them. A variety of lights, the regular rows that might be street lights, neon signs with words . . . somewhere in his coat he had the card the driver had given him. This is where we're supposed to call from, he decided.

" We got through the border clearance okay," Vic said. " If we can do that, with them shining their lights right on us, we ought to be able to walk into a beanery and order a plate of hotcakes. I didn't have any dinner after work." He rolled back his sleeve to read his wristwatch. " It's ten-thirty," he said. " I haven't had anything to eat since two."

" We'll stop," Ragle said. " We'll try to get fuel while we're here. If we can't get it, we'll leave the truck." The gauge showed the tank to be almost empty. The level had dropped surprisingly fast. But they had gone quite a distance ; they had been on the road for hours.

It struck him, as they passed the first houses, that something was missing.

Gas stations. Usually, on highway approaches to a town, even a tiny unimportant town, a solid line of gas stations could be seen on both sides. Before anything else. None here.

" It doesn't look good," he said. But they had seen no traffic, either. No traffic and no gas stations. Or kerosene stations, if that was the equivalent. Suddenly he slowed the truck and turned onto a side road. He brought the truck to a halt at the curb.

" I agree," Vic said. " We better try it on foot. We don't know enough to drive this thing around town."

They got warily out and stood together, in the dull light of an overhead street lamp. The houses appeared ordinary. Small, square, one storey, with lawns that were black in the night darkness. Houses, Ragle thought, haven't changed much since the 'thirties anyhow. Especially if seen at night. One taller shape might have been a multiple unit.

" If they stop us," Vic said, " and ask for identification or some such, what should we do ? We better agree on it now."

Ragle said, " How can we agree ? We don't know what they'll ask for." The driver's remarks still bothered him. " Let's see," he said, and started off in the direction of the highway.

The first lights resolved themselves into a roadside diner. Within, sitting at the counter, two boys ate sandwiches. High school boys, with blonde hair.

Their hair had been wound up into topknots. Tall cones of hair, each with a sharp, colourful spike stuck into it. The boys wore identical clothes. Sandals, wrap-around bright blue toga-like gowns, metal bracelets on their arms. And when one of them twisted his head to drink from a cup, Ragle saw that the boy's cheeks had been tattooed. And, he saw with disbelief, the boy's teeth had been filed.

Beyond the counter, the middle-aged waitress wore a simple green blouse, and her hair had been trained in a familiar manner. But the two boys . . . both he and Vic stared at them, through the window, until at last the waitress noticed them.

" We had better go in," Ragle said.

The door opened for them by the electric eye. Just like the supermarket, Ragle thought.

Both boys watched them as they self-consciously seated themselves in one of the booths. The interior of the diner, the fixtures and signs and lighting, seemed ordinary to him. Ads for a number of foods . . . but the prices made no sense. 4.5, 6.7, 2.0. Obviously not dollars and cents. Ragle stared

around him, as if he were trying to decide what he wanted. The waitress began to gather up her order pad.

One of the boys, nodding his topknotted head toward Vic and Ragle, said audibly, " Necktie-fellows, them smell fright-fright."

His companion laughed.

The waitress, stationing herself at their booth, said, " Good evening."

" Good evening," Vic muttered.

" What would you like ?" the waitress asked.

Ragle said, " What do you recommend ?"

" Oh, depends on how hungry you are," the waitress said.

The money, Ragle thought. The damn money. He said, " How about a ham and cheese sandwich and coffee."

Vic said, " The same for me. And some pie a la mode."

" Pardon ?" the waitress said, writing.

" Pie with ice cream," Vic said.

" Oh," she said. Nodding, she returned to the counter.

One of the boys said in a clear voice, " Necktie-fellows, many old thing-sign. You s'pose—" He stuck his thumbs in his ears. The other boy snickered.

When the sandwiches and coffee had been brought, and the waitress had gone off, one of the boys swiveled around in his chair to face them. The tattooing on his cheeks, Ragle noticed, had been carried out in design on his arm bracelets. He gazed at the intricate lines, and at last he identified the figures. The designs had been copied from Attic vases. Athena and her owl. Kore rising from the Earth.

The boy said directly to him and Vic, " Hay, you lunatic."

The flesh at the back of Ragle's neck began to crawl. He pretended to concentrate on his sandwich ; across from him Vic, sweating and pale, did the same.

" Hey," the boy said.

The waitress said, " Cut it out, or out of here for you."

To her, the boy said, " Necktie-fellow." Again he stuck his thumbs in his ears. The waitress did not seem impressed.

I can't stand it, Ragle thought. I can't live through this. The driver was right. To Vic he said, " Let's go."

" Fine," Vic said. He arose, grasping his sandwich, bent down to drink the last of his coffee, and then started for the door.

Now the check, Ragle thought. So we're doomed. We can't win.

" We have to get going," he said to the waitress. " Never mind the pie. How much ?" He groped in his coat pocket, a futile gesture.

The waitress added up the bill. " Eleven-Nine," she said.

Ragle opened his wallet. The two boys watched. So did the waitress. When they saw the money, the paper banknotes, the waitress said, " Oh dear. I haven't seen paper money in years. I guess it's still good." To the first of the boys she said, " Ralf, does the government still redeem those old paper notes ?"

The boy nodded.

" Wait," the waitress said. She recomputed the bill. " That'll be one-forty," she said. " But I'll have to give you your change in tokes. If that's all right." Apologetically, she dug a handful of small plastic wafers from the register, and as he gave her a five-dollar bill she handed back six of the wafers. " Thank you," she said.

As he and Vic left, the waitress seated herself with a paper-bound book and resumed her reading at a flattened page.

" What an ordeal," Vic said. They walked along, both of them eating the last of their sandwiches. " Those kids. Those ghastly damn kids."

Lunatic, Ragle thought. Did they recognize me ?

At the corner he and Vic stopped. " What now ?" Vic said " Anyhow, we can use our money. And we've got some of theirs." He lit his cigarette lighter to inspect one of the wafers. " It's plastic," he said. " Obviously a substitute for metal. Very light. Like those wartime ration tokens."

Yes, Ragle thought. Wartime ration tokens. Pennies made out of some nondescript alloy, not copper. And now, tokes. Tokens.

" But there's no blackout," he said. " They have their lights on."

" It's not the same any more," Vic said. " Lights was when—" He broke off. " I don't understand," he said. " I remember World War Two. But I guess I don't, do I ? That's the whole point. That was fifty years ago. Before I was born. I never lived through the 'thirties and 'forties. Neither did you. All we know about it—they must have taught us."

" Or we read it," Ragle said.

" Don't we know enough now?" Vic said. " We're out. We've seen it." He shuddered. " They had their teeth filed."

Ragle said, " That was almost pidgin English they were talking."

" I guess so."

" And African tribal markings. And garments." But they looked at me and one of them said, *Hey, you lunatic.* " They know," he said. " About me. But they don't care." Somehow, that made him feel more uneasy. Spectators. The cynical, mocking young faces.

" It's surprising they're not in the army," Vic said.

" They probably will be." To him, the boys had not appeared old enough. More like sixteen or seventeen.

As he and Vic stood on the corner, footsteps echoed along the dark, deserted street.

Two shapes approached them.

" Hey, you lunatic," one of them said. Leisurely, the two boys emerged in the street light of the intersection, their arms folded, their faces blank and impersonal. " Hold you-self stop-stop."

thirteen

The boy on the left reached into his robe and produced a leather case. From it he selected a cigar and a small pair of gold scissors ; he cut off one end of the cigar and placed the cigar in his mouth. His companion, with equal ritual, brought forth a jewelled cigar lighter and lit his friend's cigar.

The boy smoking the cigar said, " Necktie-fellows, you carry dead chuck-chuck. Wait-lady, she make foulupgoweewee."

The money, Ragle understood. The waitress shouldn't have accepted it. The boys had told her to, but they had known what the driver had known ; it was no longer legal tender.

" So what?" Vic said, also following their broken jargon.

The boy with the jewelled lighter said, " Bigchiefs, they fixee. No? No? So." He held out his hand. " Bigchiefs fixee, necktie-fellows fixee fat chuck-chuck."

" Give him some of the tokens," Vic said, under his breath.

Ragle counted four of the six tokes into the boy's open hand.

The boy bowed from the waist ; his topknot grazed the side-walk. Beside him his companion stood impassively upright, ignoring the transaction.

" You necktie-fellows, you got woojy ?" the boy with the lighter said emotionlessly.

" Necktie-fellows eyeball on pavement," the boy with the lighter said. Both he and his companion nodded. Now they had taken on a sombre air, as if something important had entered into the questioning. " Flop-flop," the boy with the cigar lighter said. " Right, necktie-fellows ? Flop-flop." He clapped his hands, back to back, like a seal. Both Ragle and Vic watched in fascination.

" Sure," Vic said.

The two boys conferred. Then the first, puffing on his cigar and scowling, said, " Dead chuck-chuck for plenty woojy. You go joe no ?"

" No," his companion put in quickly, striking him on the chest with the flat of his hand. " Baby go joe no chuck-chuck. Flop ina flop, ina flop-flop. Necktie-fellows flop-flop yourself." Wheeling, he started off, craning his neck and weaving his head from side to side.

" Wait a minute," Ragle said, as the other boy prepared to do the same. " Let's talk it over."

Both boys halted, turned and regarded him with amazement.

Then the boy with the cigar held out his hand. " Dead chuck-chuck," he said.

Ragle got out his wallet. " One bill," he said. He handed the boy a dollar bill ; the boy accepted it. " That's plenty."

After the boys had again conferred, the one with the cigar stuck up two fingers.

" Okay," Ragle said. " Do you have any more ones ?" he asked Vic.

Digging into his pocket Vic said, " Be sure you want to go along with this."

The alternative, as he saw it, was to remain on the street corner, with no idea where they were or what to do. " Let's take a chance," he said, accepting the bills and passing them over to the boy. " Now," he said to the boys. " Let's have the plenty woojy."

The boys nodded, bowed from the waist, and stalked away. He and Vic, after hesitating, followed them.

The journey took them down damp-smelling, twisting alleys, across lawns and up driveways. At last the boys led them over a fence and up a flight of steps, to a door. One of the boys rapped on the door. It opened.

" Necktie-fellows quickly walkinachamber," the boy whispered, as he and his companion squeezed inside.

Unstable brown light filled the room. To Ragle, it appeared to be a commonplace, rather barren apartment. He saw, through an open door, a kitchen with sink, table, stove, refrigerator. Two other doors had been left shut. In the room sat several boys, all on the floor. The only furniture was a lamp, a table, a television set, and a pile of books. Some of the boys wore the robes, sandals, topknots, and bracelets. The others wore single-breasted suits, white shirts, argyle socks, oxfords. All gazed at Ragle and Vic.

" Here woojy," the boy with the cigar said. " You makum sit-sit." He indicated the floor.

" What do you say ?" Vic said.

Ragle said, " Can't we take the woojy with us ?"

" No," one of the seated boys said. " Sniff sitinachamber."

The boy with the cigar opened a door and disappeared into the other room. After a time he returned with a bottle which he handed to Ragle. Everyone watched as Ragle accepted the bottle.

As soon as he had unscrewed the lid, he recognized it.

Vic, sniffing, said, " It's plain pure carbon tet."

" Yes," Ragle said. They've been sitting around sniffing carbon tet, he realized. This is woojy.

" Sniff," one of the boys said.

Ragle sniffed. Off and on, during his life, he had had occasion to get a noseful of carbon tet. It had no effect on him, except to make his head ache. He passed the bottle to Vic. " Here," he said.

" No thanks," Vic said.

One of the boys in a suit said in a high-pitched voice, " Necktie-fellows bedivere."

Everyone smiled cuttingly.

" That's a girl," Vic said. " That one there."

Those in suits, oxfords, shirts and argyles were girls. Their hair had been shaved right to their scalps. But, by their smaller, more delicate features, Ragle recognized them as girls. They wore no make-up. If one of them hadn't spoken, he would not have known.

Ragle said, " Pretty sissy woojy."

The room became silent.

One of the girls said, " Nectie-fellow, him play strange fruit by-an-by."

The faces of the boys had darkened. At last one of the boys arose, walked over to the corner of the room, and picked up a tall slim cloth bag. From the bag he slipped a plastic tube with holes spaced along it. He placed one end of the tube in his nose, covered the holes with his fingers, and then humming, began to play a tune on the tube. A nose-flute.

" Sweet flute-flute," one of the girls, in her suit, said.

The boy lowered the flute, wiped his nose with a small coloured cloth which he drew from his sleeve, and then said in the general direction of Ragle and Vic, " How's it feel being a lunatic ?"

The jargon has lapsed, Ragle thought. Now that they're sore. The others in the room, the girls especially, stared at ragle and Vic.

" A lunatic ?" one of the girls said faintly. " Really ?" she asked the boy.

"Sure," the boy said. "Necktie-fellows lunatic." He smirked. But he, too, looked uneasy. " Isn't that right?" he demanded.

Ragle said nothing. Beside him Vic ignored the boy.

" You by yourselves ?" another boy asked. " Or are there any more of you around ?"

" Just us," Ragle said.

They stared at him wildly.

" Yes," he said. " I admit it." It seemed to command respect from them, unlike anything else. " We're lunatics."

None of the kids moved. They sat rigidly.

One of the boys laughed. " So necktie-fellows lunatic. So what ?" Shrugging, he too went over and got his nose-flute.

" Strike up the flute-flute," a girl said. Now three flutes had started to whine.

" We're wasting our time here," Vic said.

" Yes," he agreed. " We better leave." He started to open the door, but as he did so, one of the boys removed the flute from his nose and said,

" Hey, necktie-fellows."

They stopped.

The boy said, " MP after. You go outadoor, MP catch." He resumed his fluting. The others nodded.

" You know what MP do with lunatic ?" a girl said. " MP give dose of c.c."

" What's that ?" Vic said.

All of them laughed. None of them answered. The fluting and humming continued.

" Necktie-fellows pale," a boy said, between breaths.

Outside, on the stairs, a tread made the floor shake. The fluting ceased. A knock.

They have us now, Ragle thought. No one in the room moved as the door opened.

" You darn kids," a raspy voice muttered. A grey-haired elderly woman, immense in a shapeless silk wrapper, peered into the room. She had furred slippers on her feet. " I told you no piping after ten o'clock. Cut it out." She glared at them all, from half-shut eyes. At that point she noticed Ragle and Vic. " Oh," she said, with suspicion. " Who are you ?"

They tell her, Ragle thought, and then she flounders back down the steps in a state of panic. And the tanks—or whatever the MPs come in—arrive at the bottom. Ted the driver has had plenty of time, by now. So has the waitress. So has everyone.

Anyhow, he thought, we've been out and we've seen that it is 1998, not 1959, and a war is in progress, and the kids now talk like and dress like West African natives and the girls wear men's clothing and shave their heads. And money as we know it has dropped out somewhere along the line. Along with diesel trucks. But, he thought with sudden pessimism, we didn't learn what it's all about. Why they set up the old town, the old cars and streets, kidded us for years . . .

" Who are these two gentlemen ?" the elderly woman inquired.

A pause, and then one of the girls, with a mischievous grin, said, " Looking for rooms."

" What ?" the old woman said, with disbelief.

" Sure," a boy said. " They showed up here looking for a room to rent. Stumbling around. Don't you gotcha porch light on ?"

" No," the old woman said. She got out a handkerchief and wiped at her soft wrinkled forehead ; under the pressure the flesh yielded. " I had retired." To Ragle and Vic, she said, " I'm Mrs. McFee. I own this apartment house. What kind of rooms did you want ?"

Before Ragle could think of an answer, Vic said, " Anything will do. What do you have ?" He glanced at Ragle, showing his relief.

" Well," she said, beginning to waddle back out onto the stairs, " if you two gentlemen will follow me, I'll just show you." On the stairs, she gripped the railing and swung her head to peer back at them. " Come on," she said, gasping for

breath. Her face had swollen with exertion. " I've got some very attractive property. You wanted something together, the two of you ?" Eyeing them doubtfully, she said, " Let's step into my office and I can chat with you about your employment and—" she started on down again, step by step— " other particulars."

At the bottom, with much muttering and gasping she located a light switch ; a bare bulb winked on, showing them the path that led along the side of the house to the front porch. On the porch an old-fashioned cane rocking chair could be seen. Old-fashioned even from their standpoint. Some things never change, Ragle thought.

" Right in here," Mrs. MacFee called. " If you will." She disappeared into the house ; he and Vic trailed after her, into a cluttered, dark, clothy-smelling living room filled with bric-a-brac, chairs, lamps, framed pictures on the walls, carpets, and, on the mantel, greeting cards by the score. Over the mantel, knitted or woven in many colours, hung a streamer with the words :

ONE HAPPY WORLD BRINGS BLESSINGS
OF JOY TO ALL MANKIND

" What I'd appreciate knowing," Mrs. McFee said, lowering herself into an easy chair, " is if you're regularly employed." Leaning forward she tugged a massive ledger from a desk, onto her lap.

" Yes," Ragle said. " We're regularly employed."

" What sort of business ?"

Vic said, " Grocery business. I operate the produce section of a supermarket."

" A what ?" the old woman gasped, twisting her head to hear. In its cage a black and yellow bird of some variety squawked hoarsely. " Be quiet, Dwight," she said.

Vic said, " Fruits and vegetables. Retail selling."

" What sort of vegetables ?"

" All kinds," he said, with annoyance.

" Where do you get them ?"

" From truckers," Vic said.

" Oh," she said, grunting. " And I suppose," she said to Ragle, " you're the inspector."

Ragle said nothing.

" I don't trust you vegetable men," Mrs. McFee said. " There was one of you around—I don't think it was you, but it might have been—last week. They looked good, but oh my, I would have died if I'd eaten any. They had r.a. written all over them. I can tell. Of course, the man assured me they didn't grow top-top ; came from way down in the cellars. Showed me the tag that swore they grew a mile down. But I can smell r.a."

Ragle thought, *Radio-activity*. Produce grown up on the surface, exposed to fallout. There've been bombings, in the past. Contamination of crops. Understanding rushed over him ; the scene of trucks being loaded with food grown underground. *The cellars*. Dangerous peddling of contaminated tomatoes and melons . . .

" No r.a. in our stuff," Vic said. " Radio-activity," he said under his breath, for Ragle's benefit.

" Yes," Ragle said.

Vic said, " We're—from a long distance from here. We just got in tonight."

" I see," Mrs. McFee said.

"We've both been ill," Vic said. "What's been happening?"

" What do you mean ?" the old woman said, pausing in her task of flipping the pages of her ledger. She had put on a pair of horn-rimmed glasses ; behind them her eyes, magnified, had a shrewd, alert glint.

" What's been happening ?" Ragle demanded. " The war," he said. " Will you tell us ?"

Mrs. McFee wet her finger and again turned pages. " Funny you don't know about the war."

" Tell us," Vic said fiercely. " For Christ's sake !"

" Are you enlisters ?" Mrs. McFee said.

" No," Ragle said.

" I'm patriotic, but I won't have enlisters living in my house. Causes too much trouble."

We'll never get a straight story from her, Ragle thought. It's hopeless. We might as well give up.

On a table rested an upright frame of tinted photographs, all of a young man in uniform. Ragle bent to examine the photographs. " Who is he ?" he said.

" My son," Mrs. McFee said. " He's stationed down at Anvers Missille Station. I haven't seen him in three years. Not since the war began."

That recently, Ragle thought. Perhaps the same time that they built the—

When the contest began. Where Will the Little Green Man Be Next? Almost three years . . .

He said, " Any hits, down there ?"

" I don't understand you," Mrs. McFee said.

" Never mind," Ragle said. Aimlessly, he roamed about the room. Through a wide arch of dark-shiny wood he could see a dining room. Solid central table, many chairs, wall shelves, glass cupboards with plates and cups. And, he saw, a piano. Wandering over to the piano he picked up a handful of the sheet music resting on the rack. All cheap popular sentimental tunes, mostly to do with soldiers and girls.

One of the tunes had the title :

LOONIES ON THE RUN MARCH

Carrying the sheet music back with him, he handed it to Vic. " See," he said. " Read the words."

Together, they read the verse under the music staff.

You're a goon, Mister Loon,
One World you'll never sunder.
A buffoon, Mister Loon,
Oh what a dreadful blunder.
The sky you find so cozy ;
The future tinted rosy ;
But Uncle's gonna spank—you wait !
So hands ina sky, hands ina sky,
Before it is too late ! !

" Do you play, mister ?" the old woman was asking.

Ragle said to her, " The enemy—they're the lunatics, aren't they ?"

The sky, he thought. The Moon. Luna.

It wasn't himself and Vic that the MPs hunted. It was the enemy. The war was being fought between Earth and the Moon. And if the kids upstairs could take him and Vic for lunatics, then lunatics had to be human beings. Not creatures. They were colonists, perhaps.

A civil war.

I know what I do, now. I know what the contest is, and what I am. I'm the saviour of this planet. When I solve a puzzle I solve the time and place the next missile will strike. I file one entry after another. And these people, whatever they call themselves, hustle an anti-missile unit to that square on the graph. To that place and at that time. And so everyone stays alive, the kids upstairs with their nose-flutes, the waitress, Ted the driver, my brother-in-law, Bill Black, the Kesselmans, the Keitelbeins. . . .

That's what Mrs. Keitelbein and her son had started telling me. Civil Defence . . . *nothing but a history of war up to the present.* Models from 1998, to remind me.

But why have I forgotten?

To Mrs. McFee he said, " Does the name Ragle Gumm mean anything to you ?"

The old woman laughed. " Not a darn thing," she said. " As far as I'm concerned Ragle Gumm can go jump in a hat. There isn't any one person who can do that ; it's a whole bunch of people, and they always call them ' Ragle Gumm.' I've known that from the start."

With a deep, unsteady breath, Vic said, " I think you're wrong, Mrs. McFee. I think there is such a person and he really does do that."

She said slyly, " And be right, day in day out ?"

" Yes," Ragle said. Beside him, Vic nodded.

" Oh come on," she said, screeching.

" A talent," Ragle said. " An ability to see a pattern."

" Listen," Mrs. McFee said. " I'm a lot older than you boys. I can remember when Ragle Gumm was nothing but a fashion designer, making those hideous Miss Adonis hats."

" Hats," Ragle said.

" In fact I still have one." Grunting, she rose to her feet and lumbered to a closet. " Here." She held up a derby hat. " Nothing but a man's hat. Why, he got them wearing men's hats just to get rid of a lot of old hats when men stopped buying them."

" And he made money in the hat business ?" Vic said.

" Those fashion designers make millions," Mrs. McFee said. " They all do ; every one of them. He was just lucky. That's it—luck. Nothing but luck. And later when he got into the synthetic aluminium business." She reflected. " Aluminide. That was luck. One of these fireball lucky men, but they always wind up the same way ; their luck runs out on them at

the end. His did." Knowingly, she said, " His ran out, but they never told us. That's why nobody sees Gumm any more. His luck ran out, and he committed suicide. It's not a rumour. It's a fact. I know a man whose wife worked for the MPs for a summer, and she told him it's positive ; Gumm killed himself two years ago. And they've had one person after another predicting those missiles."

" I see," Ragle said.

Triumphantly, Mrs. McFee told him, " When they made him put up—when he accepted that offer to come to Denver and do their missile predicting for them, then they saw through him ; they saw it was just bluff. And rather than stand the public shame, the disgrace, he—"

Vic interrupted, " We have to leave."

" Yes," Ragle said. " Good night." Both he and Vic started toward the door.

" What about your rooms ?" Mrs. McFee demanded, following after them. " I haven't had a chance to show you anything."

" Good night," Ragle said. He and Vic stepped out onto the porch, down the steps to the path, and to the sidewalk.

" Will you be back ?" Mrs. McFee called from the porch.

" Later," Vic said.

The two of them walked away from the house.

" I forgot," Ragle said. " I forgot all this." But I kept on predicting, he thought. I did it anyhow. So in a sense it doesn't matter, because I'm still doing my job.

Vic said, " I always believed you couldn't learn anything from popular tune lyrics. I was wrong."

And, Ragle realized, if I'm not sitting in my room working on the puzzle tomorrow, as I always do, our lives may well be snuffed out. No wonder Ted the driver pleaded with me. And no wonder my face was on the cover of *Time* as Man of the Year.

" I remember," he said, stopping. " That night. The Kesselmans. The photograph of my aluminium plant."

" Aluminide," Vic said. " She said, anyhow."

Do I remember everything ? Ragle asked himself. What else is there ?

" We can go back," Vic said. " We have to go back. You do, at least. I guess they needed a bunch of people around you, so that it would look natural. Margo, myself, Bill Black. The

conditioned responses, when I reached around in the bathroom for the light cord. They must have light cords, here. Or I did, anyhow. And when the people at the market ran as a group. They must have worked in a store here, worked together. Maybe in a grocery store out here, the same job. Everything the same except that it was forty years later."

Ahead of them a cluster of lights burned.

" We'll try there," Ragle said, increasing his pace. He still had the card Ted had given him. The number probably got him in touch with the military people, or whatever it was who had arranged the town in the first place. Back again . . . but why ?

" Why is it necessary ?" he asked. " Why can't I do it here ? Why do I have to live there, imagining I'm back in 1959, working on a newspaper contest ?"

" Don't ask me," Vic said. " I can't tell you."

The lights transformed themselves into words. A neon sign in several colours, burning in the darkness :

WESTERN DRUG AND PHARMACY

" A drugstore," Vic said. " We can phone from there."

They entered the drugstore, an astonishingly tiny, narrow, brilliantly lit place with high shelves and displays. No customers could be seen, nor a clerk ; Ragle stopped at the counter and looked around for the public phones. Do they still have them ? he wondered.

" May I help you ?" a woman's voice sounded nearby.

" Yes," he said. " We want to make a phone call. It's urgent."

" You better show us how to operate the phone," Vic said. " Or maybe you could get the number for us."

" Certainly," the clerk said, sliding around from behind the counter in her white smock. She smiled at them, a middle-aged woman wearing low-heeled shoes. " Good evening, Mr. Gumm."

He recognised her.

Mrs. Keitelbein.

Nodding to him, Mrs. Keitelbein passed him on her way to the door. She closed and locked the door, pulled down the shade, and then turned to face him. " What's the phone number ?" she said.

He handed her the card.

" Oh," she said, reading the number. " I see. That's the switchboard for the Armed Services, at Denver. And the extension is 62. That—" She began to frown. " That probably would be somebody in the missile-defense establishment. If they'd be there this late they must virtually live there. So that would make them somebody high up." She returned the card. " How much do you remember ?" she said.

Ragle said, " I remember a great deal."

" Did my showing you the model of your factory help you?"

" Yes," he said. It certainly had. After seeing it, he had got onto the bus and ridden downtown to the supermarket.

" Then I'm glad," she said.

" You're hanging around," he said, " to give me systematic doses of memory. Then you must represent the Armed Services."

" I do," she said. " In a sense."

" Why did I forget in the first place ?"

Mrs. Keitelbein said, " You forgot because you were made to forget. The same way you were made to forget what happened to you that night when you got up as far as the top of the hill and ran into the Kesselmans."

" But it was city trucks. City employees. They grabbed me. They worked me over. The next morning they started ripping out the street. Keeping an eye on me." That meant the same people who ran the town. The people who had built it. " Did they make me forget in the first place ?"

" Yes," she said.

" But you want me to remember."

She said, " That's because I'm a lunatic. Not the kind you are, but the kind the MPs want to round up. You had made up your mind to come over to us, Mr. Gumm. In fact, you had packed your briefcase. But something went wrong and you never got over to us. They didn't want to put an end to you, because they needed you. So they put you to work solving puzzles in a newspaper. That way you could use your talent for them . . . without ethical qualms." She continued to smile her merry, professional smile ; in her white clerk's smock she could have been a nurse, perhaps a dental nurse advocating some new technique for oral hygiene. Efficient and practical. And, he thought, dedicated.

He said, " Why had I made up my mind to come over to you ?"

" Don't you remember ?"

" No," he said.

" Then I have things for you to read. A sort of reorientation kit." Stooping, she reached behind the counter and brought out a flat manila envelope ; she opened it on the counter. " First," she said, " the January 14, 1996 copy of *Time*, with your picture on the cover and your biography inside. Complete, in so far as public knowledge about you goes."

" What have they been told ?" he said, thinking of Mrs. McFee and her garble of suspicions and rumours.

" That you have a respiratory condition that requires you to live in seclusion in South America. In a back-country town in Peru called Avacucho. It's all in the biography." She held out a small book. " A grammar school text on current history. Used as the official text in One Happy World schools."

Ragle said, " Explain the 'One Happy World' slogan to me."

" It's not a slogan. It's the official nomenclature for the group that believes there's no future in interplanetary travel. One Happy World is good enough, better in fact than a lot of arid wastes that the Lord never intended man to occupy. You know of course what 'lunatics' means."

" Yes," he said. " Lunar colonists."

" Not quite. But it's there in the book, along with an account of the origins of the war. And there's one more thing." From the folder she brought out a pamphlet with the title :

THE STRUGGLE AGAINST TYRANNY

" What's this ?" Ragle said, accepting it. The pamphlet gave him an eerie feeling, the strong shock of familiarity, long association.

Mrs. Keitelbein said, " It's a pamphlet circulated among the thousands of workers at Ragle Gumm, Inc. In your various plants. You haven't given up your economic holdings, you understand. You volunteered to serve the government for a nominal sum—a gesture of patriotism. Your talent to be put to work saving people from lunatic bombings. But after you had worked for the government—the One Happy World Government—for a few months, you had an important change of heart. You always did see patterns sooner than anyone else."

" Can I take these back to town ?" he said. He wanted to be ready for tomorrow's puzzle ; it was in his bones.

" No," she said. " They know you got out. If you go back they'll make another try at wiping out your memories. I'd

rather you stayed here and read them. It's about eleven o'clock. There's time. I know you're thinking about tomorrow. You can't help it."

" Are we safe here ?" Vic said.

" Yes," he said.

" No MPs will come by and look in ?" Vic said.

" Look out the window," Mrs. Keitelbein said.

Both Vic and Ragle went to the drugstore window and peered out at the street.

The street had gone. They faced dark, empty fields.

" We're between towns," Mrs. Keitelbein said. " Since you set foot in here we've been in motion. We're in motion now. For a month now we've been able to penetrate Old Town, as the Seabees call it. They built it, so they named it." Pausing, she said, " Didn't it ever occur to you to wonder where you lived ? The name of your town ? The county ? State ?"

" No," Ragle said, feeling foolish.

" Do you know where it is now ?"

" No," he admitted.

Mrs. Keitelbein said, " It's in Wyoming. We're in western Wyoming, near the Idaho border. Your town was built up as a re-construction of several old towns which got blown away in the early days of the war. The Seabees recreated the environment fairly well, based on texts and records. The ruins that Margo wants the city to clear for the health of the children, the ruins in which we planted the phone book and word-slips and magazines, is a bit of the genuine old town of Kemmerer. An archaic country armoury."

Seating himself at the counter, Ragle began to read his biography in *Time*.

fourteen

In his hands the pages of the magazine opened, spread out, presented him with the world of reality. Names, faces, experiences drifted up at him and resumed their existences. And no men in overalls came slipping in at him from the outside darkness ; no one disturbed him. This time he was allowed to sit by himself, gripping the magazine, bent over it and absorbed in it.

More with Moraga, he thought. The old campaign, the 1987 presidential elections. And, he thought, *win with Wolfe*. The winning team. In front of him the lean, bumbling shape of the

Harvard law professor, and then his Vice President. What a contrast, he thought. Disparity responsible for a civil war. And on the same ticket, too. Try to capture everybody's vote. Wrap it all up . . . but can it be done ? Law professor from Harvard and ex-railroad foreman. Roman and English law, and then a man who jotted down the weight of sacks of salt.

" Remember John Moraga ?" he asked Vic.

Confusion stirred on Vic's face. " Naturally," he muttered.

" Funny that an educated man could turn out to be so gullible," Ragle said. " Cat's paw for the economic interests. Too naive, probably. Too cloistered." Too much theory and too little experience, he thought.

" I don't agree with you," Vic said in a voice that grew abruptly hard with conviction. " A man dedicated to seeing his principles carried out in practise, despite all odds."

Ragle glanced up at him in astonishment. The tight expression of certitude. Partnership, he thought. Debates in the bars at night : I wouldn't be caught dead using a salad bowl made out of Lunar Ore. Don't buy Lunar. The boycott. And all in the name of principles.

Ragle said, " Buy Ant-Ore."

" Buy at home," Vic agreed, without hesitation.

" Why ?" Ragle said. " What's the difference ? Do you think of the Antarctic continent as home ?" He was puzzled. " Lun-Ore or Ant-Ore. Ore is ore." The great foreign policy debate. The Moon will never be worth anything to us economically, he thought to himself. Forget about it. But suppose it is worth something ? What then ?

In 1993 President Moraga signed into law the bill that terminated American economic development on Luna. Hurray !

Fifth Avenue ticker-tape parade.

And then the insurrection. The wolves, he thought.

" ' Win with Wolfe,' " he said aloud.

Vic said fiercely, " In my opinion a bunch of traitors."

Standing apart from the two of them, Mrs. Keitelbein listened and watched.

" The law clearly states that in case of presidential disability the Vice President becomes full and acting President," Ragle said. " So how can you start talking about traitors ?"

" Acting President isn't the same as President. He was just supposed to see that the real President's wishes were carried

out. He wasn't supposed to distort and destroy the President's foreign policies. He took advantage of the President's illness. Restoring funds to the Lunar projects to please a bunch of California liberals with a lot of starry-eyed dreamy notions and no practical sense—" Vic gasped with indignation. "Mentality of teen-agers yearning to drive fast and far in souped-up cars. See beyond the next range of mountains."

Ragle said, " You got that from some newspaper column. Those aren't your ideas."

" Freudian explanation, something to do with vague sexual promptings. Why else go to the Moon ? All that talk about ' ultimate goal of life.' Phony nonsense." Vic jabbed his finger at him. " And it isn't legal."

" If it isn't legal," Ragle said, " it doesn't matter if it's vague sexual promptings or not." You're getting your logic muddled he thought. Having it both ways. It's immature and it's against the law. Say anything against it, whatever comes to your mind. Why are you so set against Lunar exploration ? Smell of the alien ? Contamination ? The unfamiliar seeping in through the chinks in the walls . . .

The radio shouted, ". . . desperately ill with a kidney disorder, President John Moraga at his villa in South Carolina declares that only with painstaking scrutiny and the most solemn attention to the best interests of the nation will he consider—"

Painstaking, Ragle thought. Kidney disorders always painstaking, or rather painsgiving. The poor man.

" He was a hell of a fine President," Vic said.

Ragle said, " He was an idiot."

Mrs. Keitelbein nodded.

The group of Lunar colonists declared that they would not return funds they had received and which the Federal agencies had begun billing them for. Accordingly, the FBI arrested them qua group for violation of statutes dealing with misuse of Federal funds, and, where machinery rather than funds were involved, for unauthorized possession of Federal property et cetera.

Pretext, Ragle Gumm thought.

In February of 1994 a battle broke out at Base One, the nominal capital of the Lunar colonies. Soldiers from the nearby missile base were set upon by colonists, and a five-hour pitched encounter was fought. That night, special troop-transporting ships left Earth for Luna.

Within a month a full-scale war was under way.

" I see," Ragle Gumm said.

Mrs. Keitelbein said, " A civil war is the worst kind possible. Family against family. Father against son."

" The expansionists—" With difficulty, he said, " The lunatics on Earth didn't do very well."

" They fought a while, in California and New York and in a few large inland cities. But by the end of the first year the One Happy Worlders had control here on Earth." Mrs. Keitelbein smiled at him with her fixed, professional smile ; she leaned back against a counter, her arms folded. " Now and then at night, lunatic partisans cut phone lines and blow up bridges. But most of those who survived are getting a dose of c.c. Concentration camps, in Nevada and Arizona."

Ragle said, " But you have the Moon."

" Oh yes," she said. " And now we're fairly self-sufficient. We have the resources, the equipment. The trained men."

" Don't they bomb you ?"

She said, " Well, you see, Luna keeps one side away from the Earth."

Yes, he thought. Of course. The ideal military base. Earth did not have that advantage. Eventually, every part of Earth swam into the sights of the watchers on the Moon.

Mrs. Keitelbein said, " All our crops are grown hydro—hydroponics, in tanks under the surface. No way they can be contaminated by fallout. And we have no atmosphere to pick up and carry the dust. The lesser gravity permits much of the dust to leave completely . . . it just drifts away, into space. Our installations are underground, too. Our houses and schools. And—" she smiled— " we breathe canned air. So no bacteriological material affects us. We're completely contained. Even if there're fewer of us. Only a few thousand, in fact."

" And you've been bombing Earth," he said.

" We have an attack programme. Aggressive approach. We put warheads into what used to be transports and fire them at Earth. One or two a week . . . plus smaller strikes, research rockets which we have in quantity. And communication and supply rockets, small stuff good for a few farmhouses or a factory. It worries them because they can never tell if it's a full-size transport with a full-size H-warhead, or only a little fellow. It disrupts their lives."

Ragle said, " And that's what I've been predicting."

" Yes," she said.

" How well have I done ?"

" Not as well as they've told you. Lowery, I mean."

" I see," he said.

" But not badly, either. We've succeeded in randomizing our pattern more or less . . . you get some of them, especially the full-size transports. I think we tend to fuss with them to a greater degree because we have only a limited number. We tend to unrandomize them. So you sense the pattern, you and your talent. Women's hats. What they'll be wearing next year. Occult."

" Yes," he said. " Or artistic."

"But why'd you go over to them?" Vic demanded. "They've been bombing us, killing women and children—"

" He knows why now," Mrs. Keitelbein said. " I saw it on his face as he read. He remembers."

" Yes," Ragle said. " I remember."

" Why did you go over to them ?" Vic said.

" Because they're right," Ragle said. " And the isolationists are wrong."

Mrs. Keitelbein said, " That's why."

When Margo opened the front door and saw it was Bill Black outside on the dark porch, she said,

" They're not here. They're down at the store, taking a rush inventory. Something about a surprise audit."

" Can I come in anyhow ?" Black said.

She let him in. He shut the door after him. " I know they're not here." He had a listless, despondent manner. " But they're not down at the store."

" That's where I saw them last," she said, not enjoying telling a lie. " And that's what they told me." Told me to say, she thought to herself.

Black said, " They got out. We picked up the driver of the truck. They let him off a hundred or so miles along the road."

" How do you know ?" she said, and then she felt rage at him. An almost hysterical resentment. She did not understand, but she had a deep intuition. " You and your lasagne," she said chokingly. " Coming over here and spying, hanging around him all the time. Sending that tail-switching wife of yours over to rub up against him."

" She's not my wife," he said. " They assigned her because I had to be set up in a residential context."

Her head swam. " Does—she know ?"

" No."

" That's something," Margo said. " Now what ?" she said. " You can stand there smirking because you know what it's all about."

" I'm not smirking," Black said. " I'm just thinking that at the moment I had my chance to get him back I thought to myself, That must be the Kesselmans. It's the same people. Simple mix-up on the names. I wonder who conjured up that. I never was too good on names. Maybe they found that out. But with sixteen hundred names to keep track of and deal with—"

" Sixteen hundred," she said. " What do you mean ?" And her intuition, then, grew. A sense of the finiteness of the world around her. The streets and houses and shops and cars and people. Sixteen hundred people, standing in the centre of a stage. Surrounded by props, by furniture to sit in, kitchens to cook in, cars to drive, food to fix. And then, behind the props, the flat, painted scenery. Painted houses set farther back. Painted people. Painted streets. Sounds from speakers set in the wall. Sammy sitting alone in a classroom, the only pupil. And even the teacher not real. Only a series of tapes being played for him.

" Do we get to know what it's for ?" she said.

" He knows. Ragle knows."

She said, " That's why we don't have radios."

" You'd have picked things up on a radio," Black said.

" We did," she said. " We picked you up."

He grimaced. " It was a question of time. Sooner or later. But we expected him to keep sinking back into it, in spite of that."

" But someone came along," Margo said.

" Yes. Two more people. Tonight we sent a work crew to the house—that big old two-storey house on the corner—but they're gone. Nobody there. Left all their models. They gave him a course in Civil Defence. Leading up to the present."

She said, " If you have nothing else to say, I wish you'd leave."

" I'm going to stay here," Black told her. " All night. He might decide to come back. I thought you'd prefer it if Junie didn't come with me. I can sleep here in the living room ; that way I'll see him if he does show up." Opening the front door he lifted a small suitcase into the house. " My toothbrush,

pyjamas, a few personal things," he said, in the same dulled, spiritless voice.

" You're in trouble," she said. " Aren't you ?"

" So are you," Black said. Setting the suitcase down on a chair he opened it and began to lay out his possessions.

" Who are you ?" she said. " If you're not 'Bill Black.' "

" I am Bill Black. Major William Black, United States Board of Strategic Planning, Western Theatre. Originally I worked with Ragle, plotting out missile strikes. In some respects I was his pupil."

" So you don't work for the city. For the water company."

The front door opened and there stood Junie Black, in a coat, holding a clock. Her face was puffy and red ; obviously she had been crying. " You forgot your clock," she said to Bill Black, holding it out to him. " Why are you staying here tonight ?" she said in a quavering voice. " Is it something I did ?" She glanced from him to Margo. " Are you two having an affair ? Is that it ? Was that it all the time ?"

Neither of them said anything.

" Please explain it to me," Junie said.

Bill said, " For god's sake, will you beat it. Go on home."

Sniffling, she said, " Okay. Whatever you say. Will you be home tomorrow, or is this permanent ?"

" It's just for tonight," he said.

The door shut after her.

" What a pest," Bill Black said.

" She still believes it," Margo said. " That she's your wife."

" She'll believe it until she's reconstructed," Bill said. " So will you. You'll keep on seeing what you've been seeing. The training is all there, on a nonrational level. Impressed on your systems."

" It's awful," she said.

" Oh, I don't know. There are worse things. It's an attempt to save our lives."

" Is Ragle conditioned, too ? Like the rest of us ?"

" No," Black said, as he laid out his pyjamas on the couch. Margo noticed the loud colours, the flowers and leaves of bright red. " Ragle is in a little different shape. He gave us the idea for all this. He got himself into a dilemma, and the only way he could solve it was to go into a withdrawal psychosis."

She thought, Then he really is insane.

" He withdrew into a fantasy of tranquility," Black said, winding the clock that Junie had brought over. " Back to a period before the war. To his childhood. To the late 'fifties, when he was an infant."

" I don't believe a thing you're saying," she said, resisting it. But she still heard it.

" So we found a system by which we could let him live in his stress-free world. Relatively stress-free, I mean. And still plot our missile intercepts for us. He could do it without the sense of load on his shoulders. The lives of all mankind. He could make it into a game, a newspaper contest. That was our tip-off, originally. One day, when we dropped into his headquarters at Denver, he greeted us by saying, ' I've almost got today's puzzle finished.' A week or so later he had a full-scale retreat fantasy going."

" Is he really my brother ?" she said.

Black hesitated. " No," he said.

" Is he any relation to me ?"

" No," Black said, with reluctance.

" Is Vic my husband ?"

" N-no."

" Is anybody any relation to anybody ?" she demanded.

Scowling, Black said, " I—" Then he bit his lip and said, " It so happens that you and I are married. But your personality-type fitted in better as a member of Ragle's household. It had to be arranged on a practical basis."

After that, neither of them said anything. Margo walked unsteadily into the kitchen and reflexively seated herself at the table there.

Bill Black my husband, she thought. Major Bill Black.

In the living room, her husband unrolled a blanket on the couch, tossed a pillow at one end, and prepared to retire for the night.

Going to the living room door, she said, " Can I ask you something ?"

He nodded.

" Do you know where the light cord is that Vic reached for, that night in the bathroom ?"

Black said, " Vic managed a grocery store in Oregon. The light cord might have been there. Or in his apartment there."

" How long have you and I been married ?"

" Six years."

She said, " Any children ?"

" Two girls. Ages four and five."

" What about Sammy ?" In his room, Sammy slept on, his door shut. " He's no relation to anybody ? Just a child recruited somewhere along the line, like a movie actor to fill a part ?"

" He's Vic's boy. Vic and his wife."

" What's his wife's name ?"

" You've never met her."

" Not that big Texas girl down at the store."

Black laughed. " No. A girl named Betty or Barbara ; I never met her, either."

" What a mess," she said.

" It is," he said.

She returned to the kitchen and reseated herself. Later, she heard him switch on the television set. He listened to concert music for an hour or so, and then she heard him switch the set off, and then the living room light, and then get under the blanket on the couch. Later on, at the kitchen table, she involuntarily dozed.

The telephone woke her up. She could hear Bill Black flailing about the living room, trying to find it.

" In the hall," she said groggily.

" Hello," Black said.

The clock on the wall above the kitchen sink told her that the time was three-thirty. Lord, she thought.

" Okay," Black said. He hung up the phone and padded back into the living room. Listening, she heard him dress, stuff his things away in the suitcase, and then the front door opened and shut. He had left. He had gone.

Ragle Gumm remembered the day he had first heard about the Lunar colonists, already called lunatics, firing on Federal troops. Nobody had been very much surprised. The lunatics, for the most part, consisted of discontented people, unestablished young couples, ambitious young men and their wives, few with children, none with property or responsibility. His first reaction was to wish that he could fight. But his age forbade that. And he had something much more valuable to volunteer.

They had put him to work plotting the missile strikes, making his graphs and patterns of prediction, doing his statistical research, he and his staff. Major Black had been his excutive officer, a bright individual eager to learn how the

plotting was done. For the first year it had gone properly, and then the weight of responsibility had got him down. The sense that all their lives depended on him. And at that point the army people had decided to take him off Earth. To put him aboard a ship and transport him to one of the health resorts on Venus to which high government officials went, and at which they wasted much time. The climate on Venus, or perhaps the minerals in the water, or the gravity—no one could be sure—had done much to cure cancer and heart trouble.

For the first time in his life he found himself leaving Earth. Journeying out into space, between planets, Free of gravity. The greatest tie had ceased to hold him. The fundamental force that kept the universe of matter behaving as it did. The Heisenberg Unified Field Theory had connected all energy, all phenomena into a single experience. Now, as his ship left Earth, he passed from that experience to another, the experience of pure freedom.

It answered, for him, a need that he had never been aware of. A deep restless yearning under the surface, always there in him, throughout his life, but not articulated. The need to travel on. To migrate.

His ancestors had migrated. They had appeared, nomads, not farmers but food-gatherers, entering the West from Asia. When they had reached the Mediterranean they had settled down, because they had reached the edge of the world ; there was no place left to go. And then later, hundreds of years later, reports had arrived that other places existed. Lands beyond the sea. They had never got out onto the sea much, except perhaps for their abortive migration to North Africa. That migration out onto the water in boats was a terrifying thing for them. They had no idea where they were going, but after a while they had made that migration, from one continent to another. And that held them for a time, because again they had reached the edge of the world.

No migration had ever been like this. For any species, any race. From one planet to another. How could it be surpassed? They made now, in these ships, the final leap. Every variety of life made its migration, travelled on. It was a universal need, a universal experience. But these people had found the ultimate stage, and as far as they knew, no other species or race had found that.

It had nothing to do with minerals, resources, scientific measurement. Nor even exploration and profit. Those were excuses. The actual reason lay outside their conscious minds. If he were required to, he could not formulate the need, even as he experienced it fully. No one could. An instinct, the most primitive drive, as well as the most noble and complex. It was both at once.

And the ironic thing, he thought, is that people say God never meant for us to travel in space.

The lunatics are right, he thought, because they know it has nothing to do with how profitable the ore concessions can be made to be. We're only pretending to mine ore on Luna. It's not a political question, or even an ethical one. But you have to answer something when someone asks you. You have to pretend that you know.

For a week he bathed in the warm mineral waters at the Roosevelt Hot Springs on Venus. Then they shipped him back to Earth. And, shortly after that, he started spending his time thinking back to his childhood. To the peaceful days when his father had sat around the living room reading the newspaper and the kids had watched Captain Kangaroo on TV. When his mother had driven their new Volkswagen, and the news on the radio hadn't been about war but about the first Earth satellites and the initial hopes for thermonuclear power. For infinite sources of energy.

Before the great strikes and depressions and civil discord that came later.

That was his last memory. Spending his time meditating about the 'fifties. And then, one day, he found himself back in the 'fifties. It had seemed a marvelous event to him. A breath-taking wonder. All at once the sirens, the c.c. buildings, the conflict and hate, the bumper strips reading ONE HAPPY WORLD, vanished. The soldiers in their uniforms hanging around him all day long, the dread of the next missile attack, the pressure and tension, and above all the doubt that they all felt. The terrible guilt of a civil war, masked over by greater and greater ferocity. Brother against brother. Family against itself.

" You see," the woman said, " they didn't do anything to you, to your mind. You slipped back yourself.. You've slipped back now, just reading about it. You keep wanting to go back." Now she did not have a tray of cheese samples. " Do you know who I am ?" she asked in a considerate voice.

" You're familiar," he said, stalling because he could not recall.

" I'm Mrs. Keitelbein," the woman said.

" That's so," he agreed. He moved away from her. "You've done a lot to help me," he said to her, feeling grateful.

" You're getting out of it," Mrs. Keitelbein said. " But it'll take time. The pull on you is strong. The tug back into the past."

" But why so inaccurate ?" he asked Mrs. Keitelbein. " The Tucker car. It was a terrific car, but—"

Mrs. Keitelbein said, " You did ride in one, once."

" Yes," he said. " Or at least I think so. When I was a kid." And, at that point remembering, he could feel the presence of the car. " In Los Angeles," he said. " A friend of my dad's owned one of the prototypes."

" You see, that would explain it," she said.

" But it never was put into production. It never got beyond the hand-built stage."

" But you needed it," Mrs. Keitelbein said. " It was for you."

Ragle Gumm said, " *Uncle Tom's Cabin.*" It had seemed perfectly natural to him, at the time, when Vic had shown them all the brochure from the Book-of-the-Month Club. " That thing was written a century before my time. That's a really ancient book."

Picking up the magazine article, Mrs. Keitelbein held it out to him. " A childhood verity," she said. " Try to remember."

There, in the article, a line about the book. He had owned a copy, read the book over and over again. Battered yellow and black covers, charcoal-like illustrations as lurid as the book itself. Again he felt the weight of the thing in his hands, the dusty, rough pressure of the fabric and paper. Himself, off in the quiet and shadows of the yard, nose down, eyes fixed on the text. Keeping it with him in his room, rereading it because it was a stable element ; it did not change. It gave him a sense of certainty. A sense that he could count on it to be there, exactly as it had always been. Even the crayon markings on the first page that he had made, his scrawled initials.

"Everything in terms of your requirements," Mrs. Keitelbein said. " What you needed, for your security and comfort. Why should it be accurate ? If *Uncle Tom's Cabin* was a necessity of your childhood, it was included."

Like a daydream, he thought. Keeping in the good. Excluding the undesirable.

"If radios infringed, then there were no radios," Mrs. Keitelbein said. "Or at least there weren't supposed to be."

But such a natural thing, he realized. They overlooked a radio every now and then. They kept forgetting that in the illusion the radio did not exist; they kept slipping up in just such trifles. Typical difficulty in maintaining daydreams . . . they failed to be consistent. Sitting at the table playing poker with us, Bill Black saw the crystal set and did not remember. It was too commonplace. It did not register; he had his mind on more important matters.

In her patient way, Mrs. Keitelbein went on, "So you recognize that they built for you—and placed you in—a safe, controlled environment in which you could do your job without doubt or distractions. Or the realization that you were on the wrong side."

Vic said savagely, "The *wrong* side?—the side that was attacked!"

"In a civil war," Ragle said, "every side is wrong. It's hopeless to try to untangle it. Everyone is a victim."

In his lucid periods, before they had taken him from his office and established him in Old Town, he had evolved a plan. He had carefully assembled his notes and papers, packed his possessions, and prepared to leave. In a roundabout manner he had managed to make contact with a group of California lunatics at one of the concentration camps in the Midwest; doses of reorientation training had not yet affected them or their loyalties, and from them he had got instructions. He was to meet with a free, undetected lunatic in St. Louis, at a particular time, on a particular day. But he had never arrived there. The day before, they had picked up his contact and obtained the information from him. And that was that.

In the concentration camps, the captured lunatics underwent a systematic brainwashing, but of course it was never called that. This was education along new lines, a freeing of the individual from prejudices, malformed convictions, from neurotic obsessions and fixed ideas. It helped him mature. It was knowledge. He came forth a better man.

When Old Town had been built, the people who entered it and became part of its life underwent the technique used in the camps. They volunteered. All but Ragle Gumm. And on

him the camp technique fastened the last elements of his withdrawal into the past.

They made it work, he realized. *I withdrew and they followed right along after me. They kept me in sight.*

Vic said, " You better think this out. It's a big thing, to go over to the other side."

" He already has made up his mind," Mrs. Keitelbein said. " He did three years ago."

" I'm not going with you," Vic said.

" I know that," Ragle said.

" Are you going to walk out on Margo, your own sister ?"

" Yes," he said.

" You're going to walk out on everybody."

" Yes," he said.

" So they can bomb us and kill us all."

" No," he said. Because after he had volunteered, left his private business and gone to work at Denver, he had learned something that the top officials of the government knew that had never been made public. It was a well-guarded secret. The lunatics, the colonists on Luna, had agreed to come to terms in the first weeks of the war. They insisted only that a sizable effort be maintained toward further colonization, and that lunatics not be subjected to punitive action after hostilities had ceased. Without Ragle Gumm the government at Denver would yield on those points. The threat of missile attacks would be enough. Public feeling against the Lunar colonists did not go that far ; three years of fighting and suffering for both sides had made a difference.

Vic said, " You're a traitor." He stared at his brother-in-law. Except, Ragle thought, I'm not his brother-in-law. We're not related. I did not know him before Old Town.

Yes, he thought. I did know him. When I lived in Bend, Oregon. He operated a grocery store there. I used to buy my fresh fruit and vegetables from him. He was always puttering about the potato bins in his white apron, smiling at the customers, worrying about spoilage. That was the extent to which we knew each other.

Nor have I got a sister.

But, he thought, I will consider them my family, because in the two years and a half at Old Town they have been a genuine family, along with Sammy. And June and Bill Black are my neighbours. I *am* walking out on them, family and relatives, neighbours and friends. That is what civil war means. In a

sense it's the most idealistic kind of war. The most heroic. It means the most sacrifices, the fewest practical advantages.

I'm doing it because I know it is right. It comes first, my duty. Everyone else, Bill Black and Victor Nielson and Margo and Lowery and Mrs. Keitelbein and Mrs. Kesselman—they all have done their duty ; they have been loyal to what they believe in. I intend to do the same.

Sticking out his hand he said to Vic, " Good-bye."

Vic, his face wooden, ignored him.

" Are you going back to Old Town ?" Ragle said.

Vic nodded.

" Maybe I'll see you all again," Ragle said. " After the war." He did not believe that it would last much longer. " I wonder if they'll keep up Old Town," he said. " Without me in the centre."

Turning, Vic walked off, away from him, to the door of the drugstore. " Any way to get out of here ?" he said loudly, his back to the two of them.

" You'll be let out," Mrs. Keitelbein said. " We'll drop you off on the highway and you can arrange for a ride back to Old Town."

Vic remained by the door.

It's a shame, Ragle Gumm thought. But it has been that way for some time now. This is nothing new.

" Would you kill me ?" he said to Vic. " If you could ?"

" No," Vic said. " There's always the chance you'll switch back again, to this side."

To Mrs. Keitelbein, Ragle said, " Let's go."

" Your second trip," she said. " You'll be leaving Earth again."

" That's right," Ragle said. Another lunatic joining the group already there.

Beyond the windows of the drugstore a shape tilted on its end, to launching position. Vapours boiled up from its bottom. The loading platform coasted over to it and locked in place. Halfway up the side of the ship a door opened. A man stuck his head out, blinked, strained to see in the night darkness. Then he lit a coloured light.

The man with the coloured light resembled Walter Keitelbein to a striking degree. As a matter of fact, he *was* Walter Keitelbein.

Philip K. Dick

c/h