NEW WORLDS SCIENCE FICTION

No. 100
VOLUME 34
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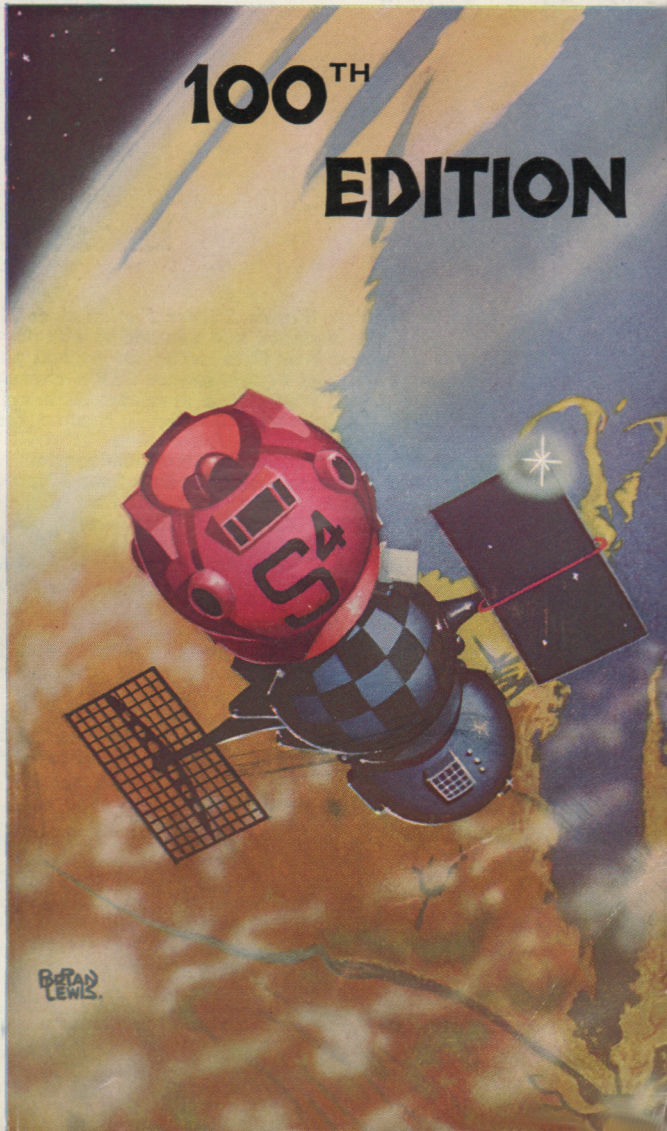

NEW WORLDS

PROFILES

John Carnell

London

Editor of *New Worlds Science Fiction* since its first issue in 1946, which he designed and planned as early as 1939, but the advent of World War II cancelled its original publication.

Attended the first British science fiction convention at Leeds in 1937 together with fellow amateurs Arthur C. Clarke and Eric Frank Russell and subsequently became Treasurer of the pre-war Science Fiction Association in 1938. Was largely instrumental in transferring the headquarters of the newly formed British Interplanetary Society from Liverpool to London under the aegis of Professor A. M. Low that same year and became Publicity Director of the Society and editor of its journals and publications.

Joined the Royal Artillery as a gunner in 1940 but transferred to Combined Operations in 1941, spending four years as an observer with Naval Bombardment on Mediterranian commando raids and major invasions.

Returned to the science fiction field in 1946, at first producing *New Worlds* upon an erratic schedule, until the magazine went bi-monthly in 1949, during which time he developed correspondence with most of the leading British and American authors in the genre. Attended the 9th and 14th World S-F Conventions in Cincinatti, Ohio, and New York respectively in 1949 and 1957; was Chairman of the 15th World Convention in London, 1958.

Took over editorship of *Science Fantasy* in 1951 and *Science Fiction Adventures* in 1958. Has edited four anthologies: "No Place Like Earth" (T. V. Boardman), "Gateway To Tomorrow" and "Gateway To The Stars" (both Museum Press) and "The Best From New Worlds" (T. V. Boardman).

Is on the Selection Committee of the Science Fiction Book Club together with Dr. J. G. Porter of the Royal Observatory and Kingsley Amis, author and noted reviewer.

NEW WORLDS SCIENCE FICTION

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Editor : JOHN CARNELL

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TWO SHILLINGS AND SIXPENCE

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A Trench . . .

Guest Editorial

The number 100 is no more than a mathematical symbol, emotionless, sexless, devoid of virtue or sin. A thing without even the merit of coming from another world. I have been told to write an editorial about it, or else. Being in one of my sterile periods, when I revert to the status of a low-grade moron, I find the task impossible. To me, 100 looks like a trench and two holes or a thin man followed by a couple of fat ones. The best I can offer is a hodge-podge of ruminations as weighty or as weightless as the belly-rumblings of a meditative cow. So sorry.

Over a decade ago it was readily accepted — and not without reason—by the gloomiest, most miserable of us that a British science-fiction magazine must be a precarious publication doomed to come in with a roar and go out with a wet phut. Connoisseurs of disaster therefore felt it safe to prophesy that *New Worlds Science Fiction* would not last ten issues. As of this copy now in your hands it has survived ten times ten and seems unlikely to collapse before the Pyramids have crumbled to grit. Somebody is to blame for this but I am in no mood to cast nasturtiums.

The mystery is that of how it has been done. There have been big, inevitable changes since the days when many of us were in our infancy. We were then, so to speak, all in the same demob group. But today's smoothest reader of *New Worlds* may be seven years of age while the hairiest is seventy-seven. God Almighty might be hard-pressed to satisfy both extremes in one issue, much less a hundred. Somehow the miracle has been worked. Wonders never cease!

One thing is certain: authors have had nothing to do with the matter. They merely put down words. Usually from the worst of motives. The average writer becomes pregnant and aborts on a sheet of paper, or he has ambitions to become a hobo, or he wants money for beer and worse, or he has a pressing need to keep out of jail, or he wants to indulge the sublimation of his libido. So he solves his problems and assuages his plans by telling long, complicated lies. In an ideal world all writers would be strangled at birth, not a word

. . . And Two Holes

by ERIC FRANK RUSSELL

would be printed, everyone would live by doing a minimum of honest work and spend the rest of his time contemplating his navel.

After long and painful cogitation it has become apparent that the readership must accept a large slice of the responsibility for the present state of affairs. I hate to do this to you but we must have some justice in this world. It seems to me a highly intelligent guess that *New Worlds* could never have reached a trench and two holes without enough readers to carry it there feet first. Correct me if I'm wrong.

The reader is an interesting character. He derives great pleasure from having his imagination tickled, much like a horse having its ears scratched. Therefore he is extremely tolerant of liars, even of damn liars. But, being imaginative, he is essentially forward-and-backward looking, sceptical of current propaganda and impatient of specious liars. He trusts authors as frank fibbers, distrusts journalists and politicians as sneaky ones. It is probably true to say that in the past the science-fictioneers have been prominent among the few who refused to believe that the Maginot Line was invincible or that Singapore was impregnable or that the Russians were a nation of ignorant peasants. Such rejection of official pap is, to my mind, a good and healthy thing.

The science-fiction reader's willing acceptance of remote possibilities, combined with his doubts about matters nearer to hand, appear to be due to the fact that some quirk of personality has caused his brain to be oriented north-south while the gullible masses think east-west. His mentality is right-angled with respect to those of the mooing herds, causing him to look at and perceive things they cannot or will not see.

Since the lying layabouts who write for *New Worlds* put down words that are wholly speculative—and, indeed, in a few cases have proved luckily prophetic—it is natural for the imaginative to buy the stuff and mess it about inside their own minds. A story does not consist of what the author puts into it but of what the reader gets out of it. In proof of which

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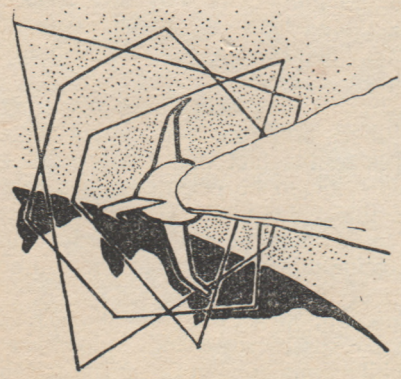
Of the six authors who contributed to our first pioneer issue in 1946, only one is still writing science fiction—William F. Temple—and it is only fitting that he should appear in this issue. His original story for us, "The Three Pylons," was a radical departure from the accepted s-f theme, caused considerable controversy and probably set a precedent; it heralded the changing status of the science fiction short story

SITTING DUCK

by WILLIAM F. TEMPLE



It was as though the mantle of God had woven itself about him. The tangle of habits, reflexes, desires, and memories, which passed by the collective name of Philip Hepburn, had dropped away in to the dead and useless past. Like the broken shell of a chrysalis, when the image has soared on wings up into the now illimitable third dimension.

He was incorporeal Mind brooding over Earth.

The living globe floated, glowing, a diatom in the jet ocean of space. It was a lovely thing. Three-quarters blue-green,

snow-splashed with cloud, ochre-smeared with deserts, silvered where the seas caught the sun.

One quarter was colour-quenched by night, but in gentle rebellion asserted its existence through the faint luminosity of moonlight. Nevertheless, night was extending its dominion across the Pacific, advancing in arc formation.

A ten-thousand mile long pageant of sunset paraded its glory for the eyes of no-one save a few scattered islanders and ship-borne travellers.

It seemed an awful waste of beauty.

Perhaps the sunset was not made for man. Nor Earth either.

Incorporeal Mind, thinking of man, seeing through the eyes of man again, shrank to man-size. The great mantle became as tenuous as the moon's atmosphere, in effect non-existent.

Philip was himself again.

Strange, he reflected, that this role of Master Spirit had not possessed him before. That could be because he'd never before been alone up here. There had always been human company.

Biff, blessed with happy dreams, quietly chuckling in his sleep.

And Sandy, who seldom needed his full ration of sleep, sawing, hammering, chiselling, whistling, magically shaping dull chunks of wood into toy cranes, roundabouts, space-rockets for his small son.

Philip Hepburn, however, had no son. Nor any living relative save Aunt Jean, who lived in Montrose and did little but sleep and complain of the weather. She pleaded constantly that (a) Phil should do something about the weather, and (b) he should stop interfering with it.

His defence had become automatic: "But, Aunt, I only *watch* the weather. I couldn't change it if I tried. And I watch only the weather on the other side of the world from you. I can't even see dear old Scotland."

"Sitting and watching won't do any good," she'd sniff. "Time you stopped playing being a pigeon, and found a nice lass and married and settled down."

"I shall—soon, Aunt."

Currently "soon" meant in three years' time, when he'd be thirty, on compulsory retirement and a good pension. When the space-station was only another star in the night sky, an interloper in the Southern Cross, and nevermore a

shell bounding him as though he were the embryo of a chick.

Then he could marry and raise a family. Provided, of course, that the cosmic ray intake hadn't too badly maltreated his genes. It was because of that risk, among others, that space-station crews were pensioned off early in life.

Coloured lights winking on the big panel reminded him that he was expected to earn that pension.

Meteorological code numbers were flashing in from the weather stations spread over his sector. They told him that at Woomera the air pressure was 1025·7 millibars, at Port Darwin the wind was E.N.E., Beaufort Scale 4, at Singapore the temperature stood at 104 degrees Fahrenheit, at Kuching the relative humidity was 93 per cent. . . From such data he began to form the general picture.

There was a small, intense area of depression off the Caroline Islands. It must be watched. It threatened to become a tornado which might go roaring west to the Phillippines or veer south to New Guinea.

All that was but part of the job. He was expected to keep more than just a weather eye cocked. Additionally, he was a kind of Indian scout, patient on a mountain, watching for the dust of war trails. Watching—and listening.

To be accurate, it was the Francini Detector which listened. It was roughly akin to an overgrown and supersensitive Geiger counter, only it whined instead of clicked. Into its circuits were built numerous electronic checking devices. It couldn't afford to make mistakes. The F-D was selective, careful, and confident in its own final judgment. It was inoculated against hysteria. In short, it had commensense.

Its job was to report the location of any measureable mass of plutonium which began to part from the Earth's surface, where under international law it belonged.

It could do this best from a point free from screening horizons. Say a point on a satellite orbit. Like this one, occupied by Space-station G—" Gertie " to her staff.

Gertie was in an equatorial, 24-hour orbit, 22,000 miles out, keeping exact pace with Earth as it spun. And so in relation to her appointed territory she remained as constant as the Pole Star.

From a loud-speaker came the rustle of a carrier wave and a voice precisely unscrambled: " Orange Three, report."

Orange Three was Singapore.

" Okay, Strength One," Hepburn reported. " That Peter? "

" Yes. Tom off now? "

" Yes. This is Phil. I came up with the rations, a couple of hours early. Dead keen on my work, that's me."

" Chump! I'll bet Tom and Len and the other feller have left you to it, if I know 'em."

" You know them too well, Peter—you're dead right. I'm on my ownsome. They're on their way down in the freighter, with the empties. First stop, the Long Bar. Second stop, wife's bosom. Then three months of *dolce far niente.*

" Lucky devils! I'm never off the job. And it's thirsty weather down here."

" Only 104 in the shade, by my clock. That's mild for your neck of the woods."

" You forgot to wind your clock, Phil. However, stay with it. Look Homeward, Angel. So long."

" So long."

Look Homeward. But, as Wolfe also had it, There's No Home. " Gertie " was his only real home. Maybe that was why he'd thumbed a lift on the freighter and got back on the job early.

He shot a side-glance at a radar screen. A blip was climbing up the reticules like a tired spider on its web. The relief ship, with Biff and Sandy aboard. According to schedule, it should have been alongside twenty minutes ago. It was running nearly an hour late—a fuel valve had jammed.

" Black One, report," said a voice from Woomera, as Australian as a kangaroo.

" Okay, Strength One . . "

A couple of minutes of back-chat and then back to business.

He kept his gaze averted from the master screen and its glowing picture of the world entire, lest it lure him back to dreams and delusions of grandeur. He concentrated on the narrow focus screens, skimming along the Great Barrier Reef like a high-flying jet. Making a foray out over the ocean here and there. Tracking the incipient tornado and taking its pulse by calculation. Inspecting briefly the known rocket sites in the outposts of China, and other danger spots.

In these times Singapore was a fort in a desert of non-democratic countries. Sumatra, Java, Borneo hemmed it around, hungry as the sharks which swarmed in the sea between them and North Australia.

There were rumours that had to be weighed, Intelligence reports to be brooded upon. For instance, hover-craft with strange cargo had been seen proceeding along the Kapoeas River in Borneo. " Something doing near Sanggau," said the reports, some time ago. " Watch it."

So Hepburn attempted to make another routine survey of Sanggau and its neighbourhood of thick jungle. Had he been successful, it would have been something like his two-hundredth survey. He'd seen nothing unusual before, and this time he could see practically nothing at all.

Sanggau lay between long mountain ranges, and cupped within the ranges was a lake of thick cloud.

Hepburn quartered it thoroughly. There was no rift in it. He was about to swing the telescope TV camera elsewhere when a tiny metallic splinter appeared in the sunlight above the cloud-lake. It glinted. He increased magnification. It had a white-hot tail. It was a pretty big rocket.

The F-D had not complained. Therefore the rocket carried no atomic war-head.

All the same, it had no business to be there. Borneo, although largely under the sway of the Other Side, was supposed to have no armed forces. And certainly no rocket launching sites.

Hepburn put out a General Alert call, at the same time locking a radar beam on the rocket. He'd already recorded the map reference of the spot from which it had erupted—quite near Sanggau.

A number of radar stations picked it up, took a fix, plotted its course. It was heading out over the Indian Ocean in the direction of nowhere in particular—and still climbing.

The general opinion was that it would either reach escape velocity or go into orbit. It was big enough to carry a couple

of men for a reasonable long trip, but whether it was manned or not was difficult to decide.

No news flash concerning it had been issued by the Government of Borneo. No embassy had been informed. The thing had come out of the blue and was going into the blue.

Conceivably, the Southern Asiatics were making an attempt to prove that they, too, belonged in the ranks of the space-conquering peoples. It might be a moon-shot. If so, they must have had technical and material assistance from one or other of the Big Brothers. Hence, probably, the unusual amount of ferrying along the Kapoeas River.

Sanggau, practically on the Equator, was happily placed for a beginner's attempt. There, the Earth's spin gratuitously added a maximum kick.

"Maintain constant watch on Sanggau," Singapore instructed.

"Watch all known sites," Woomera ordered.

"Make up your minds," snapped Hepburn, edgily. "My name's not Argus."

He wished now that he'd not been so precipitate, had waited to come up with Biff and Sandy. He spared a corner of an eye to note that they were still fifteen minutes' travelling time distant. In his spot, they wouldn't have let their tempers fray. They were steadier types. Did marriage steady a man?

Maybe he was too imaginative, over-sensitve, for this job. As he glanced ceaselessly from screen to screen, he could feel apprehension building up within him.

It was like a telepathic leakage of feeling from many other apprehensive minds. Something horrible was about to happen. *They* knew what it was, and feared it. He feared without knowing.

Fifths of seconds jerked away on the chronometer.

The mysterious rocket swept spacewards.

Sanggau remained buried under the unbroken snowfield of cloud.

The F-D continued dumb. Did its silence mean that it was out of order?

"Black One, anything to report?" came nasally from the speaker.

A routine phrase, robbed of impact by use, and this time making no impact at all because Hepburn was staring, shocked, at the master screen.

Quite another phrase was going through his mind: "The World's slow stain."

There had been a bright, brief star of light on the screen. And now, spreading slowly away from that centre, a greyish stain was obliterating India.

But this phenomenon wasn't really happening to the face of the World. That was an illusion due to lack of perspective. The stain was in space, between Earth and Gertie. But far, far nearer to Gertie.

For a moment, Hepburn imagined the station was under fire. But that couldn't be. He would have been warned of any guided missiles long ago. The rocket from Sanggau was still pursuing its enigmatic course afar off.

But certainly this unfolding mass of gas in space was an explosion, and a big one.

He looked anxiously at the adjacent radar screen.

"My God—*no!*"

But it was so. The solid blip of the relief ship had disintegrated into a clustor of ions, mere specks moving apart.

Biff would never laugh again, asleep or awake. Sandy's son would wait in vain for another toy from his father.

And Philip Hepburn would get no relief today.

Woomera was quick off the mark. "Black One to G. Your relief ship just disintegrated. Have you any information on this?"

Hepburn tried to pull himself together. He replied, shakily: "No. No meteors or missiles registered in vicinity. Must have been an internal fault—tanks blew up."

"Black One, okay. Damn bad luck. It's going to be tough on . . . Wait—will come back."

Yes, tough on their families, thought Hepburn. Tough on me, too.

Biff, Sandy, and he had formed, in a sense, a small family group of their own. There was mutual goodwill, unselfish co-operation, private jokes, understanding without words. Now it had been smashed, irreparably. He felt desolated.

Woomera returned urgently. The signaller's shrill words came tumbling over one another like the breaking waves of the Australian surf.

"Black One to Gertie. Intelligence report just received. Balloon may be going up any time now. Watch—."

A peculiar sound as though the microphone disc had been

ripped across with a can-opener. Then blank silence—not even the carrier wave murmur.

Hepburn snapped out of self-pity.

" Hello, Black One. Gertie here. Hello, Black One."

No reply. Worried, baffled, Hepburn looked at the Woomera area on the screen. In a few moments he saw why he was addressing nobody. The dry dust of the outback was putting forth a white blossom, a funeral wreath with but one flower.

There had been no warning. Few, if any, could have reached the deep shelters. A thousand key men, a fabulous electronic web, unnumbered ICBMs had in mere seconds become hot dust whirling up through the air.

From the scale of it, it seemed that most of the stock-pile had gone up.

Black fear came clouding back over Hepburn's mind. Reason ceased to advance and mumbled over and over again, like an idiot, its one conclusion: " Sabotage."

The destruction of the relief ship could have been an accident—by itself.

The end of Woomera could have been an accident—by itself.

But both almost simultaneously . . . no. Besides, Intelligence had got wind of the imminent outbreak of war.

Well, now Gertie was expected to justify her existence and her astronomical cost.

Which meant in cold fact that it was up to Philip Hepburn. He braced his shoulders against the weight of responsibility.

First, to make Gertie as invulnerable as possible. He threw a master switch. It soaked the solar and reserve batteries for plenty, but it transformed Gertie into a fighting lady, shot adrenalin into her bloodstream. From now she would not react to approaching missiles with only a warning cry—she would lash straight back at them with her arsenal of lightning anti-missiles.

She had in reality the mythical power of the porcupine—to shoot poisonous quills in all directions.

" G to Orange Three. War footing, war footing. Black One destroyed. Acknowledge. Over."

Hepburn clipped the words, making a sort of verbal shorthand. He waited tensely.

Nothing. Nothing from anybody.

The tension broke like elastic. " Answer, damn you! " he yelled.

Port Darwin came in, gingerly, a civilian intruder: " Green Six, what goes on? "

" Green Six, keep out. Orange Three, Orange Three, report my signals."

Finally, courtesy of a throat-microphone and so blurred: " Orange Three to G, nerve gas attack here. Almost wiped out. One site operational. Give priority target."

Hepburn swallowed. War had started, but not as envisaged. Not a single potentially hostile rocket site under his observation had launched a missle. The Commonwealth bases had been assaulted either from within or from the distance of a stone's throw. It was a saboteur's war.

How could you hit back with long-range rockets at saboteurs without also hitting your own people?

At a loss, he surveyed his screens. The puzzling rocket fired from close to Sanggau was still climbing fast. Ignoring the computer, Hepburn calculated intuitively. Yes, if it kept on track the rocket would cross Gertie's orbit. It looked as though it were trying to rendezvous with her. There was something more than coincidence here. It was part of the general scheme, like the destruction of the relief ship.

It wasn't cheering to discover he was being shot at. On the other hand, he wasn't unduly perturbed by it— events on Earth were far more worrying. Gertie's missiles could blow this lone rocket to atoms well before it could get anywhere near her.

Still, it would be as well to avoid the risk of further exports from the same source.

" G to Orange Three. Priority target, fire when ready, following reference."

Hepburn gave the map reference of the cloud-sheltered rocket site near Sanggau.

The Singapore signaller repeated the message. He sounded even more indistinct, as though articulation was a strain.

There was a minute's silence. Hepburn tried to order his mind, to get it handling points consecutively, A, then B, then C, and not in wild and random dashes at B, D, C, A.

A new, crisp, urgent voice scattered his thoughts again.

" Blue One to G, Blue One to G."

" G answering," Hepburn stammered. " Go ahead."

" Five - nine - three - double - one - Nelson."

Hepburn ran his finger down a table, stopped at a line, checked the figures and codeword in a whisper. Blue One was Sydney, GHQ Southern Hemisphere, and its orders must be obeyed without question. But first it had to establish its identity by a code-call that changed at every transmission. Imposture had to be eliminated.

" Go ahead, Blue One."

" Look, can only spare you a couple of minutes. Get this. Saboteurs have struck on a wide scale—lovely timing all round. Brains behind it. But we're holding them. Smashed this station to hell, though—only one transmitter working. We've got to drop you and stay on U.N. Things buzzing. They're trying to stop general hostilities breaking out. So far it's only a *putsch* by revolutionary party, extremists. So get this, get this—*don't issue any fire orders until you get our okay*. Treat situation as an armistice, pro tem. Acknowledge. Over."

" Understood. Did you know Black One destroyed and Orange Three suffering gas attack?"

" Hell! Yes, knew about Black One. Not about Orange Three. We'll do what we can. Got to switch now. No good calling us. Pass further messages to Green Six—they'll relay by land-line. Will come back soon as we can. Off."

Silence. Hepburn drew a deep, slow breath. There was hope again. Thank God some of the politicians down there had kept their heads.

Then, with a start, he remembered the fire-order he'd given Singapore. No rockets had as yet risen from that compact little niche in that little island, now gas-flooded. Perhaps they never would.

Currently an armistice was supposed to be in force. Had the Singapore signaller heard and comprehended Blue One's instructions?

Hepburn called: " G to Orange Three. Cancel my fire-order. Acknowledge. Over."

But there came no acknowledgement. He called again. And again. Orange Three remained dumb. Perhaps the signaller could hear but was now beyond speech.

And perhaps he was beyond hearing.

There was a faint click and the subsequent rustle of a carrier wave, and Hepburn cocked an ear, hopeful, expectant.

Unhurriedly, the voice of a stranger spoke. It had the slightest of accents, the trace of an Oriental difficulty with "r's" and yet a depth of timbre unusual in the East. It was masculine, easy, confident. Friendly but a trifle patronising—not enough to irritate. It was like a man talking to a child, trying to treat it as being on equal terms, man to man, and almost succeeding.

The manner reminded Hepburn of someone he'd known a long time ago but couldn't for the moment name.

"Sanggau calling Space-station Gertie. Well, Philip, how's the view from Mount Olympus? This is all just a storm in a tea-cup to you, I suppose? And blown over already, it seems. I sure hope Orange Three heard you cancel that fire-order. As the target, I'm concerned. What do you think, Phil? Over."

The speaker didn't sound much concerned. Hepburn was far more so. This was fantastic. The scrambler circuit might have been non-existent for all the privacy it had supplied. Sanggau had been eavesdropping upon his reports, upon the whole net.

Blue One might as well have conveyed its top level gen through a public address system.

The revolutionary party clearly handled a superior line in espionage as well as sabotage.

Hepburn cleared his throat. "Who are you?" he asked, and still sounded hoarse.

The answer came smoothly, pleasantly: "Gnedenko—G-N-E-D-E-N-K-O. Father half Georgian, mother wholly Bornese. You're Phil Hepburn, Scottish—I have your dossier. We like to study the Western key-men before we eliminate them. Trust there'll be no hard feelings. Sorry I can't cancel my own fire-order—things have reached the automatic stage now. But you'd greatly oblige me by trying to contact Orange Three again. I'd like some confirmation that they're not going to fire on me—during the armistice, anyhow."

Hepburn heard the latter half of it with divided attention. The words "eliminate them" shocked him like a live wire. They spelt danger. From what direction?

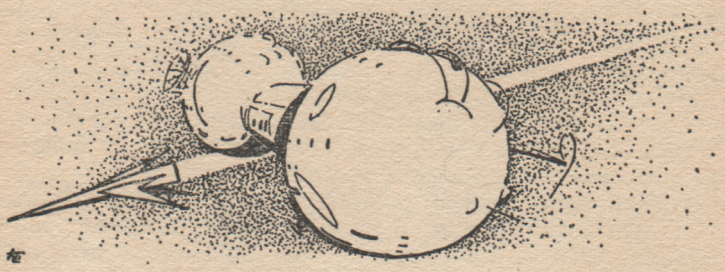
The Sanggau rocket, of course.

It had no atomic war-head, he knew, but it appeared to be taking a collision orbit. Even old-fashioned high explosives could be fatal if the thing were allowed to get close enough.

He decided to take no chances with it.

He set the sharp little intelligence of the predictor to work. In two seconds it came up with its answers. He relayed the information to his robot battery. A flight of three deadly Bulldogs shot from Gertie faster than the eye could trace. They were self-guided missiles, with eyes, ears, nerves, teeth.

The predictor had pointed the direction. When they neared the prey, they would know it with their senses and hound it to death. It was a mass of metal, and magnetic needles would respond. Its venturi were hot, and infra-red ray detectors would respond. It was a solid in empty space, helplessly



reflecting radar pulses and shouting its position aloud.

It was fast, but the hounds were faster and it couldn't escape. They would seize it and vaporize it.

Gnedenko called: "Philip, are you receiving me? Over."

Hepburn was watching his screens. The Bulldogs were making a bee-line for the blip that marked the Sanggau rocket. He had no further control over them now. They were on their own but quite happy, signalling back with excited bleeps: "We're on our way. We're on our way."

The way was yet long, though.

One Bulldog alone could make the kill cleanly enough. Hepburn, however, wanted to be trebly sure. Valves and needles could stick, and batteries fail.

Gnedenko called again: "I say old man, play the game. Speak up. Thought you were the sporting type? What about that British reputation for being good losers? Don't sulk, don't be small, Phil. Let's have a good show, eh? "

He sounded mildly reproachful. The somewhat archaic expressions seemed a bit comic in the circumstances. And somehow reminiscent.

Suddenly, Hepburn realised that the manner reminded him

of his father—as he remembered him. He had only a child's memory of his father, who was killed at thirty-two in a take-off mishap. Here were the same deep, easy tones. Here was the same attempt to avoid talking down just missing its object. And now this echo from the same Captain-of-the-School vernacular.

He picked up his mike. "G answering. Your skin is probably safe enough. And thick enough, I guess, to protect you from almost anything. My God, you've got a nerve! Your gang atacks without warning, without provocation. You stick a knife in the back of Orange Three—then want to beg it not to hit back. You try to kill me, then ask me to save you—and tell me not to be small! The nerve! You treacherous, yellow, whining worm!"

Calm as a mountain lake, Gnedenko answered: "Treacherous? All's fair in war. Yellow? I'm as white as my father. Worms can't whine—what a silly metaphor."

Hepburn said, coldly: "I didn't mean that sort of yellow. I've already countermanded my fire-order. If Orange Three is still operative—which I doubt, or you'd have had your answer—it's up to it to make what it likes of your remarks. Tell me, chum, were you responsible for destroying the relief ship and killing—" Hepburn faltered over the word, then continued—"killing my co-workers?"

Gnedenko said: "Indirectly responsible. The overall plan included Gertie's destruction. Our party has no space-station. Yours puts us at a disadvantage. The time-bomb planted in the relief ship was set to go off while the change-over in crews was actually taking place. We knew your timetable, you see. The relief ship would have been clamped fast to Gertie. We should have destroyed it *and* Gertie—and both crews, all in one blow. However, the unexpected always happens. You left for work early, on the ration ship. You let the other crew get away early—and so saved their lives. The relief ship itself was delayed—and so blew up before it reached Gertie.

"The things that can go wrong!"

"But, as Blue One told you, we have brains behind us. Brains expect the unexpected. So there was a reserve plan to destroy Gertie. I stood by to operate it. It's in operation. I'm sorry. You seem a decent chap. I'd rather you'd had it instantaneously, without warning, as in Plan One. Too bad."

Gnedenko's confidence and patronising sympathy were unnerving. Hepburn made an anxious-quick survey of his screens. Something had changed. Something was missing. The blip of the Sanggau rocket had somehow vanished from the picture. Yet still the Bulldogs were streaking to the point in space it had occupied, singing their now fatuous song: "We're on our way."

They were on their way—but only to, eventually, an immensely wide solar orbit.

Hepburn adjusted the focus—clumsily, because his fingers were beginning to tremble. The physiology of fear was making its own adjustments to him. His lips became dry, his palms damp.

And there was something to be frightened about.

The screen's face had become pock-marked all over. Thousands of tiny solids, in place of the Sanggau rocket, were converging on to Gertie's orbit. An appointment in space lay ahead as inevitable as the Appointment in Samara.

Gnedenko spoke as though he were looking over Hepburn's shoulder.

"Yes, that's my rocket, Phil, my Chinese puzzle. It's opened up like an umbrella—into ten thousand parts, all linked by wire. A gentle automatic explosion—compressed air was enough. Now it hangs like the web of fate itself."

The words struck an echoing chord in Hepburn's subconscious. Gertie had an Achilles' heel. He had known it, the designers and brass-hats had known it. They couldn't see a way out of it so they minimised it by double-think. They assumed that if they disregarded it, the enemy would obligingly do the same.

Hepburn had kidded his conscious mind to believe that the authorities knew what they were doing. That if they disregarded something, it was because they'd proved it unimportant. But his subconscious self hadn't been so trusting. It knew fate can't be so easily cheated.

Gertie was an easy target, a sitting duck. More exactly, a helpless flying duck. Discharge a shot-gun in its path and it would fly headlong into the hail of shot and riddle itself, victim of its fixed orbit and orbital speed. At that speed, any moderate-sized chunk of metal it encountered would pierce it like a meteor.

Rigidly, Hepburn watched the Bulldogs shoot through the

web like bullets passing through a fisherman's net, harming neither it nor themselves. Gertie herself, though, could hope for no such free passage. Her bulk would be caught at a hundred points.

Hepburn's nerves contracted at the thought of jagged pieces of metal tearing them apart, smashing through eyes and brain, stomach, lungs, genitals.

He loathed his own cowardice, the spirit enfeebled by an overplus of the wrong kind of imagination. There was an element of narcissism in this. He had a fine body and knew it. It was monstrous that it should be so crudely hacked to fragments.

His last hope died with the passing of the Bulldogs. If they'd exploded they might have torn a hole in the net big enough for Gertie to scrape through. But their contact fuses had met nothing.

It was hard luck on him that the old method of touching off the war-head by radio control had been abandoned in favour of the yet older contact and time fuses. But radio control had proven to be too much of a boomerang. The enemy had radio too, and a lightning run through the frequencies could trip the firing mechanism in your missile before it had hardly quit your doorstep.

He reckoned he had perhaps fifty minutes before the ugly end.

He made a decision and the calm of despair possessed him. He felt calm enough to speak.

Ignoring Gnedenko, he called Port Darwin: "Green Six, report signals. Over."

Green Six reported okay.

"Relay this to Blue One," he said, and briefly described Gertie's situation. His voice remained steady, which was a minor relief. He knew there was nothing Blue One or anyone could do to save him, and his was almost literally a voice from the grave.

He added: "And please pass this message to Miss Jean Drummond, Lamburn House, Montrose. 'Dear Aunt Jean, I'm expecting to be promoted to a higher orbit soon, and maybe I'll be able to manage better weather for you from there. Thinking of you fondly. Phil . . . ' And now I'm signing off. For keeps. In a few minutes I shall open the air-lock—both doors. It'll be the best way out of this mess for me. Cleaner than . . . the other. It'll be in my own time and

I shan't have the nasty wait for the butcher's chopper. Goodbye. Good luck. Hope they'll declare peace on you soon. Out."

Green Six said, subduedly: "Goodbye, Gertie. You did a good job. We shan't forget. Out."

Hepburn sighed, then took a deep breath which he intended to be his last, and reached for the air-lock switches.

Gnedenko's voice sounded sharply, again as if he were watching: "Hold it, Phil. That's no way to go out. That's yellow, as you call it. The sentry can't abandon his post. For the sake of self-respect, if nothing else, stand your ground till the end. Stick it out, man. Over."

Hepburn, to his surprise, found himself smiling. It was the voice, still trying across the years, to inculcate the sovereign principles. Honour. Duty. The Decent Thing. The captain must go down with the ship, colours nailed to the mast.

He answered, almost affectionately: "What's the point of self-respect when one's dead, my friend, and there isn't any self—"

The Francini Detector cut in with a piercing whine. Startled, he swivelled to regard it. Its indicators told him that an atomic missile was leaving the ground at Singapore. He switched off the warning, pulled the ancient naval base into close focus on a screen.

Gnedenko said, now without urgency: "I heard your F.D. Does it concern me?"

Hepburn studied the screen and the meters silently. When he had assessed the answer from their evidence, he didn't know whether to laugh or cry. It was partly comic, partly tragic. Obviously, his counter-order hadn't been heard. But his original fire-order must have filtered through the chaos to the launching pad. He would never know why none of the full-size rockets standing there was launched. Possibly more sabotage.

But a gas-masked somebody in authority—Gnedenko would have approved of him—was determined Singapore wasn't going under without firing a shot of some sort. The main armament useless, he'd fallen back on what was practically a museum piece—the KCM-VII.

This was a robot, thousand-mile-an-hour jet-bomber, seldom used now even for practice shots. Its war-head was a miniature A-bomb, effective against troop concentrations, but

with a comparatively small area of blast. Some gang down there had sweated blood in a cloud of deadly gas to prime one, feed the Sanggau map reference to its automatic pilot, get it off the ground.

Now it was setting out across the sea on its 600-mile journey. A brave effort, thought Hepburn—and useless. It was too slow, to vulnerable to modern missles. Just another sitting duck.

Gnedenko said: "All right, we've picked it up. A KCM-VII, I think? Coming for us."

"Your detection apparatus is pretty good," said Hepburn. "No doubt so are your anti-missiles. Sorry I can't stay to see you pick it off, but I have to go now."

"*No!*" exclaimed Gnedenko. "Listen, Phil, this means I'm doomed as surely as you are. The only rocket we brought here was the one we fired at you. We've no ground defence at all. We hoped we shouldn't be spotted in this jungle under the clouds—let alone attacked"

"Some optimists!" Hepburn commented. "Or pessimists? What do you mean—doomed? According to my information, you've got hovercraft there. Hop aboard, get the hell out of it. You've over half an hour before the KCM gets there. You could be a hundred miles away when it strikes."

"Nearer three hundred in my runabout," said Gnedenko. "And it's only twenty yards away."

"What's keeping you, then. Is it broken down—or out of gas?"

"No, it has no mechanical faults and the tank it full."

"For heaven's sake, are you implying that it's beneath your dignity to run away and live to fight another day?"

A pause. Then Gnedenko said: "I've been trying to make you understand the warrior's code. The warrior's is the most honourable calling a man can follow. To run away is to lose face. Do you know what loss of face means to us in the East?"

"You die by your code, my friend, and I by mine."

"Phil, listen to me. Your side is listening to me—this conversation will be recorded. My side doesn't answer me—our rebellion has been put down and we've lost. I could escape but I don't choose to. Quite fairly, in war, I've instigated your death. Similarly, you've instigated mine. Let us see it through together. Or do you want the world to know

that we breed men and the West breeds cowards? "

Port Darwin cut in angrily: "Green Six—don't let the Oriental double-talk fool you, Phil. He's choosing to commit suicide. So are you. What's the difference? "

Gnedenko said: "I choose to accept my fate. Phil is trying to dodge his. There's a big difference."

Hepburn sat leaning his cheek on his fist, gazing at nothing tangible, staring only into memory . . .

"He's not *much* bigger than you, Phil," said his father.

"Why you're nearly as tall as he is. They'll laugh if you run away now. Stick it out, old man. Face up to him. Bullies are always cowards."

But he'd run away. He didn't cry but he ran away.

"Green Six," said Hepburn, suddenly. "Do you have any music down there? Something cheerful. Not a bloody funeral march."

The Port Darwin operator was startled. "Er—I'll get on to someone—see what we can dig up."

"Good for you, Phil," said Gnedenko, and it seemed like a paternal pat on the head. Hepburn had a quick mental picture of the man. About twenty years his senior, with intelligent brown eyes, slightly slanting and with lines of laughter at their corners. Greying hair. Bearded—he was certain about the beard.

"It so happens I've some of my own favourite records by me," said Gnedenko. "Mozart? " As if he knew it was the right choice, he began the transmission with the 39th Symphony.

At the end of the slow movement, he asked quietly: "You're still with us, Phil? "

Silence. Then: "Yes. Like Mozart, I'm still with us. Go on."

The music flowed on, poured round the control room, seemed to impart something of its own spaciousness to it. Time slowed, the Now expanding gradually to engulf both past and future. It was as though the years wove themselves into a single fabric, like the mantle of God returning. And now there was only Mind and its patterns, forming, dissolving, ever-changing upon that fabric. Mind divorced from the animal body with its fears and pains. Mind alone, pure, serene.

Green Six had the sense and tact to remain silent.

Gnedenko's quiet calls became infrequent, ceased.

Whatever the state of Earth, peace dwelt in the space-station.

The island of Borneo is subject to sudden cloud-bursts.

When these happen, the rain pours no more fiercely in any part of the world.

One happened in the river valley wherein lay Sanggau, and the Kapoeas was in mad flood.

The firing party in the jungle clearing on the bankside had, luckily, just fired their rocket when the burst came. Two of them—both non-swimmers—were in the control hut on slightly higher ground. Three others scrambled into a boat before the mooring line snapped, and were swept away. Six others were swept away without boats and vanished in wild water.

The two heavy hovercraft had been caught will all ports open and lay now on the river bed, half full of silt. The small runabout had been parked higher up the bank, near the control hut. But the swift-rising water had reached it, too, and flooded it.

Only the turret showed above the racing water, and Cholai, leaning against the hut window, looked out at it moodily.

22,000 miles above his head, above the thick clouds, Space-station G had just kept a rendezvous.

Although the evidence was clear enough on the screen, Gnedenko made a last call: "Phil. Phil."

Space made no answer.

Gnedenko laid down the microphone, and lit a cigarette. His eyes were brown, slightly slanted. There were no laughter lines: his pale face was smooth. His hair was jet black. So was his short, trimmed beard. He was twenty-three and had seen much of life. There wasn't much more to see now.

"Well, brother," said Cholai, without turning, "mission accomplished."

Gnedenko exhaled blue smoke. He said, composedly and unmaliciously: "Yes, after I'd retrieved your aiming error."

"The station would have hit the net."

"Yes, I agree. And it did. But nowhere near the centre—too dangerously near one edge. I tell you it would have missed altogether if I hadn't talked that young fool out of opening the air-lock. If he had opened it, the reaction from the outrush would have pushed the station off orbit. The

merest trifle, I grant you. But over the distance still to go, that small divergence would have become magnified quite enough to cause a miss."

"The station would have hit on the next circuit."

"Cholai, you're no mathematician. Listen—a thousand cubic metres of air—"

"All right, all right, I'm no mathematician. I can't follow your calculations—with figures or with people. My mind doesn't work that way. You make me uneasy. I never know what you're thinking about me or anyone else. I've never really liked you. You're the sincerest liar alive. You almost hypnotised *me* into believing we were remaining here of our own free will."

He jerked a thumb at the semi-submerged runabout.

"As if we could fly off in *that!*"

"I don't recall that I actually lied, Cholai."

"No, you wouldn't see it that way, brother."

"The way I see it, friend, is that the Western space-station is now wrecked, as planned. It can't be replaced in time to hinder our next—and, I predict, successful—*putsch*. Individuals, good or bad, truthful or not, don't concern me. The party's future does."

He walked across and laid a hand on the other's shoulder.

"Let's not quarrel, Cholai. We've played our part. We can do no more."

Cholai said nothing, but looked out at the grey sky.

Gnedenko puffed at his cigarette. "A matter of seconds now," he said, evenly. He stared out at the water dividing itself swiftly around their islet. He added: "We really are a sitting duck here, aren't we?"

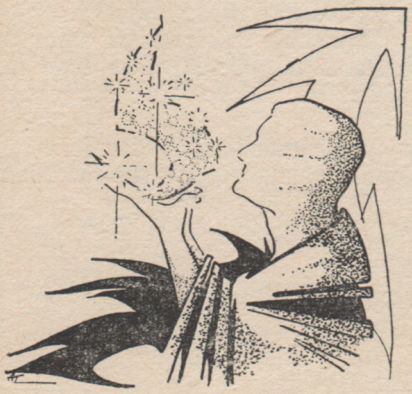
Something black lanced down from the clouds, right on target. Gnedenko neither received a reply nor finished his cigarette.

William F. Temple

In 18 months Colin Kapp has quickly established himself as a new powerful science fiction writer, his "Enigma" in the February issue (No. 91) is probably one of the most outstanding short stories of this year. This current story, his seventh, was chosen for its delicacy of theme and high quality of writing.

THE GLASS OF IARGO

by COLIN KAPP



The *Panamanian Girl*, out of Terra, bound for the Rim, stopped off at Port Suma on Iargo with a cargo of machine tools, Indian hemp, computer memory matrices and a poet. The latter consignment greeted the blue skies of Iargo with a smile of equal splendour and set his cap at a jaunty angle to dance with his shadow on the bright, white sands. The captain of the space tramp doffed his own cap sadly as he watched the poet go. Three months of normally tedious spaceflight had telescoped to nothing in a babel of shrivelling wit and unpredictable

idiocy. The grids and plating of the ageing tramp still rang with echoes of wild, poetic exuberance, adding something to her spirit which even a breaker's yard could never still.

My name is Jason van Tere,
I'm a hell of a bloke to be near;
I'll admit that my metre
Could scan a bit neatre—
But it's the words that fall hard on the ear.

"Heaven help Iargo!" said the captain to his mate.

The customs inspector was mad himself from the reflected glare of the great, white, landing bowl, and noticed nothing odd to find a poet on the waybill.

"Anything to declare?"

"Nothing but two trochees, a dithyramb and six iambic feet."

The inspector leafed through his indices with a knowing smile, for he too was once an educated man.

"Trochees are tax-free, dithyrambs are exempt from duty and iambic feet are unrestricted imports." He laughed uproariously at his own incredible jest. "Poet, welcome to Iargo! A ready wit is a rare encounter on a Company world. But take care, Doggerel dispenser, lest your poesy be misconstrued as heresy. Company law has no respect for individuals."

"No," said the dancing rhymer, "but neither has poetic justice a respect for Company law."

In the shade of a mighty bayan tree the police Captain waited to intercept the poet's path, oddly disturbed by the erratic leaping of his quarry.

"Standez, Iargan Police." The Captain flashed his card. "I was half expecting you to show-up sometime."

The poet studied the officer with shrewd eyes. "I take it that my presence isn't welcomed?"

"Not exactly, but these times are such that we cannot be too careful. There are many points on which the Company does not see eye to eye with Terra. Your position is therefore somewhat delicate. By landing at Port Suma in a freighter you by-passed the red-tape and entered unannounced. That in itself makes you suspect."

"Suspect of what?' asked the poet with sly amusement. "Are you afraid of sabotage by stanzas or contagion by couplets? I come as a poet, unsung perhaps, but none the less lyrical."

"So? Your ingenuity does not commend you. Iargan Intelligence have warned us that an agent of the Terran Special Service Commission would be sent here to interfere with the Company administration of these territories. Having brushed with the T.S.S. before, I don't underestimate either their cunning or their resources. It is just possible that you are that agent, though I doubt if even they would send an idiot."

The poet was unruffled. "I am Jason van Tere, poet, prankster, and prince of perversity; specialist in things unexpected. I am master of the disconcerting and the irrelevant. I make a paradox of the orthodox and chaos out of conformity. I'm a devil of a fellow to have around."

"So I have heard," said Standez, drily. "But that doesn't answer my questions. What I have to decide is whether you are a bona-fide fool or a subtle saboteur. What manner of mischief brings you here?"

"Entropy. I represent the random element in human society."

"A dangerous occupation," said Standez. "I represent the forces of law and order. We are mutually opposed."

"Then between us we maintain the status quo."

"Damned if I can place you," said Standez. "You're too clever to be a fool and too ridiculous to be intelligent. But idiot, intellectual or impostor, your talent is undeniable. I hate to see rare things destroyed."

"Then I may go?"

"Curiously, I did not see you come. I was looking the other way. In a week I will be surprised to find you here. You will then merit an official visa or a funeral according to your deeds. The choice is largely yours."

But the poet was not listening. His eyes were wandering to the township of Port Suma snuggled low against the white slopes of Mount Desire, a picturebook community of coloured contrasts and cool green shade. The staggered terraces, with brilliant sunshades and awnings flattering the whitewashed walls, proclaimed a spirit of carnival. In the air he imagined he could sense the warm excitement of Mardi gras. But a chill stole over his heart.

"Iargo has changed," he said quietly. "There is no gaiety now, no madness. I detect much trouble. The last time I stood here I had a laureate's crown upon my head and a

welcome fit for a prince. Now I have one myopic policeman and a flexible death warrant."

Standez shrugged. "Time and the Company have changed most things. Perhaps some of us have not changed to suit."

"Time," said the poet, "is beyond my compass, but the Company had better beware."

"You're playing a dangerous game," said Standez. "Make one overt move and we shall shoot first and sympathize after. We cannot do otherwise even to save our souls."

"Don't worry, I carry nothing more offensive than a loaded pun."

On the Company world of Iargo a new glass age had begun. The fabulous glass from the edge of the Rim, prized above diamonds, spread a new brilliance and a new beauty across the starlit wastes. Iargan glass was unique, magnificent and priceless, and the Company del Iargo maintained its secrets with a jealous savagery.

"A miracle glass," said the merchant. "Brighter than diamond, clearer than crystal, blazing with the million lights which reflect the soul of Iargo."

"And the anguish," said the poet. He took up the magnificent vase and examined it carefully. It was a fire and majesty, burning with pinpoint brilliants in every spectral hue, and perfect in form and sympathy. Whichever way he turned it the lightning scintillated and flickered with tongues of the coldest fire.

"'This vase is for sale?"

"No," said the merchant, "and then again, yes. I and my children have gone hungry many times rather than sell this piece. Now the tourist trade is ended on Iargo and to live I must sell everything including my children. Make me an offer."

"Half a mega," said the poet.

The merchant's jaw dropped open with amazement. "The offer is indeed generous, but even in povery let no one call me thief. If I asked five kilo I should ask you much too much."

"Half a mega," said the poet. "And not a credit less."

"But this is madness! You offer me a hundred times my price. What is it about you that makes a man bargain backwards?"

"Entropy," said the poet, counting out the notes. "I exchange old values for new."

"Stranger," said the merchant, his eyes near to tears, "we could do with some new values on Iargo. These are hard times for the common man. The crops have failed and food is dead and scarce. The glass merchants have lost their livelihood since the Company took over the export trade, and conscripted labour camps are being formed. Terrible times are coming."

He glanced round wildly, as if afraid that his words might be overheard. "Stranger, I talk too much. Forgive my confusion and my lack of manners. The vase will be crated and sent to your hotel. See, I offer you wine to set the seal on our transaction."

The poet raised the thin-walled goblet with some degree of reverence and savoured the bouquet. "Your wine is like Iargan women; full-bodied, sweet, and not lacking in spirit."

"To entropy!" said the merchant.

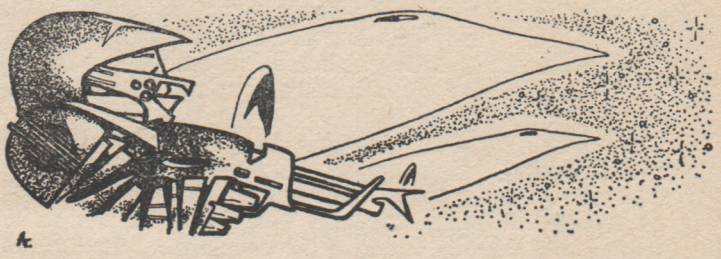
"To confusion!!" said Jason van Tere.

In his room at the hotel the poet opened the crate and took the vase to the window. Even in the reduced light of the darkening sky it blazed like a fabulous jewel. It was at once a thing of beauty and extreme fragility; yet in this brittle masterpiece lay hidden the strength and the autonomy of the Company del Iargo. The workmanship was exquisite—but that alone could have been equalled by master craftsmen on half a dozen worlds: only the glass of Iargo was truly unique.

He set the vase on the table and regarded it thoughtfully for some considerable time. Then with a surge of emotion he shattered the glass with a heavy ashtray and pounded the pieces to fragments.

The fact that the outburst had cost the Special Service Commission a respectable fortune brought a smile of mischief to his lips. Somewhere in the glass of Iargo was a secret which pushed the refractive index way above that of diamond, setting therein the crystal sparkle which dazzled all the civilized worlds. Yet that secret was concealed in quite an ordinary glass; a factor defying definition or analysis. He needed only that secret to bring the Company del Iargo back to heel.

So he sat in the growing darkness, pondering the silvery splinters and lost in thought, dreaming of the Iargo he once had known and of student days at Heidleberg in an age when everything was clean and full of promise.



There were vineyards above Port Suma, straggling hosts of the pleasant grape, resting against the quiet hillside and flanking the dusty road which ran through the villages and on to the high slopes of Mount Desire. Here the trend of life was less affected by the new regime of government, for the wines of Partos and Menatin, though palatable enough, were not of a class to warrant an outworld market. The farms were largely self-sufficient and the farmers continued their slow prosperity and minded their own business.

It was the little things which betrayed the changing order, the slight signs easily apparent to those who study change. With comprehending eyes the poet noted the new grass growing round the flagstones at the entrance to the church and the fatalism mirrored in the eyes of the peasants as the new official philosophies ate the heart out of the old. At Menatin, however, the atrocity had lost its thin facade.

This was the season of the gentle harvest-home, but the revised Company catechism had smashed the old dogmas and declared the time to be the festival of Dionysus. The old men stood alone in disapproval, but the young people, seeking excitement and an outlet from frustration, poured their hearts and souls into a wild Bacchanalian orgy. The revels tended to frenzy under the influence of the freely flowing wine, and to excess by the actions of the self-appointed Bacchantes who threw themselves at the mercy of the revellers in flood of flesh and absolute abandon.

The poet watched curiously, discerning beneath the discordant madness the sure hand of a professional manipulator of men. These revels were the product of propaganda and intent, deliberately engineered to revert men to barbaric ways and barbaric modes of thought. It was an atmosphere in

which despotism and slavery could flourish and where harsh laws could be executed with a savagery beyond the toleration of civilized times. Idly he wondered why this particular area was being worked up to fever pitch. In readiness for what?

"The pagan gods have returned among us." A voice spoke quietly from behind.

The poet turned to the black clerical garb of the priest from the Mission chapel.

"Hera, Aphrodite, Ares, Dionysus and Nemesis," said the poet. "Gods of vengeance, love, war, wine and retribution. Anything to divert the minds of the people from the creeping paralysis stealing over their liberty. It takes a brave man to wear the cloth on Iargo, Father. These are dangerous days to be dedicated to the old ideals."

"I have already lost more than life," said the priest. "Wherefore should I now be afraid? I see you are an outworlder and a man of learning. Come with me, for I have something of importance to divulge before the new heresy brings me to my knees."

Wondering, the poet followed the priest into the cobbled shade and through the paintless door of the Mission-house.

"Are you always as ready to reveal your heart to strangers?"

The priest was an old and patient man, white-haired and with a smile of silvery wistfulness. "Anyone who witnesses the feast of Dionysus with such a look in his eyes is no stranger to me. Regardless of creed, humanity shows. What I have to tell could cost you your life. The choice is yours, whether or not to listen."

"I am a poet. I'm not afraid of words."

"Then hear me, for I don't have much time left. The people of Iargo are starving. Bread and flour are scarce and will be scarcer. They are told of catastrophes which ruin the corn; the drought and the storms at harvest."

"I have already heard as much."

"Then you have heard a lie. I have lay workers throughout Iargo and they all give me the same report; all over Iargo there was a good harvest."

"I know," said the poet quietly. "I have been in the fields and seen the richness of the chaff and what few heads the rain has left to rot. There are more mysteries on Iargo than the Company would care to admit."

Even before the bonfires were lighted the wine had extracted its toll from the revellers, and lethargy had laid its leaden hand over the field of rejoicing. The fires, uncared-for as soon as lit, trailed long columns of smoke across the incredible sunset and lost their glitter against the backdrop of the bright Rim stars.

One hour after sunset found the poet clear of the vineyard's throw and on the edge of the great white throat of the mountain. Plaintively the single note of the Mission bell sang in the gathering darkness far below. Then from out of the deceptive shadows on the mountain road a string of lights became a line of vehicles manned by soldiers in the dreaded black and yellow of the Company Guard. Pressed back out of sight, the poet watched them pass, suddenly sickened as he realised their purpose.

The night closed down to darkness and to silence, save for the forlorn bell tolling. Then that too was quietened at a burst of automatic gunfire, and the flames of the burning Mission stood out like a brave soul in a sea of darkness.

Item: Absolute power corrupts absolutely. The Administration of the Company del Iargo was absolutely corrupt.

Item: Iargo was starving yet the granaries were full. No administration courts revolution unless the gains are worth the strife.

Item: The glass of Iargo was unique. Exports were increasing in proportion to the power of the new Administration. How do you equate refractive indices with empty stomachs?

By morning he was on the outskirts of Klitz, where the great glass foundries laboured in the bowl of the mountain ranges. At the head of the valley the air was crisp and rare, but, as he descended, the sulphurous breath of the great chimneys caught vaguely in his throat and the air was loud with the shunting of coal trucks low on the valley floor.

His destination proved to be an ageing mansion built hard against the sheer wall of the rising southern range. The occupant scowled sullenly at his visitor.

"You don't remember me?" asked van Tere.

Sterner looked at him gravely for a moment. "The face I don't remember—but the hands! Ah, those hands!! They are the hands of an artist and a craftsman. I have seen them working somewhere."

"Eight years ago on Terra, at the Galactic Exposition. You took first prize for offhand glassblowing."

"And you, the second," said Sterner, brightening. "I remember it now. It was a contest second to none."

"I lost to a master," said the poet. "But you promised one day to show me the true art as practised on Iargo. I'm here to remind you of that promise."

Sterner pushed wine across the table. "Quite impossible! Forgive me, but times change. There are no more expositions now and no more contests. There is only work and more work. The Company pushes us hard on our contracts, and the penalties for failure are barbarous. If you want to see glass why don't you try at a Company plant?"

"Because I'm not very welcome on Iargo and you are one of the few independent glassmen who could show me what I want to know."

"So that's it!" Sterner rose and peered out of the window cautiously. "I should have guessed at something wrong, with you an outworlder and all the ports closed to visitors. What are you, a spy?"

"Something of the sort." The poet nodded. "I'm a T.S.S. agent gunning for the Company del Iargo."

Sterner looked at him sourly. "So much for the protection we are promised under Galactic Law! No one man can fight the Company."

"I can. The Company is finished if it loses the glass monopoly, and that monopoly depends on the secret formulation of Iargan glass. I intend to get that secret."

"Not from me." Sterner shook his head gravely. "I am a true glassman of Iargo. I have my fidelity to the guild even though I deplore the Company's despotism."

"I don't ask you to speak. I ask you to let me work. I know the feel of every glass and glaze in the galaxy, but to get the measure of Iargan glass I need to study it in the mass. I need to gather and blow, to spin and draw and shear. By such signs can I glean the clues I'm seeking."

"By such foolishness you would sign both our death warrants. One word to the Company Guard and we would both be slowly hung."

"You may recognise the hands," said the poet, "but you know nothing of the man."

By night the glassfields of Klitz resembled the galleries of hell. From end to end the valley was tormented by the dull redness of the thousand furnaces, whose fiery malignance was trapped and transformed by the heavy smoke-clouds caught in the rim of the mountains. Most of the manufacturing units were Company owned, but Sterner, almost the last of the independent glassmen, still operated his own furnaces and shop in recognition of the finest offhand skills which he and his team possessed.

To the right the huge tank furnace of a Company unit threw out the unimaginable rose-red glow of a thousand tons of molten glass, and the raw heat and brilliance dazed the senses and transformed even the shadows into hot, troubled alcoves of despair.

Sterner's shop was smaller and hotter and even louder with the roar of the ancient hand-fed furnaces. Having no use either in quantity or quality for continuous tank-fed glass, Sterner still produced and fined his melt in clay pots, and the raw eye of the pot furnace burned across the sweating bodies of the workmen like the beams of an alien sun.

Here was glassblowing at its crudest and at once its most magnificent form. With tools little changed since the beginning of the history of glass these rare craftsmen could match the skills of all antiquity, and nothing from ancient Byzantine or Venetian hands would have troubled their earthly, wonderful dexterity.

The glassblowers worked in pairs, one gathering and blowing, and one assisting. Sterner had furnaces to attend, so the poet was content to handle the blowpipe and pontil to judge the weight and to accustom his fingers to the unfamiliar steel. Then he watched the others carefully, noticing how the hallmarks of their skill appeared to stem from the genius of a common tutor—a characteristic as distinct as a dialect in a language.

Then Sterner returned, his eyes wide and nervous with anxiety.

"The Company Guard are searching the area. If you're to remain here you must get to work."

The poet nodded and gathered molten glass on the blowpipe from the incandescent pot. He judged the gather to a nicety and immediately was in sympathy with the task.

He scarcely noticed when the Guard officer entered the

door. He was no longer a poet, he was a sweating figure moving in silhouette against the fiery scene. The officer spoke to Sterner, but the latter waved him back clear of the working area with swift dismissal, and before their eyes the poet rolled the blowpipe to keep the molten gather concentric, a slight smile playing on his lips.

"We're searching for an outworlder who passed through Menatin yesterday. He may well have come into Klitz."

"A glassman?" asked Sterner.

"No, we think he was a poet. He's an alien bookworm and rabble-rouser."

"You may look around," said Sterner, "but I think there are only glassmen here."

Van Tere rolled the glass easily on the marver block and with patient skill blew through the pipe to form a thick-walled bulb of glass. Then he reheated the glass and blew and rolled and shaped until a beautiful vase-like bulb twisted and spun on the blowpipe in a wonder of fluted symmetry. So precise was his art that the Guard officer was drawn to watch, hypnotized by the spinning wonder of the craft.

"I don't see him here," said the officer, lingering.

"Then excuse me," said Sterner, "for I have work to do."

Van Tere spun a marvellous foot on the vase and Sterner gathered glass on a pontil and pressed it on to the foot, thus transferring support of the vase to the pontil. For a short time the two men worked in unison with the vase spinning between them. Then, with the vase supported on the pontil, the poet cut off the excess plastic glass with shears to form the rim. Now he opened out and shaped the rim with a wood-jack and the job was complete. A tap toppled the vase from the pontil and the piece was deftly transferred to the annealing furnace to begin the long, slow cooling.

"A wonderful trade," said the Guard officer as he left. "Would that I too had studied glass."

The poet stopped and mopped his brow. Sterner's eyes mirrored his admiration, and behind his admiration—fear.

"Now you must leave here, for I cannot stand such risks. I hope you found what you were seeking."

But the poet gave no answer. He was looking at his hands and remembering the feel of the glass, and wondering where he had felt a glass like that before.

From Klitz the poet took to the mountains, sleeping rough

and working his way down the western slope into the lowlands, where the blued stubble in the fields still waited the farmers' grudged attention. In the hour of the first light he turned at the edge of a ragged field and went exploring the unkempt hedges. Uncut near the bole of a tree he picked up a random spray of blue-tinged corn missed by the reapers, and stuck it in his hat where it nodded like a grassy plume.

The corn yield in the region had been ample; the soil was rich and the few remaining heads were heavy with the seed. The priest at Menatin had not been mistaken in his estimates. Here, as elsewhere, there had been a bounteous harvest. Once again it nailed the lie of the Company's claim of famine.

Behind him, blue and green, the trim dawn of Iargo splayed across the sky, heralding the mellower sun of autumn. The poet shivered slightly, not from the crisp chill but from the dark shaft of oppression which troubled his thinking. And, adjusting his collar against an imaginary wind, he began the long trek back towards Port Suma.

In the central plaza a blind beggar deftly caught the spinning silver coin and thanked him with a single word: 'Police!' The poet chuckled and spun another piece of silver in the air to be caught as deftly as the first.

"Where and how many?"

"Six, Magnificent Sir. At the hotel. They set a trap."

He drew his fingers across his throat with an air of finality.

"Thank you!" said the poet. "You serve me well."

Leaving the beggar a moderately rich man, he walked on through the broad, untidy streets with just a hint of sadness in his step.

His room had been ransacked. Drawers were wide open, loose paper had been pulled from the walls, and all his cases and luggage had been emptied on to the bed.

"Did you find what you were looking for?"

Captain Standez was staring fretfully out of the window, and turned abruptly at the poet's voice.

"No, but then I didn't expect to find it written. I know you are after the secret of the glass else you would not have gone to Klitz."

"You can't prove a thing," said the poet easily.

"We don't need proof on Iargo any more. An informer saw you at Menatin and informed the Company Guard. They suspected you went into Klitz and they also suspect what for. Now you are officially brought to my notice and I have

received a reprimand for not reporting your landing."

"Hardly your day, is it?" The poet cleared himself a seat on the bed.

"No," said Standez grimly. "Far from it. The fact remains that I have to investigate you and apprehend if necessary. Rest assured that if the Company Guard had made this raid you'd by now have been missing about ten fingernails and anticipating the removal of your toenails."

"Ah, no! If the Company Guard had made this raid I'd have been about twenty miles away this instant."

Standez glanced out at the small knot of beggars gathered before the hotel. "I have no doubt," he said heavily. "Can you think of one good reason why I shouldn't arrest you and hand you over to the Company Guard?"

"I have a thousand reasons, but one of more appeal to you than most. Did you ever hear of a priest named Joseph Hervey who ran the Mission at Menatin?"

"I know him well. I was a Menatin man myself."

"He was shot down in cold blood by the Company Guard. The Mission was then burned around him. His crime was that he believed in humanity. What do you believe in, Captain?"

Standez was silent for a long second.

"You have a point," he said. "But there's nothing I can do. I'm like most little men—caught up in the scheme of things. I bow to the Powers that Be, listen respectfully to Authority, and keep my mouth shut. Such sacrifices earn me a secure bed even if I don't sleep too well."

"Then I'm in your hands," said van Tere resignedly. "If you won't help yourself I cannot help you. But you'll never get me to the Company Guard alive."

"I believe that," said Standez. "That's why I'm going to take a risk. There's an Axial freighter leaving Port Suma at sundown. This may cost me my job, but I've a mind to see you leave on that."

Standez was tall and austere, and walked with a precise military erectness, though limping slightly from an old wound in the leg. In contrast, the poet cavorted through the customs shed like some latter-day Puck, a grimacing imp of a man with a grotesque plume of blue Iargon corn waving over his head. Behind him two wary policemen, guns in hand, kept a suspicious eye on their capering charge.

At the foot of the loading scaffold, Standez held out his hand, his voice tinged with regret.

"Goodbye, Poet! This is where we part. In a way I'm disappointed. You came with the promise of a lion and you leave with the meekness of a lamb. I had hoped that entropy had something more to offer."

"Never judge by appearances," said the poet. "I can be relied upon to perform the unexpected. I make a living by doing that which should be left undone and leaving undone that which should be done up. That is why when this ship lifts the might of the Company del Iargo goes with it."

Standez stared up, his expression suddenly a mixture of hope and disbelief.

"The glass? How could that be?"

"Yes, the secret of the glass," said the poet. "In six months I can topple the Company out of the Galactic markets. With no trade or income the Company cannot survive. So easily is a tyranny finished!"

So saying he entered the lock and was gone from sight. Standez remained staring upwards for a few seconds, then he saluted gravely and walked thoughtfully away.

Aboard the freighter the poet took the spray of blue corn from his hat and gently tapped the rich seed on to the table. He gathered his gleanings into a small pile and ran it through his fingers idly, marvelling; then he moved to the port to watch the fair orb of Iargo slowly falling far beneath.

"Farewell, faint hearts!"

The history of Man is intertwined with threads of glass. Natural obsidian tipped the spears and arrows of the Stone Age, and man-made glass had ten-thousand years of history e'er Jesus of Nazareth was born. But what of the early origins of glass? Was it first produced by the accidental fusion of sand and soda in some early merchant's fire? Or perhaps by the strange coincidence that the ash of burnt grain, when fused, itself produces one of the many types of glass . . . as on Iargo the blue grain of the lowlands was burnt and fused to produce the miracle glass from the edge of the Rim.

Colin Kapp

Four novelettes comprised the original Troon series, published in Nos. 70, 72, 73 and 75 (1958) and subsequently as a complete book by Faber & Faber, Ltd., London, and Ballantine Books, Inc., New York, as "The Outward Urge." This new story, written specially for the 100th issue, extends a further 50 years from the end of the book version and explains what happened to George Montgomery Troon who had first landed on Venus in 2144.

The Emptiness Of Space

by JOHN WYNDHAM

The Asteroids — 2194

My first visit to New Caledonia was in the summer of 2199. At that time an exploration party under the leadership of Gilbert Troon was cautiously pushing its way up the less radio-active parts of Italy, investigating the prospects of reclamation. My firm felt that there might be a popular book in it, and assigned me to put the proposition to Gilbert. When I arrived, however, it was to find that he had been delayed, and was now expected a week later. I was not at all displeased. A few days of comfortable laziness on a Pacific island, all paid for and counting as work, is the kind of perquisite I like.

New Caledonia is a fascinating spot, and well worth the trouble of getting a landing permit—if you can get one. It has more of the past—and more of the future, too, for that matter—than any other place, and somehow it manages to keep them almost separate.

At one time the island, and the group, were, in spite of the name, a French Colony. But in 2044, with the eclipse of Europe in the Great Northern War, it found itself, like other ex-colonies dotted all about the world, suddenly thrown upon its own resources. While most mainland colonies hurried to make treaties with their nearest powerful neighbours, many islands such as New Caledonia had little to offer and not much to fear, and so let things drift.

For two generations the surviving nations were far too occupied by the tasks of bringing equilibrium to a half-wrecked world to take any interest in scattered islands. It was not until the Brazilians began to see Australia as a possible challenger of their supremacy that they started a policy of unobtrusive and tactfully mercantile expansion into the Pacific. Then, naturally, it occurred to the Australians, too, that it was time to begin to extend *their* economic influence over various island-groups.

The New Caledonians resisted infiltration. They had found independence congenial, and steadily rebuffed temptations by both parties. The year 2194, in which Space declared for independence, found them still resisting; but the pressure was now considerable. They had watched one group of islands after another succumb to trade preferences, and thereafter virtually slide back to colonial status, and they now found it difficult to doubt that before long the same would happen to themselves when, whatever the form of words, they would be annexed—most likely by the Australians in order to forestall the establishment of a Brazilian base there, within a thousand miles of the coast.

It was into this situation that Jayme Gonveia, speaking for Space, stepped in 2150 with a suggestion of his own. He offered the New Caledonians guaranteed independence of either big Power, a considerable quantity of cash, and a prosperous future if they would grant Space a lease of territory which would become its Earth headquarters and main terminus.

The proposition was not altogether to the New Caledonian taste, but it was better than the alternatives. They accepted, and the construction of the Spaceyards was begun.

Since then the island has lived in a curious symbiosis. In the north are the rocket landing and dispatch stages, warehouses, and engineering shops, and a way of life furnished with all modern techniques, while the other four-fifths of the island all but ignores it, and contentedly lives much as it did two and a half centuries ago. Such a state of affairs cannot be preserved by accident in this world. It is the result of careful contrivance both by the New Caledonians who like it that way, and by Space which dislikes outsiders taking too close an interest in its affairs. So, for permission to land anywhere in the group one needs hardly-won visas from both authorities. The result is no exploitation by tourists or salesmen, and a scarcity of strangers.

However, there I was, with an unexpected week of leisure to put in, and no reason why I should spend it in Space-Concession territory. One of the secretaries suggested Lahua, down in the south at no great distance from Noumea, the capital, as a restful spot, so thither I went.

Lahua has picture-book charm. It is a small fishing town, half-tropical, half-French. On its wide white beach there are still canoes, working canoes, as well as modern. At one end of the curve a mole gives shelter for a small anchorage, and there the palms that fringe the rest of the shore stop to make room for the town.

Many of Lahua's houses are improved-traditional, still thatched with palm, but its heart is a cobbled rectangle surrounded by entirely untropical houses, known as the *Grande Place*. Here are shops, pavement cafés, stalls of fruit under bright striped awnings guarded by Gauguinesque women, a statue of Bougainville, an attrociously ugly church on the east side, a pissoir, and even a Mairie. The whole thing might have been imported complete from early twentieth century France, except for the inhabitants—but even they, some in bright sarongs, some in European clothes, must have looked much the same when France ruled there.

I found it difficult to believe that they are real people living real lives. For the first day I was constantly accompanied by the feeling that an unseen director would suddenly call 'Cut,' and it would all come to a stop.

On the second morning I was growing more used to it. I bathed, and then with a sense that I was beginning to get the feel of the life, drifted to the *Place*, in search of an aperitif.

I chose a cafe on the south side where a few trees shaded the tables, and wondered what to order. My usual drinks seemed out of key. A dusky, brightly saronged girl approached. On an impulse, and feeling like a character out of a very old novel I suggested a pernod. She took it as a matter of course.

"Un pernod? Certainement, monsieur," she told me.

I sat there looking across the Square, less busy now that the déjeuner hour was close, wondering what Sydney and Rio, Adelaide and Sao Paulo had gained and lost since they had been the size of Lahua, and doubting the value of the gains . . .

The pernod arrived. I watched it cloud with water, and sipped it cautiously. An odd drink, scarcely calculated, I felt, to enhance the appetite. As I contemplated it a voice spoke from behind my right shoulder.

"An island product, but from the original recipe," it said. "Quite safe, in moderation, I assure you."

I turned in my chair. The speaker was seated at the next table; a well-built, compact, sandy-haired man, dressed in a spotless white suit, a panama hat with a coloured band, and wearing a neatly trimmed, pointed beard. I guessed his age at about thirty-four though the grey eyes that met my own looked older, more experienced, and troubled.

"A taste that I have not had the opportunity to acquire," I told him. He nodded.

"You won't find it outside. In some ways we are a museum here, but little the worse, I think, for that."

"One of the later Muses," I suggested. "The Muse of Recent History. And very fascinating, too."

I became aware that one or two men at tables within earshot were paying us—or, rather, me—some attention; their expressions were not unfriendly, but they showed what seemed to be traces of concern.

"It is—" my neighbour began to reply, and then broke off, cut short by a rumble in the sky.

I turned to see a slender white spire stabbing up into the blue overhead. Already, by the time the sound reached us, the rocket at its apex was too small to be visible. The man cocked an eye at it.

"Moon-shuttle," he observed.

"They all sound and look alike to me," I admitted.

"They wouldn't if you were inside. The acceleration in that shuttle would spread you all over the floor — very thinly," he said, and then went on: "We don't often see strangers in Lahua. Perhaps you would care to give me the

pleasure of your company for luncheon? My name, by the way, is George."

I hesitated, and while I did I noticed over his shoulder an elderly men who moved his lips slightly as he gave me what was without doubt an encouraging nod. I decided to take a chance on it.

"That's very kind of you. My name is David — David Myford, from Sydney," I told him. But he made no amplification regarding himself, so I was left wondering whether George was his forename, or his surname.

I moved to his table, and he lifted a hand to summon the girl.

"Unless you are averse to fish you must try the bouillabaisse—spécialité de la maison," he told me.

I was aware that I had gained the approval of the elderly man, and apparently of some others as well, by joining George. The waitress, too, had an approving air. I wondered vaguely what was going on, and whether I had been let in for the town bore, to protect the rest.

"From Sydney," he said reflectively. "It's a long time since I saw Sydney. I don't suppose I'd know it now."

"It keeps on growing," I admitted, "but Nature would always prevent you from confusing it with anywhere else."

We went on chatting. The bouillabaisse arrived; and excellent it was. There were hunks of first-class bread, too, cut from those long loaves you see in pictures in old European books. I began to feel, with the help of the local wine, that a lot could be said for the twentieth century way of living.

In the course of our talk it emerged that George had been a rocket pilot, but was grounded now—not, one would judge, for reasons of health, so I did not inquire further . . .

The second course was an excellent coupe of fruits I never heard of, and, overall, iced passion-fruit juice. It was when the coffee came that he said, rather wistfully I thought:

"I had hoped you might be able to help me, Mr. Myford, but it now seems to me that you are not a man of faith."

"Surely everyone has to be very much a man of faith," I protested. "For everything a man cannot do for himself he has to have faith in others."

"True," he conceded. "I should have said 'spiritual faith'. You do not speak as one who is interested in the nature and destiny of his soul—nor of anyone else's soul—I fear?"

I felt that I perceived what was coming next. However if

he was interested in saving my soul he had at least begun the operation by looking after my bodily needs with a generously good meal.

"When I was young," I told him, "I used to worry quite a lot about my soul, but later I decided that that was largely a matter of vanity."

"There is also vanity in thinking oneself self-sufficient." he said.

"Certainly," I agreed. "It is chiefly with the conception of the soul as a separate entity that I find myself out of sympathy. For me it is a manifestation of mind which is, in its turn, a product of the brain, modified by the external environment, and influenced more directly by the glands."

He looked saddened, and shook his head reprovingly.

"You are so wrong—so very wrong. Some are always conscious of their souls, others, like yourself, are unaware of them, but no one knows the true value of his soul as long as he has it. It is not until a man has lost his soul that he understands its value."

It was not an observation making for easy rejoinder, so I let the silence between us continue. Presently he looked up into the northern sky where the trail of the moon-bound shuttle had long since blown away. With embarrassment I observed two large tears flow from the inner corners of his eyes and trickle down beside his nose. He, however, showed no embarrassment; he simply pulled out a large, white, beautifully laundered handkerchief, and dealt with them.

"I hope you will never learn what a dreadful thing it is to have no soul," he told me, with a shake of his head. "It is to hold the emptiness of space in one's heart: to sit by the waters of Babylon for the rest of one's life."

Lamely I said:

"I'm afraid this is out of my range. I don't understand."

"Of course you don't. No one understands. But always one keeps on hoping that one day there will come somebody who does understand, and can help."

"But the soul is a manifestation of the self," I said. "I don't see how that *can* be lost—it can be changed, perhaps, but not lost."

"Mine is," he said, still looking up into the vast blue. "Lost—adrift somewhere out there. Without it I am a sham. A man who has lost a leg or an arm is still a man, but a man who has lost his soul is nothing—nothing—nothing . . . "

"Perhaps a psychiatrist— " I started to suggest, uncertainly.

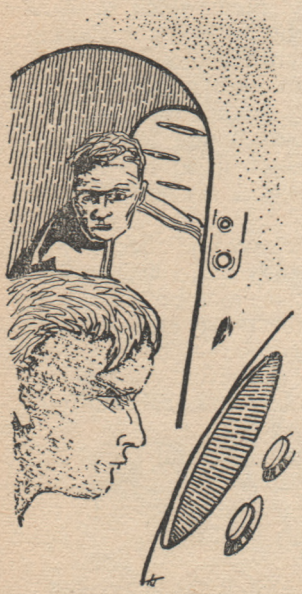
That stirred him, and checked the tears.

"Psychiatrist!" he exclaimed scornfully. "Damned frauds! Even to the word. They may know a bit about minds; but about the psyche!—why they even deny its existence . . . !"

There was a pause.

"I wish I could help . . ." I said, rather vaguely.

"There was a chance. You *might* have been one who could. There's always the chance . . " he said consolingly, though whether he was consoling himself, or me, seemed moot. At this point the church clock struck two. My host's mood changed. He got up quite briskly.



"I have to go now," he told me. "I wish you had been the one, but it has been a pleasant encounter all the same. I hope you enjoy Lahua."

I watched him make his way along the *Place*. At one stall he paused, selected a peach-like fruit, and bit into it. The woman beamed at him amiably, apparently unconcerned about payment.

The dusky waitress arrived by my table, and stood looking after him.

"O le pauvre monsieur Georges," she said sadly. We watched him climb the church steps, throw away the remnant of his fruit, and remove his hat to enter. "Il va faire la prière," she explained. "Tous les jours 'e make pray for 'is soul. In ze morning, in ze afternoon. C'est si trieste."

I noticed the bill in her hand. I fear that for a moment I misjudged George, but it had been a good lunch. I reached for my notecase. The girl noticed, and shook her head.

"Non, non, monsieur, non. Vous êtes convive. C'est d'accord. Alors, monsieur Georges 'e sign bill tomorrow. S'arrange. C'est okay," she insisted, and stuck to it.

The elderly man whom I had noticed before broke in:

"It's all right—quite in order," he assured me. Then he added: "Perhaps if you are not in a hurry you would care to take a café-cognac with me?"

There seemed to be a fine open-handedness about Lahua. I accepted, and joined him.

"I'm afraid no one can have briefed you about poor George," he said.

I admitted this was so. He shook his head in reproof of persons unknown, and added:

"Never mind. All went well. George always has hopes of a stranger, you see: sometimes one has been known to laugh. One doesn't like that."

"I'm sorry to hear that," I told him. "His state strikes me as very far from funny."

"It is indeed," he agreed. "But he's improving. I doubt whether he knows it himself, but he is. A year ago he would often weep quietly through the whole déjeuner. Rather depressing until one got used to it."

"He lives here in Lahua, then?" I asked.

"He exists. He spends most of his time in the church. For the rest he wanders round. He sleeps at that big white house up on the hill. His grand-daughter's place. She sees that he's decently turned out, and pays the bills for whatever he fancies down here."

I thought I must have misheard.

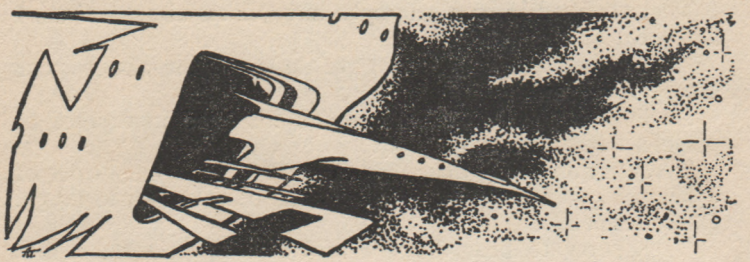
"His grand-daughter!" I exclaimed. "But he's a young man. He can't be much over thirty . . ."

He looked at me.

"You'll very likely come across him again. Just as well to know how things stand. Of course it isn't the sort of thing the family likes to publicize, but there's no secret about it."

The café-cognacs arrived. He added cream to his, and began:

About five years ago (he said), yes, it would be in 2194, young Gerald Troon was taking a ship out to one of the larger asteroids—the one that de Gasparis called Psyche when he spotted it in 1852. The ship was a space-built freighter called the *Celestis,* working from the moon-base. Her crew was five, with not bad accommodation forward. Apart from that and the motor-section these ships are not much more than one big hold which is very often empty on the outward journeys unless it is carrying gear to set up new workings. This time it was empty because the assignment was simply to pick up a load of uranium ore—Psyche is half-made of high-yield ore, and all that was necessary was to set going the digging machinery already on the site, and load the stuff in. It seemed simple enough.



But the Asteroid Belt is still a very tricky area, you know. The main bodies and groups are charted, of course—but that only helps you to find them. The place is full of outfliers of all sizes that you couldn't hope to chart, but have to avoid. About the best you can do is to tackle the Belt as near to your objective as possible, reduce speed until you are little more than local orbit velocity, and then edge your way in, going very canny. The trouble is the time it can take to keep on fiddling along that way for thousands — hundreds of thousands, maybe—of miles. Fellows get bored and inattentive, or sick to death of it and start to take chances. I don't know what the answer is. You can bounce radar off the big chunks and hitch that up to a course deflector to keep you away from them. But the small stuff is just as deadly to a ship, and there's so much of it about that if you were to make the course-deflector sensitive enough to react to it you'd have your ship shying off everything the whole time, and getting nowhere. What we want is someone to come up with a kind of repulse mechanism with only a limited range of operation —say, a hundred miles—but no one does. So, as I say, it's tricky. Since they first started to tackle it back in 2150 they've lost half-a-dozen ships in there and had a dozen more damaged one way or another. Not a nice place at all . . . On the other hand, uranium is uranium . . .

Gerald's a good lad though. He has the authentic Troon yen for space without being much of a chancer; besides, *Psyche* isn't too far from the inner rim of the orbit—not nearly the approach problem Ceres is, for instance—what's more, he'd done it several times before.

Well, he got into the Belt, and jockeyed and fiddled and niggled his way until he was about three hundred miles out from *Psyche* and getting ready to come in. Perhaps he'd got

a bit careless by then; in any case he'd not be expecting to find anything in orbit around the asteroid. But that's just what he did find—the hard way . . .

There was a crash which made the whole ship ring round him and his crew as if they were in an enormous bell. It's about the nastiest—and very likely to be the last—sound a spaceman can ever hear. This time, however, their luck was in. It wasn't too bad. They discovered that as they crowded to watch the indicator dials. It was soon evident that nothing vital had been hit, and they were able to release their held breaths.

Gerald turned over the controls to his First, and he and the engineer, Steve, pulled spacesuits out of the locker. When the airlock opened they hitched their safety-lines on to spring hooks, and slid their way aft along the hull on magnetic soles. It was soon clear that the damage was not on the air-lock side, and they worked round the curve of the hull.

One can't say just what they expected to find—probably an embedded hunk of rock, or maybe just a gash in the side of the hold—anyway it was certainly not what they did find, which was half of a small space-ship projecting out of their own hull.

One thing was evident right away—that it had hit with no great force. If it had, it would have gone right through and out the other side, for the hold of a freighter is little more than a single-walled cylinder: there is no need for it to be more, it doesn't have to conserve warmth, nor contain air, nor to resist the friction of an atmosphere, nor does it have to contend with any more gravitational pull than that of the moon; it is only in the living-quarters that there have to be the complexities necessary to sustain life.

Another, which was immediately clear, was that this was not the only misadventure that had befallen the small ship. Something had, at some time, sliced off most of its after part, carrying away not only the driving tubes but the mixing-chambers as well, and leaving it hopelessly disabled.

Shuffling round the wreckage to inspect it, Gerald found no entrance. It was thoroughly jammed into the hole it had made, and its airlock must lie forward, somewhere inside the freighter. He sent Steve back for a cutter and for a key that would get them into the hold. While he waited he spoke through his helmet radio to the operator in the *Celestis's* living-quarters, and explained the situation. He added:

"Can you raise the moon-station just now, Jake? I'd better make a report."

"Strong and clear, Cap'n," Jake told him.

"Good. Tell them to put me on to the Duty Officer, will you."

He heard Jake open up and call. There was a pause while the waves crossed and re-crossed the millions of miles between them, then a voice:

"Hullo *Celestis!* Hullo *Celestis!* Moon-station responding. Go ahead, Jake. Over!"

Gerald waited out the exchange patiently. Radio waves are some of the things that can't be hurried. In due course another voice spoke.

"Hullo *Celestis!* Moon-station Duty Officer speaking. Give your location and go ahead."

"Hullo Charles. This is Gerald Troon calling from *Celestis* now in orbit about *Psyche.* Approximately three-twenty miles altitude. I am notifying damage by collision. No harm to personnel. *Not* repeat *not* in danger. Damage appears to be confined to empty hold-section. Cause of damage . . ." He went on to give particulars, and concluded: "I am about to investigate. Will report further. Please keep the link open. Over!"

The engineer returned, floating a self-powered cutter with him on a short safety-cord, and holding the key which would screw back the bolts of the hold's entrance-port. Gerald took the key, inserted it in the hole beside the door, and inserted his legs into the two staples that would give him the purchase to wind it.

The moon man's voice came again.

"Hullo, Ticker. Understand no immediate danger. But don't go taking any chances, boy. Can you identify the derelict?"

"Repeat no danger," Troon told him. "Plumb lucky. If she'd hit six feet further forward we'd have had real trouble. I have now opened small door of the hold, and am going in to examine the forepart of the derelict. Will try to identify it."

The cavernous darkness of the hold made it necessary for them to switch on their helmet lights. They could now see the front part of the derelict; it took up about half the space there was. The ship had punched through the wall, turning back the tough alloy in curled petals, as though it had been tinplate. She had come to rest with her nose a bare couple of feet short of the opposite side. The two of them surveyed her

for some moments. Steve pointed to a ragged hole, some five or six inches across, about halfway along the embedded section. It had a nasty significance that caused Gerald to nod sombrely.

He shuffled to the ship, and on to its curving side. He found the airlock on the top, as it lay in the *Celestis*, and tried the winding key. He pulled it out again.

"Calling you, Charles," he said. "No identifying marks on the derelict. She's not space-built—that is, she could be used in atmosphere. Oldish pattern—well, must be—she's pre the standardization of winding keys, so that takes us back a bit. Maximum external diameter, say, twelve feet. Length unknown—can't say how much after part there was before it was knocked off. She's been holed forward, too. Looks like a small meteorite, about five inches. At speed, I'd say. Just a minute . . . Yes, clean through and out, with a pretty small exit hole. Can't open the airlock without making a new key. Quicker to cut our way in. Over!"

He shuffled back, and played his light through the small meteor hole. His helmet prevented him getting his face close enough to see anything but a small part of the opposite wall, with a corresponding hole in it.

"Easiest way is to enlarge this, Steve," he suggested.

The engineer nodded. He brought his cutter to bear, switched it on and began to carve from the edge of the hole.

"Not much good, Ticker," came the voice from the moon. "The bit you gave could apply to any one of four ships."

"Patience, dear Charles, while Steve does his bit of fancy-work with the cutter," Troon told him.

It took tweny minutes to complete the cut through the double hull. Steve switched off, gave a tug with his left hand, and the joined, inner and outer, circles of metal floated away.

"*Celestis* calling moon. I am about to go into the derelict, Charles. Keep open," Troon said.

He bent down, took hold of the sides of the cut, kicked his magnetic soles free of contact, and gave a light pull which took him floating head-first through the hole in the manner of an underwater swimmer. Presently his voice came again, with a different tone:

"I say, Charles, there are three men in here. All in space-suits—old-time spacesuits. Two of them are belted on to their bunks. The other one is . . . Oh, his leg's gone. The meteorite must have taken it off . . . There's a queer—Oh

God, it's his blood frozen into a solid ball . . . ! "

After a minute or so he went on:

" I've found the log. Can't handle it in these gloves, though. I'll take it aboard, and let you have particulars. The two fellows on the bunks seem to be quite intact—their suits, I mean. Their helmets have those curved strip-windows so I can't see much of their faces. Must've—That's odd . . . Each of them has a sort of little book attached by a wire to the suit fastener. On the cover it has: ' Danger—Perigoso ' in red, and, underneath: ' Do not remove suit—Read instructions within,' repeated in Portuguese. Then: ' Hapson Survival System.' What would all that mean, Charles? Over! "

While he waited for the reply Gerald clumsily fingered one of the tag-like books and discovered that it opened concertina-wise, a series of small metal plates hinged together printed on one side in English and on the other in Portuguese. The first leaf carried little print, but what there was, was striking. It ran: " CAUTION! Do *NOT* open suit until you have read these instructions or you will KILL the wearer."

When he had got that far the Duty Officer's voice came in again:

" Hullo, Ticker. I've called the Doc. He says do NOT, repeat NOT, touch the two men on any account. Hang on, he's coming to talk to you. He says the Hapson system was scrapped over thirty years ago—He—oh, here he is . . . "

Another voice came in:

" Ticker? Laysall here. Charles tells we you've found a couple of Hapsons, undamaged. Please confirm, and give circumstances."

Troon did so. In due course the doctor came back:

" Okay. That sounds fine. Now listen carefully, Ticker. From what you say it's practically certain those two are not dead—yet. They're—well, they're in cold storage. That part of the Hapson system was good. You'll see a kind of boss mounted on the left of the chest. The thing to do in the case of extreme emergency was to slap it good and hard. When you do that it gives a multiple injection. Part of the stuff puts you out. Part of it prevents the building-up in the body of large ice crystals that would damage the tissues. Part of it —oh, well, that'll do later. The point is that it works practically a hundred per cent. You get Nature's own deep-freeze in Space. And if there's something to keep off direct radiation from the sun you'll stay like that until somebody finds you—if anyone ever does. Now I take it that these two have

been in the dark in an airless ship which is now in the airless hold of your ship. Is that right? "

" That's so, Doc. There are the two small meteorite holes, but they would not get direct beams from there."

" Fine. Then keep 'em just like that. Take care they don't get warmed. Don't try anything the instruction-sheet says. The point is that though the success of the Hapson freeze is almost sure, the resuscitation isn't. In fact, it's very dodgy indeed—a poorer than twenty-five per cent chance at best. You get lethal crystal formations building up, for one thing. What I suggest is that you try to get 'em back exactly as they are. Our apparatus here will give them the best chance they can have. Can you do that? "

Gerald Troon thought for a moment. Then he said:

" We don't want to waste this trip—and that's what'll happen if we pull the derelict out of our side to leave a hole we can't mend. But if we leave her where she is, plugging the hole, we can at least take on a half-load of ore. And if we pack that well in, it'll help to wedge the derelict in place. So suppose we leave the derelict just as she lies, and the men, too, and seal her up to keep the ore out of her. Would that suit? "

" That should be as good as can be done," the doctor replied. " But have a look at the two men before you leave them. Make sure they're secure in their bunks. As long as they are kept in space conditions about the only thing likely to harm them is breaking loose under acceleration, and getting damaged."

" Very well, that's what we'll do. Anyway, we'll not be using any high acceleration the way things are. The other poor fellow shall have a space-burial . . . "

An hour later both Gerald and his companion were back in the *Celestis's* living-quarters, and the First Officer was starting to manoeuvre for the spiral-in to *Psyche*. The two got out of their spacesuits. Gerald pulled the derelict's log from the outside pocket, and took it to his bunk. There he fastened the belt, and opened the book.

Five minutes later Steve looked across at him from the opposite bunk, with concern.

" Anything the matter, Cap'n? You're looking a bit queer."

" I'm feeling a bit queer, Steve . . . That chap we took out and consigned to space, he was Terence Rice, wasn't he? "

" That's what his disc said," Steve agreed.

"H'm." Gerald Troone paused. Then he tapped the book. "This," he said, "is the log of the *Astarte*. She sailed from the moon-station third of January, 2149—forty-five years ago—bound for the Asteroid Belt. There was a crew of three: Captain George Montgomery Troon, engineer Luis Gompez, radio-man Terence Rice . . .

"So, as the unlucky one was Terence Rice, it follows that one of those two back there must be Gompez, and the other—well, he must be George Montgomery Troon, the one who made the Venus landing in 2144 . . . And, incidentally, my grandfather . . ."

"Well," said my companion, "they got them back all right. Gompez was unlucky, though—at least I suppose you'd call it unlucky—anyway, he didn't come through the resuscitation. George did, of course . . .

"But there's more to resuscitation than mere revival. There's a degree of physical shock in any case, and when you've been under as long as he had there's plenty of mental shock, too.

"He went under, a youngish man with a young family; he woke up to find himself a great-grandfather; his wife a very old lady who had remarried; his friends gone, or elderly; his two companions in the *Astarte* dead.

"That was bad enough, but worse still was that he knew all about the Hapson System. He knew that when you go into a deep-freeze the whole metabolism comes quickly to a complete stop. You are, by every known definition and test, dead . . . Corruption cannot set in, of course, but every vital process has stopped; every single feature which we regard as evidence of life has ceased to exist . . .

"So you are dead . . .

"So if you believe, as George does, that your psyche, your soul, has independent existence, then it must have left your body when you died.

"And how do you get it back? That's what George wants to know—and that's why he's over there now, praying to be told . . ."

I leant back in my chair, looking across the *Place* at the dark opening of the church door.

"You mean to say that that young man, that George who was here just now, is the very same George Montgomery

Troon who made the first landing on Venus, half a century ago? " I said.

" He's the man," he affirmed.

I shook my head, not for disbelief, but for George's sake.

" What will happen to him? " I asked.

" God knows," said my neighbour. " He *is* getting better; he's less distressed than he was. And now he's beginning to show touches of the real Troon obsession to get into space again.

" But what then? . . . You can't ship a Troon as crew. And you can't have a Captain who might take it into his head to go hunting through Space for his soul . . .

" Me, I think I'd rather die just once . . . "

John Wyndham

THE LITERARY LINE-UP

Not all the stories originally chosen for this current 100th issue were finally selected—mainly due to length. In fact, four appeared last month and one a month earlier still. Similarly, there are other stories on file which have yet to appear. In particular John Rackham's long novelette " Trial Run," which is next month's lead, deals with the problem of trying to locate a space-suited man lost in sub-space (assuming faster-than-light travel) and involves three kinds of universes.

An even meatier action novelette will be Kenneth Bulmer's " Greenie Gunner," wherein we renew acquaintance with the fluxmen and their planet raiding first mooted in " Mission One Hundred " back in September, 1957. Plus several short stories, of which Colin Kapp's " The Bell of Ethicona " gets a Lewis cover painting.

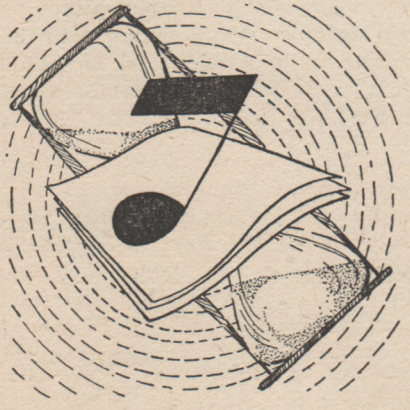
Story ratings for No. 96 were :

1. The Fatal Fire (Part 1) - - - Kenneth Bulmer
2. Homing Tantalus - - - - George Whitley
3. The Wingys and the Zuzzers - - Robert J. Tilley
4. Moment Of Decision - - Wynne N. Whiteford
5. The Realists - - - - - Richard Graham
6. Nuclear Justice - - - - - Lance Horne

John Hynam—better known to regular readers under his science fiction name of 'John Kippax'—has been devoting most of his time to producing scripts for radio and television plays. His most recent BBC success was "Someone To Talk To . . ." with Wilfred Pickles and Jean Anderson in the leading roles. A popular earlier New Worlds *story, "Friday," has been selected for Blackie's "Out Of This World" anthology for grammar school readers.*

UNFINISHED SYMPHONY

by JOHN HYNAM



I was dodging work. But I knew the concert programme backwards, and this, together with the fact that old Janos Feder's interpretations were always excellent, gave me some excuse to slip away from the cream and gold auditorium of the William Walton Hall and into the bar. Here I ordered a double scotch from Anna. She has been serving me double scotches there for nearly

thirty years. We professional music critics and biographers are a tight little bunch, and a tight little bunch of barmaids knows us all.

"Not working, Mr. Frey?" She asked it with a twinkle in her eye. She is a very handsome woman, about fifty, with blue grey hair. I smiled back at her. At sixty-five, I was not too old to appreciate her beauty.

"Looks like it, Anna."

She polished a glass with a grand flourish.

"No need for you to come to concerts. I'll bet you can just sit down and play over any piece of music that was ever written, right there in your head."

"Maybe," I said. I was enjoying the whisky.

"Are they doing anything I like?"

"Beethoven fifth, Jasper Crane third, and a Kawashima suite."

She made a face.

"You can keep the one in the middle."

I shook my head.

"Some of it's great music; all of it, perhaps."

She looked at me quizzically.

"Oh well, I suppose I'm just ignorant."

Watching my reflection in the mirror over the bar, I decided that I needed a trim. I looked like a polar bear in horn rims.

"One day soon, Anna," I assured her, "Jasper Crane will be recognised as a composer as great as Beethoven."

"By the end of the century, you think?"

"Well, no. Perhaps not in ten years. But it's coming . . ."

As she moved down the bar to serve two more people, I became aware that someone standing behind me seemed to be having trouble with his breathing. I studied his reflection. He was a tall, pale man, about thirty-five years old, with a thick mass of dark hair. His nose was strong and Semitic, his lips full, and his eyes were large. At the moment I glanced at him, he had a hand poised over my shoulder. I thought about that hand; for one foolish fraction of a second I thought that I recognised it.

I smiled at him.

"Hello," I said, "have a drink?"

He stood staring at my face. His dark suit, of an old fashioned cut, was rumpled; it was as though he did not care much about clothes.

He started when I spoke.

"Oh yes, thanks. A whisky, please."

I beckoned Anna to take the order. Then I drew forward a stool. He sat. I could see that he was trying hard not to tremble.

"Thank you."

I saw his hands twitch as he downed the drink in one gulp. He hung his head for a moment, and then slowly raised it, staring with seeming incredulity first at his own reflection and then at mine. From the concert hall, the eerie daintiness of the Kawashima suite could be heard.

I kept watching his right hand. I still wasn't sure.

I accepted his offer of a drink. He paid with a pound note, an old one.

"One shilling more sir, please," said Anna.

He started.

"Oh, yes. Of course." He handed her the other shilling. "Your health," he muttered, and stared at me as he drank; the heavy brows were contracted: about the whole face was an air of arrogant nobility.

"You're—not hearing the concert," he ventured.

"Not this part of it. I know it so well."

"What do you think of the piece before this?"

"The Crane is very fine music."

His face lit up.

"You really think so?"

His tone was somewhat incredulous, and it nettled me.

"It will become accepted eventually as one of the finest symphonies ever written. Much of Crane's work was in that class."

His eyes searched my face.

"Your reputation as what?"

Now he could not conceal his trembling.

"As music critic of the *Sunday Observer*."

He slipped off the stool, his eyes wide, very agitated. He held out his hands. I knew then, that I was right.

"Julian Frey!" he whispered, hoarsely. "Julian—don't you know me?"

Of course I did. Once, I had known such a face, known it well, known it as it was now . . . Now?

He clutched my arm.

"Say my name, Julian—*say my name!*"

" *Did* Jasper Crane have a son?" I asked.

" Son. No. There was one Jasper Crane—I am he. *Say my name!*"

I spoke quietly.

" Very well. You are Jasper Crane, as I knew him." I do not think that my voice trembled. " We were great friends, but— "

" I met you," he said, " in this bar, over thirty years ago. Your hair was black then, as mine is now! Listen—I know what all this is about. Julian, will you help me? "

" Of course."

" Can we go and talk somewhere? "

" My flat," I said. Suddenly, I knew that it was very important that I should get out of this bar and talk to him, alone.

" Knightsbridge? " he asked.

" Not now. Off Portman Square."

" Let's go, please Julian."

When we arrived, I sat him down in the living room, and went into the kitchen to make coffee. Once or twice I glanced through, and saw that he was mooching around, looking at books, and handling music. At one point he sat down and played some big spread chords on the piano. I brought in the coffee. He drank, and then stared at me again.

" Believe me, Julian? "

" Yes. You have travelled from nineteen-sixty to the present date."

" Which is— "

" July the ninth, nineteen-ninety."

" Yes. I think I'm beginning to get used to it. What a crazy thing to say! I want to tell you how it happened."

" Take your time." I realised that my stake in the outcome of all this could be pretty big.

" It was the chord at the end of the first movement of the third symphony."

" That—sent you here? "

" Yes. This was at a time when I was in difficulties."

" When you thought you were drying up? "

" You knew? "

" Don't be surprised," I said, " We know a lot about Jasper Crane."

He continued.

" Nineteen-sixty was a crossroads for me. I was a successful concert pianist, but the urge to compose was taking more and

more of my time. Janos Feder was my other great friend, as you know . . . " He gave a deep sigh. " When I saw him this afternoon, so much older, I wanted to run to him, shouting my thanks . . . " His voice tailed off, and he sat there gripping the arms of the chair, staring, for a full minute.

" At this time," I prompted him, " you would have done the five sonatas, the cello romance, the first piano concerto, and the first two symphonies. Is that right? "

" Yes, and the MacLeish song cycle and—you said, *first* piano concerto! There were others? Were they good? "

I went to him.

" Now, take it easy, Julian. Would you like something stronger than coffee? "

He shook his head.

" Almost all your work is very good," I assured him. " Now, carry on and tell me about your nineteen-sixty difficulty."

" Yes—should I be composer or executant? I became composer first. I had to. Though that didn't please Dorita."

" That temper of hers? "

" Yes. But the trouble was the third symphony, the one that Janos was conducting this afternoon. I work from extensive sketches, as you may know, and it seemed to me that I had all the symphony planned and ready to write. But when I reached the scoring of the end of the first movement, the development went black on me. I couldn't go on with it. And there's that great snarling chord at the end of the movement, the kind of chord which I intended should—should lift the listener . . . " he broke off, shaking his head. " I heard it this afternoon, of course. I still think it's a hell of a chord."

" It is. But it was at that point you were stuck, in the writing? "

" Stuck, yes. And Dorita became furious with me, and that made me worse. Remember my temper—and hers? "

" Yes. So? "

" So I told Janos, and he came up with a good suggestion. It was that the orchestra should help me to get past the block. He said that I ought to copy out all the parts as far as I'd gone, right up to that final bar, and then they'd play it through for me. He said that it might work."

He finished his coffee in a gulp. I went out to get more.

" This make sense to you? " He asked from the living room.

" Completely." I came back with the replenished cup. Something of the frightened, hunted look had gone from his eyes. " I suppose I'm nearly up to date, now? "

" Yes." Now that he was coming near to the moment when this alarming jump occurred, he lost some of his sureness. " I got the parts copied, and Janos finished a rehearsal early, so that they could play the music for me. That was in the Festival Hall, by the way, at eleven-thirty one morning. I remember how I sat there, getting more and more restless as the work went on, feeling new avenues of thought opening, until quite suddenly, it seemed, that last tearing bar was upon me. I sat with my eyes closed; even when I felt a kind of a jolt, I continued to do so. Then, imagine my feelings when the orchestra continued with the work, going on *past the point where I had ceased to write!* I thought it was a dream; I was afraid, but I did not want to wake! I knew—I felt certain—that it was my work. I heard it out, still with my eyes closed. Then I was shaken by the burst of applause which greeted the end of the symphony. I opened my eyes, then, and found myself in this hall, among a strangely dressed audience, and Janos, white-haired, now, conducting. While the applause still sounded, I hurried from the hall, in fright—and found you."

I nodded, waiting while his agitation subsided.

" Do you know a lot about me, Julian? "

I begin to think of the questions he *might* ask.

" Your work is well regarded, though it has not yet achieved real popularity. But it will do, I know. You will become—you became—a composer of stature, Jasper." I waved a hand at the tape library. " It's all there."

He walked over to the shelves; I followed him, found one spool and slipped it into my pocket.

" Here's the catalogue, at the end. ' C ' for Crane."

He scanned it, and smiled.

" I wrote all this? " He muttered over the list, then turned to me. " Julian, I want to hear it all! "

" All? " I was taken aback. " But it would take very long—and perhaps there are other things you want to do—should be doing, even. If you are stranded in this part of time— "

He clapped his hands on my shoulders, and the arrogant face was suffused with amusement.

"Look, I know my fate. It's to go back to nineteen-sixty, and write all this! Beginning with the third symphony!"

"Beginning with the—" no, I must dodge all that. "Yes, I understand." I saw him look at the reels of tape, could see how eager he was. Patting the reel in my pocket, I slipped one or two catalogue cards in with it. "What order will you have them in?"

"Chronological." He settled in a chair. "How shall I keep awake?"

"I'll get you a pill." I wondered if I could have accepted the situation as he had done. Part of the pattern of greatness, maybe . . .

I had to block another question.

"Scores? No, I'm afraid I got rid of a lot, when I moved here. You don't really need them, Jasper. Now. You heard the third symphony this afternoon. After that came this one, the 'Humorous Overture,' written for symphony orchestra and four trombones soli. Lipmann, the cartoonist, asked you to do it."

He laughed, and remembered talking about it. Then he sat down and began to listen . . .

Despite the fact that I, too, had taken a pill, I found myself nodding at about half past three in the morning. I was aware, when I roused, that Crane was managing the reproducer himself, not playing all the tapes through, just snatches.

I shook my head and heaved myself up.

"Let's get some food. Japanese is all the rage now. You used to like Chinese. All right?"

He nodded, smiling faintly, deep in the music.

I went into the kitchen, looking for packets in the freeze, finding eggs, making more coffee. When next I took notice of what went on with Crane, I was surprised to hear that he had found the old tape of the third symphony, and had put it on again, about fifty bars from the end, loud. Also, I could hear a piano chording through the music. I thought, what if he goes on . . .

I carried a tray through, and set it down. Crane was seated at the piano, following the pounding music as it grew to its crescendo, its 'Cranestorm' as we had come to call the noisy passages. I made a motion towards the control panel of the reproducer, and shouted through the din, but he laughed and shook his head vigorously.

"No, leave it: I love it!"

His eyes were filled with a glowing delight as he neared the end of the movement. Louder and louder the music beat and swirled and hammered and snarled, with Crane, his hair hanging over his eyes, pounding the last chords as though trying to wreck the piano.

I didn't panic.

The last few bars, with their gigantic dissonances, arrived. Crane thundered on with angrily hammering hands, his teeth bared, savage joy in every line of his face.

A fraction of a second before silence came, however, he suddenly looked up at me, and a stark terror was on his face. With his left hand, he slammed down the lid of the piano. I think he began to say "I must—" but the words were cut short by a shriek of pain. He had brought the piano lid down across the fingers of his right hand. He held it up to me. He shook dreadfully. I remember that the image of the hand seemed to hang in the air for a fraction of a second after the rest of Crane faded abruptly from my sight, and from my time.

Now that I have thought about it, I realise that this meeting with the young Jasper Crane will not greatly help in the writing of his biography, to which I have so far devoted three years. But I know, now, the truth behind that strange story of how he sat listening to the first part of his third symphony being played at a rehearsal under Janos Feder, and of how he jumped up at the end of it, receiving two crushed fingers from a tip-up seat which turned him from his concert giving to the fruitful years of composition. I know, also that there is little truth in the story that the mistress he took after parting from his beautiful Dorita had much to do with his 'inspiration,' that vile, abused, and almost abusive word. No, these will not help; and I could have asked him so much! But I did what I had to do: I kept out of the music library the reel which contained the whole of the great third symphony, "The Unfinished." Crane had left that work almost untouched for ten years. It was Janos Feder and I who finished it for him, we who knew his work so well. It was a labour of love, using the old score and the bloodied notes they took from the dash pocket of his car when he was killed so tragically, nearly twenty years ago.

John Hynam

If Brian Aldiss could have managed it (as he has so admirably with title and plot herewith) this would also have been his hundredth story. In fact it is his 21st in New Worlds—and may we have many happy returns. Meanwhile, let us depart into the land where men are no more and only animals and music hold sway.

OLD HUNDREDTH

by BRIAN W. ALDISS

———

The road climbed dustily between trees as symmetrical as umbrellas. Its meandering length was punctuated at one point by a musicolumn standing on the sandy verge. From a distance, the column could only be seen, and that but faintly. As sentient creatures neared it, their psyches activated it, it drew on their vitalities, and then it could be heard as well. As they neared, it flowered into p l e a s a n t noise, instrumental or chant.

All this region was called Ghinomon, for nobody lived here any more, not even the odd hermit Impure. Only a few wild

goats activated the musicolumn nowadays, or a scampering vole wrung a brief chord from it in passing.

When old Dandi Lashadusa came riding down that dusty road on her baluchitherium, the column began to intone. It was just an indigo stain in the air, hardly visible, for it represented only a bonded pattern of music locked into the fabric of that particular area of space. It was also a transubstantio-spatial shrine, the eternal part of a being that had dematerialised itself into music.

" Gently, Lass," Dandi told her mare, savouring the growth of chords that increased in volume as she approached. Her long nose twitched with pleasure as if she could smell the melody.

Obediently, the megatherium slowed, turning aside to crop fern, although it kept one eye on the indigo stain. It liked things to have being or not to have being; these half-and-half objects disturbed it, though they could not impair its immense appetite.

Dandi climbed down her ladder on to the ground, glad to feel the ancient dust under her feet. She smoothed her hair and stretched as she listened to the music.

She spoke aloud to her mentor, half the world away, but he was not listening. His mind closed to her thoughts, he muttered an obscure exposition that darkened what it sought to clarify.

" . . . useless to deny that it is well-nigh impossible to improve anything, however faulty, that has so much tradition behind it. And the origins of your bit of metricism are indeed embedded in such a fearful antiquity that we must needs—"

" Tush, Mentor, come out of your black box and forget your hatred of my ' metricism ' a moment," Dandi Lashadusa said, cutting her thought into his. " Listen to the bit of ' metricism ' I've found here, look at where I've come to, let your argument rest."

She turned her eyes about, scanning the tawny rocks near at hand, the brown line of the road, the distant black and white magnificence of ancient Oldorajo's town, doing this all for him, tiresome old fellow. Her mentor was blind, never left his cell in Beterbroe to go further than the sandy courtyard, hadn't physically left that green cathedral pile for over a century. Womanlike, she thought he needed change. Soul, how he rambled on!! Even now, he was managing to ignore her and refute her.

" . . . for consider, Lashadusa woman, nobody can be found to father it. Nobody wrought or thought it, phrases of it merely *came* together. Even the old nations of men could not own it. None of them knew who composed it. An element here from a Spanish pavan, an influence there of a French psalm tune, a flavour here of early English carol, a savour there of later German chorale. Nor are the faults of your bit of metricism confined to bastardy . . ."

" Stay in your black box then, if you won't see or listen," Dandi said. She could not get into his mind; it was the Mentor's privilege to lodge in her mind, and in the minds of those few other wards he had, scattered round Earth. Only the mentors had the power of being in another's mind—which made them rather tiring on occasions like this, when they would not get out of it. For over seventy years, Dandi's mentor had been persuading her to die into a dirge of his choosing (and composing). Let her die, yes, let her transubstantio-spatialise herself a thousand times! His quarrel was not with her decision but her taste, which he considered execrable.

Leaving the baluchitherum to crop, Dandi walked away from the musicolumn towards a hillock. Still fed by her steed's psyche, the columni continued to play. Its music was of a simplicity, with a dominant-tonic recurrent bass part suggesting pessimism. To Dandi, a savant in musicolumnology, it yielded other data. She could tell to within a few years when its founder had died and also what kind of a creature, generally speaking, he had been.

Climbing the hillock, Dandi looked about. To the south where the road led were low hills, lilac in the poor light. There lay her home. At last she was returning, after wanderings covering half a century and most of the globe.

Apart from the blind beauty of Oldorajo's town lying to the west, there was only one landmark she recognised. That was the Involute. It seemed to hang irridial above the ground a few leagues on; just to look on it made her feel she must at once get nearer.

Before summoning the baluchitherium, Dandi listened once more to the sounds of the musicolumn, making sure she had them fixed in her head. The pity was her old fool wise man would not share it. She could still feel his sulks floating like sediment through his mind.

"Are you listening now, Mentor?"

"Eh? An interesting point is that back in 1556 by the old pre-Involuntary calendar your same little tune may be discovered lurking in Knox's Anglo-Genevan Psalter, where it espoused the cause of the third psalm—"

"You dreary old fish! Wake yourself! How can you criticise my intended way of dying when you have such a fustian way of living?"

This time he heard her words. So close did he seem that his peevish pinching at the bridge of his snuffy old nose tickled hers too.

"What are you doing *now*, Dandi?" he inquired.

"If you had been listening, you'd know. Here's where I am, on the last Ghinomon plain before Crotheria and home." She swept the landscape again and he took it in, drank it almost greedily. Many mentors went blind early in life shut in their monastic underwater life; their most effective visions were conducted through the eyes of their wards.

His view of what she saw enriched hers. He knew the history, the myth behind this forsaken land. He could stock the tired old landscape with pageantry, delighting her and surprising her. Back and forward he went, flicking her pictures; the Youdicans, the Lombards, the ExEuropa Emissary, the Grites, the Risorgimento, the Involuters—and catchwords, costumes, customs, courtesans, pelted briefly through Dandi Lashadusa's mind. Ah, she thought admiringly, who could truly live without these priestly, beastly, erudite, erratic mentors?

"Erratic?" he enquired, snatching at her lick of thought. "A thousand years I live, for all that time to absent myself from the world, to eat mashed fish here with my brothers, learning history, studying rapport, sleeping with my bones on stones—a humble being, a being in a million, a mentor in a myriad, and your standards of judgment are so mundane you find no stronger label for me than erratic? Fie, Lashadusa, bother me no more for fifty years!"

The words nattered and squeaked in her head as if she spoke herself. She felt his old chops work phantomlike in hers, and half in anger half in laughter called aloud, "I'll be dead by then!"

He snicked back hot and holy to reply, "And another thing about your footloose swan song—in Marot and Beza's

Genevan Psalter of 1551, Old Time, it was musical midwife to the one hundred and thirty fourth psalm. Like you, it never seemed to settle!" Then he was gone.

"Pooh," Dandi said. She whistled Lass.

Obediently the great rhino-like creature, eighteen feet high at the shoulder, ambled over. The musicolumn died as the mare left it, faded, sank to a whisper, silenced; only the purple stain remained, noiseless, in the lonely air. Lass reached Dandi. Lowering its great Oligocene head, it nuzzled its mistress's hand. She climbed the ladder on to that ridged plateau of back.

They made contentedly towards the Involute, lulled by the simple and intricate feeling of being alive.

Night was settling in now, steady as snow. Hidden behind banks of mist, the sun prepared to set. But Venus was high, a gallant half-crescent four times as big as the Moon had been before the Moon, spiralling further and further from Earth, had shaken off its parent's clutch to go dance round the sun, a second Mercury. Even by that time Venus had been moved by gravito-traction into Earth's orbit, so that the two sister worlds circled each other as they circled the sun.

The stamp of that great event still lay everywhere, its tokens not only in the crescent in the sky. For Venus laid a strange spell on the hearts of man, and a more penetrating displacement in his genes. Even when its atmosphere was transformed into a muffled breathability, it remained an alien world; against logic, its opportunities, its possibilities, were its own. It shaped men, just as Earth had shaped them.

On Venus, men bred themselves anew.

And they bred the so-called Impures. They bred new plants, new fruits, new creatures—original ones, and duplications of creatures not seen on Earth for eons past. From one line of these familiar strangers Dandi's baluchitherium was descended. So, for that matter, was Dandi.

The huge creature came now to the Involute, or as near as it cared to get. Again it began to crop at thistles, thrusting its nose through dewy spiders webs and ground mist.

"Like you I'm a vegetarian," Dandi said, climbing down to the ground. A grove of low fruit trees grew nearby; she reached up into the branches, gathered and ate, before turning to inspect the Involute. Already her spine tingled at the near-

ness of it; awe, loathing and love made a part-pleasant sensation near her heart.

The Involute was not beautiful. True, its colours changed with the changing light, yet the colours were fish-cold, for they belonged to another universe. Though they reacted to dusk and dawn, Earth had no stronger power over them. They pricked the eyes. Perhaps too they were painful because they were the last signs of materialist man. Even Lass moved uneasily before that ill-defined lattice, the upper limits of which were lost in thickening gloom.

"Don't fear," Dandi said. "There's an explanation for this, old girl." She added sadly, "There's an explanation for everything, if we can find it."

She could feel all the personalities in the Involute. It was a frozen screen of personality. All over the old planet the structures stood, shed their awe on those who were left behind. They were the essence of man. They were man—all that remained of him.

When the first flint, the first shell, was shaped into a weapon, that action shaped man. As he moulded and complicated his tools, so they moulded and complicated him. He became the first scientific animal. And at last, via information theory and great computers, he gained knowledge of all his parts. He formed the Laws of Integration, which reveal all beings as part of a pattern and show them their part in the pattern. There is only the pattern, the pattern is all the universe, creator and created. For the first time, it became possible to duplicate that pattern artificially; the transubstantio-spatialisers were built.

All mankind left their strange hobbies on Earth and Venus and projected themselves in the pattern. Their entire personalities were merged with the texture of space itself. Through science, they reached immortality.

It was a one way passage.

They did not return. Each Involute carried thousands or even millions of people. There they were, not dead, not living. How they exulted or wept in their transubstantiation, nobody left could say. Only this could be said: man had gone, and a great emptiness was fallen over the Earth.

"Your thoughts are heavy, Dandi Lashadusa. Get you home." Her mentor was back in her mind. She caught the feeling of him moving round and round in his coral-formed cell.

"I must think of man," she said.

"Your thoughts mean nothing, do nothing."

"Man created us; I want to consider him in peace."

"He only shaped a stream of life that was always entirely out of his control. Forget him. Get on to your mare and ride home.'

"Mentor—"

"Get home, woman. Moping does not become you. I want to hear no more of your swan song, for I've given you my final word on that. Use a theme of your own, not of man's. I've said it a million times and I say it again."

"I wasn't going to mention my music. I was only going to tell you that . . ."

"What then?" His thought was querulous. She felt his powerful tail tremble, disturbing the quiet water of his cell.

"I don't know . . ."

"Get home then."

"I'm lonely."

He shot her a picture from another of his wards before leaving her. Dandi had seen this ward before in similar dream - like glimpses. It was a huge mole creature, still boring underground as it had been for the last twenty years. Occasionally it crawled through vast caves; once it swam in a subterranean lake; most of the while it just bored through rock. Its motivations were obscure to Dandi, although her mentor referred to it as 'a geologer.' Doubtless if the mole was vouchsafed occasional glimpses of Dandi and her musicolumnology, it would find her as baffling. At least the mentor's point was made; loneliness was pyschological, not statistical.

Why, a million personalities glittered almost before her eyes!

She mounted the great baluchitherium mare and headed for home. Time and old monuments made glum company.

Twilight now, with just one streak of antique gold left in

the sky, Venus sweetly bright, and stars peppering the purple. A fine night for being alive on, particularly with one's last bedtime close at hand.

And yes, for all her mentor said, she was going to turn into that old little piece derived from one of the tunes in the 1540 *Souter Liedekens,* that splendid source of Netherlands folk music. For a moment, Dandi Lashadusa chuckled almost as eruditely as her mentor. The sixteenth century Old Time, with the virtual death of plainsong and virtual birth of the violin, was most interesting to her. Ah, the richness of facts, the texture of man's brief history! Pure joy! Then she remembered herself.

After all, she was only a megatherium, a sloth as big as an elephant, whose kind had been extinct for millions of years until man reconstituted a few of them in the Venusian experiments. Her modifications in the way of fingers and enlarged brain gave her no real qualification to think up to man's level.

Early next morning, they arrived at the ramparts of the town Crotheria where Dandi lived. The ubiquitous goats thronged about them, some no bigger than hedgehogs, some almost as big as hippos—what madness in his last days provoked man to so many variations on one undistinguished caprine theme?—as Lass and her mistress moved up the last slope and under the archway.

It was good to be back, to push among the trails fringed with bracken, among the palms, oaks, and treeferns. Almost all the town was deeply green and private from the sun, curtained by swathes of Spanish moss. Here and there were houses—caves, pits, crude piles of boulders or even genuine man-type buildings, grand in ruin. Dandi climbed down, walking ahead of her mount, her long hair curling in pleasure. The air was cool with the coo of doves or the occasional bleat of a merino.

As she explored familiar ways, though, disappointment overcame her. Her friends were all away, even the dreamy bison whose wallow lay at the corner of the street where Dandi lived. Only pure animals were here, rooting happily and mindlessly in the lanes, beggars who owned the Earth. The Impures—descendants of the Venusian experimental stock—were all absent from Crotheria.

That was understandable. For obvious reasons, man had increased the abilities of herbivores rather than carnivores. After the Involution, with man gone, these Impures had taken

to his towns as they took to his ways, as far as this was possible to their natures. Both Dandi and Lass, and many of the others, consumed massive amounts of vegetable matter every day. Gradually a wider and wider circle of desolation grew about each town (the greenery in the town itself was sacrosanct) forcing a semi-nomadic life on to its vegetarian inhabitants.

This thinning in its turn led to a decline in the birth rate. The travellers grew fewer, the towns greener and emptier; in time they had become little oases of forest studding the grassless plains.

"Rest here, Lass," Dandi said at last, pausing by a bank of brightly flowering cycads. "I'm going into my house."

A giant beech grew before the stone facade of her home, so close that it was hard to determine whether it did not help support the ancient building. A crumbling balcony jutted from the first floor. Reaching up, Dandi seized the balustrade and hauled herself on to the balcony.

This was her normal way of entering her home, for the ground floor was taken over by goats and hogs, just as the second floor had been appropriated by doves and parakeets. Trampling over the greenery self-sown on the balcony, she moved into the front room. Dandi smiled. Here were her old things, the broken furniture on which she liked to sleep, the vision screens on which nothing could be seen, the heavy manuscript books in which, guided by her know-all mentor, she wrote down the outpouring of the musicolumns she had visited all over the world.

She ambled through to the next room.

She paused, her peace of mind suddenly shattered by danger.

A brown bear stood there. One of its heavy hands was clenched over the hilt of a knife.

"I'm no vulgar thief," it said, curling its thick black lips over the syllables. "I am an archaeologer. If this is your place, you must grant me permission to remove the man things. Obviously you have no idea of the worth of some of the equipment here. We bears require it. We must have it."

It came towards her, panting doggy fashion with its jaws open. From under bristling eyebrows gleamed the lust to kill.

Dandi was frightened. Peaceful by nature, she feared the bears above all creatures for their fierceness and their ability to organise. The bears were few; they were the only

creatures to show signs of wishing to emulate man's old aggressiveness.

She knew what the bears did. They hurled themselves through the Involutes to increase their power; by penetrating those patterns, they nourished their psychic drive, so the Mentor said. It was forbidden. They were transgressors. They were killers.

"Mentor!" she screamed.

The bear hesitated. As far as he was concerned, the hulking creature before him was merely an obstacle in the way of progress, something to be thrust aside without hate. Killing would be pleasant but irrelevant; more important items remained to be done. Much of the equipment housed here could be used in the rebuilding of the world, the world of which bears had such high haphazard dreams. Holding the knife threateningly, he moved forward.

The mentor was in Dandi's head, answering her cry, seeing through her eyes, though he had no sight of his own. He scanned the bear and took over her mind instantly, knifing himself into place like a guillotine.

No longer was he a blind old dolphin lurking in one cell of a cathedral pile of coral under tropical seas, atheologer, an inculcator of wisdom into feebler minded beings. He was a killer more savage than the bear, keen to kill anything that might covet the vacant throne once held by men. The mere thought of men could send this mentor into shark-like fury at times.

Caught up in his fury, Dandi found herself advancing. For all the bear's strength, she could vanquish it. In the open, where she could have brought her heavy tail into action, it would have been an easy matter. Here, her weighty forearms must come into play. She felt them lift to her mentor's command as he planned for her to clout the bear to death.

The bear stepped back, awed by an opponent twice its size, suddenly unsure.

She advanced.

"No! Stop!" Dandi cried.

Instead of fighting the bear, she fought her mentor, hating his hate. Her mind twisted, her dim mind full of that steely fishy one, as she blocked his resolution.

"I'm for peace!" she cried.

"Then kill the bear!"

"I'm for peace, not killing!"

She rocked back and forth. When she staggered into a

wall, it shook; dust spread in the old room. The mentor's fury was terrible to feel.

"Get out quickly!" Dandi called to the bear.

Hesitating, it started at her. Then it turned and made for the window. For a moment it hung with its shaggy shabby hindquarters in the room. Momentarily she saw it for what it was, an old animal in an old world, without direction. It jumped. It was gone. Goats blared confusion on its retreat.

"Bitch!" screamed the mentor. Insane with frustration, he hurled Dandi against the doorway with all the force of his mind.

Wood cracked and splintered. The lintel came crashing down. Brick and stone shifted, grumbled, fell. Powdered filth billowed up. With a great roar, one wall collapsed. Dandi struggled to get free. Her house was tumbling about her. It had never been intended to carry so much weight, so many centuries.

She reached the balcony and jumped clumsily to safety, just as the building avalanched in on itself, sending a great cloud of plaster and powdered mortar into the overhanging trees.

For a horribly long while the world was full of dust, goat bleats, and panic stricken parakeets.

Heavily astride her baluchitherium once more, Dandi Lashadusa headed back to the empty region called Ghinomon. She fought her bitterness, trying to urge herself towards resignation.

All she had was destroyed—not that she set store by possessions: that was a man trait. Much more terrible was the knowledge that her mentor had left her for ever; she had transgressed too badly to be forgiven this time.

Suddenly she was lonely for his pernickety voice in her head, for the wisdom he fed her, for the scraps of dead knowledge he tossed her—yes, even for the love he gave her. She had never seen him, never could; yet no two beings could have been more intimate.

She missed too those other wards of his she would glimpse no more: the mole creature tunnelling in Earth's depths, the seal family that barked with laughter on a desolate coast, a senile gorilla that endlessly collected and classified spiders, an aurochs—seen only once, but then unforgettably—that lived with smaller creatures in an Arctic city it had helped build in the ice.

She was excommunicated.

Well, it was time for her to change, to disintegrate, to transubstantiate into a pattern not of flesh but music. That discipline at least the mentor had taught and could not take away.

"This will do, Lass," she said.

Her gigantic mount stopped obediently. Lovingly she patted its neck. It was young; it would be free.

Following the dusty trail, she went ahead, alone. Somewhere far off, one bird called. Coming to a mound of boulders, Dandi squatted among gorse, the points of which could not prick through her thick old coat.

Already her selected music poured through her head, already it seemed to loosen the chemical bonds of her being.

Why should she not choose an old human tune? She was an antiquarian. Things that were gone solaced her for things that were to come.

In her dim way, she had always stood out against her mentor's absolute hatred of men. The thing to hate was hatred. Men in their finer moments had risen above hate. Her death psalm was an instance of that—a multiple instance, for it had been fingered and changed over the ages, as the mentor himself insisted, by men of a variety of races, all with their minds directed to worship rather than hate.

Locking herself into thought disciplines, Dandi began to dissolve. Man had needed machines to help him do it, to fit into the Involutes. She was a lesser animal: she could unbutton herself into the humbler shape of a musicolumn. It was just a matter of *rearranging*—and without pain she formed into a pattern that was not a shaggy megatherim body . . . but an indigo column, hardly visible . . .

Lass for a long while cropped thistle and cacti. Then she ambled forward to seek the hairy creature she fondly—and a little condescendingly—regarded as her equal. But of the sloth there was no sign.

Almost the only landmark was a faint violet-blue die in the air. As the baluchitherium mare approached, a sweet old music grew in volume from the die. It was a music almost as old as the landscape itself and certainly as much travelled, a tune once known to men as The Old Hundredth. And there were voices singing: "All creatures that on Earth do dwell . . ."

Brian W. Aldiss

The following article was a direct outcome of the debate on s-f at the Easter convention held in London this year. It is only one side of a many faceted argument—and John Rackham's opinions are his own and not necessarily that of the editor. In fact, on many points we disagree heartily with him.

The Science Fiction Ethic

by JOHN RACKHAM

That pompous-sounding, and maybe off-putting title, is just a neater way of expressing the answer to the question 'Why is science-fiction?' Why did it happen, anyway, and what is it for? Other questions have been posed, often, such as 'What's wrong with SF?' and the jackpot one 'How do you define SF?' There have been many answers, none of them satisfactory. The question 'Why is SF?' has not been asked, at least not within my hearing, and I feel that it could prove to be the key to all the others.

In a recent and very scratchy argument with an enthusiastic reader (whose name I still do not know) I was informed, in no uncertain terms, that I was trying to tell him something he already knew. The argument broke up in disorder, naturally, but, on thinking back, I am inclined to agree with him, in part, at least. I was trying to suggest to him something he had assumed he knew, but about which he had not done any thinking. And this is quite common. Many people do many things, some of them quite puzzling, without knowing, or even bothering to wonder, why.

For example, I know, as who doesn't, hundreds of people who enjoy a drink, be it beer, spirits or what-have-you. I have made of myself a small nuisance by asking them why they do this. I've been doing it for years, out of sheer curiosity. I have had some hundreds of answers, all different. It is temptingly easy to use an old form of words, that you get as many answers as there are people, and that each individual has his own reasons. But I don't believe it. I don't believe, for a moment, that a hundred different urges can be solved by the one answer. I suggest that a convivial drink satisfies some basic need in the average civilised human, an urge on a subconscious level.

I would also suggest that something of the same kind applies to s-f. If you look round any group, club or convention where such readers are gathered together, you'll see all sorts, all ages, all income groups, and both sexes. I doubt if this would be true of any comparable group of readers of any other class of fiction. Science fiction, then, appeals to some common factor over a wide range of people. I suggest, respectfully, that if we can get some idea as to just what this factor is, we will, at the same time, have the answer to what is wrong with s-f, and be well on the way to a definition of just what s-f is. I would also suggest that, as in the case of convivial drinking, we will not get the answer by asking the individuals involved, no more than the man on the psychiatrist's couch can say what's wrong with him. If he knew the answer to that one, he wouldn't be on the couch in the first place.

We must get the answer, if at all, from a consideration of science fiction itself, by asking what it does to, and for, the reader. We can assume one or two things, to begin with. We can assume an average reader . . . 'quality' fiction . . . and we can assume that the instant attraction is 'entertainment.' Taking that much for granted, we come to the often-levelled accusation, that science fiction is 'escapist.' In a sense, of course it is. All fiction is an 'escape' of some kind. But there is a big difference, and one well worth considering, between s-f and 'straight' fiction.

All other fiction, almost without exception, deals with the known and the familiar, the real world around us as it is, or was. Even if we read about the inside of a Burmese temple, or the day-to-day life of a Parisian 'madame,' we are led to

believe that these things do exist and are very much as described to us. And, no matter how vivid and engrossing the tale, it is happening to the 'other chap.' Admittedly, while we are reading, we share, vicariously, the hopes and fears and tribulations of the story-character. But we do know that, in the end, we will put down the story, and be ourselves again, unchanged.

And this is where science fiction is inherently different. By a curious inversion of effect, the very fact that the stories deal with the 'not-here-and-now' robs us of the comfort of solid reality. A crime-fiction fan might feel confident that he'd know how to deal with a body, if he ever found one, but he is, all the time, safe in the knowledge that it is extremely unlikely to happen, and that if it did, he could always call the police. But you can't feel that same confidence about an invasion from, say, Mars . . . or the sudden arrival of a time-traveller in your bed-room. These are things, according to the plausible writer, which could very well happen, just because there is no solid reason why not. And you'd have no really established method of behaviour for dealing with them, just because they are things which have not happened, yet.

Reading this kind of fiction, if it is well done, changes people. They are not the same, afterwards. Horizons have been pushed back. New ideas have stretched the mind. And this is more important than it seems at first glance. In the early days, we were shown gadgets of all kinds . . . and they were possible. They were things which could come, and we were led to see and realise what they would bring in their train, and what effect they would have on our habits of living and thinking. As science fiction matured, this attack grew to the extent of showing and making us think about whole trends, and their influence on people. Wells provides a perfect example of the first kind. His genius was to introduce just one twist, one novelty, into an otherwise normal scene, and by that means get us to look at ourselves, and our values, in a completely different way. Huxley and Orwell, between them, showed us the broad view, on both sides of the coin. This, they said in their different ways, was the kind of world we were heading for, and this was the kind of people we would become, if things went on as they were going.

And this was not just the same as something strange happening to some other chap, but which, because of our circumstances, could never happen to us. These transforma-

tions were not only quite new, they were 'to come,' and no-one quite knew what would be the right thing to do, then. Some of the predicted events were not at all nice, either, and the authors were bound, in all fairness, to emphasise how helpless the average man would be in the face of the unexpected. Now, it is characteristic of the civilised human that he feels he would like to be able to do the 'right' thing, even though he may choose not to. Almost all of the problems which beset us arise from this urge, to do what is 'right' in any given circumstances.

People, it seems, have always had this problem, and have sought to solve it in many ways. Those who believe that the solution for their 'wrongs' is to be found in present-time seldom read science fiction. For them, the daily newspaper, and the romantic or adventure novel, a win on the pools, a better job, even a good long holiday, will take care of everything they want. For those, however, who do not accept that we live in the best of all possible worlds, the emphasis is bound to be on what could happen, and very well might happen, some day, and what shall we do then? Along with this acceptance of the inevitability of change there goes an almost subconscious faith in 'science.' In our time it has become almost an axiom, that science gets workable answers. To the layman, science has demonstrated this so often that it is now taken for granted.

It is as well to pause, occasionally, to reflect how recent in time this attitude is. Progress is, essentially, a nineteenth century concept. One or two thinkers, Voltaire and Condorcet in France, Bentham and Adam Smith in England, and Karl Marx (of course) experimented with the general idea of 'improvement' but in the main, this Earth was regarded as the ante-room of Heaven, and civilizations were things which decayed. It was not until the time of Darwin, and Herbert Spencer, that the concept of 'progress' as a law of nature came to be accepted. And it was largely science in action which gave the solid groundwork and support for such a belief. Now, so soon, we take it for granted. Especially, we tend to believe that science solves problems.

Parallel with this came s-f, to show us the problems in cameo, and the possible solutions, and the effects such problems would have on the people of the times. That was how it used to be, rather. Science fiction has decayed con-

siderably in the past few years because it has lost sight of this function. For example, it was never put up, as it should have been, just what would happen if someone else got into orbit before ' we ' did; it was never postulated that television would sag, as it has done, into the inane and unimaginative hands of commercial and political powers; it was never properly stressed, as it should have been, that science is a multi-edged tool, but only a tool . . . not a gospel. These angles should have been thought of. They *were* thought of by the ' masters,' but were allowed to be dropped in the interests of ' escapism.' Magazine editors could be heard, audibly, telling their writers to ' lay off the doom stories,' and we, the civilised nations of the world, are still desperately scratching to find a way out of that same ' doom ' that hangs over our heads.

Science fiction, then, is apparently decaying because it is not fulfilling its function, which is to show us what lies ahead, how it will, or could, happen, and what we will have to do about it . . . to lead us to think about such things in an intelligent manner *before* they happen. A dozen appropriate quotations come to mind. ' Forewarned is fore-armed ' would be one. Or, to recall a remark of Bismarck's ' Only a thrice-damned fool learns by experience. It's the most unpleasant and expensive way there is of learning. I prefer to learn by somebody else's experience . . . that's what history is for ! ' Science fiction can do better. It can give us a taste of the event *before* it happens, and enlarge our experience in that way. The cry ' What shall we do to be saved? ' expresses one of the oldest needs in the human make-up. And there is an important point here, too. S-f, if it is to serve its purpose, must take account of ' needs.' Of late, s-f has tended to wander off into fields which cannot, by any stretch of imagination, be classed as ' needs ' at all.

Of these, the classic example is ' psionics.' Nowhere, that I have seen, has there been any indication as to what manner of urgent human need or problem psionics will satisfy, nor, in fact, any consideration of it from this angle. It does not need any stressing that a plentiful and cheap supply of power is a desirability. We can all agree with that, without any deep thinking. Similarly, we can all accept, at once, that great strides in medicine, in transport, in communications, or in food production, are desirable things. Space-travel, too, rings a familiar bell, because it satisfies a basic urge to travel, to

explore, to find other, and possibly better, lands, far far away. Even the bug-eyed monster of execrated memory, was translatable as 'other' people, with other ways and habits . . . quite possibly with other and desirable knowledge. But psionics make no such appeal. The issues are vague. No-one seems to know just what is involved, or what, if any, difference, will accrue.

Quite possibly this is because there has been no tangible breakthrough in this field. Non-human, non-normal, non-science powers have been lurking in the wings of Man's stage for countless generations, but no-one, with all due respect to those who believe in such things, has yet come forward with a cast-iron, one hundred per cent positive demonstration of them. Nor can any of the adherents or adepts agree on an explanation. This is not to say that such things are not so. It is to say that until they can be seen to be so, in everyday terms, the process of imaginative exploitation cannot begin. For example, 'weird' stories are a lot older than s-f, but none of the familiar concepts, such as witches, ghouls and werewolves, have 'come true,' whereas a staggering number of s-f guesses have been realised in short order. This is purely and simply because s-f stands on an original platform of the demonstrably possible.

It may come as a distressing shock to those who believe that science fiction is something just slightly short of a powered crystal ball, but it is fact, nonetheless, that s-f did not get started until *after* some gadgets had been made, and could be seen to work. By and large, s-f does not 'invent,' it extrapolates. The gadget must be seen to be possible, first. 'Rays' of various kinds were known before science fiction; radio was a reality before *Amazing Stories*; space-travel never really got off the ground until *after* rockets had been demonstrated as workable. The rule seems to be . . . facts . . . gadgets . . . people.

And the last item is absolutely basic. Fiction, of any kind, is about people. Science-fiction is fiction about people. The circumstances and situations may be logically derived from accepted scientific hypotheses, but it is the impact on people which makes the difference between a fact-article in a journal, and a story in science fiction. The story says, in effect 'This is what people will be like, what they will think, how they will act, what they will have to deal with, and how they will feel about it, given that certain trends progress in certain ways.'

That is the way science fiction was. That is *why* it was, and why so many people took a keen interest in reading it. That, if I may be excused a certain partisanship, is the way it should be, still. And it isn't. By and large, and with certain honourable exceptions, the science fiction we read today depicts people looking, acting and believing pretty much as we do today . . . yesterday, in some cases. It isn't now, any more. And, along with the vanished 'newness' has gone the sense of wonder.

As to why this has happened, I don't know. Naturally, I wish I did. I can only offer a guess, with the pious hope that I am quite wrong. It is this. Perhaps we have scraped the bottom of the barrel. Perhaps there isn't anything new left. Perhaps we have reached the stage where it is not possible to imagine anything so outstandingly better that it merits being called 'wonderful.' I do not mean in the line of gadgetry. There's plenty of that to come, perhaps too much. But gadgetry, as such, isn't new any more. The average man in the street today accepts as true, and without comment, devices that would scare the daylights out of his grandfather. He also accepts, equally without comment, tales of things that are far beyond the wildest dreams of science, even yet.

In the general sense of scientific concepts, however, it is true to say that we have not had a major new discovery since Einstein. Applied science has swollen prodigiously since then, but it has all been development, and the old-time science fiction reader with a good memory can find the fictional counterpart of almost every one of the spate of marvels that has poured out the from laboratories of the world in the past forty years. Those ideas have all been done. It seems that we need a new frontier to jump over. And we could, here, have come right back to psionics, again.

If this is to be the new frontier, and a breakthrough does happen, then the next big step forward will be biological, will be something that will change the nature of people, of Man, directly. And how science fiction will cope with that I just do not know, but I hope I'm around to see it.

John Rackham

John Brunner's first published story was in one of the leading American science fiction magazines—at the age of 17. Since then, apart from two years in the R.A.F., his total of stories both novel length and short has risen steadily together with the development of a fine literary style. His first straight novel, "The Crisis," was published last year by Victor Gollancz Ltd.

PREROGATIVE

by JOHN BRUNNER

It was a small and sleepy town, called Ditchmarket. Eight hundred years ago it had been rather important; later, there had been a minor clash between Roundheads and Royalists on what was now a school playing-field. After that, it was as though Ditchmarket had decided it had fulfilled its destiny and had been content to go to seed while other towns grew to be cities.

Something of the essence of Ditchmarket was distilled into the oak-panelled, inadequately windowed rooms of the town hall. There was a smell of dust. Doors creaked, objecting to anyone who opened them. The loudest noise that had

intruded here for a long, long time was the clashing of the full peals of bells from the tower of St. Swynfrith's church on the other side of the market square.

And therefore the tense excitement of today was out of tune.

The Ditchmarket coroner felt this. He was a scrawny man of sixty, a doctor, with thin grey hair and wire-rimmed glasses, and he was in a complaining mood. Why not? In this town people died natural deaths; usually, there was no need for an inquest. The last time had been after a fatal motor accident, and that was perfectly simple. But this—!

He rapped with his gavel and looked over his glasses at the audience in the public seats. There were a lot of them. There were persons present he had never expected to see in this depressing room, with its dark brown woodwork fading to black, its once-cream walls and ceiling turned to sour yellow. There were old women he knew by sight, because once a day they would hobble out of their narrow front doors to call on a neighbour, and once a week they would struggle across the market square to Sunday service in St. Swynfrith's. One day, he would know them better. He would be called in to help them die.

There were men he knew, too: solid farmers dressed in their best but seeming to have their souls caked with the good black earth in which they laboured away their days; shopkeepers who ought to have been behind their counters; retired people who were usually content to stay the right side of their garden gates . . .

And to these people, whom he knew, who were Ditchmarket embodied, he spoke severely, conscious that his voice was too reedy to be authoritative.

"Silence!" he ordered. "I will not tolerate interruptions of any kind during this inquest, and I think I should make that clear at once. I am not concerned with anything but the evidence of the witnesses—save your personal opinions for private conversation and keep them to yourselves in here."

The audience sighed. Women exchanged knowing looks and firmed their lips together. Men shrugged and leaned back, crossing their arms and jutting their chins. The coroner looked down at the papers before him.

"The first witness is Sergeant Hankinson," he said. "Take the stand, please, sergeant."

Burly, peasant-faced, rubicund, the sergeant—sweating in his tight dark uniform—recited the oath in a rapid, uncaring

manner and followed it in the same breath with his particulars. Then he pulled his notebook from his breast pocket, opened it, found the correct page, and took a deep breath.

"At four-ten p.m. on Friday last the thirteenth of May—"

There was a sound from the public seats, between a sigh and a chuckle. The coroner held up his hand to interrupt the witness, and cast a warning glare at the audience. The sound stopped.

"Proceed, sergeant," he said. But the sergeant had been put off by the interruption. He had to take another deep breath and begin again.

"At four-ten p.m. on Friday last the thirteenth of May I received a telephone call from Dr. Blankenberg at this 'ere research station on the Fogwell road, the—" He paused and took another breath. Then he articulated carefully, "The Biological Synsesis Research Establishment, that is." And mopped his brow, looking pleased with himself.

"What did Dr. Blankenberg say?" the coroner prompted.

"That one of these 'ere scientists that they got at the station 'ad been found dead in 'is room."

"And what did you do?"

"I entered up a report, and leaving the station in charge of young 'Arris—Constable 'Arris, I should say—I went at once on my bicycle to the research establishment."

"And what did you find?"

"Well, there was this Dr. Welby lyin' on the floor of 'is room most 'orribly charred and burned."

A simultaneous sharp intake of breath from the public seats, which stilled of itself before the coroner could comment on it.

"Was anyone else there?"

"About seven or eight people, including Dr. James 'oo'd found Dr. Welby and 'ad tried giving 'im artificial respiration."

"Was Dr. Blankenberg there?"

"Yes. 'E said 'e'd come after sending for me."

"And—?"

"After ascertainin' whether anything 'ad been moved, I took measurements and sent for an ambulance to take the body to the cottage 'ospital. I took statements from all present, including Dr. James, 'oo said—"

"Thank you, Sergeant Hankinson, but I think we can let Dr. James speak for himself," said the coroner testily. Was that enough of this horrible man? he asked himself, and

permitted himself to think that it was. Then he recalled one important question which he had to get on record.

"What was the weather like on the afternoon in question?"

"Sunny, clear an' warm," said the sergeant promptly. "Not 'ardly a cloud to be seen."

"Thank you, sergeant," said the coroner. "You can stand down—I'll recall you later if necessary." He looked at his papers again to avoid the sergeant's hurt and reproachful gaze, and said, "Dr. James, please."

The audience rustled and stirred as they turned to look at the new witness. He was a fresh-faced young man of under thirty; he wore a college blazer and flannels and looked as though the thing he missed most through being at Ditchmarket was his Saturday game of rugger or cricket.

"You are Dr. David James, of the Biological Synthesis Research Establishment near here?"

"That's right."

"What is your post there?"

"I'm a bacterio-chemist—that's to say, I'm doing research into the physical and chemical structure of micro-organisms."

"Were you well acquainted with the late Dr. Welby?"

"So-so," said the witness, moving his hand back and forth in a see-saw motion. "I only came to the research establishment here five months ago, and my work did not bring me very often into contact with him. But he and I got on all right."

"Do you live in the same bachelor quarters as Dr. Welby?"

"That's right. I have a room two doors away from his. In the big block on the eastern side of the establishment."

"Dr. Welby was considerably senior to you, was he not?"

"Oh, yes. He'd been with the establishment since its foundation. He was—oh, forty-five, I suppose. And with the difference in our ages, we didn't have much—"

"Yes, we understand all that," interrupted the coroner. "Now would you tell us in your own words what happened after four o'clock on the afternoon of Friday the—the afternoon in question," he corrected himself firmly.

James frowned. "Well, I'd cleared up early in the lab—I had permission from Dr. Blankenberg to start the week-end early. I was through by one or two minutes after four. I went straight across to the quarters and started to get changed. But I'd only just taken off my jacket when I heard a crash, followed by a most terrible scream."

In the public seats, nodding of heads and satisfied expressions.

James cast a disconcerted look in that direction, let his eyes pass on to the impassive-faced jury of seven men in the oak-barred jury-box, and looked back at the coroner.

"Well," he resumed, frowning, "I was at a loss at first. But it seemed to me that the scream had come from Dr. Welby's room, so I hurried to it—and there he was."

"There he was what?" said the coroner, and was at once annoyed with himself.

"Dead," said James, and had to lick his lips. The audience nodded in unison.

"Describe the room as you found it, please."

"Dr. Welby had obviously been sitting at his desk writing. His desk was against the wall under the window, which was—was broken. One of the panes of glass had been shattered. Dr. Welby himself was lying on his back, with his arms and legs sprawled out, having been thrown backwards off his chair and hurled to the ground. He was"—again, James had to lick his lips—"very badly burned indeed."

"In what way? And where?"

"From his forehead to about the level of his heart. His shirt and pullover were scorched and smouldering. His face was unrecognisable."

The coroner looked down at his notes. "How did you know he was dead."

"I performed the usual tests, very quickly, but thoroughly. Then I—"

"One moment, please. You are a qualified doctor?"

"Yes, I am. Bachelor of Medicine, Fawkes' Hospital."

"I see. So you were qualified to pronounce him dead. Go on."

"Well, the appearance of the body was consonant with it having been struck by lightning, and it exhibited the features of electric shock, so my first thought was artificial respiration—though I had no great hopes. I started at once, and shouted as loud as I could for help. In a few seconds Jack Millingway came in—that's one of my colleagues, who's doing post-graduate work at the establishment—and I sent him to call Dr. Blankenberg on the internal phone. That was about—oh, seven or eight minutes past four.

"Dr Blankenberg came over to the quarters about four-fifteen, and he said he'd telephoned the police and someone was coming. I kept on with the artificial respiration, while

Jack Millingway checked the damage, and we came to the conclusion a few minutes later that there was definitely no hope of restoring life to Dr. Welby. His throat was so seared and so—badly damaged . . ."

A murmur from the public seats.

"Dr. James, in your professional capacity, what would you say was the cause of death?"

"All the signs pointed to lightning." James shook his head. "But it seems ridiculous. Out of a clear sky like that—nonetheless," he finished firmly, "lightning."

"Thank you, Dr. James. You can stand down."

After that, the surgeon who had performed the post-mortem examination. He merely confirmed the previous witness's assertion. The public seats got little out of his evidence except tongue-twisting medical terms.

Accordingly, the coroner recalled Sergeant Hankinson and got rid of the possibility that Welby might have suffered an electric shock from any source in his own room.

"No, sir," said the sergeant firmly. "All the switches were off. And the wires were good and sound. They're near new."

The audience looked bored, as though this to them a waste of time.

"Dr. Blankenberg," said the coroner, and instantly the audience stiffened. This, the coroner realised, was the witness they'd been waiting for—and saw why, in a moment.

Short, podgy, going bald, Dr. Blankenberg was swarthy of skin, black of hair, and the nose on which his spectacles sat was distinctly hooked. He came forward nervously, under the hostile rustic English glare of the watchers, and took the stand.

"Uh—are you Jewish, Dr. Blankenberg?" the coroner suggested, wondering whether there was a copy of the Talmud in the building. The audience shook its head, menacingly.

"By race, but not by persuasion," said Dr. Blankenberg. "I am an agnostic, and prefer to make an affirmation rather than take an oath."

This time the response from the public seats was a loud gasp. A Jew was enough, a Jew who had renounced his faith was one step beyond the limit. Someone said, "Shame!"—but not loud enough to compel the coroner to take notice.

"Very well," said the coroner, sighing. And when the affirmation was taken, went on, "You are Dr. Joseph Blankenberg, director of the Biological Synthesis Research Establishment?"

"I am."

"Please tell us how you heard of the death of Dr. Welby."

Blankerberg looked calmly round the room, took hold of the bar of the witness stand, and spoke in a clear voice. "It was about five or six minutes past four when my internal telephone rang. I was in my office, completing my paperwork before the weekend. The caller was Mr. Millingway. He said that Dr. Welby had been found dead in his room in the bachelor quarters. I spoke to him for long enough to ascertain that this was no mere case of heart failure, and that I should call the police. I told him I would come as soon as I had done so, and at about ten past four I telephoned the police station and spoke to the person I now know as Sergeant Hankinson. Then I went to see for myself. By the time the sergeant arrived on his bicycle, there were half a dozen people present, people who are accommodated in the quarters and who had come from the labs on completion of the afternoon's work. We work from eight-thirty in the morning until four-thirty in the afternoon on ordinary projects; some projects require shift work."

"And what was your reaction to the sight of Dr. Welby?"

"He looked to me as though he had been struck by lightning. I've never *seen* anyone struck by lightning, but I did once see a man who'd been killed by touching a power line carrying thirty thousand volts. He looked much as Dr. Welby did."

"I see. Had Dr. Welby been with you long?"

"He'd been at the establishment longer than I had. His was one of the first projects launched at the station when it was set up six years ago."

"And what precisely was the nature of his work?"

Before Dr. Blankenberg could answer, there was a shout from the public seats.

"Devil's work, that's what it was! Devil's work!"

"Ay. That it was." A deep undercurrent of grumbling began to strengthen; the coroner hammered for silence.

"If there's one more interruption like that, I'll clear the room," he snapped. "Continue, Dr. Blankenberg."

"He was engaged in an attempt to synthesise a replicating molecule from elementary constituents," said Blankenberg frigidly. The coroner blinked.

"Perhaps you could explain in more detail?" he invited.

Blankenberg looked at the wall behind the coroner's chair. "Essentially, it amounts to this," he said. "We believe that many thousands of years ago the world had a different atmosphere from the one it has now. It was a hot, steamy atmosphere with various gases in it such as ammonia and methane —marsh gas. We believe that over the course of thousands of years, chance brought together the elements which compose our own bodies, such as hydrogen, oxygen, carbon and so on, into a molecule—that's to say, a collection of atoms—which had the power of reproducing itself. Molecules like this are called viruses. The common cold is caused by a virus. You can't really say they're alive, because you can break them down in a laboratory and put them together again in a different way, and they go on reproducing themselves in their new form. But they do have the power, as plants and animals have, of taking simple substances from their environment and turning these substances into copies of themselves. We say they can *replicate* themselves, or copy themselves. We won't go so far as to say that they actually reproduce, like living things.

"What Dr. Welby was doing was an extension of an experiment carried out some years ago in America by a scientist called Miller. Miller put some gases in a closed tube—the same gases which we believe formed the primal atmosphere of Earth—connected the tube to a retort full of boiling water, put a spark discharge across it, to imitate lightning, because lightning played an important part in mixing these elements when life began on our planet."

The audience was shaking its head sorrowfully. Out of its superior wisdom it was pitying this man who did not know the world was created on a Sunday in October of 4004 BC, at a little after four in the afternoon . . .

Blankenberg glanced at them and went on with his exposition.

"After only a few days, Miller found that quite complicated substances had arisen in his glass tube: proteins, the bricks out of which all living creatures are built. So Dr. Welby pointed out that if proteins could be generated in a few days in a small glass tube, there was a good chance of generating a replicating molecule in a large system, given several years in which to operate.

"And this was Dr. Welby's work in the establishment. He had contrived a perfectly closed system, free from any

possible outside contamination, in which he circulated a mixture of the primal gases. He had means of detecting any changes in the contents by spectro-analysis and chromatography, and once in a while—usually on the first Monday of every other month—he drew off a sample under sterile conditions and analysed it."

"And—" The coroner had to swallow. "And had he had any success?"

"He had had some success prior to his death, yes," said Dr. Blankenberg. "He had identified some very complex, high-order proteins indeed in the closed system, many of them close to viruses."

The coroner leaned back. "You said 'had had some success prior to his death'," he repeated, and glanced nervously at the public seats. The jury were still impassive. "Why did you choose that form of words? Is someone carrying on his work?"

"Well, of course. This is a tremendously important project, you understand. And naturally Dr. Welby would have wished his work to be continued after his death." Blankenberg spoke in a firm, controlled voice, but his hands tightened on the bar of the witness stand.

"Thank you, Dr. Blankerberg," said the coroner. "You may stand down."

"Oh, no, you don't!" bellowed a hoarse voice from the public seats. The coroner, his heart sinking, raised his eyes to see Fred Warble on his feet—a bellicose, bucolic man who farmed fifty or sixty acres a mile from Ditchmarket, and had had a hundred and ten before they took over some of his land under a compulsory purchase order to build the research establishment. The coroner had been fairly sure that when trouble came, it would come from Warble.

He pounded his gavel, but Warble shook a meaty fist in the air towards him. "No, you don't!" he repeated. "Make him tell us what he got out of that witches' stew of his last Monday. Make him tell what shame he's brought to Ditchmarket with his evil black arts!"

The old women in the front row were giving approving nods. The jury were swallowing nervously and having to tug at their collars as though suffocating.

"Very well," said the coroner after a tense pause. "As a concession, I'll ask the question. If only to make a lot of

stupid rumours lie down, Mr. Warble! I'm surprised at a level-headed man like you talking about black arts like some—some benighted gipsy!"

Warble seemed to grow a little smaller suddenly. "All right," he said in a grudging tone, and sat down. "But you ask that question, mind!" he added with a sudden return of his aggressiveness. Then he folded his arms and sat quiet.

During the exchange, Blankenberg had remained as he had been when Warble got up—with one hand on the rail of the witness stand, his body turned to descend from it. Now he shrugged and faced the coroner again.

"Dr. Blankenberg," said the coroner solemnly, "have you examined Dr. Welby's experiment since his death?"

"As a matter of fact, I have."

"And what did you find?"

Blankenberg hesitated. He glanced towards Warble and then at the jury and pulled himself up to his full height, setting back his shoulders. "I found," he said in a clear voice, "that a highly complex replicating molecule had spontaneously occurred in the mixture, as Dr. Welby had hoped and predicted."

The coroner looked to see Warble's reaction. His face was perfectly blank, and so were the faces of others in the audience. Obviously, references to replicating molecules were over their heads.

But in that case, Warble wouldn't be satisfied with the answer. The coroner felt driven onwards, carried along despite himself. He said faintly, "How—complex?"

"Comparable with a staphylococcus." Blankenberg was sweating a little now; his forehead gleamed, but he did not wipe it.

"And a staphylococcus is a fairly advanced organism? Is it in fact indisputably a living creature?"

"Yes," said Blankenberg, and the word froze the air of the room. Suddenly, there was not a sound. Not a single sound, not even the sound of breathing.

There were more questions. The coroner pushed the first of the last into the terrible silence. "Have you studied the reproduction of this organism?"

"Yes."

Again, pushed into heavy silence. "Have you calculated how long it had been reproducing in the system before you found it?"

" Yes."

" Then when did it—did it—? " The coroner found the last words too hard to utter. Blankenberg saved him the trouble.

" It must have begun to reproduce itself—that is, it must have come to life—on Friday afternoon of last week." And he finished, his voice suddenly dropping to a whisper, " In fact, at about the time when Dr. Welby died."

The faces of the audience were still, like stone. They were set in expressions that could be read. Without movement, they informed the world—and each other, especially each other—that they had known. Yes, they had known. At the moment when his blasphemies and impieties found fruition, the bolt from heaven had struck down the man who aspired to usurp the prerogative of Another and create life.

That was as it should be. That was as it had always been. And that was as they wished it to be.

One by one, not waiting to hear anything further, they rose in silence and went from the room. And the coroner, looking at Blankenberg's face, saw that his lips were moving to form the phrase which the jury, without doubt, would direct be set down on the record as the cause of death.

" Act of God," whispered Blankenberg. " Act of God."

John Brunner

Editorial—continued from page 3

all readers' letters of praise or condemnation boil down to the same things: that they got a lot out of one yarn and little or nothing out of another. The readers are like bees reporting the presence or absence of nectar in the flowers, pardon me, weeds.

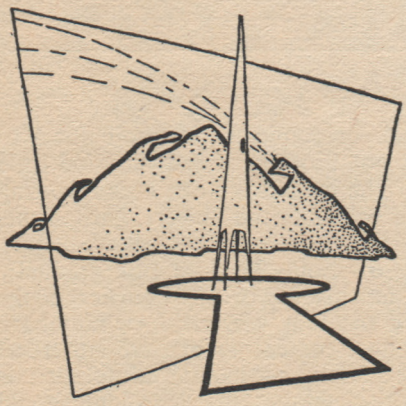
If the steady rise of Strontium 90 does not gradually eliminate the imaginative, north-south oriented portion of the species and reduce us all to grunting baboons, I see no reason why *New Worlds* should rest content to expand into rural areas, such as America. So long as mental stimulation is enjoyed by those able to think without agony, so long should the magazine remain in being and grow. Considering what may happen in the long run, I have come to a firm decision—I shall refuse to write an editorial for the first Martian edition. Let the editor do his own work!

Eric Frank Russell

Similar to Brian Aldiss, E. C. Tubb celebrates his 21st story in this magazine with the off-trail story below. His greatest triumphs, however, have been in our companion magazine Science Fantasy *where his score of outstanding macabre yarns have reached a new high for a British writer.*

GREATER THAN INFINITY

by E. C. TUBB



The ship was small, a glinting sliver of polished alloy falling from the immensity of space, shimmering blue with irregular pulsations, grinding to a halt with an angry gush of orange. Engines died. Small sounds ceased. The vibrant song of power faded and left only inert metal and cold plastic, the compartments echoing only to the booted feet of men.

"Planetfall!" Sam Judson flipped a switch with a disgusted gesture. "Everybody happy?"

"We're alive," reminded Paul Hendricks. John Weston, the third man, snorted his reception of the news.

" For how long? Or are you thinking of making repairs? "

" Could we? "

" Sure—given plenty of time, a complete workshop, unlimited resources and the technical know-how we haven't got." Weston scowled at the instrument dials. He was a tall, thin, sour-faced man and scowling was a natural expression. " Only we haven't got plenty of time so it's no good wishing for the other things. This is the end, Paul. Finish! "

Put like that it sounded unreal. They still had air, food, water, heat and protection. But those things wouldn't last; they were merely a temporary reprieve. It would have been better had the engines disrupted while they were in space or the ship shattered itself during the landing. That way would have been quick and clean and final. Now, because they were human and cursed with what that entailed, they would fight until the last even though knowing any effort would be useless.

Sam Judson looked up from his seat, saw John's scowl, Paul's numb despair, and tried to be optimistic.

" Don't bury us too soon, John. We don't know it's hopeless."

" Nothing is ever quite beyond hope," agreed Weston. " That is the credo of the optimist—and the fool. I have yet to discover that blind hope has ever altered the probability factors governing any situation. It is far more dignified to accept the inevitable."

Sam rose from his seat in a single fluid motion which revealed his strength. He stretched, took a deep breath, then shrugged.

" You could be right," he said. " On the face of it you are. But the philosophy of despair has never held any attractions for me. Let's find the extent of the damage before we decide to hold a wake."

It was, as they had known all along, about as bad as it could be. The engines, delicately tuned pieces of precision machinery, were ruined beyond repair. With their death had died the power which made the ship a thing of humming life. They had some emergency power, the means to remain alive for a short while, and that was all. Back in the control room they held, not a wake, but a post-mortem.

" The ship was perfect when we left Albabair." Paul was emphatic on that point. It was his responsibility, his emphasis was only natural.

" We were on course." John was the navigator. " A routine hop, we've done the same thing a thousand times before." Both men looked at Judson. Sam shrugged with easy grace.

" The flight was optimum," he said. " No overload, no leakage, no feedback. One second we were humming along as fine as you could wish for—the next everything was all to hell." He anticipated their question. " The reason? Well, aside from sabotage or a complete collapse of the mathematical concepts which made the flight possible in the first place there remains only one cause. Outside interference."

They all looked towards the screen imaging the scene outside.

" It may be only coincidence," said Sam quietly. " But this planet was just about where it had to be for us to make it in one piece."

It was a strange world; the strangest any of them had ever seen. For one thing it circled no sun, had no moon, drifted solitary and alone in the awesome emptiness of space. There were no seas, no hills, no ravines, no ice or snow or traces of frozen gases. No living thing marked its surface, no atmosphere softened its horizon. It was, as Paul said, something which should never have been.

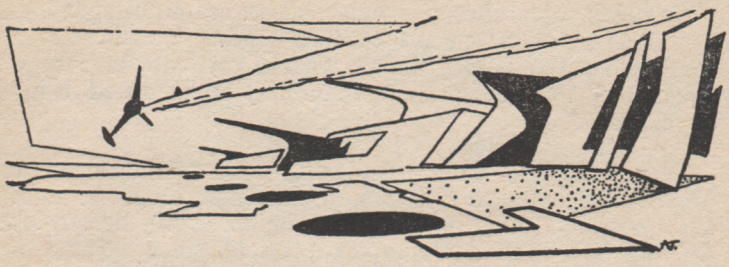
" No world could be like this," he insisted. " It's just a ball of stone. And what's it doing out here anyway? "

" Is your ego such that every question must have an answer? " John extended his hand towards the screen and the sombre ball of the world on which they rested. " It is here, that is sufficient. Does a planet need a reason for being where it is? "

" It could be the reason for us being where we are," reminded Sam.

" Perhaps, but what does it matter? "

" All right, so it doesn't matter." Paul's nerves were strained, he hated this cold, inhuman dissection of logic and probability which John seemed, perversely, to enjoy. A man didn't calmly dismiss the events which led to his death. And then he saw the hidden torment in the other's eyes and realised that John was far from being calm. It was his armour,



his defence against the one thing no man can ever really face, the utter termination of his own individuality.

"I think," he said, keeping his voice toneless, "that we should cover every possibility of survival. For example, can we build a radio to signal for rescue?"

"A man in mid-ocean with a glow-worm to attract the attention of a passing rocket ship." John was caustic, Sam cut him short.

"It's a good idea." It wasn't and they all knew it, John's analogy had been apt, but each man needs his own defence and Paul needed the trappings of hope. John insisted on being cruel.

"Why can't we be logical? Without engine power we can't push a signal more than a few parsecs. Obviously we are so far from the regular routes that no signal we could send would reach them. And, even if it could, how many ships do you think would be in a position to receive it?"

"It's a chance." Paul was stubborn.

"Chance is a matter of probability. The chance that you could live unarmoured in space is greater than that of our rescue. Why don't you try it?"

"That's enough." Sam stepped between them, feeling his own emotions beginning to get out of hand. "We can't send a signal."

"We can try."

"No." Sam shook his head, hating the hurt he was giving but knowing he had no choice. "John's right in one thing, this area must be totally unknown, certainly it is uncharted." He gestured the navigator to silence. "Any area in which ships mysteriously crash would be immediately suspect—if known. But that isn't the reason we cannot signal." He pointed towards the screen. "We're here because of that. Do we want others to join us?"

"Logic," said John. "For once, sheer, beautiful logic."

"Don't crow." Sam unclenched his hands. "You don't even know what I'm talking about. While you two have been squabbling, I've been thinking. You may be interested in my conclusions."

"About this planet?"

"Yes." Sam consulted his instruments. "The albedo is almost nil; that surface is almost totally absorbent to light and, possibly, other forms of radiation. The density is low, too low if it were composed of solid stone. There is no sun and that is almost incredible. Planets are not found alone. They orbit their primary until, in the course of time, they disintegrate into fragments. And the surface is too regular, no natural world could be so smooth, not unless planetary engineers skimmed the entire surface down to bedrock. Engineers who could do that could also have moved it from its primary."

"So?"

"I've been checking. There has been no evidence of any electro-magnetic field or of any energy emission known to us which could account for the disruption of our engines. Yet our engines did disrupt and for no apparent reason. You are an exponent of logic, John, a devotee of pure reason. Suppose you provide the answer."

"A hidden race? Beings beneath the surface who, somehow, beamed us down? Can it be possible?"

"Rubbish!" It was Paul's turn. "Sheer fantastic nonsense!"

Then the planet, because it was ready, spoke.

It needed no mouth; mouths are merely a means of vibrating gases. It needed no radio; it could control the passage of electrons, the emission of energies as a part of its integral existence. All that was required was a diaphram which could be vibrated within a range discernible to the human ear. The very metal of the ship shouted its message.

"Incredible!" Paul, deafened, stunned, awed, stared at the screen and the view beyond.

"I can't believe it!" Logic, now, had deserted its exponent. Sam said nothing but his mind recognised his insignificance and cowered within the confines of his skull. It was too small to comprehend infinity.

Some things it could comprehend; the understanding of how the thing on which they rested could know their language and communicate. To such a being it was a small thing to correlate words, to assign meanings, to construct the terminology and extrapolate from there. A man could do it; the difference was only in speed.

Understandable too was a sense of purpose and the taint of frustration. Beyond understanding was the element of time.

It was—old. It had gained awareness and was conscious of its motivations and, inevitably, it had acquired an emotion. Just when it had made that acquisition was a problem which had engrossed it for an eon during which suns had spluttered into embers and the area of space in which it drifted had become desolate and cold. The need for survival had driven it into new regions where the suns were hot and space full of needed radiation. But those suns in turn had cooled and again it had moved.

On such a scale time ceased to have meaning. The race which had given it awareness had long since died into filed memories; other races the same, all flitting like transient sparks across the expanse of its awareness. The repetitive pageant had unfolded itself so often that they were like the quickly riffled pages of an endless book; suns flaring to cool and finally die, their planets disintegrating into dust which dispersed to be born again around some other star.

It observed: It could do that well. It waited; it could do that better. It drifted, a speck of dust on the macrocosmic scale, a planet-sized construction long, long divorced from its original purpose.

And it was bored.

" Can it be possble? " Paul looked at the cigarette in his hand, the smoke which plumed from its tip, the cup containing coffee standing before him. All old, familiar things. But the ship was familiar and the ship itself had become something strange. Could the paper of the cigarette, the cup containing the coffee? Would a voice whisper at him from the diaphram of his ear?

" More hope, Paul? " John nursed his cup as if gaining comfort from the warmth of the liquid it contained. " Are you hoping that, if you hope hard enough, all this will prove to be a dream? "

" You have no doubts." Paul was right, they had no doubts. Some things are too big to leave room for doubt. The planet had spoken to them—it was something they had to accept.

" A machine," said Sam. " Built, who can guess how long ago? A tremendous instrument intended to serve, but one which, somehow, has outclassed its original purpose. And it is bored."

" Can a machine feel emotion? "

" Is boredom an emotion, Paul? Perhaps it is, but is it restricted to the human race? " Judson put down his cup, wondering a little how they had immediately turned to familiar routine after the shock of the message, making coffee, lighting cigarettes, doing the little things humans always did. To prove to themselves their humanity? He didn't know.

" It was built," he said. " I cannot conceive of any form of natural life giving birth to a planet-sized creature. It was built to serve, no race would construct for any other purpose. Perhaps it was intended to serve as the central filing system and governing body of an empire composed of a million planets—we shall never know." He sat, brooding. " But it survived," he said. " It lasted beyond its makers and it learned. God, how it must have learned! "

" Eons of observing, correlating data, filing information, cross-checking references, experimenting, even. Would that be possible? " John reared up in his seat. " Sam! Have you considered? It must have been constructed to deliver information, we know that it can communicate, and that means—"

"—that we could be given the answer to every question we could think of." Sam had already thought of what John suggested. " If we knew how to ask for the information. If it were willing to give it. If we could understand it when given."

" Has it any choice? " Paul was excited. " If it is a machine then it has to obey."

" Does it? " John was contemptuous. " I think not. You are, in a sense, a machine. Do you have to obey? "

" Yes, if the correct stimulus was applied." Paul's excitement mounted. " Don't you see what this means? All we have to do is to demand that it— " He broke off, remembering. Life drained out of him as he slumped in his chair.

" Emotion," said John. "' Blind hope, hysteria. I wonder that you haven't yet commenced to pray."

"One day," said Paul tightly, "I shall kill you. It will be interesting to see if you can then calmly accept the high probability factor which will terminate your life."

"I have already accepted death," said John. "Must I remind you that we are all as good as dead?"

"No." Sam was incisive.

"I disagree. Can we hope to do what this entity demands?"

"We must." Sam looked from one to the other. "We have a chance," he said. "Before we had no chance at all, we would have taken our poison and died with dignity, but things are not the same. This—thing—which trapped us for a whim, has made certain demands and offered certain inducements. Why need not be our concern. Perhaps, during the passage of the unguessable years it has existed, some abberations may have affected its being. One thing we know—it is bored. It has challenged us to relieve that boredom. If we can then it offers us an extension of our lives."

He paused and lit a fresh cigarette, his eyes narrowed against the rising smoke.

"Because we are what we are we must accept that challenge," he said. "I hope that the stimulus is great enough to stir your imaginations."

Boredom. The curse of knowing everything, the inevitable result of thoughts turned against themselves, the disease of the idle. An illness which could only be alleviated by the impact of fresh concepts. From space it had snatched these creatures and, knowing what it did, had provided the best stimulus suited to its needs. More than that it did not provide. It was sufficient.

Sam stood upright, swaying a little in the thick air, his mind weary with the discussion which had preceded this moment. They would have only the one chance; it had to succeed.

"There is a question which has, as yet, remained unanswered," he said. His words vibrated the air, impinged on the metal of the ship, reverse communication to that of the planet which held them in thrall.

"We hold these concepts," he said. "Infinity is the sum total of everything in the universe; there can be nothing more than infinity because, by definition, infinity includes everything. Infinity is all—or it is not infinity.

" We hold that there is a being greater than the universe; we call it God.

" Question; can a part be greater than the whole? Can God, who must be a part of infinity, be greater than infinity?

" God created the universe and so, by definition, created infinity. Before God created the universe there was nothing which, again by definition, means that there could be no God. Nothing can exist in a state of supreme nothingness.

" Question; if God did not exist before creating the universe —who created God? "

There was a moment of waiting, a moment of agonising doubt and then came a flicker of blue, a sense of motion, the heady knowledge of success.

They would live. They would be placed on some habitable world and breath and drink and laugh and feel the warmth of safety. And perhaps they would talk a little.

And a new legend would be born.

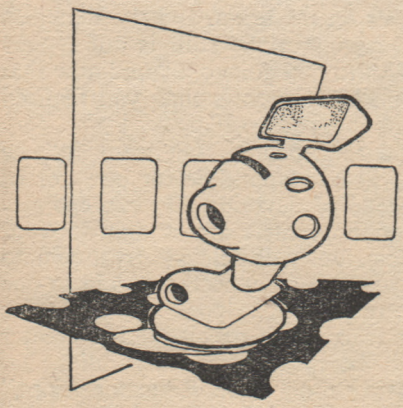
E. C. Tubb

A "Sector General" Story

This is the sixth "Sector General" story and one written specially for this issue, hence its shorter length. It is, incidentally, James White's 25th story in New Worlds *since he commenced writing in 1953 (which includes one serial, "Tourist Planet" in 1954) a record only beaten by Francis G. Rayer with 26 published stories in this magazine.*

COUNTERCHARM

by JAMES WHITE



Far out on the galactic Rim, where star-systems were sparse and the darkness almost absolute, the vast, angular structure of Sector Twelve General Hospital hung in space. In its three hundred and eighty-four levels were reproduced the environments of the sixty-nine different forms of intelligent life known to the Galactic Federation, a biological spectrum ranging from the ultra-frigid methane life-forms through the more normal oxygen- chorine- and water-breathing types up to the beings

who existed by the conversion of hard radiation. And in a small ward on the two hundred and third level Senior Physician Conway was lecturing to three visiting specialists of physiological classification ELNT, and feeling confused and miserable because he was suffering from a severe dose of unrequited love.

The object of his affection was one of the three ELNTs—six-legged, exo-skeletal and vaguely crab-like beings from Melf Four—and as the lecture proceeded his gaze was drawn to this entity more and more frequently, and became almost lascivious in its intensity. One half of Conway's mind—the sane, human half—kept insisting that getting all hot and bothered about an outsize crab was ridiculous, while the other half thought lovingly of that gorgeously marked carapace and generally felt like baying at the moon.

He had a problem, Conway thought unhappily; and like so many others in the past, this one had begun with a visit to the office of the Chief Psychologist, O'Mara . . .

Major O'Mara had opened the interview with flattery of the type which, if Conway had not known the Chief Psychologist of old, would have been indistinguishable from insults. Hitherto, O'Mara had said, Dr. Conway had been pretty much a free agent in the hospital, and with the happy faculty of picking nice, juicy, dramatic cases to work on—levitating dinosaurs, SRTTs with water on the brain, and the like . . .

". . . But this dashing, melodramatic stuff is not typical of a doctor's existence," O'Mara had gone on, " and now that they've made you a Senior Physician it is time you realised that.

"Not that you'll stop curing people, far from it," he continued, " but now you will be responsible for upwards of fifty patients at a time instead of devoting all your energies to just one. And if some of those cases are straight-forward you won't even look at them, but will delegate treatment to a subordinate. Eventually you will be expected to join in one of the hospital's long-term research projects, a routine business with no glory attached to it at all, and a greater proportion of your time will be spent in teaching duties.

" This will mean taking one or more Educator tapes," O'Mara had ended grimly, " and retaining them for extended periods. You know what that means? "

Conway had nodded, thinking that he did.

Without the Educator tape system a multi-environment hospital such as Sector General could not have existed. No single brain, human or otherwise, could hold the enormous quantity of physiological knowledge required to successfully treat the variety of patients they received. But complete physiological data on any patient's species was available by means of Educator tapes, which were simply the brain record of some great medical mind belonging to the same or a similar species as the patient to be treated.

A doctor taking such a tape had, literally, to share his mind with a completely alien personality. That was how it felt. Because all the memories and experience of the being who had donated the tape were impressed on the receiving mind, and not just selected pieces of medical data. Educator tapes could not be edited.

". . . Hitherto," O'Mara had gone on seriously, "you've experienced tapes for short periods only, during operations or for purposes of diagnosis, after which they have been erased. Even then the mental confusion can be considerable and I've had to give you hypno treatments at times to remind you which of the two occupants of your mind was boss. From now on, however, you will have no help at all."

"Not at *all?*" Conway had repeated, aghast. He had been expecting to get used to this thing in easy stages.

"Senior Physicians are supposed to be big boys," O'Mara replied, smiling in the lopsided fashion which indicated that his amusement was tinged with sympathy, "and capable of fighting their own mental battles. So there will be no drugs or hypno-conditioning, all I may give you is advice which you probably won't consider helpful. But don't worry, your first assignment is comparatively easy . . . "

A new operative technique had been developed recently for the ELNT life-form, O'Mara had explained, and Conway was to have the job of teaching it to a group of visiting doctors of that species, who would then bring the technique back to their home world. The operation was similar to the work Conway had been doing recently, which was one of the reasons for him being chosen. Models, technical assistance and the finer details of procedure would be furnished by the Director's office. It was also in the nature of a test for Conway.

". . . Some odd things have been known to happen to

doctors who are taking a long-term Educator treatment," O'Mara had gone on while Conway arranged himself comfortably on the couch and the psychologist fitted the helmet into position. OMara's hands, like the rest of him, were blunt, strong and competent. " Some people, ideal in every other way, are psychologically incapable of keeping a tape for more than a day. Pains, skin conditions, perhaps organic malfunctionings develop. All have a psychosomatic basis, of course, but we both know that to the person concerned they hurt just as much as the real thing. At the same time these disturbances can be controlled, even negated completely, by a strong mind. Yet a mind which has strength only will break under them in time.

" Flexibility allied with strength is required," he had concluded, " and it is my job to see if that irresponsible lump of porridge you use for a brain possesses those qualities. "

O'Mara had then instructed him to keep his mind as blank as possible during the transfer, and a few minutes later removed the helmet and nodded dismissal. With the first evidence of double-mindedness already becoming apparent, Conway had left for the Director's office to receive the details of his assignment.

And that had been only six hours ago.

Conway brought his wandering mind back to the present to find that the other half of it had been carrying on without him. He shook his head irritably in an attempt to fuse the two personalities together, and began to wind up the lecture.

He said: " . . . In the initial talk of the series I have dealt with the almost insoluble problem of treating the diabetic condition in the ELNT species. To summarise, this condition, or its near equivalent is known to practically all of the warm-blooded oxygen-breathing life-forms. Ideally it can be cured by the restimulation of the faulty or inactive pancreas. Among certain species, which includes the ELNTs, this treatment is impossible due to its disruption of the endocrine balance generally, which is nearly always fatal and invariably destroys the mental processess.

" Earlier and less efficient methods," Conway went on, " which control rather than cure the condition, are also unsuitable for your race. Administering insulin by subcutaneous injection presupposes a thin, flexible tegument underlaid by muscles, adipose and served by a capillary system

which will wash the material slowly and evenly into the bloodstream. The ELNT is exo-skeletal, and it is immpossible to inject through five inches of bone. The idea of drilling a fine hole and implanting a needle permanently is unsuccessful for various physiological reasons. And taking insulin orally, which relies on a certain proportion being lost as waste and the rest absorbed through the walls of the stomach, is unsuitable for ELNTs because of your digestive tract, whose efficiency varies markedly with the emotional state.

"All of which means," Conway ended simply, "that you Melfans are the only species remaining in which the diabetic condition is fatal."

The three ELNTs made short, complimentary speeches in turn, thanking him for an extremely useful first lecture. Senreth, the being who Conway wanted to think of as *it* but which one half of his mind demanded that he call *she*, was most flattering. Which did not help Conway's peace of mind one little bit.

Ordinarily he would have dismissed the class at this point and used the next twenty minutes or so in pulling himself together, Conway thought wryly; but not this time. These ELNTs were important people on the home world, so he was expected to act as host as well as instructor.

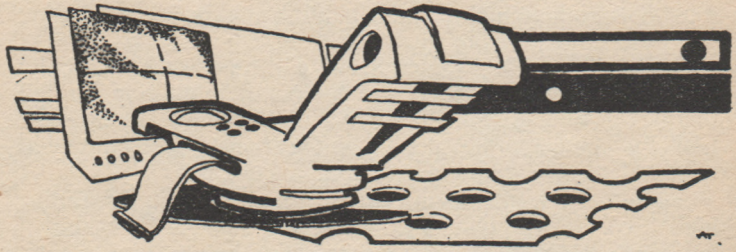
Sitting cross-legged at the two-foot high table in the Dining Hall involved no great discomfort, but shifting the mass of sea-food—both plant and animal—set before him was a problem. Conway was ravenously hungry, he knew that the Catering Supervisor would not have sent him out anything which was likely to disagree with his Earth-human metabolism, and by ELNT standards the stuff was delicious—the Melfan part of his mind *insisted* that it was. But to the Earth-human eye and nose of Conway it was a disgusting mess which stank like over-ripe fish.

He could always order some decent, Earth-human food, of course. But doing so would have been a breach of good manners, because he knew from the ELNT tape in his mind that the sight of steak and potatoes would have done worse things to his Melfan guests than their miniature fish and seaweed was doing to him. It wasn't until he began to relax and let his human identity slip into the background that he was able to eat at all, and then he found himself snapping at the food on his plate with both hands, using his index finger

and thumb in imitation of the pincers of his guests. His nose-filters helped a lot, too.

After lunch he showed them around those sections of the hospital which did not require them to don protective suits. Quite a number of races were warm-blooded oxygen-breathers with one-G gravity and pressure, so that the tour lasted over four hours. They talked shop most of the time and Conway tried to keep at least one of the ELNTs between Senreth and himself. He was getting an overwhelming urge to bang his head against its/her carapace just between the neck and left fore-pincer.

Melfans ate every ten hours and took a four-hour sleep between meals, so on his next visit to the Dining Hall Conway could have ordered what he liked. But now the ELNT tape had gained such a strong hold that both Melfan and Earthly wishes were distasteful to him. Yet he was *hungry*. In



desperation he ran his eye down the menu, mentally visualising the items and then hastily putting them out of his mind as the Melfan half registered revulsion or nausea. He had to fall back on sandwiches finally, the standby of all Tape-ridden Diagnosticians and Senior Physicians.

Half his mind insisted that they tasted like cork and the other half thought they were just barely better than nothing. *Fuel,* he thought disgustedly, *just fuel.* For Conway all pleasure in eating had gone.

The following three hours Conway spent in his room working on the lectures he would be delivering during the next week. With the enormous mass of ELNT-oriented data and experience on tap, widening his association centres and doubling his brain power, he simply ran through the theoretical aspect of the work. He felt rather awed by himself, even

though he realised that this near-genius quality of thinking was normal to one in these circumstances. This was the Ideal —a working synthesis between the knowledge and experience of an entity long dead and the live, original thinking of a practising physician.

Conway prepared material for the next three days. He could not go much further ahead until he had an idea how fast the visitors would absorb the stuff. He was feeling tired by then and decided to try to sleep as quickly as possible, because the ELNT sharing his mind had begun acting up once Conway had stopped concentrating on purely medical subjects. The sooner he could render himself naturally unconscious the better for both of them.

But with that idea he got nowhere at all.

Tossing and turning in his bed, Conway told himself again and again that the entity sharing his mind was just a recording, the memories of a being long past caring about things physical. He, Conway, was the boss and he must put his mental foot down. This Melfan in his mind had no objective reality and its needs therefore were only the barest shadows of desires.

The trouble was, Conway told himself wretchedly, that they did not feel the slightest bit shadowy. Because the ELNT who had made the tape had done so at the height of his professional career, when he was still a comparatively young member of the species, so that all of Conway's objective knowledge that it was dead and gone to the contrary, the personality sharing his mind was as alive and rarin' to go as the day on which the tape had been made. And the Melfans were warm-blooded with a metabolism not too dissimilar to his own. Perhaps *hot*-blooded would describe them more aptly, because they were an intensely emotional and passionate race. Conway *knew*. And the being who had made the tape, even for one of his hot-blooded species, had been a hellion where the females were concerned.

Conway drifted off to sleep finally, his mind seething with the hot, vivid imagery more normal to an adolescent seriously disturbed for the first time by a member of the opposite sex. Only on this occasion the girl of Conway's dreams was a six-legged, intelligent crab called Senreth . . .

He awoke with a yell of sheer panic. A few minutes later, when his pulse-rate had dropped back to normal, Conway

tried to analyse the nightmare which had awakened him. There had been a great and basic fear, vertigo, and the impression of being utterly defenceless. He lay back, closed his eyes . . . and five minutes later sat up, sweating.

Normally Conway did not dream, much less have nightmares. The sense of fear which had awakened him could not, he knew, apply to himself, so there must be something in the room or in the situation as a whole which was affecting the Melfan half of his mind. He lay back for the third time and began searching through the ELNT memories for some reason for his panic. It took a long time, because it was such a simple, basic thing that the ELNTs themselves did not thing of it consciously. Conway rolled over on to his stomach, and his last thought before going peacefully to sleep was that *of course* any being with a heavy carapace would feel helpless and afraid if it was forced to sleep on its back.

He awoke with long, rumbling explosions and alarm sirens ringing in his ears. Conway was a very heavy sleeper and had found this to be the combination which wakened him fastest. Some of his colleagues awakened themselves with gentle music, but this Conway considered sissy. The act of groping for the cut-off switch brought him fully awake, and he decided that he would like to crawl around the bottom of his private lake for half an hour before breakfast. If he was feeling particularly devilish he might even dine off a couple of ornamental fish, which were becoming fat and lazy these days. He was on his hands and knees trying to push open the sliding door with his head when the realisation came of what was happening. The ELNT had sneaked up on him while his resistance had been low just after sleep.

He remembered to dress. The Melfans did not use clothing.

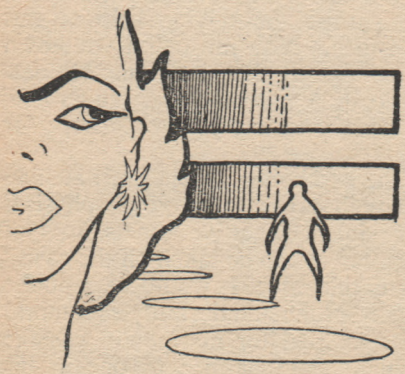
Like his last meal, breakfast was a compromise. There was another Earth-human doctor at the same table who was also working on an odd selection of dishes with a similar lack of enthusiasm. They exchanged sickly grins and presently Conway left for the two hundred and third level.

That day was bad, and the one that followed it even worse. The lectures had now progressed to the stage of four-way discussions—which was what Conway had hoped for—and occupied him for three hours each morning and afternoon. Inevitably they overflowed into his lunch period and he had to talk shop while dining with the ELNTs. The food did not

bother him so much as the fact that he was having to take Melfan company for nearly eight hours at a stretch every day. It was bothering him, badly. He was being thrown up against Senreth too much.

In one of the busier corridors he had stepped aside to avoid being trampled by an elephantine FGLI. He had stumbled against Senreth and grabbed her mid-left leg to steady himself. The touch thrilled him to the core of his being, even though one half of his mind told him that it felt like a warm, slightly damp log. He drew back hurriedly, his face burning.

"My apologies," said Senreth, in Translated and therefore necessarily emotionless tones. "Ours is an unusually clumsy race."



"My fault entirely," Conway stammered, then added with a rush, "On the contrary, you are both dexterous and physically beautiful..." He stopped himself in time before the Melfans could realise that he was being personally complimentary to Senreth rather than being polite towards their race as a whole. This had been the first time Conway had engaged in anything other than strictly professional conversation with the Melfan female. His hands were shaking badly.

It was then that Conway decided that he would have to see O'Mara. The ELNTs and himself would start working with models tomorrow, and even for that Conway could not afford to have shaky hands.

But O'Mara wasn't available.

"He's gone sick," said Carrington, the young, round-faced psychologist who was holding down O'Mara's desk. "Apparently his plumbing is clogged up with chloresterol and similar gunk, and Pathology want to tinker with him for a week or so. Can I do anything for you?"

Conway told him yes and began a somewhat edited account of his mental troubles. He ended by requesting permission to take another Educator tape—one belonging to a completely cold and emotionless life-form which would combat the effect of the female hunter currently inhabiting his mind. By playing the hothead off against the frigid type he could, Conway hoped, keep his own human emotions to the fore and so be able to ignore Senreth.

Carrington looked thoughtful, then said, " Chances are it would make you more confused, but then again it might work. That is if I agreed to help you, which I don't."

" By *why*," said Conway angrily.

" Because O'Mara says so," Carrington replied imperturbably. " He left explicit instructions regarding you. No conditioning, shots or any other form of medication aimed at helping you over the rough spots. Your mental confusion is understandable, and I sympathise, but giving help at this stage would not be a good idea. You must find your own methods of fighting or adapting to the situation. All new Senior Physicians have to do it. A psychological crutch now would mean you always needing one, and you could hope for no further advancement.

" If things get too bad," the psychologist went on, watching him keenly, " serious enough to impair your physical efficiency, I'm thinking of violent digestive upsets, loss of co-ordination and so on, you can ask to be taken off the case."

And that, of course, was unthinkable. It would be a public admission that he had neither professional ability nor moral fibre—in short, that he was unfitted for his job. It was the most humiliating thing which could happen to one in his position. Conway shook his head, growled " Thank you " and left.

Mental confusion and overripe seafood Conway could take, but something would have to be done about Senreth. Maybe his earlier fit of the shakes had been a once-only occurrence, and if so then he had nothing to worry about. But he could not afford to make an assumption like that when there would shortly be a living entity under his knife, and with Senreth and the other two ELNTs assisting in the operation. Something would have to be done about that six-legged *femme fatale*, or about Conway himself.

Continued on page 112

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Fight or adapt, Carrington had said, Conway's trouble seemed to be that he was adapting—giving in—too much. But his original idea for fighting the ELNT influence was still a good one, even though Carrington refused to let him take another tape. He could still fight fire, not with fire, but with extreme cold.

Walking rapidly, Conway went to the nearby inter-level lock and donned a lightweight suit. Ten minutes later he was swimming through the cool green of the water-breathing AUGL section. From there, and using the same suit, he went through a series of chlorine-filled wards belonging to the Illensan PVSJs. There were a lot of people he knew among the PVSJ staff, but by his haste managed to discourage conversation. On the next level the cold struck at him even through the fabric of his suit. Conway negotiated the next lock quickly and climbed shivering into a tank-like vehicle which was parked inside. This vehicle—highly insulated, jammed with heaters inside and hung with refrigeration units out—was the only possible method of entering the Cold Section without both freezing himself to death in seconds and blasting the life out of every patient in the ward with his radiated body heat. For these were the quarters of the methane life-forms, an ultra-frigid, crystaline species which inhabited only the outermost planets of some of the coolest suns.

The blackness outside was absolute and the temperature close to that. In his scanner Conway saw another vehicle like his own come rolling up. It belonged to the nurse on duty and he had to explain that he was conducting some general research which did not require either assistance or the direct examination of the patients.

Alone again, Conway wondered briefly who or what had been in the other tank. The nurse's voice had been Translated so it was certainly not an Earth-human. Then he switched off his Translator, cut out two of the heaters, and increased the gain on his outside sound pick-ups: he wanted to hear the patients conversing without being distracted by what they said. The deliberate chilling of the vehicle's interior was designed simply to put him in a more receptive mood.

With his eyes closed and his unseen breath fogging the cabin, Conway listened to a ward full of intelligent crystals talking. Ineffably sweet, incredibly fragile, they spoke like

the chiming of colliding snowflakes. This was a race, Conway thought as an elfin carillon of great purity rang out, whose thinking was cool and fragile and gentle. In all of their history there had been a complete absence of violence, and anything like a sex-motivated thought was something of which they were utterly incapable. They possessed a quality which could only be described as coldly spiritual.

And this, Conway hoped, would be just the medicine to quell the Melfan hothead who was influencing far too much of his mind. And body.

Next day began the practical work, with Conway demonstrating the new procedure on an ELNT model which Anatomy had built for him. It was an extremely life-like piece of work containing a functioning heart and circulatory system. The two male ELNTs expressed pleasure and surprise at its detail, and Senreth reacted in characteristic fashion.

"A handsome brute," she exclaimed, giving the model a series of taps on the carapace which were half-playful, half affectionate. "We don't hatch them like that anymore."

Conway shut his eyes tightly as the ELNT segment of his mind sat back on its haunches and howled, or whatever it was love-sick crabs did in similar circumstances. Desperately he thought back to the previous night in the methane ward, recapturing the chill, ethereal beauty of that environment. He concentrated hard, and apparently the therapy worked. When he opened his eyes a few seconds later and sneaked a look at his hands, they weren't shaking.

Calling for attention, Conway began listing the instruments to be used, handling each one briefly as he discussed it. Some were standard Melfan equipment, others had been designed at Sector General especially for this operation, and all had their handles terminating in the ELNT-type grip—two narrow, hollow cones set at an angle of thirty degrees to each other. These were designed to fit the Melfan pincers, but Conway found that he could use them. The human hand was about the most adaptable appendage known.

From the instruments he moved to an object enclosed in a transparent case which occupied an adjacent table. It looked a little like a large, three-inch pancake which had been pulled and twisted out of shape. Two lengths of narrow plastic tubing sprouted like limp antennae from its upper surface, and the whole occupied a volume of approximately one cubic foot.

" . . . This is the artificial pancreas," Conway said with a touch of pride. The first model had taken up a whole room, and refining it down to this size had been no mean achievement. He went on, " Its use is made possible by the fact that in your species the vital organs are practically floating in a shock-absorbent fluid and have considerable free play. The device is convoluted both to accommodate and be held in position by the surrounding organs. The arterial blood supply is diverted into the artificial pancreas at a point close to the heart, which maintains the blood-sugar level at optimum.

" Unfortunately," Conway went on, " neutralisation of the excess sugar causes a certain amount of waste to collect in the device, and this must be removed every three of four years. But this is a much simpler procedure than the initial operation."

Continuing, he stressed the importance of fast, accurate work. When the section of carapace was removed and the fluid drained away, the vital organs together with their attached muscle and blood-supply networks were no longer floating in this frictionless medium. Serious displacement and compression was caused both by their own dead weight and that of surrounding organs, also possible interruptions of the blood-supply to several vital areas. The heart especially was placed under an abnormal strain. If death was not to result within a few minutes these organs had to be supported during insertion of the device, which was the reason why three assistants were necessary. Considering the mass of the Melfan life-form, that was the number calculated to give the maximum help with the minimum of overcrowding.

Conway placed a dummy of the artificial pancreas on the instrument tray and pushed it across to the operating frame where their ' patient ' was suspended.

" This is to be a full dress rehearsal, but without the time limit," he said briskly. " So if you will take your positions we will begin . . ."

It began fairly easily with the removal of a section of carapace measuring eighteen inches by six and the uncovering of the underlying membrane, which he pierced with a suction probe. As pumps drew the internal fluid into an aseptic container Conway made a long incision and snapped at his three assistants to go in with support pans. These were specially-shaped pans with long, angled handles which were

designed to hold the vital organs in position when the fluid had been drained off.

"One at a time, please!" Conway said sharply as six pincers converged on the operative field as one. "You're making a noise like a machine shop! That's better, but remember that I've to get in there, too . . . Senreth, you're not supporting that lung properly. Let me show you . . ."

Conway grasped one of Senreth's pincers in each hand and gently eased them into the correct position, felt his mouth go dry, and began thinking furiously about the patients in the methane ward. He went on shakily, "To clear a path for the device we must first incise the muscle which anchors—"

There was a sudden spurt of red over his gloves and then a great crimson tide welling into the field, obliterating everything. Conway stared at it foolishly, asking himself how *this* could have happened, and knowing all the time exactly how it had happened.

"A shockingly life-like model," said one of the ELNTs. "And an object lesson to all of us, sir. We obstructed you, of course."

Conway looked up. The ELNT was giving him an out, and he was tempted to take it. But instead he shook his head angrily and retorted, "If there's a lesson it is that Teacher does not necessarily know everything. And now, Doctors, you may go. I'll have a technician repair the model before the next lecture."

Deliberately he refrained from saying *my* next lecture. He was going to see Carrington. He wanted to quit.

But first he would have to find someone who could take over for him. The Melfans had to be considered, too. Another Senior was needed—one with more experience and stability. Maybe Dr. Mannen would take over for him.

He ran Dr. Mannen to earth as he was emerging from the LSVO theatre. His old friend and one-time teacher specialised in surgery of the low-gravity, winged species of this classification and that of their MSVK cousins, and was in permanent possession of these two tapes. Despite this his manner and conversation was quite rational, if a trfle on the breezy side.

"So you're in trouble and need help," Mannen boomed cheerfully. "What is it? Professional, or some sordid emotional involvement?"

"Both," said Conway bitterly.

Mannen's eye-brows climbed. Grinning, he said, "And I always thought you were too straightlaced for that sort of thing. Well, well. But you can tell me the grisly details over lunch, that is if you don't mind watching me guzzle what looks like a plate of bird-seed?"

"So long as it doesn't smell of fish," said Conway with great feeling, then launched into a somewhat incoherent account of his troubles. Both doctors switched off their Translators so that e-t passersby would not overhear them. This was one piece of scandal which just could not be allowed to get out.

"Basically your trouble is that you want to whistle after crabs," Mannen said as they found a table. Before Conway could reply he added quickly, "Female crabs, of course. I did not mean to imply that there was anything seriously wrong with you."

"This is serious," said Conway quietly.

Mannen nodded. "To you it must be," he said sympathetically. "And I think it was a dirty trick saddling you with an ELNT tape for your first long-termer. A completely

alien personality would have made it much easier to keep the two sets of data seperate. The Melfans are very close to us temperamentally, which is one of the reasons for your trouble. And has it occurred to you that your subconscious may be aiding and abetting this six-legged Don Juan, that deep down inside our quiet and ultra-respectable Dr. Conway shares its feelings? After all, this is just a set of memories impressed on your brain, and while a certain amount of confusion is to be expected there should be no great difficulty in establishing which is the original you and which the superimposed entity."

Mannen was silent for a moment. When he went on his tone was almost harsh:

"Maybe I'm beginning to sound like O'Mara, but it seems to me if the proximity of the ELNT female gave you the shakes so badly that you botched the demonstration, this is a clear indication that you *want* the superimposed personality to take over. My advice is to straighten yourself out, fast."

Angrily, Conway denied the charge that he was a mental traitor to himself, and went into details regarding his efforts to combat the ELNT influence. Then he stopped suddenly. There was no need to tell Mannen what his greatest fear was; that of botching, not a demonstration but the operation proper, and killing the patient.

". . . I want to quit, Doctor," Conway ended miserably. "Will you take over for me?"

"No!" Mannen snapped, then more quickly, "Use your head, man! You would have to tell the Melfans why you were ducking out, and you'd be laughed out of the hospital. Dammit, there must be some tricks you haven't thought of yet, you're supposed to be the boy with the unconventional ideas, remember. That melting SRTT and the chrysalis life-form . . ."

Mannen's voice died away and his eyes took on a far-away look. Suddenly he smiled and said, "There's one approach you haven't tried yet. Trouble is, you're not likely to think of it. I would, and a lot of others I know, but not you. And I'm not allowed to tell you."

Conway breathed heavily through his nose. He said, "Stop hedging. O'Mara said you could advise me. Can't you phrase it so it sounds like advice?"

Mannen shook his head. "I'll have to think about it, pull a few strings, and put it through the proper channels. Pity you aren't the type who shamelessly misuses authority for your own selfish purposes, like me . . ."

"Put *what* through proper channels?" Conway practically shouted.

"Eat up," said Mannen, ignoring the question. "Your sandwich is getting cold."

During the four days which followed Conway did not again make a slip, but there had been several very near things. He continued to get the shakes every time Senreth touched him in the line of duty, but not, he thought, quite so badly. This he attributed to Mannen's earlier conversation, which had left him both angry and half hopeful—though what exactly he was hoping for Conway could not say. *Why* was it a pity that he did not misuse his Senior Physician's authority for selfish ends, and what was it that other people could think of but not him? Was his subconscious acceptance of the ELNT personality part of the answer? Conway did not know, and there were times when he suspected that Mannen did not know either, or that the other was simply trying to make him so worried about the state of his own mind that he would be too engrossed to be bothered by Senreth. Yet Mannen had never struck him as being such a devious person.

On the morning of the fifth day the Melfan patient who had been waiting for the operation went into coma and Conway had to set the time for early that afternoon—three full days sooner than he had planned. There was now no time for him to instruct someone else in the job—he was stuck with it, Senreth, the shakes, and all. Then just as he was leaving for the theatre came another calamity—the news that he was to have an Observer. True it was only someone or other from the AUGL section anxious to brush up on their exo-skeletal procedures, but nothing could have been better planned at that moment to wreck Conway's already weakened self-confidence. He hoped that he, she or it was nobody he knew.

But even that small comfort was denied him. When Conway arrived he found Murchison gowned and waiting. Murchison he knew, both personally and by reputation.

Continued on page 120

During the preliminaries—while the patient was brought in, transferred to the operating frame and strapped down—Conway spoke very little. And yet he wanted to talk, or do anything at all which would put off the moment of beginning—which would grant the patient a stay of execution. For that was how he had begun to think of it now; his hands were shaking already. Then abruptly he stepped into the recessed section of floor beside the frame—necessary because he was so much taller than the Melfans—and signalled that he was ready to start. Unobtrusively, Murchison drew closer.

While the routine business of opening the carapace was in progress Conway glanced across at Murchison. Since being exposed to the ELNT tape he had been given a completely objective view of his own species, and the opinion had been growing in him that they were, male and female alike, shapeless and unlovely bags of dough when compared with the clean, hard contours of the Melfans. Murchison, he thought, would not be pleased if she knew she was being thought of as a shapeless and unlovely bag. Unless covered by a heavy duty spacesuit fitted with an opaque sun-filter, Nurse Murchison possessed that combination of physiological features which made it impossible for any male Earth-human member of the staff to regard her with anything like Clinical Detachment.

But the regards were one way only—she was supposed to have a shoulder that was strictly from the methane section. At least so it was said. Conway had once worked on a case with her in the Nursery, however, and had found her very easy to get along with. At the moment he thought her gown was belted a little too tightly.

Conway incised the underlying membrane and while the pumps gurgled, drawing off the internal fluid, Senreth and the other two ELNTs were already bringing their support pans into position. They had the drill off perfectly—especially Senreth, who possessed a remarkably sure and delicate touch. If they had only had time to work up their speed Conway could have allowed them to conduct the operation while he merely supervised. He would have had only his mental confusion to worry about then. There was still a distinct tremor in his hands.

"Stop that!" Conway raged silently at them. *"Are you trying to kill somebody!"*

This was a living being they were working on, and the internal organs were subtly different in size and placement to

those in the model. There was also a complex of secondary blood-vessels and muscle structure which had only been suggested in the practice sessions. Conway sweated while they gently eased the heart, stomach and a section of lung aside preparatory to inserting the artificial pancreas. Shock had sent the pulse-rate away up and Conway thought wildly that the heart itself might pull free. He didn't know how Senreth managed to hold it—it was like a landed fish flopping about on its support pan. He found his eyes drifting to Senreth's pincers, lingering on the sharp, hard contours and the lovely reddish-grey coloration which was enhanced rather than concealed by the aseptic film. Conway felt his face getting hot and his hands trembled, badly. Helplessly he swore under his breath.

"Can I be of any help, Doctor?" Murchison asked suddenly in her low, pleasant voice. "I'm familiar with your written lectures . . ."

"What? No!" said Conway, startled and irritated. "And don't talk, please."

Murchison must be slipping, he thought. A nurse of her experience should have known better. And her belt was definitely too tight. The effect, in other circumstances, would have been distracting to say the least. Conway made an impatient sound, then turned to lift the artificial pancreas from its saline bath.

A few seconds later it was in position, awaiting only to be linked into the main artery. This had to be clamped above and below the points of entrance and exit, cut, and the severed ends pressed over the two flexible connections coming from the new pancreas. A tight fit was insured by having the connections taper out to a width greater than that of the artery, and special non-corroding bands would secure the join. It was tricky work, complicated both by the tangle of subsidiary blood-vessels in the area and the obscuring effect of three pairs of ELNT pincers.

On two occasions Murchison apparently got excited and started reporting on the patient's condition—information readily available to Conway from the tell-tales beside him—and he had to shush her. After giving her one particularly angry glare he found himself thinking, *Not just the belt, her whole blasted outfit is too tight . . . !* He returned to his work feeling confused, excited and over-stimulated in some odd fashion. And for the last ten minutes he realised that his

hands had been steady as the proverbial rock. Even when he was forced to compliment Senreth for a particularly deft piece of work on her part, or was obliged to move one of her pincers to the side while suturing underneath, they remained steady.

He still regarded Senreth's mandibles as beautiful—hard, steady, wonderfully precise appendages which it was a joy to behold in operation. But when he touched one it felt like a warm, slightly damp log, and his emotional reaction was the same as would have been obtained from any other warm, slightly damp log. None at all.

Almost before he knew it they were finished, the internal fluid returned, the membrane sutured and the carapace being wired in. Anxiously then, they watched the analyser. They watched it until there was no possible doubt that the blood-sugar level was coming down, then:

"We've done it!" Conway yelled, practically falling out of his recess with excitement. He jumped up and did a shambling dance around the frame, slapped Senreth's carapace in a most familiar manner and ended up by hugging Murchison.

"Put me down!" the nurse said severely, when the hug began stretching past the two-minute mark. "This isn't like you, Doctor Conway . . ."

Conway eased the pressure without quite letting go. He said seriously, "You don't know how lucky it was for me that you turned up here. Every time I . . . she . . . you . . . Anyway, I didn't even know you were interested in this sort of work."

"I'm not," said Murchison, still trying to push him away, "but it was suggested that I so interest myself, the suggestion being worded remarkably like an order. This is undignified, Dr. Conway."

Suddenly Conway saw the light. It was Mannen's work, of course! His friend had not been allowed to help him, but through devious channels so that the truth would never be suspected he had arranged to have Murchison planted on him at just the time when he most needed a counterweight—or was counter-attraction the word, considering Murchison's physical endowments—to check his emotional imbalance towards Senreth. It had turned out to be the simple answer to a complex psychological problem. First chance he got he

would have to thank Mannen for being a true friend and a lecherous old man. And Murchison, too.

The Melfans were leaving. A little wildly he said, " Murchison, I love you all to pieces. You'll never know why, but I've got to show my appreciation somehow. When do you come off duty? "

" Dr. Conway," said Murchison gently, temporarily ceasing her attempts to pull free, " I may never know but I can guess an awful lot. And I flatly refuse to catch someone on the rebound from a six-legged, female crustacean . . ! "

Conway laughed and let her go—temporarily, he hoped. So Murchison knew, then. He was going to have to ask her very nicely not to blab it around.

Solemnly, he said, " Senreth was just a silly infatuation, she isn't really my type. Now, what time do you come off duty? "

James White

Film Review

The Time Machine

M.G.M. ("A")

by ARTHUR SELLINGS

The first and most haunting of H. G. Wells's "scientific romances," scripted by a recognised contemporary science fiction writer (David Duncan) produced and directed respectfully by George Pal, the whole in MetroScope and Metrocolor —surely this should be a very good film. Unhappily it isn't, though it is not easy to say just why.

The film is faithful enough to the original. The famous conversation on the nature of time takes place, the model Time Machine is demonstrated, the Time Traveller duly embarks into that same future of 802,701 into which the young Wells so audaciously transported his hero from the nineties in which the story was written. The Traveller finds the same Utopia gone wrong. Broadly the same action transpires, the same message implicit in the book is conveyed, and yet—where does the film fail?

Firstly, the film has some unwarranted touches of the mawkish. Our old friend, the man who says "there are things Man should not tamper with," an appeal to the inventor to forget "this contraption" and offer his services to the War Office (the start of the story having been conveniently post-dated to coincide with the Boer War,) a plethora of clocks in the home of the Traveller—such totally unnecessary interpolations make it seem uncomfortably like a film based on an original story by J. M. Barrie rather than by Wells.

But these, as the Traveller sets off, are soon left behind. The rest of the interpolations and alterations are justifiable and well done. For instance, though regretfully we do not see the postscript voyage to the very end of Time, we are compensated by some stops on the way to 802,701 which the original story does not make—in 1917, in 1940 and in 1966—the times of war. And the actual process of the headlong journey through time is beautifully done.

Wells sketched in just a few realistic touches, allied with flashes of vivid poetry, to convey the Traveller's sensations . . . "As I put on pace, night followed day like the flapping of a

black wing." The film naturally has to do more than this—and does so superbly. Flowers open and close, are born and die, sun and moon hurtle across the sky, clouds swirl and dissolve in a mad dance, the starry heavens revolve—and in the dress shop across the street the fashions flicker on the dressed dummy, including some all-too-brief glimpses of post-1960 ones.

The world of 802,701 is, as I said, Wells's world, but reached by a rather different route—by history, that is, not the Time Traveller. Curiously, Wells was foreseeing the last dead fruits of the affluent society—the world of the Eloi, graceful and sybaritic and mindless of the morrow, on the one hand—on the other, of the subterranean Morlocks, labouring in the bowels of the earth and preying nocturnally on the Eloi ; this is the end-product of a society which forgot its sense of purpose ; a *social* decay.

In the film, this division has been reached by war. The change is, I think, fully justified by the needs of cinema and by the attitudes of a present-day audience. Wells's social philosophising would have been difficult to capture. As it is, the structure of the decayed society is unconvincing in cinematic terms. And that, I believe, is the crux of the matter.

For the bitter truth is that the book is not ideally suited for transposition on the screen. Conceivably it could be the basis of a filmic masterpiece, but it would require more than honest endeavour and clever photography to achieve. Apart from the acting—Rod Taylor as the Time Traveller and Yvette Mimieux as Weena, the strange girl of the future, are adequate, but not more—what is lacking is tension and significance. The film does not *compel.*

What, then, are we left with? Apart from the effects, already mentioned, there is a neatness of counterpoint between the future and the Victorian age, especially in the design of the Time Machine itself. More importantly, some of the feeling of Wells's strange prophetic dream does, here and there, come across—that duality of man's nature which so obsessed him, the Ego and the Id striving against each other, the light and the dark, the Eloi and the Morlocks.

And these, despite my strictures, are sufficient reason for gratitude and for saying that, while it is no masterpiece of the calibre of *Metropolis* (a film with which it has much in common), it is one which should not be missed by the devotee of science fiction in the cinema.

Arthur Sellings

Dear John,

As *New Worlds* reaches its 100th issue, doubtless with some considerable feelings of relief on your part and jubilation on ours, and *Science Fantasy* approaches its 50th (well, only another year to go !) I felt it was time to send you a few words of congratulation. So, herewith, hearty congratulations and many best wishes for the future.

During the last few weeks, I've been re-reading the old (*Science*) *Fantasy Review*, which vividly brought to life the troubles attendant on the birth of *New Worlds*. You must feel content with a highly respected magazine flourishing, in spite of the somewhat baleful slump. And of course, a ' Hugo ' to prove your worth. You are now so thoroughly established that perhaps it is time to consider broadening your policy. This is no time to sit back in complacence.

I have no grouse against *New Worlds* per se. I class it with ASF and MoF & SF at the top of the field. But . . . isn't there just a tinge of sameness about each issue these days ?

I know that you restricted your policy to a certain extent when the ' Obscenity ' Bill was before Parliament. S-f was considered a border-line case, liable to be affected by it, and you weren't going to risk *New Worlds* by printing dangerous items. You are not keen, either on religious controversy in your stories. However, would it not be an idea, now you *are* secure as the *only* British science fiction magazine publishers, to take a few more risks ? You might get some stories that a number of fans will class as stinkers—how many stories are not both damned and congratulated at the same time ? You would certainly give authors an opportunity of striking out for something new without the ever-present thought that it might be rejected on present policy lines.

Britain has led the way in the ' literary ' s-f field for some years—Wells, Clarke, Wyndham, Taine, for instance. Why not give us the chance now to lead the way into more experimental fields ?

There is the continual outcry throughout the fan field that it is difficult to choose outstanding stories because of their sameness these days. Only something as outrageous as Heinlein's *Starship Soldier* causes a furore, the like of which has not been known since *The Demolished Man.*

So I ask you now, please, won't you experiment some more? We fans are with you all the way and, though we make up but a small percentage of your readership, we are a dependable lot. And a little excitement now and then might perhaps cause you to sell even more widely.

May we hope our second hundred issues will see changes as great as those in the first hundred ?

John Peters,
Bronx, New York.

(*Agreed—on all points. Authors please note* ! *But wasn't Heinlein's novel also an experiment* ? *After all, it picked up a Hugo award at this year's World Convention as the Best Novel of* 1959.—*Ed*).

Dear John,

In issue No. 95 Mrs. J. Curzon wrote a most interesting letter which was headed " Herpetology." Her letter brought back to s-f letter columns the spirit of scientific discussion which has been missing for far too long. Some of her statements however are open to question. It would appear to be true that to make a Tellurian dinosaur behave as " Emily " did would have been impossible. The subsidiary " brains " situated near the hind-quarters of these colossi were as far as can be ascertained merely enlarged motor ganglia. Emily, however, was not a Tellurian dinosaur. She was not in fact a dinosaur at all but a creature that looked like one.

Mrs. Curzon's statement that reptiles are the most successful of land vertebrates falls short by the omission of two words : "as yet." Even then, only their duration supports such an idea. This duration is not so long when compared with mammals as Mrs. Curzon thinks, for the first mammalian fossils are found in the Rheatic division of the Upper Triassic round about 152 millions years ago and long before the climax of dinosaurs, I don't recall Darwin stating in the *Origin of Species* that the most recent is the most successful, although he may have done there or elsewhere, of course.

The bracken question can easily be answered by another : " How often have you seen bracken choke out an oak forest ? Or any other deciduous woodlands ?" It is worth noting, too, that in those regions of modern Tellus where conditions most favour reptiles, mammals are still dominant.

Regarding the Ice Age, this misconception is far too widespread. When people talk of " The Ice Age," they are usually referring to the series of glaciations which took place during the Pleistocene period and which are best locally observed in the Riss Wurm series of Alpin glaciations and interglacial periods. From the context of her letter Mrs. Curzon would appear to be referring to this. Now the Pleistocene is the lower division of the Quaternary Period, when most of the modern species were well established and Pithecanthropus Erectus walked the earth. The extinction of the dinosaurs, pterosaurs etc., took place during the Danian division of the Upper Cretaceous, something like 58 million years before. They had had a long run—millions of years of it—under pretty well optimum conditions for reptiles and their climax was long and fruitful. During their time many genera had appeared and become extinct.

It would appear, in fact, that the dinosaurs died out either for the reasons embodied in the radiation theory, or because genetically they had at last shot their bolt and their day was done.

It is an axiom that coming events cast their shadows before but I doubt that even a Glacial Period would have cast its shadows ahead 58 million years. Perhaps there was a glaciation at the end of the Cretaceous that I don't know about. I can't conceive of this, however.

My remarks about the rear ganglia of the giant dinosaurs may be open to question. Will someone please enlighten me ?

Laurence Sandfield,
*London, W.*13.

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