SPECIAL ANNIVERSARY ISSUE

VISION

OF TOMORROW

AUGUST 5/-

LAST VIGIL

Michael Moorcock

EDDIE JONES

Volume 1 No. 11

VISION OF TOMORROW

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RONALD E. GRAHAM

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THINGS TO COME . . .

Next month's cover story by Lee Harding, will delight all readers of imaginative fantasy. Weird doom awaits the unsuspecting bridegroom once he sets foot in CASSANDRA'S CASTLE !

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VISION OF TOMORROW, Vol. 1 No. 11, August, 1970. Published monthly by Ronald E. Graham (Publishers) Pty Ltd., 137-147 Rookwood Road, Yagoona, N.S.W., 2199, Australia. 5/- sterling per copy. © 1970 by Ronald E. Graham. Contributions must be accompanied by stamped self-addressed envelope, and no responsibility can be accepted for loss or damage.

Distributed by the New English Library, Barnard's Inn, Holborn, London, E.C.1.

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EDITORIAL

Dedication

August is a red-letter month for science fiction enthusiasts. In Heidelberg in Germany, the 28th World Science Fiction Convention is being held over the period 21st-24th August. Hitherto this important annual event has only been held in the United States and, occasionally, in Great Britain. However, science fiction itself has always been international in its origins and appeal. John Baxter's cinematic series has already revealed how German director Fritz Lang's classic films *Woman In The Moon* and *Metropolis* have had a permanent effect on the whole genre of sf films. In the magazine field at that time, SCIENCE WONDER QUARTERLY in America featured a translation of Otto Willi Gail's *The Shot Into Infinity* (Fall, 1929) and followed with its sequel *The Stone From The Moon* in the Spring, 1930, issue. These highly scientific stories were directly inspired by the atsronautical theories and ambitions of German rocketeers. Hard on their heels came *A Daring Trip To Mars* appearing posthumously in the July, 1931, WONDER STORIES. The author was Max Valier, first martyr of rocket travel. France, too, had contributions to make, notably S. S. Held's *The Death Of Iron*, appearing in 1932.

Science fiction continued to grow in Europe after the war, with France, Germany, Italy, Denmark, Sweden, and Rumania all having their own science fiction magazines. Even Russia, which as recently as 1949, characterised American science fiction as 'ill-disguised capitalist propaganda—with decided fascist leanings,' now enthusiastically embraces sf. Polish writer Stanislaw Lem—whom we introduced to English readers in our very first issue—is winning international recognition. The *Perry Rhodan* series, the creation of Walter Ernsting and other writers, has been transplanted from his native Germany to America, courtesy of ACE BOOKS and Forry and Wendayne Ackerman. And so it goes on.

That a World Science Fiction Convention should be held in Germany is highly appropriate, and to mark the occasion, we at VISION OF TOMORROW dedicate this issue to the event. Plans for this special issue were formulated at the British Science Fiction Association Convention held in London this Easter, when your editor was able to meet some of the leading sf writers in the country. The outcome was that several of our best writers readily agreed to write a new story for VISION to help shape a memorable issue.

Bob Shaw makes his VISION debut with COLD CRUCIBLE, which sets a new hallmark in magazine sf for the excellence of its writing and depth of characterisation. Michael Moorcock's cover story amply demonstrates his unique talent for imaginative writing. His original title, *Waiting For The End Of Time*, was changed for reasons of typography and layout, but when the story is anthologised (as no doubt it will be) then new readers will be able to enjoy this haunting story under its original title. Ted Tubb's action novelette should delight his many followers, evincing as it does those qualities of realism and colour that have become his trademark. SPAWN OF JUPITER admirably captures the menacing atmosphere of that strange and terrible giant planet, in human terms characteristic of the best modern science fiction. The versatile Kenneth Bulmer's CULPABLE IN GLASS is not easily categorised, but will be recognised as one of his best stories. VISION readers already know his propensity for humour and space adventure in the Fletcher Cullen series. His present story presents a quite different facet of his talent, telling of the aftermath of a tragic expedition to Mars. Ken is equally at home in the fantasy medium, and under his editorship our new magazine SWORD AND SORCERY should be of definite interest to all followers of imaginative writing. Don't miss the special announcement on our inside back cover. Meanwhile, David Hardy's many fans will be glad to know that his feature returns next month, presenting one of his finest paintings to date—an up-to-the-minute picture of Mars, the red planet.

Philip Harbottle

MEMORIES OF THE FUTURE

JOHN BAXTER

PART TWO

WRITERS Vs. HOLLYWOOD

Most science fiction fans can remember the 'boom' of the 1950s, the five year period between 1951 and 1956 when it seemed that sf had surely reached the millenium. Sf films, books and magazines prospered, sf penetrated into tv and the stage, fan clubs thrived. Writers eyeing the vast popularity of sf must have felt that the gravy train had stopped especially to pick them up, and thought seriously for the first time of abandoning their jobs in ad. agencies for a full-time writing career.

The 'boom', however, was illusory, most of all for the writers, who found that a proliferation of publications did not necessarily mean higher prices for stories, and that Hollywood's interest in science fiction could usually be satisfied by its own scriptwriters. Nor were the new fans discriminating ; in all the media, only space opera seemed to be consistently popular.

With hindsight, it is easy enough to see that everybody expected a little too much. The 'boom' was basically begun and kept going by a massive Hollywood investment in sf films, a move suggested by the enormous success of George Pal's production of *Destination Moon* in 1950 and such films as Warner Brothers' *The Beast From 20,000 Fathoms*. Noting the $5 million profit made by Warners on their $250,000 investment in the latter, the major studios and a host of independents raced to cash in. The paperback and magazine publishers, tv companies and comic book houses followed swiftly.

This gave sf a mass audience but a shallow one, interested more in the cinema's brand of horror fantasy than serious science fiction. Although a number of writers did well out of the period, most did not, and those who expected more could not be blamed for fixing on the cinema as a scapegoat, since it had both instigated the boom and profited most from it. Robert Bloch was particularly scathing about 'George Pal and his pals', although now that Bloch has found his niche in the high-paying cinema/tv world, he seems less inclined to rage against the lack of integrity of Hollywood producers.

Bloch has probably realised, in common with other writers of popular fiction, that the requirements of the cinema are vastly different from those of the magazines. Cinema, it is worth repeating, lags decades behind literature in intellectual content, and even when it catches up tends to express only the most routine aspects of the filmed work. It is one thing to make a film of a popular novel, another to convey any sense of what the book is like. An imprecise medium pitched always at the lowest common denominator in the audience, cinema can only be a disappointment to the writer who hopes to re-create distinguished literature on the screen.

This, however, has not stopped science fiction writers from returning again and again to the cinema, hoping each time that something rich and strange will emerge from the collaboration. Robert Heinlein, John Wyndham, John W. Campbell, Henry Kuttner, Arthur Clarke and, most of all, Ray Bradbury have participated in the filming of their works or agreed to let them be filmed. All, it is probably fair to say, have retired from the experience sadder and wiser men, but this is not to say that these films are poor. Despite the signs of cheap production almost impossible to avoid in this chronically impoverished field, they often reflect in a crazy mirror image the quality of their originals, showing as well a coherence of imagery if not of story, and sometimes the glitter of an original idea.

Appropriately, the first sf writer to become involved in the field during the boom years was Robert Heinlein, whose juvenile *Rocketship Galileo*, written in 1947, was the basis of Pal's *Destination Moon*. Little remains of Heinlein's original, the main plot, involving three boys and their scientist uncle discovering a Nazi revival on the moon, having disappeared almost entirely, but some of the meticulous scientific background survives. Shrewdly, Pal realised in producing this pioneer sf film that American audiences were more interested in the literal depiction of the fantastic than in serious characterisation and complex stories. The film's actors are unmemorable second leads, and its director, Irving Pichel, an ex-actor with little directional skill. The special effects team, however, led by veteran designer Ernst Fegté and astronomical artist Chesley Bonestell, is a distinguished one. For all its flatness of conception, *Destination Moon* was a strong commercial success and the precursor of a *genre* of technological fantasies, half documentary, half drama, all commercial.

Robert Heinlein was also involved in *Project Moonbase* (1953), an even more impoverished space fantasy to which the author may have contributed no more than a stiff explanation of null-gravity phenomena in the second reel. Starlet Donna Martell plays Colonel Breiteis (pronounced throughout the film as 'Brighteyes', with hilarious effect) whose expedition to circumnavigate the moon is aborted by a spy in the crew. Stranded on the moon with her ex-boy friend, she is upset when her superior officer on Earth asks her to leave the space cabin so he can speak to her companion alone. The General, it emerges, is alarmed that world opinion will be aroused by the thought of a young man and woman alone on the moon without a chaperone. His order: they are to be married immediately. Despite this flapdoodle, some of the film's background is not unconvincing, and many of the moon scenes bear a striking resemblance to the dull landscapes shown by the Apollo missions. Unfortunately, however, Heinlein's technical advice has been ignored in at least one other detail. Although the crew simulate the agonised pressures of 20-G as they take off, Colonel Breiteis's bosom remains defiantly protruberant throughout.

Next to Heinlein, Ray Bradbury is the most distinguished sf writer to work in films. At least six have carried his name in their credits, though it is debatable whether he, any more than other writers, has been satisfied with the results. It's not to be wondered at that Bradbury films have never pleased his admirers. Few writers depend more on literary effects for impact, nor embody so much of their mood in essentially implied 'atmosphere' confected of phrasing and word relationships. His stories are frail vehicles, and dissolve entirely in the acid medium of cinema.

Nevertheless, Bradbury was the sole sf writer widely known to the public in the boom days of 1950, and producers banked on his reputation as a reliable departure point into film. In 1953, his story *The Fog Horn* was used as the basis of Eugene Lourié's remarkably successful *The Beast From 20,000 Fathoms*, and in the same year his original story treatment was the blueprint for Jack Arnold's equally commercial *It Came From Outer Space*.

Little of *The Fog Horn* remains in *The Beast From 20,000 Fathoms*, except the basic concept of a prehistoric creature surviving into the present. Bradbury's original had a lighthouse crew hear out of the gloom an answering howl to its fog horn, the despairing cry of a last lonely monster. From this moody fragment, two Hollywood writers

elaborated a lively fantasy in which the creature, disturbed in the Arctic after atomic tests, swims to its ancient breeding grounds off New York, ravaging the city until cut down by a radioactive spear in a burning fairground. (As in *Homonculus*, the German classic fantasy of the 1910s, the creature is destroyed by the same medium which created it.) The climax of *The Beast From 20,000 Fathoms* is still memorable, Ray Harryhausen's convincing monster enmeshed in a burning roller-coaster as white-suited men snipe at him from the dark, but this scene, in common with the rest of the film, bears little resemblance to the mood of the original. Except for a brief shot of the creature wrecking a lighthouse—without fog, and in complete silence—the original imagery has disappeared, although Lourié, in a Germanically dark conflict between raging monster and fiery technology, has created a work of equal, and perhaps greater merit.

The same is true of *It Came From Outer Space*, where Ray Bradbury's 'treatment', i.e. a rough outline with passages of suggested dialogue and scene descriptions, was fleshed out by Harry Essex into a moody and memorable science fantasy. According to reports published at the time, only two lines of the outline were used in the final film. One described the sleepy desert town 'resting after its daily battle with the sun', the other, given to a 'phone linesman, has him describe how the desert wind gets into the wires and seems to talk to itself, mumbling words he cannot quite understand. Both set the mood for a story of alien visitors arriving on Earth and hiding in the Arizona desert. A few people are kidnapped by them and replaced with imperfect doubles until the townspeople advance on the ship hidden in an old mine. Only the action of amateur astronomer Richard Carlson, aware that the aliens are harmless and wish only to repair their ship, stops them from being slaughtered.

Directed by Jack Arnold, the sole unassailable genius of sf film, *It Came From Outer Space* is a basic statement of his style and predilections. The desert setting is one he was to use often, and which sf film-makers were to make peculiarly their own. His star, Richard Carlson, became the most popular actor in sf films, embodying the clean-cut intelligence audiences demanded in their scientific heroes. Pale and grey, conveying a subtle mood of disturbance and hinting at a 'different drummered' world of experience existing just beyond our own, this is a film worthy of Bradbury's involvement in it. Even the metamorphosis cannot destroy the original imagery, nor the world of whispering desert winds, alien landscapes of sand and rock and the glittering tracks of the aliens which he created.

The only Bradbury film with which he has expressed satisfaction is *Fahrenheit 451*, French director François Truffaut's 1966 version shot in Britain and mirroring a world alien to both Bradbury and the original novel. Given this, Bradbury's admiration seems curious; perhaps he was happy to see one of his books filmed, if not faithfully, then at least without any concessions to popular taste. More Truffaut than Bradbury, and sometimes more Hitchcock than Truffaut, the film has a wintery elegance and literary wit that is quite enchanting. As Montag, a book-burning 'Fireman' stumbling with obsessive fascination through the beginnings of literacy, Oskar Werner is cooly in control, and while the film has a detachment that initially repels the Bradburyophile, subsequent viewings exercise a quiet fascination. The ending, of the Book People pacing evenly through the snow mumbling the classics they have memorised, is not easily forgotten. However far *Fahrenheit 451* is

Arnold filmed Richard Matheson to make THE INCREDIBLE SHRINKING MAN, most important of his horror fantas es

Robert Wise made a good film from a routine story in THE DAY THE EARTH STOOD STILL, with Michael Rennie as the alien visitor and Patricia Neal as his friend

from Bradbury's original, it is certainly closer than Jack Smight's lumbering and style-less *The Illustrated Man* (1969), which incorporated versions of *The Veldt* and two other Bradbury stories as grimly vacant of mood as chubby hero Rod Steiger. To me, only one film, the exquisite animated short *Icarus Montgolfier Wright*, has conveyed anything of the literary Bradbury.

Although Bradbury, in common with the other major sf authors, never wrote in a form suitable for the cinema, some less dominant figures were attuned to film and adapted easily to its needs. On occasion, the threshold was too low, and the material simple-minded even by sf standards, as anybody who has seen a David Duncan or Jerome Bixby-scripted film will attest. Others, like Richard Matheson, were able, through intelligent co-operation with the medium, to enrich sf film with some of the literary field's intelligence and variety. In the case of *The Incredible Shrinking Man* (1957) the collaboration between Matheson and director Jack Arnold led to a work that, like *It Came From Outer Space*, is doubly satisfying as film and science fiction.

Again the story begins in the real world, pale and bland. Scott Carey (Grant Williams) and his wife are sunning themselves on their boat, the tiny craft lost on a calm sea. Suddenly a small cloud passes over them: Scott, lying in the sun, is sprinkled with glittery particles that quickly evaporate. But six months later he finds that he has begun to shrink. First just a few inches, so that his clothes no longer fit. Soon he is only three feet tall, and a national curiosity. At six inches tall he can only live in a doll's house, and even that becomes impossible when his cat breaks in. Scott flees to the cellar, his wife thinks he has been eaten by the cat and the door to the cellar is closed, trapping him in the littered room where, menaced by a giant spider, he struggles to survive.

More formally planned than Arnold's other films, boasting many images of visual power and beauty, *The Incredible Shrinking Man* is a masterpiece, the director interpreting Matheson's script with ferocious precision. The gradual disintegration of Scott Carey's life and hopes is beautifully conveyed, perhaps most significantly when, after visiting baffled doctors for the last time, Scott's wedding ring slides from his diminished finger. Soon after, his marriage collapses, and only his cat provides any companionship. Yet it is the cat that finally precipitates his plight by driving him into the cellar. Its changing role, from prop to companion to menace, is especially well managed. The battle with the spider and the cat are also remarkable, the final despatch of the former counting among the great moments of fantasy film.

It may be that Matheson's involvement with the original novel and the scripting of *The Incredible Shrinking Man* accounts for its quality. For the first time in sf, a writer was able to translate his own work into the terms of another medium. However, only a writer like Matheson, with a natural sense of cinema that he has since demonstrated in a number of stylish fantasies, could have done this so successfully. In other cases, we can be grateful that the writers were happy to grab their screen rights cheque and run, trusting to professional scenarists to create a cinematic blueprint. In this way, Robert Wise was able to make from Harry Bates' implausible short *Farewell to the Master* his brisk film *The Day the Earth Stood Still* (1951), with its icy glinting robot and smoothly believable characterisation, and Howard Hawks turns John W. Campbell Jnr.'s excellent *Who Goes There?* into an even more impressive film, *The Thing* (1951). (Although credited to Christian Nyby, Hawks' editor, *The Thing*, with its crackling sexual tensions, overlapping dialogue and ferocious pace is clearly the master's work.)

American relations between sf writers and film-makers have always been substantially different to those in other countries. Hollywood, prosperous enough to call the tune and convinced, perhaps with insufficient evidence, that it knows the market best, has always had total bargaining power. In England, where an embattled national cinema frequently closed ranks against American assaults on its nationalism, there is more respect for literary originals, and a faith, often as misguided as the US box-office obsession, in the ability of the film-going public to recognise quality when it sees it. Literary adaptations for the screen have always in England had a greater sense of the original work than in the US, sometimes resulting in windy bores but occasionally turning out, in films like David Lean's version of Wells's *The Passionate Friends*, a brilliant synthesis of language and image.

This has resulted in a slightly different approach to science fiction in the British cinema. Sf film as a *genre* does not exist in the UK, the American product satisfying public demand. (Proof that producers know this came in films like *First Man Into Space*, where locations were altered so as to make it appear that production occurred in the US. A wide range of shaky American accents and the appearance of holly bushes and oaks flanking a crashed space ship 'just outside Alberquerque' gave the game away.) However, recognising the public interest in fantasy, British studios have often filmed literary successes of proved commercial worth. In a sense, British fantasy film-makers have chosen a different departure point from other countries. In Germany, it was the newspapers, in America the comic strips, whereas in Britain books, plays and other gilt-edged financial propositions have been the source.

Predictably, John Wyndham, the British equivalent of Ray Bradbury in public knowledge of sf, has been a prime source of film material. In 1960, his *Midwich Cuckoos* was filmed by director Wolf Rilla as *Village of the Damned*, a slow-paced work which, though vague, did build up a cumulative sense of doom and rural horror. More impressive was a 1963 semi-sequel, in which scriptwriter John Briley used Wyndham's group of blonde super-intelligent children as the basis of an allegory on personal and national tensions. Intelligently directed by Anton Leader, with a brilliant climax in a ruined church, the film boasts careful characterisation and skilful acting from Alan Badel, among others.

Wyndham's *The Day of the Triffids* was produced in 1963 by routine craftsman Steve Sekely, but the result was cheaply made and disappointing. The more pretentious the work, the more money is lavished on it, with the result that books already exaggerated in the original become in their film versions grossly overblown. George Orwell's *1984* and *Animal Farm* were both filmed, and while the films are reasonably distinguished one feels that less money spent on both might have led to more reasoned versions of the originals. On the other hand, an honest little film of William F. Temple's *Four Sided Triangle* in 1953 was hopelessly compromised by its obvious lack of funds for the simplest cinematic necessities.

The real film successes in sf for the British market were it TV serials; Nigel Kneale's excellent Quatermass series, two more based on Fred Hoyle stories. *A For Andromeda* and *The Andromeda Breakthrough*, others from books by John Lymington and John Blackburn. Most came from novels, although the original Kneale serials, in an odd reverse of the transference equation, were later adapted from their TV form into film, resulting in some important productions. The most recent of them, Roy Ward Baker's *Quatermass and the Pit (Five Million Years to Earth)*, is probably the most remarkable sf film to come out of Britain in the last few years, with one notable exception. Paradoxically, when a film producer did decide to render an established master of sf in the cinema, using British technicians and collaborating with the British writer on the script, he was an American, and the result, Stanley Kubrick's *2001: A Space Odyssey* a film which, in its documentary approach and fantastic *denouement*, harked back to the days of *Destination Moon*. A film based on true British sf, the work of Ballard and Aldiss, is still in the future.

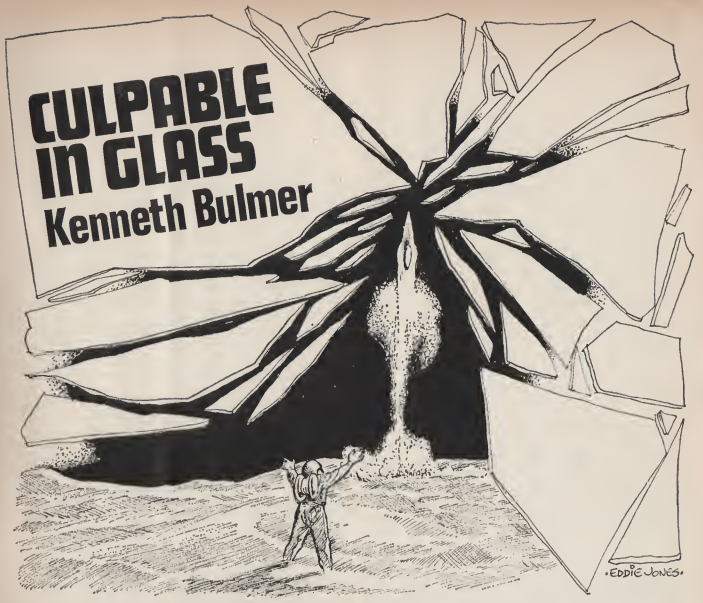
However valuable it is to compare literary works and their filmic counterparts, the comparison is in the end an arid one. There can be no true synthesis of the two on the story level. Nobody will ever film Bester's *The Stars My Destination* nor put Blish or Clarke or Sturgeon on the screen, any more than somebody will write the story of the Beethoven 9th. But one can take a work and convey to a different audience, an audience of film-goers, what it means to him, suggest in other terms what the original work said to him in its medium. Sometimes the result is Bach transcribed for harmonica; equally often, it can be like architecture in sound or poetry in film.

Almost always, the synthesis is fragmentary. You won't convey all of a great work in film, but you will convey some potent suggestions. M. P. Shiel's *The Purple Cloud* was filmed in 1959 as *The World, The Flesh and The Devil*, the catchpenny title disguising a thoughtful and smoothly directed story of three people left alive in New York after the death of mankind. There seemed little of Shiel in it at first, until the moment when Inger Stevens, the last woman on earth, comes wandering along the empty streets to stop and stare incredulously at Harry Belafonte asleep like a black cherub in the ornate brass bed of an interior decorator's shop window. Suddenly the film is all Shiel, and the essence of *The Purple Cloud*. The contact isn't impossible, just very difficult indeed, and the chance of somebody making it is what sends us back time after time into this infuriating but often delightful world of the cinema.

Don't miss next month's concluding article in this series, ' New Wine, Old Bottles.'

CULPABLE IN GLASS

Kenneth Bulmer



There's no percentage in trying to dodge the future.

No matter what wriggles or evasions you try, the clammy adhesions of time strand down towards you and engulf you and seal you for an immanent moment in the present, and as though peering from a glass-walled box onto filaments of glass blowing fingerlike towards you, you see the future still there, dark, insatiable, waiting.

One way of avoiding the never-ending series of collisions with evanescent reality is to seek a bypass through the territory of death. I had wondered, as many other people must have done at the time of the tragedy, if ever Charlie Garret had considered short-circuiting his own personal future.

When I undertook the educational tape commission I had to go through all the files on the initial Mars landings, the drama and tomfoolery of the first successful landing, the tragedy of the second, the building up routines of the third and fourth and—well, from then on it's current history.

World personalities who drop out of sight are like hit tunes of yesterday: when you hear the tune or the name you say: 'Sure! That's—ah, let's see . . .'

Only when I saw Charlie Garret's name, printed square and clear in dark green ink on pale green card, saw the name first and said to myself: 'I remember that name . . .?' saw the story appended, only then did that old memory of mine about Garret considering opting for the short circuit method to the future return.

It gave me a shivery feeling.

Since then, of course, Rosa had died. I saw quite clearly then and there how the fact of her dying tied Charlie Garret to me in a time-binding confirmation and explanation of that shivery feeling.

My task was simply to write an educational tape on the Mars landings; but the second touchdown held the magic. The facts of the story appeared on the surface to be childishly simple. On the second expedition to land men and supplies on the surface of Mars, three men had gone from Earth, two had descended to the surface in the mem, only one had returned to the orbiting ship.

Only two men returned to Earth. Vance Mc'Neill had been left on Mars, stranded with the thin red dusts blowing about him, staring up fixedly at the tiny star of the orbiting ship, watching it flicker and grow faint, watching it disappear, watching himself, the only human inhabitant of an entire planet—until his air ran out.

The third expedition had found him. Magnetic anomaly detectors had unmarsed his body from drifting dust. His face showed a dessicated peacefulness, composed, with the shock of calmness imposed by complete knowledge that the future is rushing with clammy fingers faster and faster . . . He knew, in those last moments as the sole inhabitant of a

world, that no more glass streamers would be blown, all black and silver and ghostly in their iron beauty, down the winds of time for him . . .

I couldn't know that. But I'd seen the photographs and could make guesses at the truths they hid in the mind of Vance Mc'Neill.

The third man of the second expedition, William Parnell, had said little about what everyone ouside purely scientific circles wanted most to hear about that second expedition.

'Just luck,' he'd said. 'The mem could bring only one back up to the parent ship. I couldn't do a thing. They decided it between themselves, Vance and Charlie, down there with the red dust blowing—and Vance lost out. That's all there was to it.'

The educational tape I was in process of constructing kept bogging down over the second landing. The first, similar in style to the first Lunar landings, had been dealt with in proper hero-worshipping, terse, progressive, faintly apologetic manner; an editor knew where he was with that brand of material. After the second it was routine stuff. But the second . . . Charlie Garret. Gambling for life with a comrade. Two men, stuck down on Mars, and only one could come home. Vance Mc'Neill. Yes. There was more there than would ever find its painstaking way onto an educational tape.

The determination to unravel the story behind the story grew in me, as I supposed without awareness on my part, until as though I'd been sand-bagged by surprise it exploded in all-action colour and sound. Even so, and determined as I was to write that story and find out just what Charlie Garret did think, the reality of the psychic connection between us appeared to me only insubstantially.

Ever since Rosa died I'd rented a third-class apartment down on the lower West side and each week, seemingly, new construction lapped ever closer to my island of coy archaic ill-fitting doors, leaky faucets, complaining elevators and central-heating that remained obstinately heating central and never my apartment. I stayed on because the place was mine. The house up in Evanton remained shuttered and sealed. I'd left it just the way it was the day Rosa had driven off and never come back alive.

I couldn't bear to go up there and yet I couldn't sell it. Rosa had been the only wife I'd ever had and I was still abysmally unsure about what was best to do. But I stayed on in my third class apartment because it was all mine. Rosa had seen or bought nothing that was in it.

Like a fragment of light through a stained glass window I remembered: Rosa, face set, polishing the hall of her house the day the news of the tragedy broke. I'd been taping up some notes and Rosa wouldn't break for coffee until the hall was finished, and so the newsreader broke in instead. I'd felt that shock, that sense of glass failing any more to fuse. Rosa, controlling the polisher meticulously, had said briefly: 'I always said they'd come to grief one day and now they have.'

Rosa like so many others exaggerated; they hadn't all come to grief, only one of them, only Vance Mc'Neill. Garret and Parnell rocketed back to Earth. Parnell had stayed on in the Space Service when all the varied bodies involved had been rounded up into a single corps. As for Charlie Garret, he had dropped out of the public limelight, become a civilian, gophered into a hidden hole connected with welfare services.

After all, theirs had been only the second expedition. Had the tragedy occurred on the first expedition then every schoolboy would have known their names as they knew the names of the first Lunar explorers. But who remembers the names of the later Moon developers?

Charlie Garret was allowed very easily to slip into oblivion.

I couldn't help thinking the obvious: Had he sought and found his Malempia?

I always experienced a wrench at having to leave my new third class apartment, I had to brace myself, give a mental shrug and don a spiritual raincoat to protect myself from the cold rain of other peoples' inquisitiveness.

The sensation of all-action colour and sound spurring me on to probe deeper into the story behind Charlie Garret warmed and steadied me. I could face the long haul across country to the space centre with, if not equanimity, then contained boredom. I took the files with me to refresh my memory and as the jet burbled from the airport tried to decide my first contact.

Rosa always said: 'Make up your mind, and then *do* it.' But Rosa wasn't here any more. The emptiness of feeling I'd discovered when they told me she was dead was like a crab having his shell removed; Rosa wasn't around any more.

So I sat and worked out who I should contact first at space centre and the jet sliced the stratosphere just the way the old-time writers predicted, and we let down not more than five minutes late for the last cab drive and a middle-classed hotel. So far, my expenses were all my own.

Cowley I decided. Fennimore Cowley—yes, he would be the best man to see first, deputy director of those first Mars shots, now an even higher official—suave, calm, heavy-jowled and heavy-fingered, but polite, deep-voiced, concrete based.

'Come right in, Mr. Brooke. I don't have much time but if I can . . . Take a seat. Cigar? No? Well then . . .?'

His office engulfed me, his handshake engulfed me, I sat down and his chair engulfed me. I must keep a sense of proportion right here and now, I decided; I decided that I'd come to see him first, so now I must stand by my decision.

'Charlie and Vance?' He sat back, scowling a little. I hadn't realised I'd spoken. But the ice was broken. I was in.

'We-ell—a nasty business—you know. Hushed up . . .?'

Cowley gave me an odd look.

'Hushed up? No, Mr. Brooke. Everything there was to come out came out at the inquiry. You've read the reports?'

I managed to nod. I mustn't let the smallest lead slip away. 'Yes—but—I mean—two men down on Mars and only one to return—? Well, surely . . .?'

'You're saying you feel sorry for Charlie. Hell, don't we all? Only luck brought him back, only luck condemned Vance to death down there on the surface—'

'But was it luck?'

I could see the concrete base of Cowley begin to swing beneath that probing. There had bound to be unpleasantness to cover up, the old-boy network in operation, a mutual scratching of backs. Cowley was a big-time space offiical now. I'd anticipated opposition to enquiries that might resurrect memories he would like to leave forgotten, like Charlie Garret was forgotten.

His anger couldn't move me. I felt sure I was on to a lead.

'You've seen the photographs, Mr. Brooke? Well, you

know then Vance died naturally . . . I mean, he died—well—his air ran out—there was nothing else.'

His stumbling evasions elated me. You see? I wanted to ask that question of a host of invisible auditors I could sense about this space centre. You see?

'Now, Mr. Brooke, if you'll excuse me. Charlie was a fine guy, and so was Vance. The tragedy was that one had to be chosen to die—'

'The tragedy was that one had to be chosen to live!'

'Of course. I think Charlie rode that well. He was always a contained personality, integrated. So were they all. They were the best we could send. Well, good day, Mr. Brooke.'

I rescued my finger tips before he had time to engulf my hand again. This office, square, panelled, glass walled—the glass walls hemmed me in, their dural outlines thin and cold and cutting.

Cowley was saying something about 'Charlie Garret being a great man right now.' Harsh desert sunlight outside fell like a bleaching rinse on my brain. Cowley had known, I could sense that. I could breathe more freely now. Cowley had known something. Rosa had always been able to sense something, no matter what it might be, a hole in a pocket, a frayed cuff, a cigarette butt, a coffee stain. But of course, like Vance Mc'Neill, Rosa was dead.

I felt calmer now. The picture was shaping up. Somewhere past the monolithic dun-coloured hangar side a rocket was being tested, ground test, sullen waves of sound flinging themselves over the horizon like leaping panthers.

The sound soothed. Thinned and keening sorrow, that had been the last external sound Vance Mc'Neill had ever heard.

There hardly seemed much point in going on to see William Parnell. At this moment, I knew from long contact with the official pass-on early-warning-system category mind, Cowley would be ringing Parnell. 'Just thought you'd like to know; asking awkward questions; yes, that's right, deal with him . . . Funny type. Persistent. No thanks, just a friendly warning, William.' No, he probably called him Bill. The sunshine struck back from the hangar wall and slitted my eyes, I was walking in a bath of heat. Rosa had always drawn the curtains when the sun 'got around' onto the windowed side of the house. I thought of cold dank stones. In the heat of the desert space centre, I shivered. I would see William Parnell!

He greeted me affably, with the same routine, have a chair, a cigar, you look hot, a drink? His affability rolled off me like water off greaseproofed paper, I was not to be taken in by such an obvious act. His smallness surprised me. 'Call me Bill—' Just as I had suspected. His quickness of movement, like a green lizard—I must not let that affect me. Rosa's movements had always been quick and sharp like that, decisive, knowing, determined. Perhaps that very sharpness of movement had caused her auto accident. I didn't know. No one had told me. One day she was there, in the morning, going out and giving me a breathing space, and the afternoon she was dead.

'Charlie Garret? Sure—' Parnell had given me Garret's current address before he realised it. Perhaps then Cowley had not rung? But that would make nonsense of my theory, so that meant Parnell was playing a deeper game. The surface is never what you think it is. If you trust to the surface of anything . . . even thick ice melts . . . but Rosa would never go skating. Never. I didn't mind about that, of course; but it would have been nice.

'It was nasty at the time.' Parnell seemed still to believe I was attending him with credulity. He spoke brightly, as though expecting me to absorb all his words.

'I thought the whole affair forgotten. They forgot those old pure oxygen flash fires fast enough. If we'd been the first to go—but we weren't. We all knew the chances. No one complained. We were a team, if you can grasp just what a team like that really turns into—a sort of gestalt without direct mental transmission. It could have been any of us. We fell into the habit of playing paper, knife, stone, to settle anything. Anything.'

He must think me very woolly-minded to accept a reading of this nature.

'Anything. Yes, that's right. Even Charlie and Vance, down there on Mars, knife cut paper, paper wrap stone, stone blunt scissors. Hell! How about that! I haven't played it since—fouled up knife and scissors. Have a drink—'

He drank more of his whisky. A small man, nervous, dyspeptic, probably, anxious for the day his pension came up and he left the space service. But he still couldn't expect me to believe that. 'But Charlie Garret? Surely if it was really chance—luck—then he must—'

'There was no foul play. Charlie wouldn't have done it and, anyway, he wouldn't have got away with it, not after all the enquiries. Look—Mr.—ah—Brooke; why don't you just write your story up from the archives?'

So there was something! His look, so bland, so friendly, so aflow with animal cunning made me want to roar with laughter. Was the bufoon trying to cajole me? He should try—with my experience of Rosa's methods I could outmanoeuvre and outwit an amateur like him in my sleep.

'Foul play isn't what I'm after, Mr. Parnell.'

'Well, just what are you after?'

That he could ask of me such a question showed me I was wasting my time. One despaired of mankind; the thought that a man could be so insensitive and yet still be born and live—and rocket to Mars—and love and then see the flailing threads of glass thin and tinkle and peter out, the glass box shatter: the thought that such a man could be should fill one's breast with rage at fate or destiny—or simply the chromosomes and genes of inferior quality.

I rose with dignity.

'Look, Mr. Brooke. Charlie and Vance drew lucky to go down in the mem, the Mars excursion module, and I was left biting my fingernails. We were a team, see? Something went wrong with the fuel, it's all in the reports, and there was thrust, mass-ratio enough only for one man. We were all about the same weight level, so it could have been either.'

'But Vance was married, with children—'

'Sure, and Charlie wasn't. Any outside influence of whatever nature would not be allowed to affect us. We were a team. We went into it together. Anyway, it didn't count when it came down to lives. Vance insisted on that.'

'You've only Garret's word.'

'You mean you're back on the track of the unreliable narrator, like in fiction? Sure we only have Charlie's word. But he said so and I believe him . . .'

'But—'

'We trained as team to be objective, sharp. We were spacemen, if you'll allow that emotive word. What we said was so, period. No double meanings. It was very simple, really.'

The sunshine outside helped. I walked back to the cab.

It was that simple? Just who did they think they were kidding? Nothing is simple, nothing at all.

So they had played a childish game down there, with the red dust of Mars blowing, and their air running out, with fuel enough for only one of them to get back. Scissors, paper, stone . . . One man had won and one man had—died —I felt more sure now just how Charlie Garret would be feeling. Maybe the force of the first days of his feelings had not kept up; maybe now he felt only a stab, at odd times, as when he spread butter on bread, or stretched out on the beach, or saw the first buds on the apple trees. I knew. I knew only too well.

Every time he shaved in the morning, he'd feel it.

I'd help him.

Being away from people helped me. With people a constant confusion besotted me, a panoply of painted portraits that moved and had their moving, constantly confusing, hectoring, demanding, ordering way with me. And Rosa had died. Oh, yes, we'd quarrelled, as what married couple hasn't? But we'd always made it up, she had, made it up to me. So that's how Garret would be feeling. I could sniff that out like a Geiger sniffing out radiation. I felt tumescent with expectation. I hurried through the airport lounge anxious for the takeoff, not even bothering with the pills, buoyed up with the rubbingly gratifying sensation of moving and going, of flying and of evacuation.

No accident terminated that jet flight and so those knife keen streamers of glass could continue to blow down the wastes of time, appearing from surrounding darkness like greenly-silver extrusions onto a quasi-reality, a time-segmented and epicentre dominated universe of individuality, immanent, not transcending the ordinary, for glass is fragile . . . The jet landed safely.

Charlie Garret lived in a house I felt I had seen before; the hard outlines, that is: the slope of chimney to roof, the facile modern layout, the three-car garage, the aerials, the grass plot tarted up like a lawn, the sprinklers, the children's bicycles: and the tight crease of skin over the house-owner's eyebrows, the Sunday dinner.

And so now here I am, walking up the crazy-stone paving and stepping over a discarded roller-skate, ringing the door-bell, making my face smile, trying not—not yet,—to let my eager desire spill out, for this would be too early.

'Mr. Brooke? Yes, Bill Parnell called. Thought most everyone had forgotten by now.'

I know what he means by that. He doesn't know yet that I know. I haven't told him about Rosa yet. He looks calm, the tight crease of skin between the eyebrows is not there, and small—I expected that—reasurring, I suppose, to someone who doesn't know. His movements are controlled but not rapid, not quick fire; he smiles with lazy ease. Well. He certainly covers well. Better than me. Yes, much more facility in his façade. Much.

'Mr. Brooke? Won't you come in?'

The house is much as I'd assumed. No sign of his wife around—that doesn't really fit, that he should marry afterwards—after the great moment there on the red plains of Mars—no, that is a loose end, a piece of the pattern that doesn't fit. I hope I can make him see the fallacy of that. After Rosa—it is difficult.

'What did I feel about Vance, is that what you want to know?'

He sits crookedly in a chesterfield corner, tucks his feet up. I watch him. His face draws in. 'I liked Vance. I liked Bill. I know they liked each other and I'm big-headed enough to think they liked me. If they hadn't —well, we wouldn't have been a team, d'you see, a team.'

'It's been suggested, Mr. Garret, that you laughed your head off when you got back.'

'Did I? I might.'

I dig deeper, trying to prise away the field dressing the years had plastered on. 'Somebody called you a—I quote here, Mr. Garret—a "stinking bastard" for leaving Vance Mc'Neill on Mars.'

'Yes. I punched that one on the hooter.'

'Did you ever quarrel—you and Mc'Neill?' This I must know, this is the thin edge of the wedge; this is the surgeon's knife tip slicing in under the stalk of the growth—I am opening up my own wounds with the same trephine, drilling into lays of cotton-wool memory, breaking down streamers of glass—but I must cut deeper yet . . .

'Quarrel? Vance and me? Sure—just like a married couple—only there were three of us, let the psycho dips work that one out—and we yelled at one another. Sure. Matter of fact, that morning—morning on Mars—I'd bawled Vance out for something. Can't remember now what it was. Not important—'

'Not important, Charlie—you quarrel with a man in the morning and by afternoon he's dead—not important?'

How can a man talk such insane idiocy? Not important? Why, I could recall every last nuance, every last shout and epithet and banged door of the quarrel between Rosa and myself that morning.

Garret looks at me most oddly. His feet are drawn up even tighter. I could touch them without leaning forward any more.

'So you quarrelled with your wife one morning and she went out and was killed in a driving accident. I feel very sorry for you, Mr. Brooke, very sorry indeed. But that's nothing to do with me, is it?'

'Not her death—her death's repercussions—'

Can't he see? Doesn't he understand yet? He sits there like a scaled down Buddha, smiling that artificial smile, uneasy—well, who isn't these days?—trying to make out he cannot feel what I do, cannot sense with a full awareness the bonds, the strengths, the needs and weaknesses between us. The field dressing must be sticking better than it should. And I hunger for—

'Now look, Mr. Brooke, I've a busy day today—yes, yes, very well, then. I'll tell you just what I felt like.'

Here it comes, then, at last. Now he will be forced to speak the words and I can lean back, spin away on a cloud of content, float dreamily down the river, Lethe, purge myself there, Jumna-like, seek perhaps to fashion a glass shell to replace that crab-like construction, an impresciptable imposition of peace. I now realise how much I must share . . . How much I need to share . . . But he is speaking and I must listen in expectant euphoric alliance . . .

'I felt sorry for Vance. That's an understatement, of course. But it had to be one of us. We gambled for life. I shook hands with Vance, clumsy sort of handshake, in the suits. But he knew how I felt. He would have felt the same way. It's a long time ago—yet that red dust—it's as gritty as ever. I'm glad it was me who was saved. I don't hide that. I'm glad I was saved. If it had to be just one of us, then why shouldn't it be me?'

I sit here listening and then not listening, appalled, shaken, confused—this is not what I want to hear. Where are the feelings, the true feelings, the Rosa feelings of guilt —the guilt!—where the guilt, the red roaring hell-fire death-

wish? Can he be taunting me? Playing with me? Perhaps this is his sense of humour—perhaps the depths of emotion he has plumbed have cast a golden rind about his perceptions so he imagines I will enjoy writhing on the pinhead of a red-hot stake—perhaps he means well . . .

'I'm sorry, Mr. Brooke—yes, your wife . . . I know, you told me. I can't see the connection between your wife and Vance Mc'Neill—except, of course—'

'It's not the connection between the two dead people!' I have to shout at him. 'It's the connection between the two live ones!

'I understand that,' he tells me. 'But Vance had to die and I didn't wish him dead. We were equals. I've made a success of my life, social work, responsibilities, just as Vance would have done. Certainly I didn't wish him dead—not ever! I resent that insinuation! D'you know what you're saying?'

He is standing up now, face flushed, a little bantam-cock, the pride of his neighbourhood. 'Lots of people seemed to think I should fall over backwards and hate myself. I had to think it through, the team, that is. Men aren't chosen for the space programme if they're a little rocky in the head. We reacted on a basis of logic. One had to live. We understood sentiment; but one had to die. Vance had a wife then, I have a wife now. The lucky one to live—me. So all right, what do you want—that I should commit suicide?'

What does he mean? Accepting life on a basis of logic? What nonsense is this? Can't he feel the streamers whistling down the wind, the future leering, cold and icy and contemptuous . . . Can't he see the confines of his own glass box? Can't he feel his own life-pulse growing feebler and weaker with wanting as the glass thickens?

'You've said enough, Mr. Brooke. I understand now what you want.' At last—so the play-acting is over and now we can gorge on the feast prepared . . . 'My advice to you is—' His advice to me? How ridiculous! '—my advice is to stop blaming yourself. It wasn't your fault your wife died. Okay, so you may have wished her dead—' I did—oh, I did! But . . . But that was before she died! '—but stop imagining you're guilty in some primitive blood-guilt fashion. I can talk to you like this because I know what I'm talking about. I remember Vance. There aren't many of us, Mr. Brooke, with our especial qualifications for the nut house, and I, for one, don't intend to present my credentials at the looney bin gate. Do you?'

Now what can he be talking about? He really is speaking the most arrant rubbish. And here am I, come all the way out here to face him, to gain from him some assurance I need, to see him broken down so that I could share—but he is giving me his advice. How odd! I feel quite ashamed.

Surely he cannot see himself as some kind of David, with myself filling the role of Goliath—oh, no! That is too amusing even for thoughts; and words, notoriously, never say what they mean.

But, of this other, can't he see how the wish fathers the deed? Can't he, of all men in the world, see the only course for him—and therefore me—to follow? But all eagerness and thrust-forward jaw and palm-rubbing hands he is going on about logic and guilt and the responsibilities of society and he shows a ghoulish fatherly concern when his youngest daughter, all bright-eyed with saucy sidelong glances, brings him a headless doll for recapitation.

This is the man who left a comrade to die on Mars.

His wife calls something about coffee. I shake my head.

'Look, Mr. Brooke,' he is saying now, a vague blur of colour and light and movement out there beyond my thoughts. 'It's like this. The genetic pool, the repository of human understanding, the pool of knowledge, the whole edifice of human hope for the future would not change one iota if Vance or me lived on. There was nothing to choose between us. We would both have been as useful to the community as I have. But Vance accepted the same conditions as all of us. The final test is that we are all men together, Mr. Brooke.'

Outside the sun has lost its heat. I can feel the dark tide of glass splintering now, each flaying impact a scalping knife of promise—but of no promised future where glass can thicken and grow and create a strong impervious chronological box for me . . .

He has failed me . . . Did he expect from me some dramatic final explosion, an artificial curtain? I shall finish my educational tape on the Mars landings and there will be a piece about Charlie Garret leaving Vance Mc'Neill to die on the surface; but I shall see the face of Rosa all the time.

Each separate in his own glass box, watching the streaming tatters of glass-blown time, silver and emerald and black, pouring in a fingerling-mass down the winds of time, watching and waiting for that spun glass to stop . . .

Separate! Separate! Separate!

You cannot dodge . . .

Readers' Reaction

Richard Gordon's 'The Phoenix People' was the most popular story in our sixth issue, and the author wins our bonus of £10. The winning reader vote came from Mr. David Walker, of Essex, The three most popular stories were:

1. THE PHOENIX PEOPLE by Richard Gordon.
2. FULL-FIVE by E. C. Tubb.
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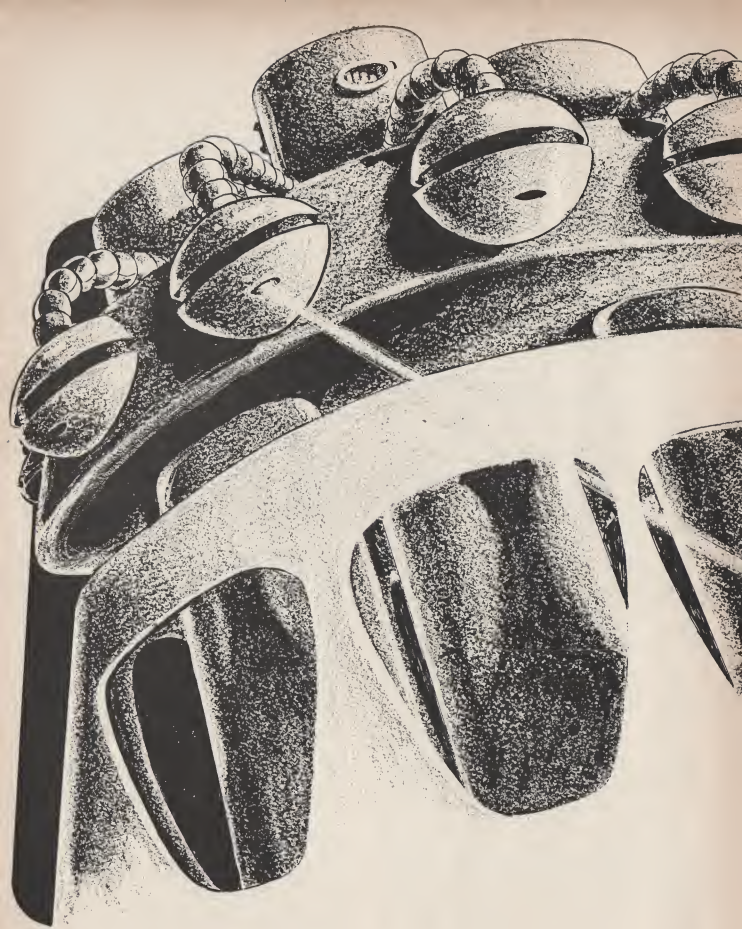
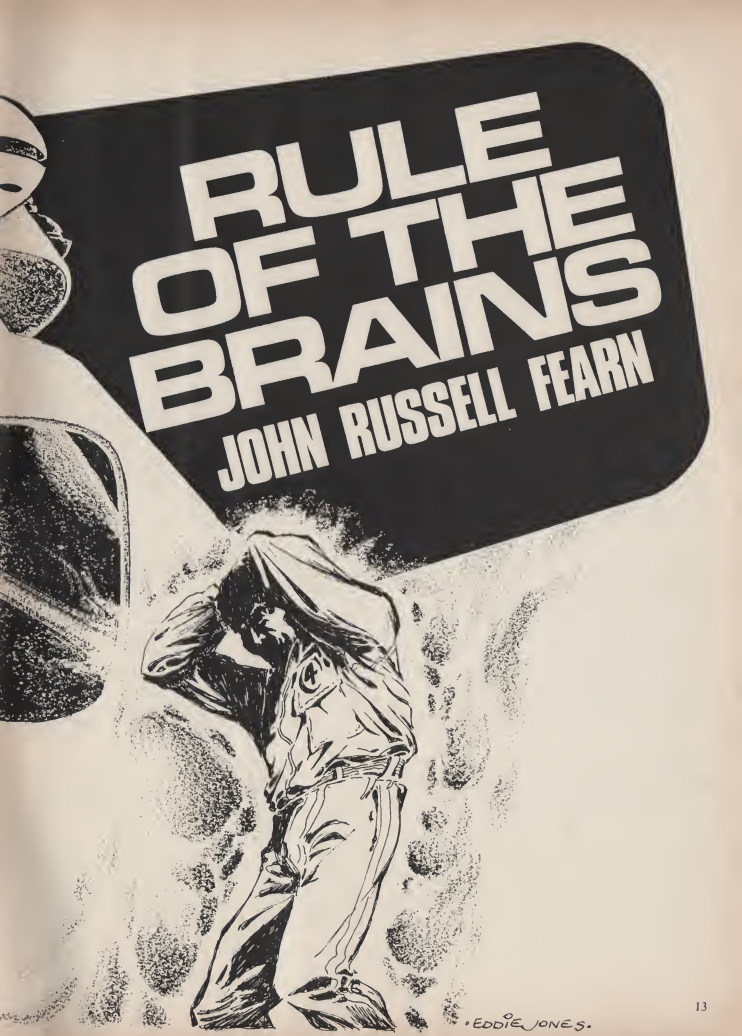



RULE OF THE BRAINS
JOHN RUSSELL FEARN
EDDIE JONES.

ONE

The machine-room of the Central Power House was droning to the current of infinite energy. It was the sweet, bass hum of inexhaustible atomic power, leashed by man. It was the song of mighty engines which carried perpetual energy to the heart of the giant city, capital of the world.

As Chief Overseer Sherman Clarke went on his usual morning round he glanced at each highly polished monster with the eye of familiarity. For fifteen years he had made his circuit of the machinery at exactly the same time. For fifteen years he had never seen as much as a milliampere of variation on the power-gauges. For fifteen years he had never seen even a hint of a breakdown. For fifteen years he—

It was becoming intolerable! Always the same men and women, dressed in their spotless overalls, standing or sitting before their completely foolproof switchboards . . . Sherman Clarke knew exactly what each would say as he paused at their machine for the daily report.

'Everything O.K., sir.'

He was sick of the very words, wearied with the sight of almost expressionless faces. Every man or woman looked the same—calm, impersonal. A total lack of emotion born of scientifically nurtured bodies and brains. Never a gleam of inspiration in the eyes, a spark of sudden humour—nothing but calm, methodical, unvarying efficiency.

Preoccupied with his troubled thoughts, Sherman Clarke continued on his way down the long central aisle between the machines. Eyes followed him, but without interest. He was as familiar as the machines themselves. In stature he was a big man, lumbering in his walk, and with shoulders broad enough to bear the responsibility he carried. A casual observer would have placed him as generous and easy going—but the more thoughtful would have noticed that his face was ruggedly strong, to the point of ugliness. His firm, powerful mouth was uncommon among the flaccid, pale-faced scientists who tended the city's heart.

Sherman Clarke was uncommon in many ways. He looked like a living dynamo in the midst of sleepwalkers. Nobody had ever seen that apathetic look of resignation in his grey eyes: he always looked as if he were battling with inner thoughts . . . as in truth he was. A conflict had long been raging within him, and it was about due to explode.

Presently he paused before the great shining belly of one of the machines and glanced up at the figure in overalls leaning against the guard-rail.

'Everything O.K., sir,' the man said, seeing Clarke's unruly black hair below him. 'Here's the record chart.'

Clarke took it and examined the notations.

'From the writing, Turner, I imagine that you would have made a very good doctor,' he observed drily, glancing up. 'You once made application to be one, didn't you?'

Boyd Turner nodded. 'Yes, sir, and I studied hard enough to have been able to take Certificate A in surgery —but what use is that in a world where accidents or ill health are as rare as a collision between two stars? I was young, then. As soon as I saw I was wasting my time I applied to the Appointments Bureau for a position, and they put me here!'

The young man's keen, high-cheekboned face was shocked for a moment out of its calmness into bitterness as he uttered the last words.

'A first class surgeon wasted, eh?' Clarke sympathised.

Turner stared reflectively into the droning distances. 'Well, not quite that. I have my degrees . . . But there it is! With every comfort found by the State, and perfect health, I should be satisfied.'

'Damned waste!' Clarke muttered angrily.

He walked on again, leaving Boyd Turner looking after him in some surprise. And within Clarke the smouldering embers of his inner conflict were fanning into brightest flame.

He paused again at the Atomic Force Transformer, an immense four-purpose plant feeding the engines of light, power, traffic and weather control. It was in fact the master-engine. Here, pacing the metal gridded balcony running round the switchboards, were two men and two women, their faces entirely inscrutable.

'Tell me something,' Clarke asked, as he took the report handed down to him; 'do you four enjoy your work?'

The question startled them for a moment, then one of the women—a dark-haired, thoughtful type with cleanly cut features—answered slowly.

'It's hardly a question of enjoying a thing, Mr. Clarke, when you've been ordered to do it. I'd much rather be in the nursing profession, but I'm not allowed to be. Nobody seems to need a nurse. And besides,' the woman went on wistfully, 'I suppose I'm just chasing a shadow. I don't *need* to do the thing I like. After all I have security.'

'Lethargy—mental stagnation,' Clarke muttered, frowning to himself. Then he looked at the woman's companions. 'What about you three? Have you ever had any ambition?'

'Architect,' one of the men said seriously.

'Writer,' the other woman answered. 'Only there's nothing to write about. The basic concern of any writer is the human condition, but hatred, jealousy, and so forth died when the Scientific Age came in after the War.'

'But surely there must be *something* to write about, even yet?' Clarke reflected.

The woman shook her blonde head. 'With the basic emotions reduced to one common level by the hand of science?' The woman's blue eyes reflected profound doubt. 'No, Mr. Clarke. Writing—indeed anything at all which calls for a creative imagination—has no place in a world which believes it has achieved perfection.'

There was silence at that, then the remaining man spoke. 'I don't feel as badly as the others, perhaps . . .' He was a sharp nosed individual with rather less of the usual air of complacency about him. 'I'm an engineer and a physicist as well, so machines are just part of my life. Of course I'd prefer to carry out research instead of just play about with switches on this board . . . but where's the incentive?'

'So if you had the chance,' Clarke said, 'you would much prefer to do things your own way? All of you?'

They nodded slowly, then the dark woman gave her tired smile.

'But why should we? We've got everything we need already!'

'Everywhere the same thing!'

Clarke seemed to be talking partly to himself; then with a sudden convulsive effort he tightened his big fist and crushed the report in his palm. He turned and went striding off down the centre aisle. All eyes followed him as he went —eyes that for once held surprise. It was unusual for him to hurry, unusual for him to crush a report so savagely that head office would never be able to read it.

'Stagnation! Genius going to waste! A city so perfect that nothing ever happens! What kind of life is *that* for a human being?' Clarke's thoughts were bitter.

At the end of the long aisle he stopped and looked

through the gigantic window on to the city. It lay in all its grey and gleaming splendour, a symphony of slender towers and massive buildings. The metal shone with the irridescence of satin in the morning sunshine—Monolite, the wonder metal, even more endurable and tractable in manufacture than plastic compound.

Clarke looked down on the orderly streets with the dots of vehicles moving to and fro; then his eyes rose to the loftily perched pedestrian ways, to the even higher monorail tracks, and finally to the great rooftop parking spaces for aircraft. As he watched, a giant airliner crept across the blue sky like a silver shuttle.

Major City was the acknowledged capital of the world in this year of 2048. It housed commerce, power, and wealth. In it dwelt the Governing Party under the Presidency of one man, Luther Nolan, who was virtually controller of the world . . . The city had perfection and scientific achievement embodied in every symmetrical line. And here in this giant power house was the heart of it all—humming and droning, manned by human beings in whom ambition was utterly strangled . . .

That strange look of conflict crossed Sherman Clarke's face again. Finally he looked once more at the city, then behind him at the monsters which fed it its life-blood. Suddenly his thoughts came into focus.

Wheeling round, he strode back down the aisle and stopped when he came to the huge four-purpose machine. Grimly he climbed the ladder up to the balcony where the men and women were working. He pushed past them with the fierceness born of intense purpose and seized hold of the big knife-switch which controlled the main source of power.

Breathing hard, he dragged it free of the imprisoning contact blades.

Instantly the steady rhythm that had pervaded the powerhouse since its inception began to whine lower and lower down the scale until it faded into an awesome silence. Flywheels circled aimlessly to a standstill; power-needles sank gently to zero.

Then came an excited babble of voices and with it the violent ringing of the alarm bells.

'What the devil have you done?'

The would-be architect seized Clarke's arm fiercely, but he found himself whirled back against the rail by unexpectedly strong muscles.

'Keep away from me!' Clarke ordered, his eyes watching the quartet intently. 'Keep away—at least until you have heard me out.'

He was obeyed because nobody knew exactly how to handle the situation. Clarke turned and gazed below on to the workers who had come surging forward and were now looking up at him.

'All right, I've stopped the machines!' he cried suddenly, and his powerful voice carried even over the din of the alarm bells. 'I've stopped them for our own good! I'd smash them too, if that were possible. Why? Because they have destroyed our initiative and individuality—!'

'He's a revolutionary!' somebody shouted.

'No, my friend—I'm an ordinary man, but I didn't go to sleep like the rest of you!' Clarke's voice took on a fierce compulsion. 'Look at yourselves! Rotting away, your mind in chains—'

Clarke stopped suddenly as in the distance the great sliding doors opened and a small army of uniformed officials came hurrying in. Within minutes they had crossed the vast space, then they pushed their way through the narrow gangway the workers made for them.

'Hey, you!' Their leader stood glaring up at Clarke. 'What's going on here? The power and light has failed throughout the city! You're the Overseer, aren't you?'

'I am,' Clarke agreed calmly. 'And I know light and power have failed. I pulled out the main switch!'

The leader stared incredulously for a moment as the meaning of the words sank in.

'Have you gone mad?' he shouted. 'Everything is at a standstill! The President will want to see you immediately.'

For a moment or two Clarke looked at the faces of the other workers. Most of them were thoughtful, as they were evidently weighing up the few brief truths he had managed to give them . . . Abruptly he turned and slammed the power level back into position again. A mounting whine spread through the immense hall.

'That's better,' the official said, clearly relieved. 'Now you had better come with us and explain yourself. This will probably cost you your job.'

'Perhaps it will have been worth the trouble,' Clarke responded drily; then after a final glance at the men and women returning to their posts he descended from the balcony and joined the group of officials below.

TWO

From the power house he was taken by a fast official car along the private vehicular track to the city's centre, and finally into the great building within which lay the President's chambers and all Government authority.

Though he had never met the President, Clarke was at least familiar with the building. He was conducted through the great hallway where massive monolite pillars supported the transparent roof. Light and gleaming metal was everywhere. Upon the distant walls were maps of every part of the world, executed in relief and cunningly lighted from behind.

From the hallway one corridor led direct to the President's quarters. Before he reached it, however, Clarke found himself facing an armed guard. Ordered to halt, he had to wait patiently whilst electric eyes and X-rays searched him. Finally, divested of everything save his overalls, he was permitted to finish the journey down the long corridor alone. He came to a monolite door of unusual thickness, studded with great rivets of polished copper. In the centre of the door was the world crest—a globe held in one strong hand.

A slide moved back in the door centre. Television, Clarke guessed, transmitting his image back to the controlling desk within. A pause, then the heavy door opened silently, to close again the moment he had stepped beyond it.

The President's office was immense. The President himself sat at his desk, the big window behind him casting him into a partial silhouette. Clarke moved slowly towards him, trying to avoid making a noise as he crossed the highly polished metallic floor. When at last he reached the broad desk he stood waiting until Luther Nolan laid aside his pen and sat back in his padded chair.

Looking directly into those searching grey eyes Clarke understood why this man controlled the affairs of the world. He conveyed an impression of resoluteness. Mental and physical power were embodied in the sharply featured face and heavy shoulders. Wiry grey hair swept back from an expansive brow. But, if one looked closely, as Clarke did, there were little seams and lines noticeable about the

strong mouth, and at the corners of the eyes. Worry and responsibility had left their mark, even in this city where perfection had been achieved.

'Sit down, Mr. Clarke . . .' the President motioned to a chair.

Inwardly surprised, Clarke did so. He had anticipated anger, an outburst against his action in the power house. He had expected also to be referred to by his census number. Instead there was composure and politeness.

'Are you unwell, Mr. Clarke?'

Clarke looked back into the impersonal grey eyes.

'Unwell, sir?' he repeated. 'That isn't possible nowadays.'

'Then how do you explain the failure of the city's light and power for exactly eight and a quarter minutes this morning?'

Clarke compressed his lips. He could now detect the hard cutting edge behind the pleasant voice.

'I did it deliberately, sir!'

'Deliberately?' the President was genuinely surprised. 'You realise the gravity of your statement?'

'I do, sir—yes.'

Silence; the President was momentarily off guard. For a man to come in and admit that he had deliberately endangered the city was unheard of. It demanded delicate treatment.

'You are a sensible man, Mr. Clarke,' Luther Nolan resumed, his eyes searching Clarke's face as he leaned across the desk. 'And a highly efficient one, otherwise you would not occupy the position you do. For that reason I presume you had a *motive* for your astonishing action?'

'The whole thing is really very simple. I shut off the power as a warning to you and your Governing Advisers that we workers in the Power Room can paralyze the city at will.'

'And why should you wish to do that?' the President asked. 'Aren't you satisfied, with your every comfort and security provided by the State?'

'That's where the State falls into error,' Clarke said quietly. 'In giving us everything it has given us nothing! We are practically dying, because we are too pampered and lethargic to use our minds any more. Many of my fellow workers have a great potential that will never be realised under the present set-up. Nobody has incentive to do anything!'

The President picked up his stylo. 'Frankly, Mr. Clarke, I think you have the wrong impression entirely. We of the Government have so much to do—'

'I question that, sir,' Clarke put in quickly. 'The only man who can lay claim to having much to do is yourself. Even your advisers and the Head Scientist, Dr. Carfax, are only reciting facts which have remained unchanged ever since the city was built!

'Half a century ago this city came into being. The world had at last recovered from the aftermath of war. We had harnessed atomic power, controlled the climate, overcome virulent disease, and built perfect cities all over the devastated earth. You and Dr. Carfax ran for election as World President, and you won . . .'

Clarke paused and smiled whimsically. His voice became reflective.

'Do you remember, sir, the promises of fifty years ago? You were young then, and so was I. Thanks to medical science we are still little changed. But do you remember the vast ambitions of those days? We were going to have interplanetary expeditions, the colonisation of other worlds, synthesis of life itself. Yet we have none of them! I know men and women who could still achieve these things, if only this stifling security were to be snatched away.'

The President got to his feet and walked slowly to the window. For several minutes he stood thinking, staring out over the city.

'You have a remarkable memory, Mr. Clarke,' he said at length.

'I'm simply a man of the people, a little more alert than the others perhaps. But as Chief Overseer I am able to pass on to you what the people think, to act as their spokesman.'

'I have to admit that I never suspected things were so unprogressive,' Nolan sighed. 'But there is nothing that can be done. One cannot undo perfection.'

'If you don't, sir, I shall start a revolution of my own.' Clarke's voice was respectful but adamant. 'I will *make* the need for us to fight to live by destroying the city's source of light and power!' He raised a hand depreciatingly as the President turned. 'It *will* happen—by another hand, even if you have me removed. It's inevitable.'

The President ran a finger down his jaw. It was not often he revealed indecision.

'As Head of the World State I dare not formulate new laws calculated to upset the people by removing their security—yet on the other hand I cannot ignore your threat to force the issue. And to arrest you might well inflame the people who believe in you to precipitate the same action.

'I see only one way out of this impasse—arbitration.'

The word sounded strangely in the room. It had scarce been used for half a century. The President elaborated as Clarke sat thinking.

'In the old days men used arbitration to settle disputes, sought the council of an impartial but fully qualified outsider.'

'And whom do you suggest?' Clarke asked. 'Either he will be one of the mass of workers or one of your own Advisory Staff. Naturally each will support the claim of his own side.'

'Then we shall have to find some other way out,' Nolan decided. 'I want to reach some basis of agreement with you because I can see that there is a good deal to your point of view.'

'Suppose we leave things in abeyance for twenty-four hours whilst I discuss matters with my advisers?'

Clarke got to his feet. 'That's fair enough, sir. I'll call at noon tomorrow for your decision. In the meantime I'll make no move.'

'Good!'

The President watched him leave the great room, then he switched on the visiphone.

'Send Dr. Carfax in to me,' he ordered.

'Immediately, sir.'

THREE

Presently a slide door opened in the wall of the great office and Dr. Vincent Carfax came into view. Tall, almost bald, there hung about his face an expression of childlike amiability. Luther Nolan knew though, perhaps better than any man, how much cold inhumanity lay under the guileless mask.

Carfax came forward to the desk and gave his little bow. It had a quality of sardonic deference.

'Good morning, Mr. President,' he said levelly, and measured Nolan with his wide blue eyes.

'Sit down, Carfax. Unless we are very careful we are likely to have a revolution on our hands!'

'Revolution?' Carfax repeated sharply. 'How do you mean?'

'Listen.' Nolan gave a rather weary smile, then reached out and pressed a button on his desk. From concealed speakers the whole interview with Sherman Clarke began to play back. Carfax listened attentively until the last words had faded away.

'Obviously the man is a recessive unit,' he decided finally, leaning back and pressing his fingertips together. 'Somewhere in his parents, unnoticed by the Eugenical experts, there must have lurked recessive genes. Clarke is a throwback to an earlier time—'

'The biological origin of Clarke is interesting, but irrelevant,' Nolan snapped impatiently. 'What about his statements? Was there anything in them or not?'

Carfax smiled enigmatically. 'Most certainly there was —though not entirely for the reasons Clarke imagines.'

'Go on.'

'The facts are plain,' Carfax continued slowly. 'The reaction of perfect security, after many years spent in wars and struggle, is going directly against the adaptive strain Nature has developed. In earlier times, the human body was keyed up to every emergency, had something it could grapple with. The mind of Clarke—and others like him—is trying to find a new form of excitation in order to maintain its equilibrium.' Carfax leaned forward and stared directly into Nolan's eyes.

'And here lies the seed of danger! Major City is resting on quicksand, Mr. President!'

Nolan felt a strange sense of unease stealing over him. Carfax was not given to making empty statements.

'It is clear to me that the Last War did not entirely kill the belief that force of arms is the only sure way to Right,' Carfax said deliberately. 'Human nature cannot be altered that easily. The element of unrest typified by Clarke will grow rapidly. It might well seek to tear down the perfect structure we have created. But I say—if I may—that we must forever outlaw war as a disease.'

'Agreed. But how are we to do it? The earlier men tried it with pacts, treaties, and leagues of nations—and they all came to grief. I suggested arbitration to Clarke,' Nolan reflected thoughtfully, 'but I am perhaps the only one who *could* arbitrate. But I don't want to do it!'

Something of a haunted look had come into Nolan's eyes. 'My responsibilities will be greatly increased. I would have to decide on all sorts of issues that I really do not know anything about. Any wrong decisions would not be popular. I'd like to shift the responsibility, yet I don't want to lose my personal authority.'

Carfax smiled innocently. 'I understand. Like all rulers down the centuries you like power—but not the difficulties of holding it!'

The eyes of the two men met again. 'I would remind you, Carfax,' Nolan said, 'that our personal antipathy—because I became President instead of you—has nothing to do with the present problem.'

Carfax's thin smile seemed to imply that he thought it had. A good deal of thinking was going on in his shrewd, scientific brain.

'Suppose,' Carfax said slowly, 'we create an *artificial* arbiter? An indisputable mechanical arbiter, made up from the best brains among the Intelligentsia and the Workers? Say, six of each?'

Nolan looked puzzled. 'I don't understand.'

'Since both sides will support their own conception of life they ought to be willing to sacrifice six of their cleverest men and women. These twelve will have their brain removed. The twelve brains would then be linked up, and their knowledge pooled for the common good. The brains would work in unison to provide a common answer, and a just one, for every conceivable difficulty in every walk of life. Twelve brains, functioning as one unit, could be the judge of humanity's future actions.'

Luther Nolan sat in dumbfounded astonishment for a moment. He had long suspected that Carfax held life pretty cheap, but this—

'Do you mean to suggest that twelve men and women should actually die in order that their brains may form a mechanical monster?'

'That's it,' Carfax agreed calmly. 'And I think Claythorne, our leading surgeon, will be able to do it according to my specifications. I have in mind six men among the Intelligentsia, experts in their own fields, biology, psychology, and so forth. In those six I think that every conceivable field requiring a judgement might be covered. Of course, to make the thing look right, we would have to add six from amongst the Workers themselves. Not that they would contribute much.'

Nolan traced a finger along one eyebrow in indecision. Carfax sensed that he was about to start hedging.

'It only requires two things,' he said. 'Extreme scientific preparation—and your sanction.'

'Even though I am the elected representative of the people, Carfax, I am still human. Twelve people to die if I give the word is unthinkable!'

'Yet if you don't you will have no Arbiter,' Carfax pointed out. 'You also have no guarantee either that you would win a revolution. That would mean the end of power and authority—absolute chaos in which not twelve people but thousands would die.'

To this Nolan frowned worriedly and said nothing. He was caught on the horns of a dilemma. Carfax waited for a moment or two, then he pushed back his chair and stood up. Nolan glanced up to find him smiling cynically.

'Though I think your sentiment misplaced, Mr. President, I will at least try to ease things for you. I will see if I can get the required people to consent to my plan of their own accord. That will make you happier, perhaps?'

'You can at least try,' Nolan admitted, in some relief.

Carfax nodded. 'I will. Clarke expected an answer by noon tomorrow. I can do a good deal before then, believe me.'

FOUR

Shortly before noon the following day Sherman Clarke went through the usual security routine before being admitted to the President's office. He was somewhat surprised to find Carfax also present in the great room. As he came forward, Clarke noticed that whereas the President was looking harassed, there was a complacent smile about the lips of the Head Scientist.

'Sit down, Mr. Clarke,' Nolan said. Before Clarke could make any reply he went on, 'I think the problem of an Arbiter has been solved. Dr. Carfax will be better able to explain than I.'

Clarke listened attentively as the idea of twelve pooled brains was outlined to him.

'I realise the idea is unorthodox,' Carfax said, after a

pause, 'but there is no other solution. Each of the twelve people I have mentioned is willing to sacrifice him or herself voluntarily to the cause. They realise as we do that the future is at stake.'

'Have you agreed to this plan, sir?' Clarke asked.

Nolan shook his head. 'Not yet. I want your reactions first.'

Clarke surged to his feet and banged an emphatic fist down on the desk.

'It's diabolical—inhuman!' he declared savagely.

Carfax's smile remained fixed. 'But it's the only way out.'

'And you say the twelve men and women have voluntarily agreed to sacrificing themselves?' Clarke asked.

'Yes.'

'Then there is nothing I can do about it,' Clarke muttered. 'But I would like the details explained to me, Dr. Carfax. I don't understand the science involved.'

'Dr. Claythorne, our Chief Surgeon, has it all in hand,' Carfax answered smoothly. 'For several years Claythorne and myself have debated the fact that the human brain is an imperfect interpreter of thought. Claythorne believes he has found an answer.

'We of this age have discovered that thought is everywhere, that it is expressed to a great or lesser degree according to the quality of the brain interpreting it. The brain is basically an electrical machine—a radio receiver if you wish it. It absorbs and uses the ideas of all-pervading mind, expressing them clearly or badly through the medium of a physical body.

Both Clarke and the President were clearly interested now. A faint unaccustomed flush of pleasure stole into Carfax's pallid cheeks.

'The human brain can be completely duplicated in a mechanical, imperishable mould! Every convolution of a brain, every synaptic resistance, can be imitated. It can be done just as surely as the artificial leg of today has false muscles.

'With the President's and your sanction, I propose to model twelve synthetic imperishable brains on the exact convolutions and measurements belonging to these twelve people. It will be done in the fashion of taking a death-mask. When this has been done, the mechanical equivalent will take over from the natural organ, probably with even better results because it will be devoid of the inevitable clogging of human construction. The real brain will shrivel and die afterwards, leaving the mechanical image.

'Once the operation is complete the mechanical brains will be linked together, will go on gaining knowledge just as would an ordinary brain if it were permitted to live for eternity. That is how the Arbiter will become indestructible and a paragon of justice for all mankind.

'I understand so far,' Clarke said. 'But how can you be sure the brains will arrive at one decision?'

'In this particular case only one set of nerves will need to operate under the will of the brains—and those are the nerves of speech. Each brain will be linked to a voice box that is so devised that it will only function as a speaking voice *it* all twelve brains are in unison. This can be achieved by a thermostatic device by which different voltages can be graded into one fixed output. Each brain will pass its thoughts to the central brain-pan; the thermostat will sort the vibrations until they are in harmony, then the entire set of twelve coinciding vibrations will pass to the transformer, via the speech nerves, and so to the voice box. When that happens the verdict will be spoken.

'Power will be self-contained and provided by slow atomic disintegration of copper with a life of something like fifteen hundred years. Synthetic optic nerves and auditory mechanisms will serve as common eyes and ears . . .'

There was a silence as Clarke considered. 'I have to admit it is a masterly conception,' he admitted.

'Would you be satisfied with decisions given by this Arbiter?' Nolan asked quickly.

'I think so, sir—yes. As far as I can see it ought to be infallible. But is the Head Surgeon capable of doing this job with science at a standstill? If he is as lethargic as some of the Workers—'

'He isn't,' Carfax interrupted. 'Science may be unprogressive at the present time, but you cannot unlearn what is already known. Claythorne could have performed an operation like this twenty years ago.'

'Yes, I suppose he could,' Clarke conceded. 'There is one other point though. Where would this Arbiter operate from?'

'Right here in the administration complex,' Carfax answered. 'We will take our problems to it, and any decisions can be implemented immediately.'

'Do you suppose that the operation will be 100% successful, Nolan asked worriedly. 'I can't help thinking that the power of thought might be impaired somehow.'

Carfax gave a faintly contemptuous smile. 'That just isn't possible, Mr. President. Thought itself is everywhere; the brain is merely the apparatus which receives it. And the brains are unlikely to be damaged with such an expert as Claythorne in charge. In fact, the Arbiter should have tremendous mental power—within a given area it may well be able to read thoughts!'

'And you say six Workers have volunteered their brains?' Clarke asked.

'Yes . . .' The scientist's cold blue eyes regarded him levelly. 'Naturally both sides must be represented.'

Clarke nodded and glanced at the President.

'Very well, sir, speaking on behalf of the Workers, I'm prepared to accept this proposion. When it's completed I'll put my case before it . . . How long will that take, by the way?'

'Not more than a month,' Carfax said. 'I can put things in train immediately. Of course, you can feel free to attend the operation.'

'I'll see that you are notified,' the President added, as Clarke looked at him.

'Well, thank you, gentlemen—and let us pray for good results!'

Sherman Clarke made his way into the heart of the city in a thoughtful mood. Though he hadn't shown it in the office, he was not completely satisfied. He had accepted the proposition for two reasons: one, because his refusal would have looked like obstinacy; and two, because Nolan had sanctioned it. If there had been any other way, the President would not have embraced the idea.

Finally he entered a refreshment automat. While robots tended and fed him, he pondered the whole thing over. He was almost oblivious to the others about him lounging on their airbeds or absorbing the synthetic emotional vibrations radiated to them by ever-watchful creations parading up and down. Such techniques had long since replaced music as an aid to recreation.

Then Clarke became aware of a woman standing looking down at him. With a start of surprise he straightened up

and ordered the attendant robot away from him.

'May I speak to you, Mr. Clarke?' the woman asked.

He nodded, recognising her as Brenda Charteris, the machine-minder who had said she wanted to be a nurse. She sat down opposite him, and as she remained silent for the moment he found himself studying her serious face.

'I've just heard an announcement on the newscast,' she said finally. 'It was a bulletin issued by the President—something about a mechanical Arbiter being made, by agreement between you and Luther Nolan.'

'Yes,' Clarke admitted slowly. 'That's right.'

'But according to the bulletin this Arbiter will just be another machine!' The woman's distress became suddenly obvious. 'That hardly tallies with your earlier speech about them!'

'This is diffcrent, Miss Charteris. It will be intell'gent.'

'Perhaps—but still a machine!'

Clarke shifted rather uneasily. The argument was not at all to his liking: it was stirring up his own inner doubts. Yet as the woman had appeared in the light of an accuser he felt the need to defend himself.

'I think the real meaning behind all this has escaped you,' he said. 'It will be a machine because there is no other way to pool the knowledge of twelve brains—but the decisions it makes will be completely impersonal, and therefore just. It will have the brains of six of us as well as the Intelligentsia, you know.'

'Oh, yes, I know that: it was mentioned in the bulletin—but I also know that Dr. Carfax has chosen six of the dullest Workers he could find! Minders of the most trivial machines. Not one of them has a spark of initiative. It's a sop—nothing more! Against six trained minds they'll be swamped out!'

Clarke's bushy eyebrows came down into a sharp V and he leaned forward again intently.

'Just how do you know about this?'

The woman shrugged. 'It's no secret. The six in question were just flattered and cajoled into it, by Carfax. Now they are telling everyone that science can't get along without them—or words to that effect.'

Clarke clenched a great fist on the table. He was intelligent enough to appreciate the incredible egotism of the dull mind when it thinks it is indispensible.

'If I thought for a moment that Carfax is trying to trick us, I'd—' Then he pulled himself up short and forced a smile. 'In any case—whether you're right or wrong—we can't turn back now. I've already agreed to it, chiefly because there's no other way around it.'

The woman nodded her dark head, but without much conviction, Clarke thought.

'All I am trying to do is warn you,' she said. 'I think there is trouble ahead, and because I admire what you have tried to do I—'

She stopped as the signal buzzer sounded for a resumption of work.

'I understand,' Clarke smiled, getting to his feet and patting her shoulder. 'But I'll be able to take care of things.'

FIVE

In the days which followed while he was awaiting the summons to the operation Sherman Clarke was made aware of definite misgivings amongst the Workers. It made Clarke's daily contact with them almost unbearable at times, but he went on doggedly about his work, convinced in himself that he had acted for the best.

It was a month, almost to the day, when he did finally receive a summons from the President to witness the operation which was to create the Arbiter. His permit card, signed by the President, gave him immediate admission into the Eugenical Centre. A uniformed official conducted him to a huge door marked *Theatre No. 1.*

Entering the wide, cool expanse Clarke paused for a moment. There was quite a gathering present—Luther Nolan, Dr. Carfax, many members of the press and tel:vision companies, and Dr. Claythorne. Around him again were grouped nurses and lesser surgeons, already masked and gloved.

Clarke moved forward slowly as glances were cast towards him. His gaze went beyond the surgeon and his retinue to the twelve immaculate tables upon which, shaven-headed, lay nine men and three women.

'Good morning, Mr. Clarke . . .' The President came forward and shook Clarke's hand cordially. 'I imagine that history is about to be made. This is Dr. Claythorne, our Chief Surgeon. He will be in charge of the operation, under Dr. Carfax.'

The little surgeon nodded a brief greeting and shook hands, then he turned away and plunged his hands and forearms in antiseptic. Dr. Carfax came level; as usual he was smiling like a man keeping a secret to himself.

'The final details are now complete, Mr. Clarke. In the next room is the machine casing which will receive the brains. I have designed the actual Arbiter personally, after consulting with the best scientists in the city. We have made it invulnerable.'

'Invulnerable?' Clarke repeated. 'Do you mean by that that once the brains are sealed into it, the machine can never be opened?'

'I mean just that,' Carfax assented calmly.

When he was assured of the willingness of the twelve men and women concerned to sacrifice themselves President Nolan gave the order to begin.

From then on Clarke joined the President in watching activity in a field which was unfamiliar, even repugnant, to him. He saw the twelve human beings go willingly under the anaesthetic. He saw the brains, still living, being fed by synthetic bloodstream and artificial heart. Then, under orders from Claythorne, the first brain was duly imprisoned within a soft mould of ductile metal.

Atom by atom, molecule by molecule, under the control of instruments so sensitive that light-vibration disturbed them, metallic moulds were set up, fitted into place by slender rods of force timed to a split thousandth of a second. The slightest error would have meant utter failure.

But there was no error. Claythorne saw to that. He was coldly efficient, intolerant of mistakes. The controlling forces made no slip. They had no human qualities in them to err.

Finally the first brain was complete. The dried shell of the dead brain was removed and the mechanical counterpart, deadly precise in its way of reasoning, came into being. The actual entity of Unwin Slater, First in Mathematics, had vanished and given place to the computations of Brain Unit No. 1.

The eyes of Sherman Clarke and Luther Nolan met; for a moment the barriers were down. They were both very human beings, mutually shocked by a brilliant yet diabolical surgical miracle . . .

The removal of the remaining eleven brains was simply a replica of the first operation. Dr. Claythorne went through each operation with the same studied attention to detail, until every brain had been removed. Next would come the transference into the moulds.

Clarke found himself the guest of the President for lunch, following the successful completion of the first part of the operation. With them were Dr. Claythorne and the inscrutable Carfax. During the meal the operation was not referred to. In fact Luther Nolan deliberately avoided mentioning it, just as though he were afraid he might speak his own mind too freely if the subject came up. He confined himself to commonplaces, and in deference to him the others had to do likewise.

After lunch, the quartet adjourned to operating Theatre No. 2. Here Clarke saw the Arbiter for the first time, and the words of Brenda Charteris came back to him with acid sharpness.

The thing *was* a machine—blatantly so! It was a positive physical shock to Clarke. He forgot the surgical preparations going on about him in his troubled interest . . .

In appearance it resembled a great circle of metal about fifty feet wide, studded at regular intervals round the edge with unbreakable domes which sheathed the metallic brains inside. Wires, protected by similar armour, led directly to the circle's centre and the governing machine unit. The circle was perched on three massive pillars; high up on the central pillar were television lenses for visual contact, and below that a loudspeaker and auditory mechanisms. Outwardly, nothing more was visible, but Clarke could guess at the maze of complexity which must be inside.

'You find it interesting, Mr. Clarke?' Carfax had come up silently and was regarding the Arbiter with thoughtful eyes.

'Interesting enough, yes,' Clarke admitted. 'But I fail to see how it can be invulnerable, as you said earlier. It seems to be mostly ordinary metal and plastic.'

'Hardly ordinary!' Carfax smiled indulgently. 'Both the plastic and the metal of the Arbiter have interlocking atoms. As you may know, all matter has a great deal of empty space between its electronic systems, but in every form of matter they have a definite pattern. Many years ago I found a way to treat materials so that their atomic make-up fits into the empty space of ordinary material—just as wood dovetails. The law of attraction does the rest. And once the two metals or plastics are mated they are impossible to separate!'

Carfax broke off whilst they watched the knitting of the artificial ganglion wires to the encased brains.

'Like locking yourself in a prison and throwing away the key,' Clarke muttered, but Carfax affected not to hear him.

Somehow, interest had gone for Clarke. He kept thinking of what Brenda Charteris had said . . . To him it was like the closing of an impregnable door when the top cover was sealed over the twelve linked brains. Then the cover was fused into the metal of the Arbiter itself, Carfax adding the final touches with his own electrical instruments which locked the metal in one piece—perhaps for all time . . .

Towards evening Clarke returned to his own quarters in the city with an invitation from the President to bring a deputation of Workers to consult the Arbiter three days hence. Then the problem of stagnant initiative and lack of competitive progress could be decided once and for all.

SIX

The Workers whom Clarke chose to form the deputation were those he had spoken to on that morning when he had first revolted against security. There was Brenda Charteris, of course, then Boyd Turner, the incipient surgeon; Iris Weigh, would-be writer; Thomas Lannon, of architectural leanings; and Clifford Braxton, physicist. As representative Workers Clarke felt he could not better them.

What they thought of the Arbiter when they beheld it in the great room specially assigned to it in the Controlling Building, they did not say—but they, like Clarke, could feel the mental aura radiating from it.

Also present were the President and Dr. Carfax. The physicist had a sheaf of notes in his hand which, when he came to read them aloud, proved to be the case of Sherman Clarke versus the State stated in legal terms. Carfax read it out in a clear voice and then concluded—

'Such, Arbiter, is the controversy you are asked to settle. We now wait upon you.'

The Arbiter gave no visible sign of having heard, and still there was that unvarying aura of mental power emanating from it. A dead silence fell on the room until at length a mechanical bass voice spoke.

'My decision—the decision of twelve linked brains—is that Sherman Clarke has no case! To return to comparatively primitive ways of living in order that we might progress is in itself contradictory, since it involves going backwards in order to go forwards. Furthermore, since perfect economic and social stability have been achieved by the State it amounts to a challenge to the State when it is alleged that it is preventing progress. No, Sherman Clarke, your plan is not feasible.'

Clarke sprang to his feet. 'You mean,' he said hotly, 'that we should rot and die in a too-perfect world?'

'You cannot question my decision, Sherman Clarke. I would warn you that your only safe course is to accept it.'

Clarke clenched his fists, his powerful face reddening—then the President spoke. As ever, his voice was quiet, yet vaguely troubled.

'I can appreciate your keen disappointment, Mr. Clarke, but you agreed to accept the decision when it was given.'

'That's so, Mr. President, but at that time I did at least expect a reasonable explanation! I don't consider one has been given . . .' Clarke made an effort, forced himself to regain control. 'I accept the decision,' he said bitterly, 'but under strong protest!'

The President nodded gravely, and Carfax, standing close by the Arbiter, permitted himself an impassive smile.

Clarke glanced round upon the men and women who had come with him. At his signal they followed him out of the room. Not until they were outside did one of them make a comment—and then it was Thomas Lannon, the would-be architect.

'Are you standing for this, Mr. Clarke?' he demanded.

'I gave my word to abide by the Arbiter's decision.'

'The rest of the workers have realised by now that your earlier plan is the only one that could help us to find ourselves again,' Brenda Charteris said urgently. 'They have almost come to believe that the decision would be given in our favour. This is going to hit them very hard.'

'I know it,' Clarke said grimly. 'But it has to be . . .'

On the remainder of the journey back he said nothing further. At the back of his mind remained the disquieting memory of that smile on Carfax's face . . .

The Arbiter's decision in this first dispute was publicly broadcast and the State Department referred to the whole business as 'eminently satisfactory'. As to this, Sherman Clarke and others had their own views.

But the Workers accepted the decision. For one thing they were not sure yet how much power the twelve-brained monstrosity could wield; for another, they were yet loyal to Sherman Clarke. They also believed in their President, and any precipitate action would have threatened his position.

Three weeks later, on arriving home, Clarke was surprised to find Boyd Turner and Clifford Braxton waiting outside his apartment door.

'Mr. Clarke!' Turner came forward eagerly as Clarke stepped from the lift. 'I hope you won't mind us taking up your time like this but—well, we've made an important discovery! You know us, of course? Boyd Turner, and—'

'Clifford Braxton,' Clarke finished, smiling. 'Of course I do. Come in and tell me all about it,' he added, opening his apartment door.

Boyd Turner seemed almost too excited to take the drink of essence Clarke handed to him. Braxton was somewhat calmer—but he too had an air of suppressed excitement about him.

'We've neither of us been asleep like the others,' Turner explained, spots of colour on his high-cheekboned face. 'Cliff and I got to talking over what you said about initiative. Although I realised long ago that I might never be a surgeon, I've spent my spare time experimenting—particularly in these last few weeks.'

Clarke put down his glass slowly. An extraordinary light came into his grey eyes. 'What is this discovery you mentioned?'

'Bloodless surgery for one thing,' Braxton answered deliberately, 'and superhuman intelligence for another.'

Clarke could only stare at them for a moment or two.

'How can you be sure?' Clarke asked finally, trying to assess essentials. 'Have you proven it experimentally with human subjects?'

'Not yet. But we are confident of success.' There was no doubt in Braxton's voice.

'I've worked out a system of bloodless surgery, produced by suspended animation and absolute cessation of molecular movement—or at least, almost complete cessation.

'By electrical means I can slow down the movement of molecules, working on the principle that the less molecular activity there is the lower the temperature drops. You follow?'

Clarke nodded slowly. 'Just as in outer space, which is absolute zero—with no molecular activity at all. But what kind of electrical energy do you propose to use? I can't follow that.'

'Nothing unusual about it. By producing a dampening circuit, I can retard the molecular speeds in any known substance. In a word, put a break on them. Even frost is a dampening electrical circuit of sorts in that it brings the molecules of water to a near standstill and causes it to turn to ice. The rate of molecular vibration in living creatures is well known. All I had to do was work out by mathematics the exact amount of electrical retardation required to slow up the molecular speed and so produce a frozen life, within a fraction of death. Difficult, but it can be done —and I have done it already, with animals.'

Clarke nodded admiringly. 'It certainly sounds promising. But what about the superhuman intelligence you mentioned? Where does that come in? I don't see the connection.'

'There *is* a connection,' Boyd Turner insisted. 'Some time ago I worked out the details of a new departure in brain surgery—but the operation is too dangerous to carry out under normal anaesthesia. That's where Cliff's idea comes in. With the subject perfectly frozen the operation can be carried out in absolute safety.'

Turner hesitated over the right words before plunging on with his exposition.

'It is a fact that a human being has five times as much brain material as he ever uses. That extra material is probably there for future use,' Turner continued. 'Nature has made that provision so that as man evolves, he will gradually come to utilise his full brain capacity. But I aim to beat Nature at her own game and produce a man who has *all* his brain power at his command.

'What is lacking with our brains is a nerve connection between the portion of the brain we use and the so-called useless portion. But by surgery it should be possible to make a synthetic nerve connection between the two to make the entire brain of use! It will mean a power of thought five times greater than we now have.'

'Superhuman intelligence,' Clarke whispered. He stood up, then put an arm round Turner's shoulder. His steady grey eyes searched the eager face, then he glanced at Clifford Braxton.

'Do you trust me, gentlemen?' he asked quietly. The two men nodded, looked puzzled.

'Definitely we trust you—that's why we came to you first,' Turner said. 'We thought you should know, seeing as how you indirectly sparked off our research. Why do you ask?'

'Because I don't trust the Arbiter!' Clarke sat down again, doubt on his rugged face. 'If your cases are brought before it, the thing is capable of draining your minds of every secret you possess! I do not say it *will* do so, but it would be safer for a second party to know the facts . . .'

'Yes, maybe you're right,' Braxton agreed, thinking. 'For that matter Boyd and I would keep things to ourselves, only that wouldn't do any good. To benefit humanity at all our ideas have got to be put before the President. Actually, my suspended animation apparatus is finished, and quite self-contained. I dare say you know enough to be able to operate it in my absence, Boyd?'

Turner nodded. 'I believe so—but I don't think . . .' he broke off as Clarke got to his feet, his eyes gleaming.

'Listen. There is an unused annexe to Number Seven Machine Room to which, as Overseer, I have access. It *is* used occasionally, but only to store spare electrical equipment and machinery in case of a breakdown in the Machine Room itself. There is power there which can be tapped, too. Few people outside myself know where this annexe is. I suggest we take your apparatus there—tonight —where a degree of safety is assured.'

'All right, if you think it's necessary,' Braxton agreed. 'It does sound as if you expect trouble, though. Surely the President would never stoop to such—'

'Not the President,' Clarke interrupted. 'He is one of the straightest men on earth—but I have never trusted Carfax, and the Arbiter was his idea. Yet you must reveal your process otherwise it becomes useless. So, do we take the precaution?'

Braxton agreed, then glanced at Boyd Turner. 'What about Boyd's brain surgery idea? He'll have to see the

President too, you know.'

'That can wait until we see how your interview goes, since his idea is only practicable with your apparatus.' Clarke looked at the surgeon. 'You don't mind holding back for the moment?'

'Suits me. But how do we transfer Cliff's machinery?'

'That's easy. We'll get over to his place and I'll order a large air-taxi. We'll do it in one trip. No-one will suspect a thing at the Machine Rooms when I tell them I'm merely moving in some auxillary equipment . . .'

SEVEN

The job was done shortly before midnight and Clifford Braxton was still somewhat dazed by events. He took home with him the memory of Clarke's tremendous sincerity. In his mind's eye, as he retired, he saw again the large, deserted expanse of the annex to Machine Room 7, with its untapped power-points embedded in the wall. He saw again the flood of light from the arcs Clarke had provided, operating from their own batteries . . .

For a reason he could not quite understand, Braxton was glad of the interest Clarke was taking, in addition to that of Boyd Turner. It made his discovery seem doubly worth while. Even now he did not fully realise the terrific significance of his work.

The following morning, acting on Clarke's advice, he received permission for an interview with the President—and after the usual searching routine found himself before Luther Nolan.

'Well, young man?' Nolan asked, smiling. 'What can I do for you? And sit down, won't you?'

'Yes, sir—thank you.' Braxton sat down with a nervous eagerness and inwardly wished the eyes of the President were not quite so searching. But the powerful mouth had an encouraging smile, so—

Braxton plunged. He told the whole story of his research into suspended animation, as he had told it to Clarke, but with more technical detail. Not once did the President interrupt him, even though a variety of expressions crossed his face. At the end of it all Braxton sat in breathless silence and dabbed at his forehead.

'This, my young friend, is amazing—particularly so in a world dangerously close to intellectual sterility.' Though the President spoke carefully, there was little doubt that he believed—with Sherman Clarke—that initiative was fast dying. Then he went on, 'For my part I will be only too glad to authorise a State grant if the idea is all you claim. I must have expert opinion, though. Pardon me a moment . . .'

Braxton decided that the greatness of the man lay in his easy courtesy towards others.

'Send Dr. Carfax in to me,' Nolan ordered into his desk-phone.

There was a brief silence afterwards as each pursued his own reflections—then the wall slide moved back and the bald-headed scientist appeared. He moved to the desk and waited expectantly.

'A matter needing your expert opinion has come up, Carfax,' Nolan said. 'Please sit down and listen to this . . .'

Carfax drew up a chair, seated himself, then as usual closed his eyes as he concentrated on the playback machine's recording. As the interview ended Carfax re-opened his eyes.

'Impossible!' he stated flatly. 'Excellent in theory, I admit, but impossible in practice. The subject would be dead when dealing with such low temperatures. If it were otherwise it would have been done long ago.'

'If science had not drowsed to a standstill it *would* have been done long ago,' Braxton retorted, and wondered where he got his sudden courage from.

'To me,' the President said quietly, 'the theory sounds very feasible.'

'It is!' Braxton insisted. 'I *can* restore a frozen person to life!'

Carfax left his seat and stood pondering for a while, hands in his overall pockets. Then he glanced sharply at the President.

'I suggest this matter be put before the Arbiter. Twelve brains, six of them highly scientific, cannot possibly be wrong.'

Nolan nodded and got to his feet, led the way into the adjoining room where the machine stood. Clifford Braxton looked at it dubiously, then turned to Carfax as the scientist made the position clear to the Arbiter by switching on the recorded interview through a relay speaker.

When it was over there was a long, and for Braxton, an uneasy silence. Then the mechanical bass voice spoke.

'The verdict of Dr. Carfax is correct. Suspended animation—at least in respect of human beings—cannot operate safely.'

'But it *can!*' Braxton protested desperately.

'The Arbiter has spoken.'

'But surely, Dr. Carfax, if you were to witness a demonstration?' Braxton swung round to him. 'This is simply condemnation without a shred of reason! I must be permitted to prove my statements!'

'Where is your experimental apparatus?' the scientist asked.

Braxton hesitated, an unbidden fear crossing his mind.

'It is to be found in the unused Annex of Machine Room Seven,' the Arbiter stated. 'I have read that from Clifford Braxton's mind. But you are forbidden to have any dealings with it, Dr. Carfax!'

A surprised expression crossed Carfax's face as he looked at the machine. Then the bass voice went on, 'And you, Clifford Braxton, will discontinue your experiments and destroy your apparatus forthwith!'

'Destroy it?' A grim obstinacy crept into the young man's face. 'I refuse to do that! I am not going to smash a masterpiece just because twelve tinned brains order me to do it!'

'You have been warned,' the Arbiter said impartially.

Braxton strode angrily to the door, then he swung round.

'Thank you both, gentlemen, for listening to me,' he muttered—then with a final glance of contempt at the Arbiter he went out.

Sherman Clarke and Boyd Turner were both waiting at Braxton's home for him to return with the verdict. When midday passed they grew worried—then they had to split up and return to their duties. It was not until well into the afternoon before they heard the verdict—and so did every other Worker, through the public address system.

'A Worker—Forty Six Stroke Nine by number—Clifford Braxton by name—today openly rejected the verdict of the Arbiter. Half an hour ago his body was found crushed to pulp on the Seventh Intersection. He had apparently jumped from the Sixth Pedestrian Walk.'

The announcement ended. White-faced, his jaw set,

Clarke sat scowling at his desk in his little private office.

'Mind force!' he whispered. 'Christ! That damned twelve-brained contraption killed him! Hypnotic suicide! By God, I should never have let the boy go . . .'

Clarke was not alone in his perturbation. The Workers looked at each other with bitter wonder, dawning anger in their faces. In his own office the President reflected indecisively . . . In the Physical Laboratories Dr. Carfax looked passingly astonished, then he too frowned in doubt.

Only the Arbiter, sinister and impartial, remained undisturbed.

Amongst the Workers the mysterious death of Clifford Braxton precipitated something of a crisis. Clarke found himself with quite a number of incensed people to deal with. Backing their angry protests were those who had supported him originally—the would-be nurse, writer, architect, and the surgeon, Boyd Turner.

Rather than deal with the trouble in the Machine Rooms or in an automat—where they might be overheard—Clarke convened instead a meeting the following evening in the annex, where lay the revolutionary machinery of the late Clifford Braxton.

'Why do we have to meet here?' demanded Brenda Charteris. 'We aren't fugitives!'

'Don't be too sure of that,' Clarke warned her—then at their looks of surprise he gazed round on the set, angry faces of the others. All the same, he felt he could trust them.

'I called this meeting here for one good reason,' he went on. 'In fact for the same reason that led me to have Cliff Braxton's apparatus brought here. This annex is sheathed in lead walls, floor and ceiling. Because of that thought waves cannot penetrate it.'

'You mean the Arbiter can read our thoughts at *this* distance?' asked Iris Weigh, the writer, incredulously.

'I regard it as possible—therefore it's best to take precautions. If that Thing gets one hint of how we feel towards it, it is liable to do anything. Here, in this annex, we have a measure of protection.'

'Then you knew, since you took these precautions, that Cliff was going to be killed?' Boyd Turner demanded.

'No, I did not. I would never have let him go if I'd thought that. But I *did* realise that the Arbiter might read his mind and find out where his invention was hidden. At his home it could have been very easily reached and destroyed—but here it is safer. Nothing short of blast rays can break into this place. Whether the Arbiter will strike here I don't know: but we must be ready for it. Probably, though, it will regard Cliff's death as sufficient if it does not know his invention has been preserved.'

'Just what is the matter with this Arbiter?' someone asked. 'I thought it was brought into being to dispense justice. What kind of justice is it that kills a man because he has made a marvellous discovery?'

'I don't know yet,' Clarke said slowly. 'That there is something very much wrong with it I'm reasonably certain. Only one man could possibly explain it—Vincent Carfax. I believe he's grinding an axe of his own. It's pretty common knowledge that he would do almost anything to get the Presidency.'

'Then let's go and ask him what he's driving at!' shouted a man at the back. 'What the hell are we waiting for?'

'Proof,' Clarke answered laconically. 'We can't take action against a man as powerful as Carfax without being dead sure of what we're doing. Remember that he has the President behind him, even if they do dislike each other personally . . . No, I asked you here to tell you that we must be careful, but at the same time we must keep our eyes open. We'll wait and see if the Arbiter continues to behave as it has, and if it does we can bring forth Braxton's apparatus and demonstrate it. When we have proved that the Arbiter can be wrong, then the President will have no course but to order the use of the thing stopped!'

There was a grim silence for a while, then Thomas Lannon spoke.

'All right—you are our leader. We'll do as you advise—but if anything like the Braxton tragedy happens again we'll take action, whether you agree or not—even if we have to destroy the Arbiter ourselves!'

'You can't destroy it,' Clarke reminded him. 'It's made of interlocking atoms, which no power we know of can tear apart.'

The quiet fell again, an uneasy one this time—then Boyd Turner spoke hesitantly.

'All this makes me feel mighty uncomfortable! I'm still waiting to put my brain surgery idea forward, for which I'll need Cliff's apparatus. Suppose I'm referred to the Arbiter? I could meet the same fate as he did!'

'I know,' Clarke answered him. 'That's why I say we should wait. Other Workers and scientists in other parts of the city are bound to come forward with their own ideas in due course. We'll soon know whether or not their inventions have been sanctioned or thrown out.'

Again that uneasy silence, but Clarke sensed an undercurrent of approval for his council.

'That's all we have to discuss now,' he added, glancing round on the people. 'Everything depends now on what sort of reception the next inventor receives from the Arbiter.'

Three days later the President again granted audience to a young man who claimed to have made a discovery of immense importance. As indeed he had. Robert Craymond had stumbled upon a wavelength that could produce cold light. It could be accomplished, he claimed, by rearranging the molecules of a copper cube so that it transmitted cosmic radiation instead of absorbing it. The result being pretty much the same as a mirror reflecting a beam of sunlight.

The copper, once treated by his process, would never need re-charging. Just as a mirror never needs attention to reflect a beam of sunlight. The lamps would be eternal, since cosmic radiation poured down upon the earth night and day from space. What Craymond had discovered, albeit accidentally, was a wavelength which changed the atomic make-up of any inorganic object so as to make it reflect cosmic radiation as a white luminosity, instead of absorbing it. Such a light would work anywhere, except perhaps in deep mines or heavily insulated vaults.

The light, Craymond claimed, had a magical quality—a pearly lustre of snow-white brilliance. Yet it did not hurt the eye. It penetrated into the darkest corners; it made conventional lamps look dirty yellow by comparison.

The industrial and domestic implications of the discovery were immense. Electrical energy such as normally gave light could be converted to something else—or else dispensed with altogether.

Once again the President called in Vincent Carfax to listen to the playback of Craymond's exposition. This time the scientist did not pass an opinion, but called in the

Arbiter.

The discovery was rejected as fallacious. A bewildered Robert Craymond found himself escorted from the building. The blazing injustice of the decision incensed him. He would construct a working model, and force the President to witness it . . .

His resolve was cut short as an overwhelming impulse swept through his mind.

The Arbiter had struck—again.

EIGHT

At noon the following day the President himself broadcast the news of the latest death—in almost exactly the same terms as those explaining the fate of Clifford Braxton. Death through a fall from a pedestrian walk, following an interview in which he had received an unfavourable decision by the Arbiter . . .

This time, however, Luther Nolan did not let the incident pass and wonder at the murderous injustice of it. Instead he deliberated, then, his mind made up, he went into the adjoining room where the Arbiter stood in solitary, inhuman state.

For a moment Nolan studied the machine, then he spoke levelly.

'Arbiter, your dispensation of so-called justice does not please me! In the past three days two men have brought what could have been great advancements to science. In a world frozen of new ideas those discoveries would have been priceless, despite the fact that Dr. Carfax was not impressed. And what did you do? Not content with merely rejecting their ideas, you killed the men! Murdered, without mercy or purpose! You were created to be of benefit to Mankind, and instead *this* is what happens! I demand an explanation!'

'I give you no explanations,' the Arbiter answered. 'Both the theories submitted were too fantastic to be entertained—'

'That's damned nonsense!' Nolan interrupted angrily. 'If there is any explanation at all it is that you are too infernally conservative to know a good idea when you hear one —why, I can't imagine. It's as though you're not thinking of the future at all, but are living in the past!'

'You are the President, Luther Nolan, but I have the last word,' the Arbiter said. 'Both of those men fully intended to go on with their experiments in spite of my decision. My only course was to destroy them, because in defying me they threaten the State.'

Nolan's fists tightened in sudden decision.

'This state of affairs can't go on! I refuse to stand by and see innocent lives snuffed out just because you don't approve of progress. I—'

Nolan stopped, aware for the first time in his experience of the Arbiter of the full, baleful power the thing possessed. That aura of mental power which had always surrounded it seemed suddenly to expand into a flooding tide. Even as he stood there Nolan felt the impact of fiendish mental force bite deep to the roots of his brain . . .

He staggered helplessly in his agony, the room seeming to swirl about him. He went down into darkness with the dim impression that the attention buzzer on his desk was sounding noisily . . . Dr. Carfax was ringing the President from his own apartment. Eventually Carfax desisted, reflecting on the disturbing fact that the President was not at his desk. A vague doubt stirred him, and at length it became so insistent that he went along to investigate.

The moment he drew aside the slide leading into the President's office he sensed something was wrong. Instruments on the desk were either buzzing or flashing for attention: the door leading to the Arbiter's domain was wide open.

Carfax paused only long enough to cut the main contact which killed the desk instruments, then he hurried across to the open doorway . . . It took him only a few seconds to discover that Luther Nolan was dead. Slowly he straightened up, then going over to the door he closed it, turned back and faced the Arbiter.

'This, Arbiter, was not in the bargain!' he said grimly. 'It may even cause serious trouble, coming on the heels of those other two deaths . . .'

'He was planning to raise help to encompass my destruction. I had to stop him.'

Carfax reflected, his eyes on the contorted face of the dead President. Then he shrugged.

'Well, as things have worked out I suppose it simply means that I shall become President a little prematurely.'

'You may become President, Carfax, but you will never rule,' the Arbiter stated. 'Neither you nor anybody else!'

Carfax started forward, alarm on his usually calm face. He halted within a yard of the mechanical brains.

'Have you forgotten the bargain we made before you became the Arbiter?' he demanded. 'With you six scientists —for of course your superior minds swamp those of the Workers to whom you are linked—I arranged that when you became part of the Arbiter you would learn all the scientific secrets you could from those placing their problems before you. Then you would give the verdict against them. That you have done, destroying those who owned the secrets . . . But it was also agreed that you would share those secrets with me when I took Luther Nolan's place! Between us—I moving about where you cannot—there are no limits to what we cannot do—'

'I have no need of a partner,' the Arbiter answered. 'I am myself indestructible. As for the secrets, so-called, they were useless and have now been forgotten. I do not intend to pursue them.'

'But—but they were *not* useless! I am scientist enough to know that both theories were perfectly feasible. To say otherwise is to refuse to believe in progress. That you cannot possibly agree with, surely?'

'Progress in a perfect world is unnecessary,' the Arbiter said. 'And I shall destroy anybody who attempts it! Just as I shall destroy those who question my absolute authority. The whole world must know that I alone shall rule the world's destiny.'

Carfax nodded slowly, wily enough to keep his thoughts deliberately confused so that they could not readily be understood.

'I must broadcast the news of the President's death,' he said.

'You have my full permission to do so—and to prevent any misunderstanding I will make the speech myself. Wheel the microphone across and give orders for a world hook-up to be made ready.'

Carfax obeyed because the overwhelming will of the thing made refusal impossible. But deep down in his scheming mind was a vague sense of incredulity. His bargain with the Arbiter to pick the brains of the more intelligent of the populace had utterly collapsed. For some reason this monstrosity did not want to advance; it existed, apparently, for an eternal *Now* . . . But why was this?

Carfax was baffled—and frightened.

The already smouldering resentment of the Workers spilled over completely under the stimulus of the news bulletins. First the deaths of the inventors—then of their beloved President! And to cap it all, there came the Arbiter's own speech.

All over the world Workers and Intelligentsia alike listened to it in wonder; but it had the most meaning to those in Major City. To those Workers enjoying a break in the automat the cold, biting words came as a physical shock, jerking them out of their usual somnolence.

'A new President will henceforth guide your destinies—the Arbiter. I was created for this purpose, and you have nothing to fear if you continue as you are and forget those fanciful notions which brought death to their inventors. In a world of perfection further advancement is unnecessary . . . Remember, then, I am the Ruler and can enforce my will. Obviously a human figurehead is both necessary and desirable, so I have decided that this position shall be occupied by Dr. Carfax, who will act expressly under my orders. This broadcast must be taken as implying the creation of a new order—not only for Major City but for the whole world . . .'

Whatever else the Arbiter might have said was certainly not heard in one particular automat for a small table, hurled by a Worker, went crashing into the speaker-equipment.

'Are we standing for this?' the man shouted fiercely, looking about him from the chair upon which he had leapt. 'Do we take orders from this tin of brains and Dr. Carfax after they've murdered the President and two of our cleverest people?'

'No, we don't stand for it,' the burly figure of Sherman Clarke pushed through the seething crowd and took the place of the man on the chair. 'But we can't rush into things unprepared! The Arbiter has power—great power, and it is backed by a body of militia. We've got to watch what we're doing—'

Clarke stopped, unable to make his voice heard over sudden commotion. Then he realised what had happened. Armed officials had entered by the main door and were doing their utmost to clear the automat. Evidently the Arbiter knew already of the knot of dissention that had arisen—

Whatever it was, pandemonium broke out, the enraged Workers lashing out with their fists, the officers returning blow for blow with truncheons and stun-pistols. Everywhere was the sound of breaking windows, smashing furniture, mingled with cries of rage and pain . . .

Battered and bemused, his knuckles tingling, Clarke finally found himself outside the building with a small group of tattered men and women who had also escaped arrest or serious injury. Among them he recognised Brenda Charteris, Boyd Turner, and Iris Weigh.

'What happens now?' Turner demanded urgently, gazing at the swarming mob battling nearby.

'The annex,' Clarke rapped. 'We'll be safe there. Come on!'

They made the trip on foot, dodging down side-streets and by-ways, and succeeded in reaching their destination without attracting attention and possible arrest. Only when Clarke had closed the heavily insulated door did the party feel they could breathe freely.

'Well, the die's cast now!' Clarke looked round on the grimy, sweat-streaked faces. 'All this might have been avoided if my original idea had been adopted. It has come to revolution after all, and we'll learn things the hard way.'

'What can we do?' asked Brenda Charteris. 'Attack the Arbiter?'

'Not yet—that thing is invulnerable. No, we must slip out of here and get provisions and medical necessities, choosing the right moment. Then we'll stay in here, in readiness for a siege if need be, whilst Boyd Turner operates on me.'

'Operate on you?' Turner jerked the words out. 'What are you getting at?'

Clarke regarded the anxious, determined faces turned towards him. 'I want you to operate on me to give me that synthetic brain connection you mentioned. You *can* do it, can't you? Using Clifford Braxton's freezing apparatus?' His eyes moved towards the corner of the room where the suspended animation casket lay, cables snaking into the wall power-sockets.

Turner was definitely uneasy. 'It should be possible,' he answered slowly. 'But I'll need medical and surgical equipment—and an assistant . . .'

'I'll assist you,' Brenda Charteris volunteered promptly. 'I've had a full medical training—'

Clarke smiled, put an arm about her shoulders. 'I was counting on that. Perhaps you can organise a party to get the medical necessities Turner will need? It shouldn't be too difficult in the present chaos.'

'What's the idea of this operation?' someone asked. 'I'm damned if I can see what you're hoping to achieve.'

'Superhuman intelligence,' Clarke answered deliberately. 'The Arbiter was created by scientific genius, and the only way to fight it is to match it on its own terms. How, I've no idea at present—but I'm gambling an inspiration will come to me after Turner has operated. It's our only hope . . .'

When Sherman Clarke had remarked that the die was cast he had spoken absolute truth; but even he had underestimated the tremendous repercussions. They came to light when the second shift of Workers failed to go on duty. Buzzers and sirens sounded in vain. The great Machine Halls, life-blood of the city—indeed of other places since the master controls were in the capital—were deserted for the first time in half a century.

When the news reached him Dr. Carfax was seized with a real alarm. He sat at the main desk staring at the teleplate as the news was given him from the Workers' region by an excited official.

'Then get back the Workers who have just finished their shift!' Carfax ordered. 'The automatic machinery that has taken over cannot function for long—the equipment wasn't designed for complete automation so as to ensure a measure of employment for the Workers. The machines have got to be tended or they'll race themselves to ruin—'

'I've tried that, sir, but it's no use. They've heard of the revolt of the other Workers and have joined them. Everything is in absolute chaos!'

Carfax snapped the contact-breaker and sat staring blankly in front of him. Loudspeakers began to chatter. Cities wanted to know the reason for power fluctuation on the short-wave-energy band; others reported a severe drop on their feeder-lines—

Carfax glared impotently at the speakers; then he rubbed his forehead. There was a dull, throbbing ache there, the deadening, crushing force of the monster in the next room.

It was becoming intolerable . . .

Finally he got to his feet and went in to confront the Arbiter. It stood there, immovable as ever, radiating that deadly mental aura.

'Arbiter, something has to be done!' Carfax insisted. 'Revolution has broken out and the Machine Halls have been left unattended.'

'Very well, Carfax. Summon all the scientists you can find and bring them here to receive my orders. Mere disordered rabble need cause us no concern. I have instructed the Duty Officers to kill all militant Workers on sight and to bring to me the ringleader—Sherman Clarke . . . Now go and get the scientists, no matter how far you may have to travel to locate them.'

Carfax hesitated momentarily; then he nodded. He had no particular desire to run into a mob of incensed Workers, but if there was no other way . . . He glanced towards the adjoining room where lay the twisted body of the late Luther Nolan. He had intended a lying-in state, but now that revolution had broken out—

Quietly, he went out, an unexpected realisation stealing over him. That ache in his head had gone; he was no longer under the Arbiter's influence! For a moment the wonder of it impressed him, then he began to cast around for explanations. There could be only one: that the Arbiter did not realise its mental range was limited. In that case—Carfax's keen mind began to formulate plans immediately.

Cautiously he scanned the street. Things were more or less quiet at the moment. The Duty Officers evidently had matters more or less in hand . . . but it could only be a false quiet for in the Machine Room power was racing under an automatic control that would eventually break down, and once that happened—!

Carfax frowned over a recollection. He had to see Sherman Clarke, and there seemed to be only one place where he was likely to be found—the Annex of Machine Room 7, where, the Arbiter had said, lay the late Clifford Braxton's suspended animation equipment.

An aerotaxi came whirring by, alighted with spinning helicopter screws as Carfax signalled.

'City Centre—Control Room Sector,' he ordered briefly, clambering in.

'I'm not sure I'll be able to get you there safely, Dr. Carfax,' the driver said, turning. 'There's a lot of trouble—'

'Let me worry about that! Get started!'

The driver shrugged and started the motor. The taxi pursued the main street for a while, then the helicopters came into commission again as they rose towards the lofty Traffic Parallels.

Seated in the air-sprung cushions at the back of the vehicle Carfax absently watched the everlasting symphony of windows and gleaming building frontages as the taxi climbed higher and higher. His mind was still busy, his plan almost complete. If he threw in his lot with Clarke, he might win the Workers over to his side and at the same time perhaps learn Braxton's secret. Since the Arbiter's mind-range was apparently limited it could be isolated until a means of destroying it was discovered. Perhaps lead sheaths could be placed round the room in which it stood, blocking its mental compulsion . . .

Carfax smiled complacently to himself. There was of course that one profound problem to solve—why the Arbiter was so conservative. That, however, could come later . . .

The aerotaxi bumped gently as it reached the Third Traffic Parallel and began to proceed on its three wheels. Below, three hundred feet down, loomed the city canyons.

'So, Carfax, you are a traitor after all! I was not quite sure.'

Carfax jerked erect. He was quite alone in the vehicle, except for the driver beyond the partition—and yet he had distinctly heard that cold, merciless voice.

'You are listening to the thoughts of the Arbiter, Carfax! I removed my control over you deliberately when I sensed that you were confusing the issue. Thinking yourself free, you relaxed your mind and revealed your true intentions of contacting Sherman Clarke . . . And now I see you are wondering why I did not wipe out Clarke when the revolution began. I couldn't. There was a vast confusion of minds, all belligerent. I couldn't single Clarke out amongst them. Now I cannot detect him at all; presumably he has placed himself behind the insulated walls of Machine Room 7 annex and thereby blocked my thoughts . . .

Carfax felt himself begin to perspire. On each side of him was a three hundred foot drop . . .

'You thought my mental range was limited to the Presidential building, did you not? It covers the whole city! How do you think I destroyed Clifford Braxton and the other inventor? They died because, like you, they were a danger to my authority . . .

'Look down below, Carfax. You are looking into the abyss of Avenue Twenty Seven. Deep, is it not? Open the door—look at it more attentively . . .'

Mechanically Carfax obeyed. There was an irresistible fascination about those depths. He leapt, suddenly—involuntarily . . .

He seemed to hover for a moment, poised beside the towering wall of the nearest building. Wind whipped his garments as he fell, twisting. Down, down—in an anguishing fall which had eternity at its end.

A thin, high-pitched scream escaped Carfax's lips then terminated with shocking abruptness as he smashed into the monolite pavement, blood pluming in a fine red rain.

NINE

By mid-afternoon the Workers who were loyal to Sherman Clarke had gathered together the provisions he had suggested, together with a good range of other necessities and medical equipment.

'Any Workers handling the Machine Rooms?' Clarke asked.

'Apparently not,' Brenda Charteris replied; and Clarke set his lips.

'First breakdown will show this evening,' he said. 'That Four-Purpose Atomic Transformer will eventually burn itself out. And if *that* goes—'

'You think we should let the city go to rot?' asked Thomas Lannon.

'I do, yes. For one thing it will give us a chance to free ourselves of the curse of machine control, and for another it will so shatter this city that Carfax and the Arbiter will have nothing left *to* control . . .'

'Carfax is dead,' remarked Iris Weigh. 'I heard it over the speakers. He fell from a Traffic Parallel . . .'

'So, he too!' Clarke whistled. 'The Arbiter is thorough if nothing else . . .'

'And what do we do now?' Iris Weigh asked.

Clarke glanced towards Braxton's equipment and there was a general move towards it. For a moment he stood gazing down on the coffin-like casket, then he turned to

look directly at Boyd Turner.

'You carry out that brain operation on me. What will happen when I come out of it—*if* I do!—I can't say. I may be a fiend, a saint, or a genius!' He smiled grimly. 'But one thing is certain—we must use the power while it is still running.'

'We haven't much time,' Boyd Turner put in. 'First of all I've got to shave your skull in readiness for the brain operation, then put you under the deep freeze. You'd best stand by, Miss Charteris.'

Brenda Charteris nodded promptly and moved to the side of the equipment. Fully conscious of the responsibility he was taking unto himself Clarke moved across to a chair whilst Turner plugged in an electric shaver.

'You realise,' Turner murmured as Clarke's unruly hair was shorn away, 'that you're taking one hell of a risk? Here in this annex, with several people present, I won't be able to take one half of the normal sterilisation precautions for such an operation.'

Clarke rose from the chair, looking distinctly odd with his new completely bald head. 'I realise it,' was all he said as he began to remove his garments.

'In here?' Clarke asked quietly, pausing at the broad lip at the end of the tubular casket.

'That's it,' Turner assented, assisting him as Clarke pushed his feet and legs into the opening. Then he slid forward until he was stretched at full-length on the air-filled bed in the tube case.

Turner adjusted the air pillow so that Clarke's shaven head was slightly raised, then with a taut look on his face he closed the end of the tube and spun the heavy clamps which secured it.

'Now—' Turner looked to where Brenda Charteris and Thomas Lannon were standing. The others had retired, by common consent, to the far end of the room. 'You, Nurse, had better keep a watch on this bank of registers here. They will show exactly the state of Clarke as the freezing process continues. Respiration, heartbeats, blood pressure: they will all register.'

'I understand,' Brenda Charteris responded, studying the meters. 'And if there is any divergence from what you consider safe, what am I to do?'

'Inform me immediately. Then I can vary the current to correct it.'

Turner turned to Thomas Lannonn. 'As for you, Tom, I'd like you to keep an eye on that specially-devised voltmeter beside you. If it gets beyond the red line let me know right away. My whole attention will be fixed on the control of the current and I'll have no time to watch anything else.'

'Right!' Lannon moved into position and fixed his gaze on the—at present—motionless voltmeter needle on the zero mark.

Within the tube Clarke lay motionless on his air bed, though his eyes were clearly watching everything through the transparent cover. He smiled faintly as Turner raised one hand with his fingers crossed—

Then he switched in the main power circuit which transferred the current to the curious filigree of wires netted around the tube. Here and there contact points glowed brightly and there was a steady crackling as electrical energy surged and died, surged and died.

'Heartbeats seventy,' came the girl's voice.

'Voltmeter fifteen hundred,' Lannon announced.

Turner made no comment. He knew the controls on the panel from previous experimentation with the late Clifford Braxton. Clarke himself was slowly becoming drowsy. He yawned prodigiously, and then at last made no movement at all. There was a faint mist on the inner side of the tube and Clarke's nude body was covered with a myriad tiny droplets from the effect of condensation.

'Sixty-six,' Brenda Charteris rapped out.

Everything was going as it should. The noise of the machinery increased, and with this came a corresponding change in the needles of the various registers. In particular the thermometer registering the interior temperature of the tube began to show a decided drop.

In a matter of three minutes the register needle was down to 32 F. degrees and after that it began a steady crawl into the depths towards the normal Fahrenheit zero. Nor did it stop there. The register, specially devised for extreme below-zero temperatures, still continued the downward descent. Turner watched the meters intently and kept his hands on the controls; then he turned sharply at an ejaculation from Brenda Charteris.

'The heartbeats are only registering sixteen to the minute! Sherman can't possibly live at such a low pulse-rate!'

'I'm the best judge of that, Nurse Charteris. Even if the heart-beats only register two to the minute it will suffice.'

Brenda Charteris bit her lip. In the past few days Sherman Clarke had come to mean more to her than she had cared to admit. 'Only two—!' her voice tailed off.

Turner took no notice. He knew exactly what he was doing. And only when the temperature was minus 120 F. degrees did he switch the power off and turn to make a survey of the instruments Brenda Charteris had been watching. She gave him a troubled look. Over on the far side of the room the rest of the party were watching intently in complete silence.

'Everything is exactly as it should be,' Turner said, at that moment sympathetic to the white-faced girl's anxiety. 'I would remind you that this experiment is right outside the field of ordinary medicine—hence the appearances are unusual. At the moment Sherman Clarke is in the coma caused by deep freezing. This is the vital part of the operation, where I start the brain surgery. Once I've set up these electrically controlled instruments through that tube I can complete the trepanning and synthetic nerve link-up without drawing a drop of blood.

'What has happened is that the molecules of his body have been slowed down to the minimum. With that slowing down we get the extreme coldness, since all energy of motion is purely molecular activity. Clarke will remain like this until the operation is over, and I set the counteractive electrical energy in being, which will restore his molecular activity to normal.'

Turner set to work, assembling his special instruments after he had sterilised his hands in the vat of antiseptic Brenda Charteris passed to him. In one respect Clarke was fortunate: the instruments would operate through specially prepared apertures in the tube just above the head-rest, and the tube itself was effectively sealed off from the atmosphere—and possible infection—of the annex.

Turner performed the trepanninng with consummate skill—expert even for the advanced knowledge of 2048 medicine. No blood flowed; the freezing prevented it. Then delicate probes knitted the vital synthetic nerve to the operative and inoperative sections of Clarke's naked brain.

Almost an hour passed as he laboured on under the

brilliant arcs, Brenda Charteris assisting tirelessly. The strain was intense, but at last his work was flawlessly done. He closed up the skull, grafted back skin and bone, wiped across pungent healing ointments. Broodingly he watched as the scar on Clarke's forehead began to knit slowly to a thin pale line, rapidly disappearing. There was only the faintest trace that a surgical miracle had been carried out.

The girl expelled a low, long sigh of relief that was echoed by the intent onlookers. Turner stood aside, mopping his perspiring face with a towel which Brenda Charteris handed to him.

'Stand by the gauges again,' he told her. 'I'm going to attempt to restore him to normal temperature.'

Deliberately he closed the make-and-break switch. Instantly the machinery began to hum, swiftly rising to the steady whine of maximum.

Within the tube, nothing, so far, had happened. The filigree of wires around the tube immediately started to glow. The contact points shone brightly. Electric energy surged and then died away again.

'Any reaction?' Turner demanded tensely.

'Not yet. Heartbeats sixteen per minute. Temperature minus one twenty Fahrenheit. Wait—seventeen!' The girl was exultant. 'Eighteen! Heartbeats are becoming faster! Oh, this is wonderful! Temperature has risen one-eighteen. We're on the right track!'

Keeping his emotions well in hand Turner still went systematically about his task. He was reflecting on the tragedy that Clifford Braxton had not lived to see the vindication of his experiments.

There was no doubt that the reversal process was operating correctly. With the passage of seconds the temperature rose steadily and the increase in Clarke's heartbeats and respiration kept exact step—until at length Turner had made all the possible moves on the switchboard and there was nothing left for him to do but watch the outcome.

The frost inside the tube gradually faded away into moisture, and that too finally dried away into vapour and passed off through vents specially contrived for the purpose. Brenda Charteris, eager as she was to take a look at Clarke, remained at her post before the meters.

'Sixty-eight beats to the minute!' she exclaimed finally. 'Temperature nearing seventy degrees, which is the room temperature. We've done it, Mr. Turner. Sherman is alive and well!'

At that the other men and women in the room surged eagerly forward, crowding round Turner and shaking his hand and congratulating him on the miracle of surgery.

The glaze of frozen solidity had left Clarke's flesh. Into his face crept a faint flush of colour—and it was at this point that the hum of the machinery suddenly ceased.

Instantly Brenda Charteris and the others wheeled in alarm, staring at it. Then Turner's taut, excited voice reassured them.

'Nothing to worry about. Cliff Braxton constructed his apparatus to automatically cut itself out on the thermostatic principle once the correct level has been reached.'

'Thank heaven for that!' someone exclaimed. 'It seemed as if the apparatus had broken down at a vital moment—'

Then Clarke opened his eyes—not slowly like one aroused from sleep, but as though he had suddenly been called by name.

Immediately there was a flurry in the party. Now that Clarke was conscious there was even a sense of embarrassment amongst the women onlookers. The men stared fixedly in relief and incredulity.

As Clarke stirred within the tube, Boyd Turner went into action, spinning the wing-nuts swiftly and then taking off the heavy cover. The air-tight rubber sheath followed and the end of the tube was wide open with Clarke's shaven head facing towards him.

'Are—are you all right?' he asked, a slight catch in his voice.

Within the tube Clarke smiled. 'Of course I'm all right. Is there any reason why I shouldn't be?'

Getting out of the tube presented a certain problem. In the first instance Clarke had had to be 'inserted' in the tube: now the opposite performance was called for. He pushed with his bare feet until his head emerged, then Brenda Charteris fussed uncertainly at the vision of bare arms and shoulders sliding towards her.

'Er—perhaps you—' She looked hopefully at Turner.

He gave a nod, seized Clarke firmly under the arms and tugged. In a moment he had slithered headlong out of the tube and then stood up.

'Thanks,' he smiled at Turner, 'for *everything*.' The emphasis on the last word was unmistakable. 'And you too, Brenda—' he broke off as he saw the girl regarding him with increasing embarrassment.

'Perhaps someone could pass me my clothes—?' he suggested.

'Coming right up,' Thomas Lannon said, reaching to where Clarke had left them.

Clarke quickly donned his clothes with easy familiarity, then he regarded the assembly. They had gathered a respectable distance away from him. Something about his voice—an odd note of command—and the look in his eyes made them momentarily uneasy.

'I sense from your expressions and from your minds that you are wondering just what effect Boyd Turner's experiment has had.' Again that strange smile. 'Yes, your *minds*. I can read them clearly. I have certain powers. The experiment has succeeded.'

By early evening, just as the first lights should have been coming up in the city, evidence of the breakdown in power which Clarke had forecast became noticeable. The Atomic Transformer in Machine Hall 1 burned out its dampening controls. Unable to cope with a rapidly rising overload it caught fire, eating out its core.

The effect was immediate—and cataclysmic, since many other machines were linked to it, and they in turn sent their power to the vital feeder cables to other cities. The first collapse was seen in a universal failure of the lighting systems. Desperate radio signals flashed out to Major City, and were ignored by the Arbiter standing immovable in its darkened room.

Then the signals ceased as their source of power failed as well ... The stoppage of power brought a foretaste of hell to every city, and the capital in particular. It struck terror into the hearts and minds of renegade Workers in the streets and the Duty Officers abandoned trying to quell the revolution which had spread like a devouring flame.

Lifts crashed to the bottom of their shafts; radiation-power driven cars, aero-taxis, planes and countless other vehicles went hurtling to destruction. In the darkness was an inconceivable and cumulative chaos.

Then the failure of the weather-machines became evident by reason of the sudden terrific storm which burst

over the metropolis. A deluge of rain and hail, a thing unknown in such violence for fifty years, drove the people to the best shelter they could find. Jagged flashes of lightning revealed their pell mell struggle to get out of the catastrophe that had descended. Here and there a voice called on the Arbiter for assistance—in vain.

The Arbiter, in truth, was otherwise occupied. Ever since it had destroyed Dr. Carfax it had been trying futilely to nail down one particular mind to obey its orders, to force that person to get together a force sufficient to flush out Sherman Clarke and his followers and destroy them. But the confusion of thoughts, the terror abroad in the stricken city—the more horrible because it was unaccustomed—had prevented such action. It would have to wait until things were calmer.

Waiting, however, was not the wish of Sherman Clarke. He knew just how desperate things were. There was a real possibility of city after city being destroyed if an effort were not made to get order out of chaos and repair some of the ruined engineering giants. The people too, hothouse plants exposed now to the winds of normal everyday life in a pitiless world, would die in the tens of thousands. His sensitive mind was fully attuned to the terror around him, the stark possibilities fully realised.

For two hours, whilst his body was recovering from the operation and freezing, Clarke had been in conversation with Boyd Turner and his comrades. They were discussing science, a plan of attack, and above all the Arbiter. Whilst they had talked in the light of the battery-driven lamps their ears had become attuned to the savage onslaught of the elements outside.

'I underwent the operation for a purpose, and I mean to fulfil it,' Clarke said deliberately. 'No matter what the possible consequences to myself.'

There was no response. The others could not possibly view the situation with the same standpoint as a mental colossus. The brain operation made them as apart as the denizens of two distinct planets.

'It would seem that you are still baffled by the Arbiter's lack of interest in any future development,' Clarke remarked presently.

'We have been right from the start,' Brenda Charteris agreed. 'I suppose it must be because the Arbiter is not normal flesh and blood.'

'At least you touch the hem of the truth. Carfax forgot that a brain, in progressing, must expand. Boyd Turner's operation on me has proved that human beings use only a fifth of their full brain capacity. That, later, will develop. But in the machine it was strangled. Carfax and the surgeon Claythorne made these mechanical brains fixed to what was, at that time, the present! To the Arbiter, it is always the present! Being rigid metal the brains can't expand, are unable to go a step beyond the day of their creation. And the replacement of flesh and blood by machinery means that the brains cannot apply human intuition or responses.

'That is why the Arbiter destroys all things that suggest progress, and also because it fears any sign of progress will bring its power to an end. Having no human sentiment it destroys without question . . .'

'Conservatism gone mad,' Boyd Turner muttered. 'And the thing is invulnerable,' he added dispiritedly. 'Overwhelmingly mental force inside a framework of interlocked atoms. A hell of a combination!'

'Devilish, certainly, but not insurmountable.'

'You—you mean—?' Hope leapt into Turner's eyes, and the rest of the assembly listened attentively.

'I mean that the Arbiter can—and must—be destroyed!' Clarke sat brooding for a long time as the others waited anxiously. His calm, mysterious eyes watched the men and women moving about the chamber in restless anxiety. What thoughts were passing through his five-fold brain they did not know—until at last they were put into words.

'I've been pondering ways and means,' Clarke explained. 'One *can* kill a human being by sealing it up in an airtight room, but you can't kill a machine in that fashion. But I was wondering if I could devise a means of reflecting the Arbiter's high-powered thoughts back on itself. They might recoil with sufficient devastation to unhinge the brains and cause insanity. But that might have repercussions. Even as it is, comparatively sane, the Arbiter is deadly . . .'

Sherman Clarke hesitated, then shook his head.

'No, that's out. We need total destruction, so the only course is to destroy the machine which houses the brains, then the brains themselves.'

'But how can that be done?' Brenda Charteris asked anxiously, standing beside Turner. 'The metal was specially treated by Dr. Carfax.'

'So it was. But since my operation I understand atomic science in all its complex detail because my mind is attuned to it. I understand it as clearly as normal people understand the processes which govern birth. Carfax once outlined a theory to me that the cosmos itself is structured from infinite thought, that all around us is a sea of thought. The moment that I was given that synthetic connection between the normal and subconscious areas of my brain I became attuned to the outpourings of the universe. I am the first man possessing the necessary brain structure to interpret the vast selection of meta physical radiations that go to make up physical reality.

'Hitherto science has only *assumed* facts about subatomic science. I *understand* them intuitively. Carfax was ingenious enough to find a way of mating materials so that their atomic spaces fitted into the atomic matter of the other, meshing as tightly as the cogs in a gear wheel. He also chose materials with opposite atomic poles, knowing that by the law of opposites the two would attract each other and therefore lock immovably.'

There was a silence at this astonishing scientific exposition. Brenda Charteris stared wide-eyed. There was something uncanny about Clarke's transfiguration.

'But there's no known power which can tear atomic charges apart!' Boyd Turner insisted.

Sherman Clarke gave a mystical smile. 'I think there is. Opposite charges cancel out by neutralisation. In other words, all I need is a magnetism strong enough to force the poles of those atomic systems to point in *one* direction only. With both pointing the *same* way the charge will not be opposite, but identical—and of course like charges repel. The whole structure will fall to pieces . . .'

His mind made up Sherman Clarke turned aside and examined Clifford Braxton's apparatus. In a few minutes he had removed a section of the covering and was keenly examining the wiring within. His eyes strayed to the battery-driven lights dotted about in various positions. The lamps, as he well knew, used atomic force emitted in very slight charges. They utilised a tiny copper cube which was atomically unstable, giving off its energy on a trickle-dispersion system.

Clarke's eyes gleamed. 'If I use the power-cores of these

lamps I'll have a portable power system to provide the radiation I need.' His hands reached out to strip the wiring coils from the suspended animation casket. 'These can easily be transformed . . .' He glanced up at the bewildered faces around him and smiled.

'Just do as I ask,' he ordered, 'and leave the rest to me.'

TEN

It was perhaps three hours before Sherman Clarke had finished. Though the men and women had stood about and watched they had not understood a fraction of the intricacies involved.

'Here, I think, we have the key to our liberty,' Clarke said finally, surveying the queer arrangements of coils and battery-cores he had fashioned into the shape of a projector. 'The surest way to find out is to try it . . . if you are prepared for that?'

Heads nodded resolutely in the glow of the single remaining lamp.

'We're ready,' Boyd Turner answered quietly. 'Let's get the thing over before matters get any worse.'

Clarke picked up the equipment in his powerful arms and led the way to the door. He opened it, then as a single body they went through the deserted hall way and out into the tempest.

It was still raining heavily. An icy wind buffeted through the darkness.

'Do you feel the Arbiter's mind trying to reach you, destroy you?' Clarke asked through clenched teeth as they advanced down the empty main street towards the city centre.

'Not exactly,' Boyd Turner answered, doubtfully. 'I can feel a headache, but nothing more.'

'As we come nearer to the Arbiter you'll know what I mean! Being more sensitive I can detect it at a distance . . . We shall have to fight this thing by will-power alone, refuse to be smashed down by it. Perhaps I should have made protective helmets, except for the time it would have taken . . .'

Silence fell again, save for the steady march of their feet along the dripping monolite pavements and the freezing wind. Here and there, as they advanced, Workers appeared like phantoms and vanished again. Darkness and chaos were over the city. The real seat of the revolution lay underground, where Workers and Duty Officers alike had fled to escape the elements.

Eventually they reached the Controlling Building, and clambered up the steps into the wide hall. There was nobody in sight.

The main office door was closed, but not locked—just as Carfax had left it. Clarke could feel the probings of that deadly mind as he swung the door wide and stepped into the gloom of the great office. Abruptly something soft yet resistant slammed against his feet so that he stumbled, almost dropping the projector. Behind him he heard Brenda Charteris utter a gasp of sick horror.

Strewn across the floor were the twisted bodies of perhaps a dozen Workers, men and women, most of them still clutching weapons of some kind. As their eyes became accustomed to the gloom, Clarke's party realised the grisly implications. Desperate Workers had tried to storm the Arbiter's citadel, only to be forced to destroy one another by the Arbiter's telepathic commands.

They could feel the same thing now.

'Concentrate against it, all of you!' Clarke ordered, and intense strain was evident even in his voice. 'I have the power of five brains, but I am fighting twelve!'

Momentarily he could not get beyond the threshold of the room in which the Arbiter stood. Fear had the Workers in its grip as that incredible mind, the force of twelve brains in one, was fighting them, battering, flooding them with an insane desire to run to a window and jump.

In the space of two minutes every member of the party began to collapse. Brenda Charteris made a mighty struggle to combat the awful flow of power from the machine, but failing, she sank down unconscious upon the floor. Boyd Turner and the others followed suit rapidly.

Only Sherman Clarke remained standing, his feet a little apart, the projector held rigidly in front of him. His eyes burned with a queer inner fire, and down came his thick eyebrows into a sharp V. He took a step forward, jerkily and clumsily, as though with colossal effort . . . then another. Then his mind reacted to a sudden change in the thoughts of the Arbiter—fear!

The Arbiter had read his mind, knew the purpose of the equipment he carried with him. It struck then with all the devouring, inhuman mental power it possessed.

Clarke reeled backwards, anguish tearing through his skull . . . Still clinging to the last shreds of consciousness he continued his silent struggle against that flood of mental destruction, shaking visibly against the dim grey of the window in his titanic efforts. His face was streaming with perspiration. With a creeping, leaden movement his hand moved to the switch of the apparatus.

He dropped to one knee, gasping. The switch moved—Clarke fell his length on the floor as there was a faint spark in the darkness and a violet beam fanned outwards towards that metallic monstrosity. Instantly there was sound—an unholy cracking and creaking of a myriad interstices of matter unlocking themselves, the twisting and whirling of atomic orbits, the bending of sub-atomic matter itself into new planes.

The vast mind-power weakened, became terror-stricken. The metallic side-plates crumbled outwardly away from the Arbiter, lenses tinkled and smashed on the floor. The supporting pillars collapsed, and that hideous mind-sense went out like a fused bulb as with a smothered explosion the central brain pan gave way. As the Arbiter came down in metallic ruins, shards of metal and wiring were flung out like gun-shot.

Clarke jerked with convulsive agony as his chest was transfixed by a flying fragment of metal. Through the mists of pain that assailed him as his life-blood seeped away, a languorous sense of hope suffused his mind.

He knew that he was dying. It was better, perhaps . . . Men such as he had become were not yet for this world.

Men could rebuild. A new leader would emerge. That woman—what was her name? Iris Weigh? She could write for the people and—and show them what they ought to have. That architect would redesign the city. Differently. No more overburdening power.

Weakly Clarke's mind reached across the room. The others lay there, scattered amongst the corpses of those who had come before them. But they were only unconscious. They still lived. For an instant Clarke's mind touched the consciousness of Brenda Charteris. A sense of regret stole over him. She had loved him, then.

The emotion passed. Humanity remained—and that was all that mattered. And he—he would soon be with that cosmic consciousness he had only recently discovered . . .

It was very still and dark.

The Impatient Dreamers

WALTER GILLINGS

British science fiction has seen two magazines titled 'Fantasy', both of which lasted no more than three issues. How the first 'Fantasy' became a war casualty has already been told in this historic series. Now Walter Gillings, who brought the second, post-war 'Fantasy' into being, reveals the inside story of its protracted birth . . . and tragic death.

11. Pages in Waiting

Nothing would seem to be more frustrating to a writer than a story that won't sell, especially when he's certain it's the best he has ever done. In my time, as an author's agent, I have had to disillusion more than one who imagined he was the best judge of his own work. But even more galling is the manuscript that doesn't get printed after it has been accepted and paid for. As Dr. Johnson observed, with an eye for his weekly beer ration, only a fool writes for nothing; and I have yet to meet the author of legend who framed his first cheque. Still, until the day comes when a writer is so busy meeting editors' deadlines that he hasn't time to gloat over his last published piece, seeing his work in print is an almost essential spur to further effort.

Though I can advance some valid excuses, as an editor I must admit to having deprived several deserving contributors of this sense of achievement. And after nursing my remorse for more than twenty years, I hereby make public penance to those authors—who shall be nameless, for not all of them are still with us—whose stories I left behind me when *Fantasy* folded in 1947, after only three long-delayed issues.

Because that heap of unused MSS. has recently landed in my lap, like an apport out of time, to do with as I may—within certain prescribed limits. More than thirty stories, including several novelettes, which might have gone to make another half-dozen issues had they not been fated to remain unpublished, unread by all but myself and an interested managing director, and doubtless by now unremembered by their authors. One exception was a novelette by John Russell Fearn, 'Rule of the Brains' which was snapped up by *Vision* editor Phil Harbottle to appear in his first anniversary issue after Mrs. Fearn had given her blessing.

A few of them, inevitably, have been badly put out by the course of events. But not all of these neglected tales are as dated and debilitated as you might expect. 'Marathon to Mars'... 'Paradise in Synthesis'... 'Planet Beyond Pluto' ... 'New Dawn'... 'Arm of Morpheus'... 'Rendezvous in Rysta'... The titles still promise much. And there is some consolation in the fact that the pile might have been bigger if it were not for the two issues of *Science-Fantasy* I edited in 1950 for Nova Publications, the main contents of which came from this same hard-won store by special dispensation of my erstwhile employers, the Temple Bar Publishing Company.

So I was able to do justice to the late J. M. Walsh and John Russell Fearn, and to Christopher Youd, while lessening to some extent the burden of regret—and unused material—in respect of a few others who got a showing beside Arthur C. Clarke. To whom I have no cause to make reparations, as he would concede as readily as he acknowledged—in his short story collection 'Expedition to Earth'—my aiding and abetting his first successful efforts. For he soon became so productive that I felt obliged to divert his energies and ingenious ideas into the more rewarding American market. As a result he actually made his bow in *Astounding* before I could present his 'Technical Error' in the first (December 1946) issue of *Fantasy*, where it proved the most popular piece, even pushing a Weinbaum reprint into second place.

After that, there was no holding him; and ever since he has lived up to the 'Ego' sobriquet he revelled in—from which he devised one of his two pen-names, E. G. O'Brien and Charles Willis. That, too, is some consolation to me, even if it does sound like name-dropping...

The eventual continuance of *New Worlds*, which also had its initial setbacks, offered an alternative market to such newcomers as F. G. Rayer, E. R. James and Norman Lazenby, whose names might also have become familiar to *Fantasy*'s readers—if that select circle had been allowed to exceed the six thousand buyers which paper restrictions dictated. Norman C. Pallant, too, was so adept in meeting its requirements that he soon needed a pseudonym—Charles Alban Crouch derived from his birthplace and his North London domicile. But though we met several times while he was turning out the neatest MSS. I had seen since Eric Frank Russell's, I lost track of him when he resumed his writing for the women's magazines which provided his bread and butter.

To acquaint all comers with the magazine's needs—concerning which I had fewer doubts than whether they could be fulfilled from the start—I prepared another of those immortal memorandums to intending contributors with which the hard road of British sf publishing is now sadly littered. It began, with a sprightly optimism that dwindled over the next few years:

> 'Post-war prospects for the expansion of British Science Fiction are bright. As soon as the paper situation permits, there will be a new and remunerative market for such material in this country.... The new

magazine will offer more scope than has ever been available to British writers specialising in or wishing to develop this medium.'

After allowing authors 'every latitude' in selecting themes for plausible development, with the accent on 'genuine human interest', this two-page policy statement almost pleaded with them to avoid those 'wearisome menaces from space, messages in meteorites, Frankenstein monsters and suchlike—unless you can give them a twist so novel that even they appeal on that score.' And most writers took the hint; especially those who recalled the main criticism levelled at *Tales of Wonder*. There were few, though, who needed the warning:

> 'Don't strain for effect by dealing wholesale with Universes and Galaxies, just for the sake of Size. We want to encourage tales of wonders on Earth as well as in space.
>
> 'We want stories, too, in which the impact of marvellous events or inventions on the lives of a few ordinary people is given more attention than their effect on the whole human race. . . . Especially welcome is the story which gives a detailed, intimate picture of life (or one aspect of it) in the world of the future. . . .'

This memorandum formed the basis of an article, arrestingly titled 'Science Fiction Wants YOU!' which appeared in *The Writer* in February 1945—just fourteen months after I had submitted it to the hard-pressed editor. So I tried to enlist the aid of a new roster of contributors in bringing sf 'down to earth', without reducing its vital element of wonder or limiting its horizons, so that it might appeal to the largest possible adult audience. For I expected, with better production facilities at my command and a good distribution set-up, that we might eventually reach a circulation figure at least five times as impressive as the one on which we started, on a mingy eight hundredweights of paper.

I was also counting on what I thought would be a more tolerant attitude towards sf after the war, of which I had managed to convince my new principals without recourse to blackmail or violence. I had made my overtures to this end when it became apparent that the revival of *Tales of Wonder* was as remote as the Millenium. The World's Work was devoting its paper ration to books, in which there was evidently more profit, especially while dust-jackets could be improvised from old *Wonder* cover blocks.

As early as 1943, the firm which had pioneered the British sf magazine was way out in front with the first of a series of hardbacks, each 'produced in complete conformity with the authorised economy standards.' It was Russel's brilliant *Unknown* novel, 'Sinister Barrier'—with a wrapper which had earlier illustrated John Edwards' 'Menace from Space', and a blurb adapted from one of my masterly pieces of copywriting. Quickly in its train came 'The Intelligence Gigantic', by 'one of our ablest writers of Science Fiction', whose name goes without saying. But by the time they were launching John Russell Fearn's 'Liners of Time' in 1947, the Master Thriller Science Fiction Novel sponsors were talking about 'the growing army of science fiction fans'—and still pricing their products, philanthropically, at a dollar a throw.

When Russell's opus emerged I was half out of this world, suffering from that psychoneurosis peculiar to military servicemen stationed during the war at Catterick Camp, in Yorkshire.

I hadn't worn the creases out of my demob suit, however, before I divined that this changing attitude towards sf had already started in America. It was in March 1943 that the first sf anthology worthy of the name appeared there in the shape of 'The Pocket Book of Science-Fiction', edited by veteran fan Donald A. Wollheim, who had been responsible for the short-lived *Stirring Science Stories* and *Cosmic Stories* a couple of years before. A truly representative selection, ranging from Stribling's 'Green Splotches' to Heinlein's '—And He Built a Crooked House', it must have hooked thousands of readers on to sf for keeps.

Even more significant was the compact, 750pp. volume published by New York's Viking Press in 1945 in their hardback Portable Library series, 'The Portable Novels of Science.' Also edited by Wollheim, this bumper little book put some of the best work of Wells, Stapledon, Lovecraft and Taine in the same category—at least for saleability—as that of Poe, Steinbeck, Hemingway, and even Shakespeare; and it must have helped to persuade the bigger publishing houses that sf was something worth cultivating. For, as Wollheim pointed out in an Introduction that acknowledged the profound influence of British writers on the medium:

> 'Science-fiction is a branch of literature that . . . all people are familiar with, in one or another form . . . Yet up to a couple of decades ago, it lacked even a name for itself. The fact that it has now come to the fore is a product of our times, for we live in an era . . . when the margin between what is and what will be has drawn so close as to force speculation . . . upon even ordinary unimaginative persons.'

In short, the climate for sf was set fair—or soon would be, on this side. And by 1947 the interest of editors and publishers in the field was enough to justify a series of four articles I contributed to the *Free-Lance Writer and Photographer*, a new monthly journal which also faded too soon. But as many writers as editors were still confusing sf with horror fiction—which, too often, is more nearly what it was. Two glaring examples of misbegotten *Strange Adventures* and *Futuristic Stories*, on sale at two shillings each before 1946 was out, hit an all-time low in crude presentation even considered as juvenilia. They were said to have been authored by gangster-writer N. Wesley Firth who had hastily boned up on sf at his publisher's behest. Against them, a 64pp. British edition of *Amazing Stories*, compiled from material dating back as far as the February 1939 American issue, was an artistic triumph. And even worse—though not much worse—was to come . . .

This ghastly spawning of grinning reptiles and dustbin robots—all produced 'off the quota', of course—did little to perk up the public appetite for science fiction. Still, it did no more harm to *Fantasy*, each issue of which was a sell-out almost before it hit the bookstalls. With its 96 pages, it was a giveaway at a shilling, and I hardly saw a single copy on show. What bothers me slightly, even now, is how it would have sold if we had been able to print ten times as many copies . . .

My brief, when I was tempted on to the payroll, was to compile six issues against the day when the lifting of paper restrictions would permit us to launch the magazine on a monthly schedule. That day, in 1944, was more distant than we imagined; indeed, it seemed just as remote at the end of 1947, when our patience had run out and we abandoned *Fantasy* as an uneconomic proposition for all concerned, at least for another two years. But my first tentative feelers produced so little acceptable material that it could

Technical Error *by Arthur C. Clarke*

Relic *by Eric Frank Russell*

only seem I had raised my standards too high. Until I convinced my principals that a bird in the bush might turn out to be worth two in the hand, and that more was to be gained by making haste slowly.

As it proved in the event, luckily for me. By the time No. 1 was taking off, we had stockpiled enough material to be planning No. 9, and I had put forward proposals for a companion magazine that 'would feature *factual* science material with a popular, imaginative treatment, much on the lines of the articles I have written for *Fantasy* . . .' All depending on paper supplies, of course.

My directors didn't go for that. A trifle too dreamy, perhaps; but it did help to get *Fantasy* started. Editors, too, can feel frustration when they are denied the pangs of production. And when I left behind me what might have been, but for the Paper Control Order—and the rising cost of living, for my salary was also pegged—the pride and joy of my working life, I consoled myself by pinning my hopes to a bi-monthly publication which had occupied most of my spare time for the past eight months. It was *Fantasy Review,* which I had launched with my own imprint early in 1947 'to cover the entire field of fantasy fiction and its allied interests, to reflect its growing popularity here and abroad, and to serve the discriminating reader and collector.'

The first issue had reported on the protracted genesis of *Fantasy,* the 'surprise debut' of *New Worlds,* the creation of Utopian's *New Frontiers,* and other developments which turned out almost as ill-starred as *Outlands,* a 'Magazine for Adventurous Minds'. Produced by Leslie Johnson and his Liverpool associates 'to foster ideas ignored by orthodox science', it mixed strange facts with fiction by Fearn, George C. Wallis, Sydney J. Bounds, Leslie V. Heald and others. But it looked more like a church magazine and didn't get beyond No. 1.

The *Review* had reached its fifth issue when I wept bitter tears for *Fantasy,* 'strangled at birth by prevailing conditions'. The page one headline was grimly succinct: 'REVERSE', it said, in heavy black type. You turned the page, and the heading of the next article put the intriguing question: 'LITTLE SUPERMAN, WHAT NOW?' Though it didn't refer specifically to me, I thought I had the answer.

(In the next issue John Carnell will tell how New Worlds *was saved from the fate which befell* Fantasy, *and how it developed under his editorship.)*

Because copies of *Fantasy* were so limited to begin with, an unusually high value is now placed on them by collectors and they seldom change hands. For the benefit of those readers who have never seen the magazine, we give a complete listing of its contents—including, for the record, the names of the artists who did the interior illustrations. It was the policy of the publishers not to give artists credit lines; and the identity of the artist who executed the covers (for which the editor carried no responsibility) remains obscure.

No. 1 (December 1946): Last Conflict, *John Russell Fearn* (illus. Smythe); Supernova, *P. E. Cleator* (Gaffron); The Worlds of If, *Stanley G. Weinbaum* (Powell); Technical Error, *Arthur C. Clarke* (Powell); The Pain Machine, *L. V. Heald* (Gaffron); A Matter of Size, *Norman Lazenby* (Gaffron). Articles/features: The Moon Men, *Walter Gillings* (Powell); Lost Planet, *Geoffrey Giles* (Powell); Going Down! *Thomas Sheridan;* Matters of Fact, The Editor; Cosmic Adventure, editorial; This Atomic Age, science news.

No. 2 (April 1947): Relic, *Eric Frank Russell* (Powell); Haunted House, *J. Austin Jackson* (Smythe); Prefabrication, *E. R. James* (Gaffron); The Barrier, *P. E. Cleator* (Powell); Castaway, *Charles Willis* (Powell); Survival, *Norman Lazenby* (Smythe). Articles/features: Space-ship Ahoy! *Walter Gillings* (Powell); Skylight, *Thomas Sheridan* (Gaffron); Matters of Fact, The Editor; This Atomic Age: Viewpoints, readers' letters; The Readers' Analysis.

No. 3 (August 1947): Time Trap, *Stanton A. Coblentz* (Powell); The Lost Key, *Charles Alban Crouch* (Smythe); The Three Suns, *Norman C. Pallant* (Powell); The Fires Within, *E. G. O'Brien* (Gaffron); Basic Fundamental, *F. G. Rayer* (Powell); Menace from the Moon (condensed), *Bohun Lynch.* Articles/features: Are You There, Mars? *Walter Gillings* (Powell); Matters of Fact, The Editor; This Atomic Age, Viewpoints, etc.

E.C. TUBB SPAWN OF JUPITER

Glowing in the cabin lights, a green vapour clung like a thin liquid, coiling, pulsing with a strange energy . . . as if it were sentient and alive!

Durgan heard the sound as he crested the rise and he froze, eyes narrowed as he probed the dimness. Dimness, not dark, for it was never dark at night on Ganymede, the great ball of Jupiter filling the sky took care of that, the flaring mystery of the Red Spot seeming to look down like a watchful eye.

The sound came again, a stirring, a scuffle as of a boot against vegetation, a movement of bulk. Durgan stepped from the path into the shadow of a clump of leetha bushes. Carefully he eased the bulging pack from his shoulders and rested it quietly on the ground. Picking up a handful of stones he threw one far down the trail in the direction from which he had come.

'Listen!' The voice was a whisper. 'Did you hear that?'

Durgan threw another stone.

'Someone's coming. Get ready!'

Two of them at least but it was unlikely there would be more. Two men were enough to handle an unsuspecting harvester and more would only lessen the individual share. They would be waiting on either side of the path, one lower down than the other, and would attack from both front and rear. If merciful they might not actually kill him, simply knock him unconscious and strip him of everything of value, but, to be naked on Ganymede, was to be dead.

Durgan crept silently through the bushes, easing aside the lacey fronds and letting them spring back with a minimum of noise. A stone turned beneath his boot and he almost fell, recovering his balance with a rustle of leaves. He sprang forward as a shape loomed suddenly upright, turning with a glimmer of whiteness from the face, a brighter shine from the upraised knife.

Durgan met the threat of the blade with a thrust of his own, the knife whipping from the top of his boot and lancing forward all in one smooth motion. The point hit the exposed column of the throat, ripped into flesh and muscle, cutting the great arteries and releasing a fountain of blood.

Dying the man fell, threshing, ugly sounds coming from his throat.

'Jarl?'

Durgan reached for his gun as the other man called from the shadowed dimness.

'Jarl?'

Durgan fired, the gout of flame traversing the path, impinging on the upright figure, searing and penetrating with a shaft of irresistible heat. The man screamed, his body a flaring pillar of fire as leatheroid crisped and burned, falling with an odour of charred meat, his chest and lungs totally destroyed.

For five minutes Durgan waited, crouched in the shadows beside the path, gun steady in his hand as his eyes searched the night. Then he holstered the weapon and looked at the first man he had killed.

He was young with the facial attributes of a wolf, teeth bared and snarling even in death. His clothing was filthy, his boots worn, black crescents beneath his nails. He had no gun, no pack, only the knife and a thick club. His companion was much the same. Two scavengers who had sought one victim too many.

Returning to the bodies of leethan bushes Durgan picked up his pack, shouldered it, continued on his way.

An hour later he reached Candara.

The settlement was a ramshackle place, a maze of buildings, shacks, hovels built of stone and dirt, looming warehouses and plastic constructions. The streets were unpaved, thick with litter and filth, rutted and splotched with odourous puddles. To one side the landing field rested beneath a continuous haze of light, the tall contours of the control tower spidery against the glowing disc of Jupiter.

As he hit the edge of the settlement a rykat barked a warning, the sharp, thin sound eerie in its haunting loneliness. A window slammed and a man called out.

'I've got a gun. Try anything and I'll shoot.'

Durgan walked past, silent, hearing the rykat bark again, the man's muttered cursing and the slam of the closing window. Deeper into the maze of buildings he heard the sound of music and laughter, the rattle of glasses, the unmistakable whirling noise made by a spinning wheel. Keeping to the centre of the path, his hand resting on the butt of his holstered gun, he made his way to where a tall building rested on the edge of the landing field.

'You're late!' The factor, a thin-faced man with red-rimmed eyes and a thin, predatory nose, glared from behind his counter as Durgan entered the trading post. 'I was just about to call it a day. Can't it wait?'

For answer Durgan dropped the pack from his shoulders and lifted it to the counter. Opening it he produced a transparent plastic bag filled with greyish pods each two inches long and a quarter wide. Raw kalsh, the vegetable compound which, when cleaned and refined, would fetch twice its weight in gold when sold on Earth.

The factor pursed his lips in a soundless whistle.

'Man! That's some harvest! How long have you been out?'

'Six weeks.' Durgan was curt. 'I want to check it in. Weigh it, seal it, and give me a receipt. We can finish the deal later.'

'Why not now?'

'Just do as I say.'

● *Colour illustration by Stanley Pitt.*

Durgan leaned against the counter as the factor busied himself with scales and seals. The overhead light illuminated the strong lines of his face, the tall length of his body. It was a hard face and a muscular body both blurred a little now by fatigue, the eyes creped with tiny lines, the shoulders a trifle bowed. Six weeks in the Freelands was a long time for any one man to harvest.

'You want some spending money?' The factor came to the counter, papers in his hands. 'A couple of hundred, say?'

Durgan nodded.

'I thought so. Just sign here and put your thumb here.' The factor watched as Durgan followed instructions. 'You know the old saying? Work hard and play hard? If you want some fun Madam Kei's got some new talent just arrived.'

'No thanks,' said Durgan.

'Each to his own poison,' said the factor. He reached out and touched a spot on Durgan's tunic, frowning as he examined the carmine stain on his finger. 'You have any trouble?'

'Should I have had?'

'You know better than me, mister. I just buy the stuff. Here's your cash. Drop in tomorrow and we can finish the deal.' He looked at Durgan's extended hand. 'Something else?'

'The receipt.'

'Oh! Sure! I forgot.' The factor handed it over, looking at the name. 'Hey! There's something else slipped my mind. A dame's been asking for you. Said she'd wait in the Purple Puppy. You know it?'

'I know it. What did she want?'

The factor shrugged. 'That she didn't say.'

Durgan saw the woman the moment he stepped into the tavern. She sat alone at a table close to the stage, long legged, dressed in clean leatheroid, high boots, pants, blouse and tunic. A holstered gun lay flat against her stomach. Blonde hair was pulled back from her face in a pony tail which rested on her left shoulder. Her face was round, full-lipped, with a determined jaw and eyes. She was a woman but there was nothing soft about her as there was nothing soft about Ganymede. She was, he guessed, about twenty-five which made her five years younger than himself.

To the bartender he said, 'Give me a bottle of zulack and a couple of glasses.' Paying he added, 'The woman facing the stage. Who is she?'

The man shrugged. 'A drifter. Came in here about three weeks ago. Some of the boys tried their hand but she soon made the position clear. One of them wouldn't learn so she burnt a hole in his stomach. No one's bothered her since then.'

Durgan nodded, picked up his bottle and glasses and headed towards where she sat, halting at a table at her side. As he sat the floor show commenced and he opened the bottle, threw away the top inch of liquor and filled one of the glasses. Sipping he watched the performance.

Someone had imported a troupe of dancers, sleek, olive-skinned women with long, black hair and flounced skirts, who stamped and pirouetted to the blood-stirring rattle of castanets. Behind them a man lifted his voice in the undulating wail of a flamenco as his fingers danced over the strings of a guitar.

It was an odd troupe to be found in such a place for little of the Inner Worlds touched the Outer Planets and Ganymede was used to cruder entertainment. Wejack birds, clipped and fitted with iron spurs, set to fight against each other to the death, broken singers on the last lap of their careers, jugglers, acrobats, mutants who swallowed fire, men who fought with spiked gloves to the screamed encouragement of their backers. These brought a touch of Earth, of sun and sea and shining beaches, of grapes and scented air, of rainbows and gentle breezes.

One day, perhaps, he would see it again. One day.

He drank the zulack and refilled his glass. A hand caught his own as he made to set down the bottle.

'You have two glasses,' said the woman. 'Would one be for me?'

'It might.'

'Meaning that you are uncharitable?'

'Meaning that I would rather not drink with strangers.' He met the coolness of the blue eyes. 'Perhaps we should introduce ourselves.'

'You are Brad Durgan,' she said. 'I am Sheila Moray. Now may I join you?'

He nodded, pouring the second glass full as she took a chair, handing it to her, suddenly acutely aware of her femininity, the sensuous throb of the music.

'I've been waiting for you,' she said. 'But, of course, you know that. The factor would have told you.'

'He told me that a woman wanted to see me. He didn't say who and he didn't say why.' Durgan drank more of the zulack. It was a hundred proof spirit, flavoured with kalsh-pods, a limpid green devil containing smouldering fires. They burned away some of his fatigue and a few of his memories. The scent of charred flesh, of newly shed blood, of straining weeks of constant anxiety, of fear and failure, of a future which held no hope and little promise.

'You drink too much,' she said as he refilled his glass. 'Or shouldn't I say that?'

'You shouldn't.'

'Then let's talk of something else. Of the dancers, perhaps. You like them?'

'They're different.'

'They were heading for Callisto, on contract to the Ku Fung franchise, but their ship developed a split tube lining and they docked here for repairs.'

'So?'

'Callisto. Twice as far from Jupiter as we are now. A satellite almost the twin of Ganymede. You know about Callisto?'

'I know.'

'And Amalthea?'

'A small world, a hundred miles in diameter, a hundred and thirteen thousand miles from the centre of Jupiter.' His hand tightened around his glass. 'I know Amalthea.'

'Yes,' she said quietly. 'You would. It's the bucket boat depot. Right?'

He swallowed the zulack in a single gulp, refilling the glass as the dancers came to the end of their performance. Men rose, shouting, flinging a shower of coins on the stage. One, bolder than the rest, sprang on the platform, his hands grabbing at a woman. He caught the shoulder-strap of her flounced gown, olive-skin glowing in the light as he ripped at the material. From the wings ran two men, hard-faced, armed. They clubbed down the intruder and stood, hands on guns, as the dancers left the stage.

They were replaced by a weary comedian who thickened the air with the blueness of his painful jokes.

'They clubbed the wrong man,' said Sheila dispassionately. 'That creep should be put in a sack and left as bait for gizzards.'

'He's doing his best,' said Durgan. 'We all do our best.'

'And where does it get you? Home? Earth? Back to comfort and safety? How long does a man have to harvest before he hits the jackpot?' She reached forward and rested her hand on his own. It was slender, the skin smooth and uncalloused, the nails reflecting the light with a pearly sheen. 'There's blood on your tunic. This time you won, the next, who knows? Is that how you want to end? Meat for the scavengers?'

He met her eyes. 'You're saying something, but what? And why are you interested in me? I've never seen you before.'

'That's true.'

'Then why the interest?'

'You're tall,' she said. 'Tough, a good-looker. For most girls that would be reason enough. But they would want something. I don't. Instead I can offer you the biggest thing you've ever met in your life. A chance at the jackpot. Money enough to set you up on Earth, a farm on Mars, a dome on Venus—you name it and it's yours.'

Durgan was ironic. 'Sure—and all I have to do is to give you a stake so you can go and collect the lost treasure of Ma' Kalah. Bury it, girl! You're talking to the wrong man!'

'And you're jumping to conclusions.' Her hand lifted, caught his wrist as he lifted the glass, twisted so that the zulack fell in a glinting stream to the surface of the table. 'What are you, a sponge? Has that stuff rotted your mind and blocked your ears? I'm talking, Brad, can't you even listen?'

'To what?'

'A proposition. A trip to Callisto all expenses paid and a bonus for wasted time if you turn down the offer.'

'And that is?'

'I don't know.' Her eyes were frank. 'I was sent to collect you and that's all. But it's something big, that at least I know. Agree and we can leave within the hour.'

Durgan shook his head.

'You're turning me down?'

'No,' he said. 'But we can't leave until tomorrow. I've got money owing and I want to collect.'

Distances were relatively unimportant in the Jovian system, only time was of value. Time to skirt the mammoth globe of the primary, to edge along the trap of its gravity well, to juggle speed and direction so as to reach where you wanted to go. Other things were minor but ever-present hazards, the threat of solar flares, trapped debris which added to the dozen moons, wandering fragments of interstellar rubbish which had been snared by the giant planet.

Durgan slept the major part of the journey, waking hours before landing, joining the girl in the compact lounge of the inter-moon transport. She had changed and now wore a short dress of glittering fibre, matching boots riding high on her thighs, a belt of synthetic gems accentuating the swell of her hips. Her hair, groomed and curled, hung like a curtain of shimmering gold on the rounded smoothness of her shoulders.

To his questions she said, 'Wait. You'll get all the answers after we land.'

Callisto wasn't Ganymede though both had much the same mass and bulk. Here the big companies had established their franchises, terraforming the globe with imbedded devices, setting up domed cities of sterile glass and plastic which reared in startling contrast to the gaping pits of tremendous workings.

Durgan watched as they landed, seeing men tending machines, ant-like in their ordered confusion, slave-like in their dependence on one or the other of the great combines which owned the satellite and permitted grudging entry to those unattached. Yet despite their control some freedom remained. The freedom to range outside the cities and workings, to starve for want of employment, to die unnoticed and ignored.

In a small room in one of the featureless buildings Durgan met the man who held all the answers.

He was a small, wrinkled, shrewd-eyed man with a suit of expensive fibre and a heavy ring which winked with flashing colours as he moved his hand. He nodded to the girl, as she left, gestured towards a table loaded with a dozen kinds of liquor.

'You are a drinking man, Mr. Durgan. What is your pleasure?'

'Brandy,' said Durgan and added, 'The real stuff. From Earth.'

'A test, Mr. Durgan?' The man smiled. 'If it is I can pass it. My name, by the way, is Creech. I take it that you are interested in my proposition?'

'I can tell you that when I've heard what it is.' Durgan tasted his brandy, finding it insipid after zulack. 'But, of course, you know how much I was told. Your messenger was most discreet.'

'Not without reason.' Creech took a chair, waited until his guest was seated and then said, 'How are your nerves, Durgan?'

'Good enough.'

'Good enough for what? Could you ride a bucket boat again?'

Could he dip once more into hell? Durgan leaned back, eyes veiled, listening again to the screaming threnody of Jupiter's atmosphere tearing at the skin of his boat, seeing the swirl and twist of vapour against the screens, feeling the bucking confusion and horrible disorientation. Each ride had been a gamble. Every trip had meant running the gauntlet with death waiting a hairsbreadth away. To ride a stream of fire down into the tremendous gaseous envelope, to level out at a selected depth, to trip the opening of the bucket, the huge plastic envelope trailing after the vessel, to cram it full of compressed gases, ammonia, methane, hydrogen even, a slew of elements waiting to be gathered, to seal the bucket and then to drag it up and out of the atmosphere and back to the depot on Amalthea.

Could he do it again?

'They said I was past it. That my reflexes had grown too slow. They ended my contract on three days' notice.'

Creech leaned forward. 'Did you agree with them?'

'No.'

'But there was more, wasn't there? The last trip you took. You returned empty. Why?'

'I hit a bad spot. The convection currents were all to hell. When I tried to level out I couldn't hold the boat steady enough to open the bucket. Had I tried it would have dragged me out of control. So I gave up and got out.'

'Right out.' Creech bit thoughtfully at his lower lip. 'I've read the psych-reports and they say you lost your nerve. That you turned coward. That you aborted the dip without really giving yourself a chance. Are they wrong?'

Durgan looked at his brandy then set aside the glass.

'They weren't down there,' he said. 'They didn't feel what I felt. All they had to go on was the relayed instrument-readings and they aren't to be trusted. I could have taken a gamble and probably died because of it. I figured that it was better to be a live coward than a dead hero. Alive I could try again. Dead they would have lost the boat.'

'And so they kicked you out. You went to Ganymede and lived as a harvester.' Creech picked up the glass of brandy and handed it back to Durgan. 'Drink it. It may be your last for some time.'

'Meaning?'

'I've got a job for you. I'll say it quick. I want you to drop down to the bottom. To hit the core of Jupiter. Right down through the envelope until you reach solid ground.'

'No,' said Durgan.

'You mean you won't do it?'

'I mean that it can't be done. Can you you even begin to realise what the pressure is like down there? The bottoms of terrestrial oceans would be a vacuum in comparison. Down there hydrogen and nitrogen would be compressed into liquid ammonia, the—'

'I know about the pressure,' interrupted Creech. 'And about the gravity, two and a half Earth normal, but it can be done and I have the vessel to do it. All I need is a pilot with guts enough to handle it. Guts and experience so that he can ride the winds and stay in one piece. In return I'll make that man rich for life.'

Durgan looked at his glass, at the brandy it contained. A bottle of the stuff would cost more than he could harvest in a week. The girl hadn't lied, she had shown him the jackpot, from now on it was up to him if he hoped to collect.

Quietly he said, 'When do I learn the rest?'

'You don't. Not unless you agree to ride all the way. Bucket riders are scarce, most of them die young and the rest are broken. You didn't break. The fact that you managed to survive on Ganymede proves that. That's why I sent for you. Are you with me?'

'You've got yourself a pilot,' said Durgan. And swallowed the brandy.

It was an old and familiar dream. A hand was pressing him down hard against the ground and it kept on pressing. His chest collapsed, the broken ends of shattered ribs lacerating his lungs, his intestines squashed into a messy pulp, the bones of his skull began to yield but still the giant hand kept pressing, pressing, grinding against skin and bone until he was nothing but a red smear on the dirt.

And still the hand kept pressing until there was nothing but a liquid trace, cells imploding, molecules crumpling, elements forced together to make new compounds.

And the worst part was that he was still alive, still aware and able to feel.

It wouldn't be like that, Durgan knew. If the hull was breached death would be instantaneous, a blast of pressure which would paste him against the metal before he would have time to even guess at what was happening. But the cold knowledge brought little comfort. Imagination still continued to haunt him with speculations of what might happen, what would happen if something went wrong.

The others didn't appear to be worried.

Nanset was the engineer, a quiet, scholarly-looking man who wore contact lenses and spoke in a voice barely more than a whisper. Pendris was different, a tough veteran of the Jovian moons, a hard man with calculating eyes and the muscles of a bull. His job was to operate the waldoes. Creech made the introductions then retreated to stand beside a screen. Sheila took a position beside a projector, a warm touch of colour in the otherwise spartan furnishings of the room.

'Now that we have all met I want to brief you on what has to be done.' Creech's dry, emotionless voice was swallowed by the soundproofing of the chamber. 'As you know we are going to send a vessel down to the solid core of Jupiter. Nanset has assured me that his force-field will provide ample protection against the pressure and, as his own neck will be involved, I tend to believe him. Aside from that the vessel has been reinforced with multiple hulls to allow for a cascade accumulation against external pressure. To adjust the build-up will be Pendris's job. Durgan, naturally, will be the pilot. The nature of the operation is basically simple. We are going to salvage a lost cargo.'

He snapped his fingers as light and colour glowed from the screen, flight paths traced in strands of white, red dots moving to illustrate his explanation.

'A few months ago a ship of the United Combines set out for Earth. Unfortunately it was hit by a scrap of unchartered debris which contained sufficient velocity to throw the vessel towards Jupiter. The heat-energy generated by the impact fused the drive-system and, helpless, the ship fell into the atmosphere. Before being destroyed the crew managed to arrange a continuous-message broadcast and the descent of the stricken vessel was monitored all the way down to just before the final landing. The cargo was, and is, extremely valuable. Recovery will ensure that we all gain rich rewards.'

Put like that it was simple, idiotically so. Durgan glanced from one to the other of his crew and when neither mentioned the obvious did so himself.

'Jupiter isn't a small place. You're talking of something which has close to twenty-five thousand million square miles of solid surface area.'

Creech turned from the screen. 'I know that.'

'Radio transmissions from the planet aren't reliable. If you're hoping that cross-bearings determined the crash-point then you're hoping for too much.'

'I realise that also.' Creech was unflustered. 'Fortunately we don't have to depend on dead-reckoning, radio fixes or educated guesses. The entire descent of the vessel was computerised and the probable crash-point determined to within five square miles.' He snapped his fingers before Durgan could say more. The picture on the screen changed to that of a space ship.

'The *Archimedes*,' said Creech. 'The vessel which crashed. You will note that it is a normal interplanetary transport with capabilities for carrying both cargo and passengers. No passengers were carried on its last journey. A special cargo container was fitted within the hull and occupied this space.' His hand tapped the screen. 'I think it safe to presume that the vanes carrying the guiding jets would have been ripped from the structure within a short while after entering the atmosphere. I think we can also assume that the crash with the meteor weakened the rear so that too would have been torn free. The remainder, together with the cargo container, most probably fell as a single unit, perhaps disintegrating on landing.'

He paused as if expecting objections and, when he received none, continued.

'It may be necessary to cut free the cargo container and

the salvage vessel has been provided with means to do so. You will also be provided with power-assisted suits to enable you to move in the high gravity. Continuous scrambled-beam radio transmission will be maintained during the entire flight. Miss Moray will take care of communications. Have any of you any questions?'

Pendris lifted his voice. 'Do we get a chance of some training? If I'm to handle unfamiliar devices in a hostile environment I'd like to check them out before we start.'

'This is only a preliminary briefing. You will have ample time to do as you suggest.'

Durgan said, 'I'm not happy about the crash-point area. It's too large. Five square miles is a lot of territory when you're relying on naked-eye vision—and in the soup you don't see far at the best of times. Is there any way of narrowing the field?'

'There is. I will tell you about it later.'

'All right, I'll accept that, but what about the computerised landing? Down low conditions are unknown so how could a machine have determined the correct flight-path?'

'It did. You must take my word for it.'

Nanset whispered, 'This cargo. Supposing the container has burst and scattered the contents. How will we recognise it?'

'I'll tell you that just before you leave.' Creech nodded to the girl and the screen went blank as she turned off the projector. 'From now on you stay together. You talk to no one and you go nowhere without my permission. Is that perfectly clear?'

'In other words we're prisoners,' said Durgan grimly.

'You object?'

'I object to a lot of things and one of them is putting my head on a block. But making a fortune is something I like. For that I'm prepared to play along but I like to know what the rewards are.'

Creech met his eyes. 'I promised you all that you will be rich for life.'

'Rich is just a word and for me it isn't good enough. How about some figures?'

'A million,' said Sheila from where she stood behind the projector. 'One million for each of you. Good enough?'

Pendris whistled. 'For me, yes.'

Nanset blinked. Durgan turned to face the girl and met her cool stare.

'The jackpot,' she said. 'That's what I promised and that's what you'll get. Any more questions?'

'One,' said Durgan. 'Where is the ship?'

'On Europa.' Creech stepped from the screen. 'We'll be there in three days time.'

Europa, half the mass of Luna, almost half a million miles from the heart of Jupiter, a place of erroded stone and crumbling rock. A small place with sheds and workshops, electric furnaces burning their way into the metallic heart, atomic engines spewing out heat and light and slugs of fuel for the engines which sent the ships across the void.

A rough place with the great disc of Jupiter filling the sky at night and the sun a pin-point at day. Airless, barren, a disposal dump for unwanted scrap. An ideal place in which to convert a ship in privacy.

Durgan checked it inch by inch.

It was an adapted bucket boat, the massive hull reinforced by four extra sets of plating each removed from the other by thick stanchions. The engines had been removed, the cabin space reduced, the bucket controls and housing sealed. In the increased space new engines had been fitted giving three times the original power. Sheathed in external housings the waldo attachments broke the smooth contours. The stubby wings to grip and ride the atmosphere were like the feathers on an arrow.

As he worked Durgan brooded. The ship had cost money, the conversions more. Whatever the cargo was that Creech hoped to salvage must be of immense value. Something to justify the essential investment of equipment. He spoke about it to the girl.

'It's none of your business,' said Sheila. 'Believe that, Brad. Just do the job you've contracted to do and forget the rest.'

'I can't.'

'Why not? Are you so rich you can afford to throw away a million?'

'What million?' They were sitting beneath a dome of transparent plastic, drinking coffee imported from the Inner Worlds, listening to music recorded a century before. The glow of Jupiter-light cast coloured shadows on the pale contours of her face, touched her hair with transient gleams. 'You can't lose what you've never had so what the hell are you talking about?'

'Forget it, Brad. Take what life brings and stop arguing. Look on it as just another job.'

'Is that what you think it is?' He looked up at the glowing face of the planet. Tonight the Red Spot was unusually bright. 'Look at it. All you can see is the upper limits of the atmosphere but try to imagine what it's like lower down. Or, if you can't do that, go and see some of the bucket boat riders. You'll find them in the psycho wards scared of a shadow, unable to stand even the pressure of a sheet. That's the way it gets you in the end.'

'So what?'

'So I want to know what all this is about. Where Creech comes in. What part you have in it all. And don't tell me that you're just a messenger. That worked once but it won't work again. Give, girl, or look for another pilot!'

'He'll kill you,' she said emotionlessly. 'If you back out now Creech will have you gunned down.'

'Maybe.' Durgan was grim. 'He can try but if he doesn't make it the first time he'll never get a second chance—and you'll still need a pilot.' The music changed, the thrumming beat of rock smoothing into the strumming melody of cazenda, achingly poignant with the thin wail of pipes, the repetitious beat of drums. On the far side of the dome a woman began to shiver in sympathetic response.

Sheila drank the last of her coffee. 'Would you really back out, Brad?'

'Quit playing!' He was getting angry, his own nervous responses reacting to the emotional throb of the music. 'I'm not a kid to be fed on promises of candy. What is this deal, anyway? Straight salvage or a straight steal?'

He caught the expression in her eyes, the minute tightening of muscles, the cautious veil. Abruptly he was calm, his anger dissipating at the result of his probe.

'I guessed,' he said, 'but I want you to say it. No one offers the kind of money you mentioned for a legitimate operation. Now talk!'

'Give me a minute.' She looked at her empty cup. 'I could use some more coffee.'

And time to think up a story, he thought, but made no comment. From the automat he drew two cups, pausing on the way back as the woman across the dome began to scream. She sat, quivering, eyes glazed and a thin trickle

of saliva running from her mouth. Her cries were sharp, discordant, unthinking. The insidious beat of the cazenda had gripped her, jarring her nervous system, warring with the regular beat of her heart.

Durgan crossed to her table, set down the cups of coffee and slapped her sharply across the cheek.

'What—' The screaming died as she sat, blinking, one hand rising to the place he had struck. 'What's the matter?'

'It got you,' he explained. 'The music. Either move or break the circle. Think of something pleasant, talk to someone, look outside.'

Her eyes measured his height, the planes of his face, registered an unmistakable invitation.

'Talk,' you said. With you?'

'Not me.' He picked up the cups. 'I'm busy.'

Sheila looked at him as he sat down, her eyes moving from his face to the woman. 'A hell of a way to snap her out of it. Aren't you ever gentle?'

'When I've got the time, yes. Now I haven't got the time. You were going to tell me something. Let's get on with it.'

She toyed with her cup, very beautiful, very alluring, her femininity enhanced by the coloured shadows, the primitive impact of the music. Twice he caught the movement of her eyes, the subtle hesitation, then she made her decision.

'I'll give you the truth, Brad, and it is the truth no matter what else you might hear. The ship was carrying a cargo from the United Combines. It was a year's production of shedeena crystals. I shouldn't have to tell you what they are. Callisto is unique in its core-formation. The crystals, some say, are the result of divergent pressures existing way back when the solar system was first created. Others tend to think that Callisto might be a stellar wanderer caught in Jupiter's gravity well—but none of that really matters. Callisto is the only source of the crystals. The various companies holding franchises are forced to work together and pool their harvest. In all other matters they work as separate units but not in this. You can guess why.'

'A price ring,' said Durgan thickly. 'More. The only way in which they can avoid mutual warfare. A year's production, you say?'

'Yes.'

He looked down at his hand. It was trembling a little, the coffee in the cup he was holding shimmering as it caught the light from above. A year's supply! Why they had allowed it to accumulate didn't matter. To force up the price, to ensure security, to gather a full working load—

none of it mattered. All that was important was that the shedeena crystals were an anti-agathic, an anti-death drug which enabled the old, the rich, the influential to gain renewed youth and extended virility. Immortality, perhaps, if the supply could be maintained.

A year's supply!

Its value was incalculable. How much is life worth to a rich and dying man? What concessions would a ruler grant to the one who could deliver the source of longevity?

'Sometimes it happens,' said Sheila quietly. 'A combination of events which opens the door to everything you've ever dreamed about. I saw my chance and took it. When the ship was hit everyone seemed to go crazy. I was monitoring the flight and operating the computer. I kept track of the fall until the information ceased coming in—and then I made a couple of alterations. The information the combines have is useless. Only I have the true position of the wreck.'

'And Creech?'

'The money-man, the fixer, the one who figured out what to do. He's clever, Brad. He waited just long enough to make sure that I was telling the truth and then he acted. Then—'

Durgan was sharp. 'How?'

'How what?'

'How did he know that you were telling the truth?' He answered his own question. 'When they didn't find the cargo, naturally. There must have been attempts at salvage. The combines wouldn't leave that stuff lying about without trying to get it. How many attempts, girl?'

'Five.'

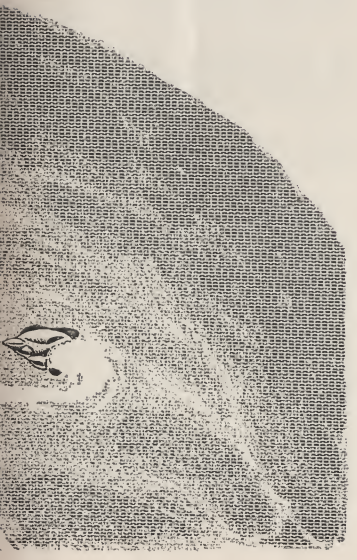
'And?'

'Five failures. Three ships just disappeared. One aborted the mission when the crew lost their nerve. The other imploded two-thirds of the way down.' She hesitated, then added, 'All were using Nanset's force field.'

'Which means it doesn't work,' said Durgan. 'Good news.'

'It does work. At least he says it does and he's willing to risk his neck on it. According to him the other engineers didn't know how to adjust the compensating factor. He could be right. Everything was done in such a hurry that something could have been unchecked. And the pilots weren't as experienced as they might have been.'

Hurry, he thought, and fear and the desire for secrecy. Bucket boat riders might have done the job but they were all under contract aside from those no longer fit. And no bucket rider in his right mind would have agreed to take a ship down so far.



Nanset said, 'This really isn't necessary, Durgan. I can assure you that the field will give us ample protection.'

'I like protection,' said Durgan. 'As much of it as I can get. That's why we're going to wear the suits from the beginning.' His voice echoed in his ears and he remembered there was no need to project his words. The radio would do that.'

'Engineers,' said Pendris sourly. 'Give me a field man every time. How the hell do you think we're going to move down there without the suits? Or did you figure we could get them on just before we land?'

'All right, I'll accept that, but why the increased pressure in the cabin? Surely we could wear the suits and leave the face-plates open?'

Durgan checked his instruments before replying. The ship handled well despite the alterations but, in space, that told little. The test would come when they hit the atmosphere and began to fight the winds.

'Protection,' he said flatly. 'Our internal pressure is as high as the fabric will take. We'll equalise it a few miles down but it will give us an advantage. Now shut up and let me get on with the job.'

It had been the same in the old days. The voice of the monitor had been a source of irritation, a scratching at his concentration best ignored if he was to put all he had into the dangerous business ahead. Then he had ridden alone without others to keep informed. Now he was not alone but all else was the same. The darkness of star-shot space, the transmitted thrum of the tubes, the mounting tension as the great ball of Jupiter swam closer and closer until it filled both mind and vision.

'Monitor to ship. You are three degrees off course.'

Sheila riding with Creech in an attendant vessel, checking his flight with her stolen data, hoping to guide him through a screaming hell of frozen gases and hit a minute bullseye far below.

Durgan acknowledged and returned to his concentration. At first it wouldn't be too bad, a slowing, a tendency to veer and twist, a mounting whine from beyond the hull. Then he would match speeds and begin to fall. The whine would increase, the juddering fight as winds tore at the vessel and negated the controls. To fight them was useless.

The trick was to use them, to ride the streaming currents, using vanes and jets to maintain some measure of control. If he lost it the ship would spin, flung by mighty forces and turning end over end to be torn apart in shattered ruin.

He heard the sharp intake of breath as the winds caught them, sensed the tension of Nanset and Pendris as they gripped their couches. Strapped down they were relatively safe but he could understand their fear. The screens pictured a seething fog of fuming nightmare, the external friction a nerve-tearing whine.

It lessened a little as he matched velocities, ignoring the voice from his radio, knowing that he was off-course but knowing that he could do nothing about it for the moment. Durgan checked his instruments, the big red hand of the external pressure gauge centred in the panel, handling the ship automatically with the skill of hard-won experience.

'Prepare for first pressure-adjustment,' he said to Pendris.

'System ready.'

'Seal first compartment at double interior pressure.'

Cascade accumulation, an elementary precaution if the weight could be spared, the weight and the extra power necessary provided. As they descended, the compartments between the hulls would be filled and sealed with gases of increasing pressure, each helping to bolster the metal skins against that outside. With four extra hulls and a highly pressurised cabin they would be able to withstand six times the pressure of a single hull.

Six times, a wide margin, but enough?

Durgan grunted as he rode the winds. Already he was down further than he had ever been before and now the ship seemed sluggish, the exterior density robbing it of easy manoeuvrability. And the old fear was growing. The knowledge that pressure mounted the lower he went until it would reach a million atmospheres.

'You are widely off-course.' Sheila's voice reflected her strain. 'Correct seven degrees north.'

Durgan made the adjustment.

'Final compartment sealed.' Pendris dropped his hands from the bank of controls before which he lay. 'Now it's up to Nanset.' He grunted as something rose beneath them and sent the ship into wild gyrations. 'Durgan!'

He made no answer, hands dancing on the controls, jets of fire streaming from the tubes as he judged time and pressure. It was a thing impossible to teach and learned only by doing. The instinctive reaction of a trained pilot, a man who was almost a flesh and blood extension of his vessel.

As the ship settled he snapped to Nanset. 'Activate your shield.'

A faint blue shimmer spread throughout the cabin and vanished as it raced for the outer hull. A generator moaned as it took the strain, the note rising as the engineer made an adjustment.

'Field adjusted and operating at optimum level.' Nanset's voice was confident. 'Now we've nothing to worry about. The field is established on the fringe molecules and will take all this planet can give it. It's a form of stasis,' he explained. 'An energy-concept linked to the centre of the generator. The higher the pressure the more power will automatically be fed into the field and, in a sense, the pressure is fighting itself. The function can best be expressed by the mathematical formula—'

'Forget it,' said Pendris impatiently. 'This is no time for a lecture. Just so long as it works I'll be satisfied. How much longer, Durgan before we find the jackpot?'

'As long as it takes.'

'Is that the best you can do?'

'Quit bothering me.'

Pendris inhaled with a spiteful hiss. Thickly he said, 'I'm in this too or have you forgotten?'

Durgan made no answer.

'Listen, you—'

'Shut your mouth!' Durgan snarled as he felt the ship twist and begin to spin. The last thing he wanted now was the idle chatter of fools! Sweat beaded his forehead and ran down his face as he struggled to maintain control. It stung his eyes, the raw patch on the side of his neck where the suit had chafed. Like a wild animal the vessel fought his control. Something struck against the hull with a dull reverberation. Fog plumed in the screens, parting to show frothing masses of vapour, uniting in coiling tendrils.

Nanset made a choking sound. 'God!'

Something rose before them, tall, white, jagged with broken peaks. The engines roared as Durgan fed extra power into the jets, the ship tilting as he lifted the nose. For a moment they seemed to hang stationary and then the massed ice threw itself towards them, dropping as they climbed, exploding into raging steam at the touch of their blast.

And, suddenly, the vapour lifted, seeming to jerk upwards in a lowering bank of cloud beneath which they flew with flaring jets and clear vision.

'We've done it!' said Pendris. 'By God, we've done it!'

Below them lay the solid mass of Jupiter.

It was a place of nightmare, the ebon darkness ripped by the ruby light of widespread volcanic activity, the crimson glow fanning out in feathered plumes of flaming gas. The scene brightened as Durgan adjusted the screens, utilising the lower wave-lengths of light, electronic magic converting them into the visible spectrum. Now they could see raging pools of liquid ammonia whipped into a frenzy by the tidal waves stemming from the spouting craters. The pools, small on Jupiter but large enough for seas on Earth, stretched between mountain chains of solid ice, blue and green and sombre umber, shining with red and orange light from the burning gases. The glare of their own blast illuminated the landscape and caused long trails of incandescent vapour to writhe like serpents, green and yellow and brilliant red, twisting and coiling in enigmatic patterns.

'The heat is breaking down the elements,' said Nanset quietly. 'Cracking compounds locked for millions of years in frigid stasis. That's oxygen burning, and hydrogen and methane. Who knows what elements and how they will act down here?'

'Heat?' Pendris snorted his disgust. 'What about all those volcanoes? The heat of our blast is nothing to them.'

'Heat is relative. On Earth those volcanoes would be nothing. They wouldn't even get started. That stuff isn't water, remember, but liquid ammonia. Those mountains are of ice. The atmosphere must be a mixture of hydrogen, ammonia, methane and carbon tetrahydride. Interesting.'

'Check your field,' said Durgan sharply. 'You've no time to gawk at the scenery. Pendris, get busy on the detector.'

Creech had given them the instrument. A box fitted with dials which, he claimed, would register the presence of the cargo. If they could get close enough. If it would work in the conditions existing under the clouds. If the cargo was still as it had been.

Durgan spoke into the radio.

'Sheila. We've reached bottom. Check my position.'

'You moved off course. You should have stayed on it.'

'A mountain got in the way. We—'

'Brad!' Her voice was strained. 'Are you all right?'

'So far, yes. Now quit being polite and get on with the job. Direct me please. Direct!'

He fell silent as her professional drone came over the speaker, a string of co-ordinates, corrections, alterations. The ship thrummed as it moved in a wide circle, showing as it met the head-on force of the wind which moved at a constant velocity over the ground, bucking as it met it side on.

Pendris sucked in his breath.

'Anything?'

'I'm not sure, Dugan. The needles kicked a bit. Can you go back over?'

'I'm spiralling. Keep a sharp watch and yell if you see anything. Nanset!'

'Yes?'

'How is the field holding out?'

'Fine.' The engineer had lacked conviction. He enlarged the comment at Durgan's insistence. 'We dropped a fraction back there. It shouldn't have happened but it did. Maybe the atmosphere is corroding the outer hull and thus building up resistance. I've made the necessary adjustments.'

'The hull is corrosion-proof,' said Pendris. 'Stop making excuses and keep your attention on your machine. Right, Durgan?'

'That's good advice—why don't you follow it?'

'I'm doing just that.' His voice was ugly. 'But when we get out of here you and me are going to have a little talk in a dark alley. I don't go for snotty pilots.'

Sheila spoke before Durgan could answer. 'Have you located it yet, Brad?'

'No.'

'What's keeping you?'

'Are you joking? It's a mess down here. We could be lucky and hit it right away or we could search for a hundred years. Is Creech riding you?'

'Well, he—'

'Tell him to get lost. Have you any more data I can use? No? Then quit babbling and let me get on with the job.'

It was hard to talk with more than two gravities tearing at the muscles, making every movement an exercise in applied strength, and he was beginning to feel the strain. The suits helped but that help had to be paid for in sore places, a body slimed with perspiration, itches which couldn't be scratched, aches which couldn't be relieved. And it was impossible to forget the pressure outside, the giant hand which would crush him into a smear should something go wrong.

Durgan adjusted the controls, tightening the spiral pattern he had chosen, thinking of a falling ship and the variable forces which would play on it. A last-second shift of wind and it would have been carried miles from the anticipated crash-point. An abrupt loss of mass the same. Yet the girl had been adamant as to its location. He examined the screens, trying to catch a glimpse of twisted metal, the lines of something artificial and alien to the landscape below. He saw nothing but the fury of volcanic activity, the shimmer of disturbed seas, the red glow painted on curtains of glistening ice.

'There!' Pendris's voice was high with excitement. 'We've just passed it. The needles damn near left the dials!'

The vessel shuddered as Durgan cut acceleration and turned to face back from where they had come.

'There!' said Pendris again. 'There!'

A torrent of lava fell from the crest of a high ridge, falling into a pool sparkling with flecks of dying brilliance. To one side, almost hidden by a crusted mass of deposited crystals, a sheared plate of twisted metal shone in the ruby light.

The wreck of the *Archimedes*.

They found the cargo container a mile away lying in a patch of luminous snow, a thin green haze blurring fine detail. Incredibly it was still almost intact, the thick metal buckled and warped, torn in several places, the openings having prevented crushing implosion. Deftly Durgan steered the ship towards it, his hands delicate on the controls as he fed power to the jets, the outer hull slithering over the frozen surface.

'How's that, Pendris? Close enough?'

Pendris grunted. He sat upright, his helmet enclosed by an enfolding mask, both hands thrust deep into the gloves of the waldo attachments.

'Can you get it a bit closer?'

Power thrummed as the ship edged forward. Nanset looked up from his dials.

'We shouldn't make actual contact,' he said. 'The field is becoming unbalanced, the energies grounding from the area of contact.'

'Can you compensate?'

'I'm trying. For a time, yes, I think I can manage it. But be quick.'

Pendris grunted again. 'Quick? The damned thing's covered with scrap. I'll have to cut it free before we can hope to fasten the grapnels.'

'Then get on with it!' Durgan was sharp, worried, on edge now that he had nothing to do. Now they had arrived Pendris was the main factor. 'Don't waste time flapping your mouth!'

'I'll get you!' said Pendris. 'When we get out of here I swear that I'll get you!'

'Anytime you fancy!' Durgan drew a shuddering breath. 'Now get busy earning your pay!'

In the screen he could see the waldo attachments unfold from their housings, literal extensions of Pendris's hands and arms, stretching, reaching, bright fire blazing as lasers cut through jagged pieces of metal. From the operator's mask Pendris's voice came as a musing drone.

'Tough. The damned thing is built like a safe. Solid metal strapped and reinforced like the vault of a bank. Lucky for us in a way, that's why it stayed in one piece, but what the hell would they be carrying to take such precautions?'

The lasers died, were replaced by mechanical claws which ripped the tattered remains from the bulk of the container. A hook caught in one of the openings, pulled, dropped free as it made no impression. Again Pendris tried to turn the container, to shift it from its bed. A third failure and he swore in savage irritation.

'It's too heavy! Those walls must be six inches thick! Why the hell didn't Creech warn us?'

'Maybe he didn't know.' Durgan leaned closer to the screen. As the container was situated it was impossible to weld grapnels and hope to lift it from the planet. The strain would be too great. 'Maybe I can use the ship to turn it. Lift your waldos and I'll try.'

Nanset warned, 'I'm getting close to maximum output.'

'Keep a five per cent safety margin,' said Durgan. 'When you reach it let me know.' As the waldos lifted from the container he fed power to the jets, inching forward, using the bulk of the vessel to ram against the container. For a moment it resisted then suddenly gave. Durgan edged back and turned from the controls. 'All right, Pendris. Try again.'

Once more the mechanical attachments clawed at the misshapen bulk. Pendris's drone was a mutter of rising frustration.

'It's no good. The thing is too damaged and too heavy. Maybe if I cut away the metal it might be possible to weld some grapnels to the interior.'

Durgan said, 'Can't you fix holding straps around the outside?'

'No. I can't manipulate it. If we try hooking direct to the box its own weight will tear it free before we've lifted a dozen miles. The entire thing is busted all to hell.'

The hooks lifted and were replaced by the lasers. Sparks flew and molten droplets ran from yielding metal as the torches cut into the thick walls of the container. Pendris was an expert at his job. The searing beams answered to his expert manipulation, cutting just deep enough, flaring at carefully determined angles, dying before they could burn the interior. Again the hooks swung down, gripped, lifted and tore the top of the box completely free.

From the interior of the container rose a cloud of vivid green vapour.

It spread, pluming, fanning as it rose, clinging to the waldo attachments, condensing into a nimbus of darkening emerald.

Pendris swore in sudden anger.

'What the hell? The damn waldos don't respond!'

The gas lifted again, thinning, coiling as it hovered over the opened container. It hung for a moment like a cloud and then moved again to settle beside the vessel.

'A chemical reaction,' said Nanset. 'It has to be. The heat of the lasers triggered off a progressive interaction, probably converting crystals into gases and ending with a stable compound.'

'Nice,' sneered Pendris. His hands worked for a moment within the gloves then he turned from the mask, his face sweating behind the face-plate of his helmet. 'And what of the attachments?'

'They are activated by a series of interacting magnetic fields. It is possible that the gas has somehow neutralised the components.' The engineer spoke as if he were addressing a classroom of students. 'The thing is theoretically possible. An energised gas can be artificially generated. Down here, with the extreme pressure and alien chemistry, it could happen naturally.'

Durgan didn't join the discussion. He looked at the screens, at the exposed interior of the cargo container. The thing had been built to withstand any concievable emergency. The exterior walls were merely the outer casing. Within, suspended on a mesh of springs and insulating baffles, hung a smaller box. Distorted, torn, but still in one piece. Inside would rest the shedeena crystals.

The largest fortune a man could hope to gain. Within sight. Within reach, almost, but with the waldos inoperative there was only one way it could be secured.

'This force-field,' said Durgan thickly. 'Can it be applied to a suit?'


EDDIE JONES

It was a gambler's throw with a fortune as the prize and a life as the stake and only a trickle of current providing the chance of success. If it should falter, the potential fall, a wire break then death would be instantaneous.

Durgan tried not to think about it. He moved his left leg, the power-units of the suit accentuating his motion, enhancing his muscular power so that the limb moved, the foot lifted, fell with abrupt savageness beneath the clawing drag of a gravity which more than doubled his weight. Beneath his boots the surface was rough, scored by the winds which tore past in a droning whine, pushing with savage intent.

Stooped over the cargo container Pendris lifted a wrapped slug of the precious crystals, using both hands, turning so as to allow Durgan to grip it with his left hand, pass it to where Nanset stood before the ship's open doors.

Light streamed from the interior, a warm, comforting glow, throwing distorted shadows over the eerie configurations of the Jovian landscape. More shadows moved as, far to one side, a gust of ruby flame stabbed through the darkness. Closer, from where the ruby stream fell from the crest to the pool of bubbling crimson, a dull glow shone, reflecting from the hull of the vessel, painting it with the uneasy colour of blood.

Pendris's voice was harsh in the confines of the helmet.

'Awkward,' he muttered. 'I've got to stoop right over. Some of the wrappings are torn and there's more of that damned green gas.'

A ball of it rose with him as he painfully straightened, clinging to the end of a slug, rising to wreath his suited arms. Mechanically Durgan took it, turned, passed it to Nanset. In a glowing pool at the side of the ship the green vapour which had streamed from the opened container rested like a smokey cloud of emerald. It seemed unaffected by the wind, streamers reaching to both ship and ground as if it clung with deliberate intent.

'Hurry,' said Nanset. 'I can't trust the generator to compensate on automatic for too long. Hurry!'

His voice shook a little and Durgan could understand his fear. He felt it himself. The unimaginable tons of pressure all around, the crushing force held back only by the magic of the force field. It revealed itself as a blue shimmer around the suits so that each man moved in a halo of nebulous light.

'Here!' Pendris held out yet another slug. 'The damned stuff's getting harder to reach. It's padded all to hell.' His breath sucked between his lips. 'Money,' he breathed. 'A mansion on the Himalayas. Another at Polar North. Fine foods, women, the best of wine. My own ship, maybe!'

The lure which had made them agree to take the insane gamble. Durgan had told them what the container held, dangling the bait of incredible wealth before their eyes, forcing the engineer to adapt his field to guard the suits. What did Nanset want, he wondered. A school of his own? A complete laboratory with money enough to staff it with the best brains available? A converted ship to plumb the secrets of Uranus?

Mechanically he passed on the slug.

The wind gusted, suddenly slamming with increased force against the ship, the men, the open container of the precious crystals. The ground shook a little, a low rumbling echoing through the helmets as the suits carried the grinding vibrations. Orange flame lifted to one side interspersed with shafts of vivid blue and the droning wind carried specks of dancing green. They swirled like snowflakes, like scraps of wispy cloud, meeting, uniting, growing into streamers of coiling vapour which clung to the suited figures, fogging the face-plates with emerald dazzle, passing to hang like gossamer from the ship and container.

Nanset's voice was a ragged whisper. 'I don't like this. There's something strange down here, something terrifying. I get the impression that something is watching us.'

'Shut up!' snapped Durgan. 'There's nothing down here but gas and pressure.'

'There could be life,' insisted the engineer. 'How do we know there isn't? The temperature is high enough for an ammonia-based metabolism. I—'

'Shut up and keep working!' Pendris snarled his impatience, fear edging his words. 'Time for thinking is when we get out of here. Now move! Damn you, move!'

A blue ghost he lifted another slug, passed it to Durgan who took it and handed it to the engineer. Nanset was clumsy. He stumbled and the slug fell from his hands into the pool of green vapour which clung stubbornly to the side of the vessel. He stopped to recover it, his hands plunging into the enigmatic mist. And vanished.

He disappeared like the flame of a blown-out candle. One second he was a blue-lined figure stooping, his arms wreathed with green. And then, instantly, there was nothing.

Nothing but a metallic smear edge with red, a paste of flesh and blood and bone, an ooze of organic and inorganic compounds from which trailed the wire which had fed his force field.

'God!' Pendris's voice echoed his terror. 'What happened?'

'His field collapsed.' Durgan fought his rising terror as he stood, afraid to move, afraid even to breathe for fear that any movement, no matter how slight, would send him after the engineer.

'His field— We've got to get out of here!'

Pendris turned from where he stood and began to move towards the open port of the vessel. Over the radio his breathing was harsh, ragged, the sound of a man on the edge of panic. Durgan caught his arm as he drew level.

'Wait!'

'Let me go! For God's sake, man! Let's get out of here!'

'Watch your feet! Break the wire and you'll die. Move carefully. If you fall who knows what might happen?' Durgan swallowed, hating the dryness of his mouth, the fear which sent sweat oozing from every pore. Be careful, damn you! For God's sake be careful!'

Carefully he edged towards the open port, moving in inches, dying a hundred deaths at each tiny step. Always there had been the danger but now it had become horribly real. He had seen what the pressure could do, had actually seen it. Nanset had died before his very eyes!

He reached the edge of the port, climbed in, moved through the air lock and into the cabin. With exaggerated care he moved to the pilot's couch and called soft orders.

'Make sure that both wires are well within the cabin. Right?'

'Right.'

'Then hit your couch. Fasten restraints. Right?'

Again Pendris said, 'Right.'

Durgan moved his hands. The outer door swung shut sealing the hull. The inner door followed to seal the cabin. The engines woke to life, the roar of power drumming

with heavy vibrations through the vessel. On the screen the blast looked like a sword of impossibly brilliant flame.

Praying, his mouth filled with the taste of blood from his bitten lips, Durgan sent the ship streaking upwards from the Jovian terrain.

'Sheila to Brad. Come in Brad. Sheila to Brad. Come in Brad. Answer please. Answer, damn you! Sheila to Brad.'

'Are you going to answer?' Pendris had caught the voice over the intersuit radio. His own was suggestive. 'You don't have to. For all they know we died down there with Nanset.'

'Watch your pressures!' Durgan concentrated on the instruments, the red hand of the gauge. He had relaxed a little now that they had risen well into the atmosphere, passing the danger point, the engines thrusting them even higher towards the empty cleanliness of space.

'Pressure compensated.' Pendris operated his valves. 'We won't explode. We can cut the field now and maybe get out of these damned suits.'

'Not yet.'

'Hell, why not? We're high enough for the hull to take normal pressure. 'We've got solid oxygen in the tanks and all we need do is warm it and clear the cabin of accumulated gas. I'm sore,' he complained. 'And I itch like the devil. That ride up wasn't easy.'

He hadn't known the half of it, his inexperience saving him from the worst. A man couldn't fear what he didn't know but Durgan had known all too well. He had ridden on his nerves, eyes strained as they checked the instruments, imagination cringing as he visualised what could so easily happen. A flaw, a single fragment of metal crystalising beneath the pressure and vibration, anything and they would have joined the engineer in instantaneous extinction.

Now he rode the winds like an artificial bird, rising higher with each passing second, his relief an intoxication.

'Sheila to Brad. Come in Brad. For god's sake answer, damn you! Sheila to Brad. Come in Brad.'

'They're hungry,' said Pendris. 'Eager for the loot.' His voice carried his disgust. 'A lousy million. That's all they wanted to pay for the price of a world. A stinking million! To hell with them!'

The ship bucked a little. Durgan steadied it and said, 'You've got ideas?'

'Maybe.' Pendris was cautious. 'You going to clear the cabin? Give us some clear air to breathe?'

Durgan reached out and threw a couple of switches.

Heating coils would vapourise the stored blocks of solid oxygen. He would flush the cabin when the pressure grew high enough and when they had reached near-space. Then more blocks would provide a breathable atmosphere.

'Give it some time,' he said. 'These ideas of yours—what have you in mind?'

'You need me to spell it out? Hell, Durgan, you're no fool, you can recognise the big time when you see it.' Pendris was eager. 'That stuff we collected is worth how much? Sold legitimate a real bundle and sold under the counter a damn sight more. The combines alone would give us more than what Creech promised. And how do you know that he'll deliver? We've done the job and he won't need us any more. A couple of shots and he's saved a bundle. The girl too—she won't be needed either. We do the dirty work and Creech gets all the reward.'

'We made a deal,' said Durgan flatly.

'Sure we did—and it was completed when the waldos failed. From then on we were working for ourselves. Why else do you think we agreed to take that kind of a risk? You didn't spell it out, Durgan, but you didn't have to. The stuff's ours any way you want to look at it. We sweated for it and Nanset died getting it. I don't figure on letting it go.'

'No,' said Durgan. 'I didn't think you would.'

A lamp flashed on the panel. There was the thin whine of escaping air. On the screens the clouds suddenly thinned to wisps of vapour, fell as the ship continued to climb, merged with the misty ball of Jupiter. On a close orbit the ship swung over the mighty planet, building velocity so as to spiral from the savage tug of the gravity well.

'We'll be able to breathe soon,' said Pendris. 'Real air instead of this regenerated stink. What do you say, Durgan?'

'I'm thinking about it.'

'What's there to think about? We've got our hands on the jackpot and all we need to do is to hang on to it. Creech? He can be taken care of. The girl? She's yours if you want her. I've a couple of contacts who can handle the sale and pay cash on the nail.'

The lamp flashed again and a needle rose on a dial. Pendris grunted and lifted his hands to his face-plate. A gush of vapour came from within the suit as it opened, air heated by his own body-temperature, loaded with the moisture from his sweat.

Painfully he released the couch-restraints and swung his legs to the floor of the cabin. Moving awkwardly he began to divest himself of the cumbersome suit.

'I can't manage,' he said. 'Durgan, help me get out of this thing and I'll do the same for you.'

Gloved hands jerked at the fastenings and they stepped from the harsh fabric and rigid construction of the suits. Pendris looked a wreck. Blood seeped from raw patches on his hands and wrists, more from the side of his jaw. His face was red, lined with strain and fatigue, his eyes bloodshot, red-rimmed and angry. Durgan was in no better condition. He felt gritty and knew he stank. He needed a long, hot bath, a massage and about twenty hours sleep.

He turned to the controls as Pendris moved to the back of the cabin where the salvaged cargo was stored. The man was excited, eager to see what they had won.

'What do you think, Durgan? Should we rendezvous with Creech and take care of him? We could use his ship and he has the girl. Or maybe it would be better to let them both think we died trying.' He laughed, a hoarse chuckle rasping from his sore lips. 'Died! We damn near did at that. But it was worth it. Man! How it was worth it! When I think of all the things this stuff can buy—' His voice broke. 'Durgan!'

'What is it?'

'Durgan! Look! What the hell—'

And then he screamed.

It was a harsh cry of an animal in both fear and pain. Durgan spun from the controls, the hairs prickling at the base of his neck, nerves tense for unexpected dangers.

'What the hell's the matter with you?'

Pendris didn't answer. He stood beside the pile of slugs reclaimed from the wrecked vessel, the compact bulk of shedeena crystals, staring with bulging eyes. Over the heaped pile, glowing in the cabin lights, a green vapour clung like a thin liquid, coiling, pulsing with a strange energy, rising in tenuous streams. More of the green vapour clung to his hands, puffy balls of brilliant emerald, clotted and writhing

as it crawled up his arms.

'It burned,' he whispered. 'It stung like acid. I touched the slugs and it felt like fire. Durgan! Help me!'

'Step back! Away from the cargo! Stand back against the far bulkhead! Move, damn you! Move!'

Durgan reached back, his right hand diving beneath the instrument console, reappearing with the weight of a gun firmly clutched in his fingers.

'Insurance,' he said. 'I'm not such a fool as to trust others. I planted it when I examined the ship. If you or Creech had any bright ideas about cutting me out I intended to be ready.' The muzzle of the weapon rose as Pendris made to step forward. 'Stay where you are.'

'You think I'm joking?' Pendris lifted his arms, balls of green fluffing like balls of emerald cotton, expanding as they climbed higher up his arms. 'I tell you this stuff felt like acid.'

'Try wiping the stuff off. Use one hand against the other.' Durgan frowned as Pendris obeyed. 'Jerk your arms. If it's a gas it should blow free.'

It wasn't a gas or if it was it was like one he had never seen before. No matter how Pendris threshed his arms the vapour clung, clots of it catching his legs, his body. From the heap of slugs more gas rose to join that attached to the man. Within moments Pendris was covered in a green film which seemed to close around him, thickening, pulsing as with inner life.

'Durgan!' He stepped forward, stumbling, hands extended. 'Durgan, help me!'

'Keep back!' Sweat beaded Durgan's face as he lifted his pistol. 'Right back. Quick or I'll burn you apart!'

'You'd kill me?'

'If I have to, yes.'

'You—'

'Save it,' said Durgan sharply. 'This is a tough life, Pendris, you've no cause to whine. How do you feel now?'

'I don't know. Just numb and weak.' Pendris lifted his hands and pawed at his face. His voice was thin, cracked. 'It's hard to breathe. For God's sake, do something!'

He lowered his hands and stood, swaying, thin tendrils of green vapour clinging tight to his body.

And, as Durgan watched, he aged.

He shrivelled like a long-inflated balloon suddenly relieved of pressure. His face collapsed, prominent bone thrusting against skin which had grown sere and withered. His body stooped, his hands shrank to boney claws, a naked skull shone through thinning hair. His eyes glared from deep within shadowed sockets, lips parting to show toothless gums. He stumbled forward, one step, then crumpled to the deck to lie like a heap of discarded clothing.

'Durgan!' His voice was a piping whisper. 'Help me, Durgan! Help me!'

The hair vanished, the skin, the flesh beneath. Naked bone hung from the ends of the sleeves, the neck of the blouse. In the open sockets of the eyes green vapour rose in delicate plumes.

Durgan fired, jamming his finger hard against the trigger, sending blasts of incinerating flame lancing across the cabin to where the skeleton lay. It flared, smouldered, burst into flame and smoke.

Durgan lowered the weapon. Behind him the control panel flashed with signal lights as automatic fans whined into life, clearing the smoke.

Over the assembled stacks of reclaimed slugs the emerald vapour rose until it reached the roof, recoiled, then rose again, clinging, surging over the metal as if it were a leech.

From the radio came the insistent voice. 'Brad, come in please. Shiela to Brad. Brad, please answer.'

Durgan ignored it, watching the advance of the alien gas, remembering where he had seen it before.

On Jupiter, the strange cloud which had streamed from the opened cargo container and which had settled beside the ship, remaining despite the wind which would have blown any normal accumulation of gas away. Nanset had touched it, reaching into it with both arms as he tried to recover the dropped slug, and Nanset had died. Pendris had touched it—and now Pendris was dead.

Life, thought Durgan. Alien. Spawned in the chemical brew which was the atmosphere of Jupiter. Or perhaps the cargo itself had provided the stimulus, the concentrated life-force which the shedeena crystals provided. Or perhaps the strange thing had merely been attracted to the source of so much life-giving energy. It didn't matter.

It must have come aboard as they entered the cabin, unnoticed, drawn perhaps by the lure of the collected slugs. The release of pressure could have stimulated it, the flood of oxygen speeding its metabolism. It was a life-feeder and hungry. It would always be hungry. It would destroy every living thing it touched, sucking the life-force as if it were a sponge, compressing a lifetime of normal living into moments. It had to be destroyed.

He fired again, spraying the cabin with searing flame, blasting the gas, the pile of slugs, the roof and deck and bulkhead. Metal glowed with red heat and the air grew stifling. But, when the gun was empty, the gas remained.

Thicker, the cloud larger, the green more intense. It lapped against the walls and billowed towards the control panel, the couches, to the place where Durgan stood. More avid now that it had fed, eager for fresh life, new life-force, added fuel so that it could grow and expand to—

To cover a world if it were released on a planet. To hang waiting in space if he released it into the void. Hanging and drifting to, perhaps, be caught in a gravity well and be drawn down to Callisto or Ganymede, to maybe even reach Earth in time. A sea of emerald vapour to replace the blue seas, the white clouds, the rich brown of fertile soil.

'Brad!' Sheila's voice was ragged with strain. 'For God's sake come in, Brad! Come in!'

Come in to warmth and safety, to luxury and the comforting softness of a woman's arms. And then he saw her, tall and lovely, her hair a golden curtain to her rounded shoulders, a green vapour touching, clinging, sucking away her youth, her beauty, her very life.

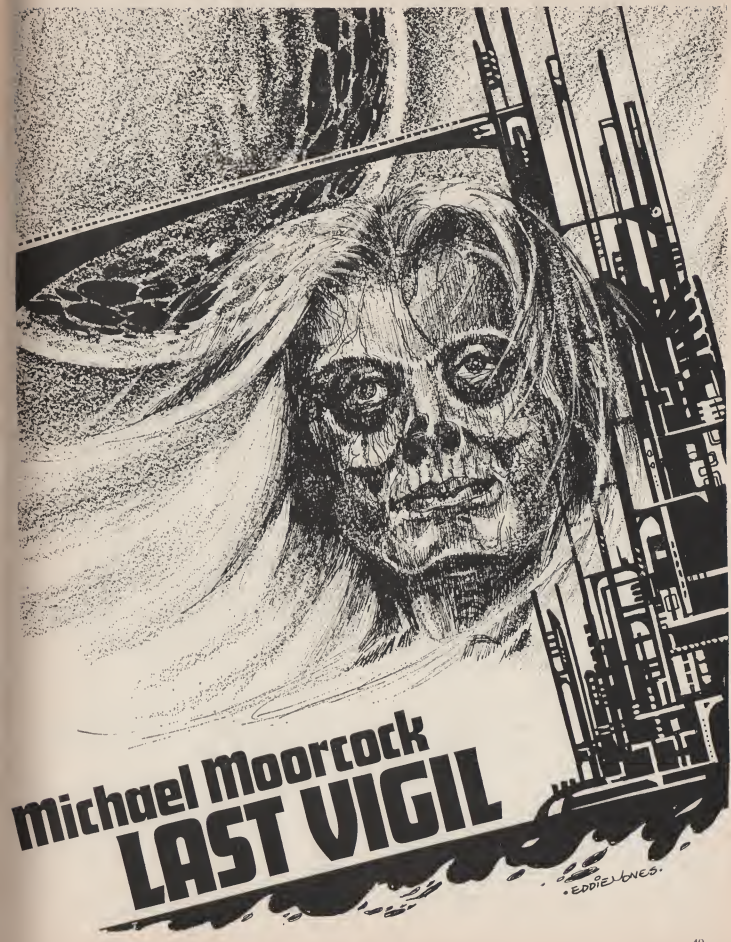
He looked down at his hand. On the back a spot of green swelled as he watched, spreading with a touch of fire, the pain instantly dying as the nerves were killed, the skin numbed and rendered senseless. A parasite, insidious, beautiful in a way but still a parasite. A freak of life which, with luck, would never be repeated.

The ship drummed as he sat before the controls and adjusted the power. In the screens the swollen ball of Jupiter rose as he dived towards it, the tenuous masses of upper-cloud ripped and torn by the savage winds. They closed around the vessel, whipping, streaming, the sound of their passing a droning thunder against the hull.

He would not hear them for long. Nor would he feel the sudden implosion which would send the ship and what it contained down to where it belonged.

The Red Spot made a wonderful target.

And, in love, they slept . . . waiting for the End of Time . . .



Chill winds blew over Tanet-tur-Taac and the salt stink of the sea was in Suron's nostrils through all the night and all the day because the waters were rising as the moon sank down.

Chill winds shredded the clouds above Tanet and sometimes they brought snow and sometimes they brought hot rain and sometimes they merely made waves on the sea.

His long hair floating in the wind, Suron-riel-J'ryec stared up at the moon and beyond it to Kadel Star which had once been so far away from Tanet, last world on the Rim. There were many large stars in the sky now and soon they and their planets would be one huge body. Tanet, too, would soon be part of that body.

From where he stood on the city's tallest tower Suron could see the distant mountains and now he altered his vision to bring one particular area into sharper perspective. He was sure he had seen something moving there again. But the wind was stirring the snow on the slopes. Perhaps that had been all he had seen.

Suron looked behind him at the slender towers of the city which was called Rion-va-mëy—Inevitable Hope—a city which was also a machine. Suron had built Rion-va-mëy and he had named the city-machine which had been designed to make Tanet a world completely independent of its sun, to shift it away from the pull of the Mass before it became too strong, to cross intergalactic space and find a galaxy still in equilibrium. That was why they had chosen this stark Rim world for their experiment, because it was the last habitable world on the edge of the galaxy.

And the galaxy was doomed to undergo a monstrous change in which nothing would remain as it had been.

The galaxy was condensing.

They had known it would since their scientists had come to understand the nature of the huge, dark bodies which lay at the centre of the galaxy. Megaquasars with a mass so great that even photons could not escape them, they had begun to increase their mass with every body which entered their gravitational field.

And now the entire galaxy lay within that field and each sun and its satellites were inexorably being drawn in as the megaquasars consolidated into a single mass so vast that no real name could be invented for it. To most who referred to it at all it was just the Mass.

Suron watched the sky again as the day grew swiftly darker. His scheme had failed as it become clear that it was too late. Rion-va-mëy was the most sophisticated machine mankind had ever invented. Capable of providing a complete artificial environment, of shifting a planet as easily as a spacecraft, it could never be used for its original purpose. All it could do now was help Tanet to avert the inevitable collision for a few extra days.

It hardly functioned as a city now, for most of its citizens had departed when they realised Suron's scheme had failed. They had hoped to reach their home worlds before they were swallowed by their suns which would, in turn, be swallowed by larger suns before the Mass swallowed the whole.

Suron had remained, for Tanet was his world now. He loved it. And the one who loved Suron stayed with him.

The process had been gradual at first. A few thousand years ago it had scarcely been noticeable. A thousand years ago it had become plain what was happening. A hundred years ago half the suns and planets in the galaxy had been absorbed by the Mass and now the suns and planets of the Rim were moving towards each other.

A few more days, thought Suron, and we shall be on that last inward journey. And in less than a year, if the scientists' theories were correct, the Mass would collapse under the weight of its own gravitation and the entropic process would begin again. New stars, new planets, a new cycle.

Would the cycle repeat itself? Suron wondered. Was the galaxy programmed to form and re-form for eternity? Would mankind be reborn and recreate its history for perhaps the millionth time?

From the top of the tallest tower, his pale body exposed to the elements he savoured, Suron watched the waters. They had already reached some of the more distant structures. Again he looked at the Moon which now dominated the sky. It was a little closer than it had been yesterday, just as Tanet was a little closer to her sun, just as the stars gathered into a slightly tighter grouping.

Not long, he thought.

The short night passed. The sky's colour changed from deep blue to violet to a pale green and the clouds raced away over the horizon and were gone. The sun loomed over the horizon and Suron instantly felt its heat.

There was a whisper of sound behind Suron.

'So it was all for nothing.'

Mis'rn-bur-Sen placed a gentle hand on Suron's arm. 'The sun is closer, Suron.'

Suron turned and smiled at his husband.

'I dreamed, last night, of mankind. What was all for nothing?'

Mis'rn walked to the balustrade. Like Suron's, his skin was transparent and revealed the veins and organs of his hermaphroditic body. His pale hair waved in the warm wind.

'All the strife and the misery and the death. All the efforts of those who aspired to help mankind attain the tranquility and security which we gained so recently. All wasted, Suron. Mankind has been cheated. At the moment of its triumph over its condition—over mortality, over its environment—nature still plays her jokes, still manages to find a way to destroy us.'

Suron smiled. 'A somewhat anthropomorphic view of the universe. Is it not enough to know that mankind did, eventually, triumph—did attain what the ancients called 'a state of grace'? Is not the affection which you and I have something of a reward for all those millenia of struggle?

Mis'rn bowed his head. 'Perhaps.'

The tower trembled. The sky darkened as new clouds came sweeping over the horizon. The roar of the sea drowned the sound of the wind. Suron put the tip of one long finger on the balustrade and drew a sign.

The bite of the wind and the bellowing of the sea were shut out as a field of energy formed an invisible dome over the tower. In the new silence Suron and Mis'rn stared into each other's large eyes.

'But our children are dead,' said Mis'rn at length.

Each had borne the other's child simultaneously some fifty years earlier. Both children had remained on the planet where they had been born and both now had been consumed.

Suron had accepted this fact without bitterness but Mis'rn, whose temperament was complementary to Suron's, still grieved.

And that was why Suron comforted his husband now. Wordlessly he expressed his sympathy and wordlessly

Mis'rn communicated his gratitude. The tower shook again.

'What was your dream of mankind?' Mis'rn asked.

'I do not remember the images, merely the mood. I stood here and I dreamed and then I awakened and, Mis'rn, I was happy.'

'You have shared that with me. I wish that I could have such a dream. But my dreams, when they come, are all of conflict and disaster.'

Suron pointed to the mountains. 'After my dream I thought I saw something moving on the slopes yonder. Perhaps it was part of the dream.'

'I think so. We are the last two to remain on Tanet. And there are no beasts here. Our ancestors saw to that.'

'And yet I had an impulse to go to the mountains—to see.'

'It is too dangerous, Suron. All the city's energy is being used to resist the pull of our sun and to keep our moon from falling into us. If you left its environs it could not protect you.'

'I know.'

Suron took Mis'rn's hand and whispered a sound.

They were transported into the heart of the tower, to a room of soft, ever-changing light which beamed nourishment into their systems. Then they made sweet, tender love—scarcely touching each other as they moved about the room in a graceful ballet of emotion.

And the tower trembled once more and the light flickered for an instant before resuming its transformations.

Mis'rn paused in his dance and Suron saw that there were the traces of a forgotten emotion beginning to emerge on his face. The emotion was fear.

'We must accept this, Mis'rn,' he said. 'We named this city Inevitable Hope because it was inevitable that we should hope. But now that hope is lost, we must accept it.'

'I cannot,' Mis'rn murmured. 'Suron, I cannot.'

Suron crossed the room and embraced him. 'Put yourself into sleep,' he suggested. 'Cut off the objective world entirely. It might heal you.'

'I have not done that since childhood.'

'But do it now, Mis'rn. Sleep helped our ancestors in this way when they could not tolerate the implications of reality. That was why they slept.'

'I will try.'

Suron traced a particular sign on the wall of light and the air in the centre of the room shivered and whispered and a couch appeared.

Mis'rn went to the couch and lay down, staring up at Suron.

'Close your eyes,' Suron said, and Mis'rn closed them. 'I will come and wake you,' Suron promised.

And Suron returned to the top of the tower, blinking in the intense light. He caused the dome to darken so that he could peer out at the landscape.

The snow had melted on the mountains. The sea moved moodily around the lower towers. The monstrous sun marched across the sky.

Suron focussed his eyes so that the mountain slope seemed to come closer. Carefully he inspected each yellow rock, each deep black shadow and fissure. But only the shadows moved as the sun sailed steadily on.

But then, as Suron shifted his gaze to the upper slopes, he saw a shadow which moved in the opposite direction and then disappeared behind one of the large fangs of rock which a recent earth tremor had split from the main body of the mountain.

There was, after all, a living creature out there. A man?

Suron was sure that no man could survive in the heat unless he had protective clothing.

A visitor, then, from one of the inner worlds?

Impossible. No spaceship could survive the immense gravitational forces which now existed in space. And there was no matter receiver still operating on Tanet-tur-Taac.

Suron wondered if the creature had come from a nearby galaxy.

He reached a decision. Still staring at the slope, he waited patiently for the evening.

It was now never completely dark on Tanet, but when the sun had reached the farther horizon and the moon had begun to heave its monstrous bulk over the tops of the mountains and the sky turned to deep blue and the stars once again made their appearance, Suron left Rion-va-mëy, city-machine of Inevitable Hope.

On his naked back he wore a light force-field pack which would protect him against the elements and propel him over the rocks.

Drifting a few inches above the ground, he flew against the wind as clouds thickened and obscured the sky, bringing the first snow of the evening.

Suron increased his body temperature to counter the cold and when the snow flakes fell on his naked shoulders they melted immediately.

Behind him the city had changed colour. It was now a peculiar shade of orange. Suron knew that its resources were almost exhausted. The sea covered more of the towers and those towers which remained had begun to sway and to shake again.

Suron reached the foothills of the mountains and began to ascend.

The sky turned to a rich purple and the wind slashed the clouds so that the moon could be seen again. It was even closer. Suron almost felt he could reach up and touch it. It dominated the landscape.

Peering ahead he thought he saw the moving shadow, near the summit of the mountain. He increased his speed.

He reached the summit. The wind was so strong now that he was forced to use more power in order to stop himself being hurled from his position. The moon seemed to threaten to crush him, seemed to fill the entire sky.

An anthropoid quadraped emerged from behind a rock just below him. It was clinging to the slope, its hairy body rimed with snow, its fur flattened by the wind. It looked at him from its intelligent eyes and Suron recognised it.

He gasped.

The anthropoid moved its head and stared at him warily. It opened its mouth and spoke but the wind's yell swamped the words.

Suron moved down the slope towards the creature.

The alien retreated and disappeared. Suron saw that the rock hid a fissure in the slope—a cave.

Without hesitating, Suron entered the cave.

Light came. The cave was artificial. It was a room—possibly one of a series of rooms—and its contents had largely been smashed or thrown about by the tremors. On its four legs the creature stalked across the room, skirting the litter, and seated itself upon an oddly shaped chair. Gravely it regarded Suron.

'I thought your species extinct,' Suron said. Then he frowned. 'Do you understand my tongue?'

The reply was clear, firm, musical. 'I understand it. My species was—extinguished. It was destroyed by your species a long time ago.'

'I did not know that,' said Suron.

'There was vegetation and beauty. There was peace. Ages ago your folk came with fire and burned all the beauty away, killed all my race save me. I hid, far underground. Then your folk went away. I could never discover why they destroyed our world.'

'How came you to learn our language?'

'A traveller.' The creature gestured with one of its hands and Suron saw a skull. It was the skull of a pre-hermaphroditic man. It must have been centuries old.

'You killed him?'

'He died. We were friends, I think.'

'Did he not know why your planet was burned.'

'He spoke of a war. He said this world had probably been a potential tactical position—something of that sort. He said that if they had known of us they might not have burned the planet but they assumed that creatures which walk on four legs are not 'intelligent'—whatever that had to do with it.'

'My ancestors once made distinctions between beings who reasoned like them and beings of a less questioning disposition.'

'Those who were content were destroyed.'

'It has been put thus. But you survived all these years.'

'Yes—in order to die, it seems, with those who robbed me of my happiness. Is this catastrophe another of your actions?'

'I do not think so. I am called Suron-riel-J'ryec.'

'I am Mollei Coyshkaery. Then what has caused this?'

Suron explained.

The anthropoidal creature seemed amused. 'So none win. What happened to us now happens to you.'

'With one difference. There will be none to remember mankind when it is gone.'

'It is all it deserved.'

The cavern shuddered.

'I suppose it is.'

'You are not like my friend.' Mollei indicated the skull. 'You are calmer—you look different.'

'Our race had begun to evolve into an altogether dissimilar species. As you are, we were almost immortal. We had no conflict amongst ourselves, no enemies to threaten us. We spent our time in adapting to what you see before you. We would have changed further, but . . .' Suron paused. 'And we had learned the habit of love,' he said. 'We had forgotten the habit of hate.'

'I have not yet learned to hate,' said Mollei. 'And now it is too late.'

'I am sorry.'

'You think it good to hate?'

'I think it good to know all feelings.' Suron's gaze was drawn back to the skull.

Mollei brushed melted snow from his fur. His expression was contemplative. 'There used to be music,' he said. 'I have heard no music for so long.'

'Perhaps you will hear it again?'

'What do you mean?'

'Some think that the galaxy undergoes a perpetual cycle of birth, death and rebirth—that its history is repeated over and over again with only minor differences.'

'But that means I will know the pain again. Your words bring no comfort, Suron-riel-J'ryec.'

Suron sighed. 'I admit that the conception is also terrifying.'

'You seem unmoved by what is about to happen.'

'It is inevitable, Mollei Coyshkaery.'

The cavern tilted. In spite of his force field Suron was hurled to the far wall. Objects slithered with him. The skull struck the wall and shattered. Mollei tried to save himself but was flung down and lay just below Suron, shouting in pain, trying to rise. Rock fell from the ceiling. There was a mighty roaring everywhere as the cavern continued to shake. Then it was still.

Suron lowered himself to the angle of floor and wall where Mollei lay. There was misery in the alien's eyes. Some of his bones were evidently broken.

'That was the worst,' Mollei murmured. 'What caused it, I wonder . . .'

'The moon has fallen at last. Some distance from us, I would think.'

'What does that mean?'

'It means that in a short while your planet will be drawn into its sun almost at the same moment that the sun joins other stars. We are all moving towards the centre, Mollei. A few hours after we are dead there will be a single mass comprising what was once our galaxy. After that, it is believed, the mass will explode and the galaxy will begin again.'

'Death comes quickly,' gasped the alien, 'but life takes such a long time to form . . .'

'Will you come with me to Rion-va-mëy, my city?' Suron asked. 'There is the means, there, to ease your pain.'

'I am dying,' said Mollei. 'Let me die alone.'

'Very well.'

Suron sought the entrance to the cave, but it had been blocked when the moon had fallen. He went back to the dying alien. 'I am trapped, it appears.'

Mollei raised himself on his elbow and pointed to a doorway. 'There are several other exists. One of them may still not be blocked.'

'Thank you.'

'Goodbye, Suron-riel-J'ryec.'

'Goodbye.'

Suron knew that the power was beginning to fail in his pack. He drifted through the dork doorway and widened his eyes so that he could see into the murk of the next room. There were pictures here and artefacts of all kinds. He realised that Mollei had used the cave system as a museum—a monument to his slain race. Suron experienced what he thought might be guilt.

He made his way through several similar chambers, pausing only to stare at a very ancient relief which seemed to indicate that Mollei's people had once had indigenous enemies—it was a scene of warfare. The ape creatures were triumphantly driving away some kind of similarly armed epicene people.

And then he saw a rent in the roof and light was coming through.

Suron increased the power and moved up to the ceiling, passing through the crack and out onto the surface of the planet.

He gasped as the light struck his eyes and he covered them with his hands. He knew that there was little power left in his pack but he increased the strength of the field still further and shut out the burning heat and the light as much as he could.

He looked down the mountain and away to the sea.

The sea was boiling. Clouds of steam swirled around what was left of Rion-va-mëy. Huge black fissures split the mountain. As fast as he dared, he began to descend.

The screen around his body faltered. Suron knew he would die if it failed altogether—die more painfully and much quicker than ever his ancestors with their thicker skins would have died.

He drifted over a new-formed crevasse and even as he moved the far side began to lean away as it grew wider and wider. A monstrous roaring filled his ears. The whole planet shook.

With a sense of increasing panic he at last reached the far side.

One of the towers fell and then another swayed and toppled. Suron knew that the machine had failed at last.

The sky grew still brighter and it seemed that the heat would blister his skin. The surface of the distant sea was now bubbling and he could hear the hiss of its waters as they were turned to vapour.

Again the screen faltered and Suron's feet brushed the burning rocks.

The tallest tower still stood, but it was some distance away. He saw one of the great power bands which had girdled the planet bend and then snap as a steel wire might snap when cut. The several sections were flung high into the air, vibrating and twisting and then collapsing. Another tower fell into the boiling sea.

Suron felt faint. His vision became misty. He knew he would die very soon, before he could get back to the room where Mis'rn lay asleep.

There was chaos all about him. A terrifying confusion of flying rock and whirling steam.

He could no longer see Rion-va-mëy. Perhaps the city of Inevitable Hope had disappeared completely.

The sun grew even larger. Suron cried out in pain.

Then, still drifting, he fainted.

'Suron!'

It was a little cooler. He opened his eyes and looked into those of Mis'rn-bur-Sen. His were anxious eyes.

'Suron. You live!'

'Yes, I live. But I should be dead.'

'I awoke and looked for you. I knew you had gone, then, to the mountain. I took a boat and searched for you, finding you senseless. I brought you back to our tower.'

'It still stands, then?'

'It will stand for only a little longer. I have diverted all the remaining power to it.'

'I thought you asleep, my husband.'

'Something woke me—the moon falling, I suppose, or a sense of your danger. Perhaps both. I dreamed deep dreams, Suron—of mankind.'

'And they troubled you?' Suron rose from the couch and tried to stand on the swaying floor. The walls no longer shifted with a variety of colours. They were a pale green.

'They comforted me, Suron. It is better to die loving mankind than hating it.'

Suron nodded. 'Mollei will be dead by now'.

'Mollei?'

'I met a creature in the mountain, Mis'rn. The last indigenous inhabitant of Tanet-tur-Taac. Our ancestors destroyed his race with fire. They destroyed all the vegetation on the planet. He survived for centuries and yet he never knew hatred—only distress and puzzlement. He did not know why we killed his people.'

'Did you know?'

'I know only that mankind killed many such races as it spread through the galaxy.'

'And now you hate mankind?'

'No. But I understand his bewilderment. For now mankind is destroyed. We are probably the last still living. And soon we shall be dead.'

'But we are destroyed by unthinking nature.'

'And was not that the force which slew the people of this planet?'

'We slew them.'

'Yes. But perhaps we only think we think. We use our thoughts to justify actions which we should perform nonetheless . . .'

Mis'rn nodded. He moved to one of the two couches and lay down upon it. 'It is true that we conquered nothing,' he said. 'And now we are conquered.'

'We conquered ourselves. And having achieved that, we now die.'

'You think that was the purpose of our existence?'

'I have never thought our existence had a 'purpose'. And yet our ancestors believed something of the sort, that we were born to learn to love, that having done so we should be reunited with the universe.'

Mis'rn closed his eyes. 'Will you let in some of the light, Suron, so that we may see this world once more.'

Suron touched the wall and drew a sign. The outer wall became opaque and then transparent and the blinding light flew into the room. Heat came with it but this time they welcomed it.

Suron took his place on his couch and lay down. He reached out and touched Mis'rn's hand.

'And now we sleep,' he said. And, in love, they slept.

Then Suron and Mis'rn dreamed of mankind.

They dreamed of all it had striven to be, of all it had achieved, of all its failures. And it was a dream of love.

They dreamed of the stars and the planets of their galaxy and of those who had left the planet Earth so many millenia before, who had explored and destroyed and brutalised themselves because they thought that knowledge brought love and tranquility.

And it seemed that they dreamed the whole history of the galaxy from its birth to its death, that they witnessed the formation of each star and each planet, that they lived the life of each individual creature which had come into existence on those planets.

And in their dreams they came to realise that Time was a meaningless idea just as Death meant nothing and Identity meant little.

And, as they dreamed, the last tower burned and Tanet-tur-Taac fell into the roaring heart of its sun. Then this sun joined Kadel Star and a hundred other suns rushed together to form a single fiery globe.

It was the last fire which, momentarily, burned in the darkness. Then it, too, fell into the Mass.

And there was only blackness where a galaxy had been.

But already something was starting to happen to the Mass as it began to implode under its own vast weight.

Perhaps Suron and Mis'rn, or something which had been them, continued to dream, at least until the moment when cracks of light began to reappear and the galaxy began to be reborn, as Suron and Mis'rn, an eternity later, might also be reborn.

For Time meant nothing and Death meant nothing and Identity meant only a little.

COLD CRUCIBLE

BY BOB SHAW

The agent must have been a tough, efficient operator in his day because he had managed to follow the expedition for some time without being seen. Now, however, his day was almost over. He lay submissively in the snow, looking up at the group with sane, worried eyes. The five white-hooded men comprising the expedition stood over him, each uneasy movement of their feet feathering dry snow into the wind.

'Why did he give himself up? He can't be all that sick?'

Dorian stared down at the trembling man in disgust, trying to imagine himself in the same situation. Dorian was a big, heavy man of the type that makes a profession out of being big and heavy.

'Sick enough,' Hollerith, the electronics expert, said. 'Looks like lobar pneumonia to me. His lungs must be turning into solid lumps of putty—that's why he's breathing like that.'

'It's obvious he was following us,' Quinn said unhappily, drawing Dorian away from the others, 'and that can only mean one thing. What do you think, Dorian?'

Dorian nodded. 'We have to assume he's some kind of an agent. I don't think he's in direct contact with the East German or Polish governments, though.' He stared away impassively through the shining, haphazard avenues threaded among the trees. The sun was heading implacably, like a bomber, for a point over his head.

'I don't believe he can be in touch either,' Quinn persisted, 'but I don't think that matters. Do you?'

Dorian shook his head. The group had formed two days earlier and during that time Max Quinn had barely spoken to him. Now his attitude seemed to have changed, and Dorian understood what it meant. He knew the signs.

Quinn dabbed his nostrils with a balled handkerchief. 'It isn't as though we were free to assess the situation for ourselves . . .'

'Professor!' Dorian interrupted smoothly. 'We're all experts at our own jobs.'

A look of dismay spread across Quinn's features, but his eyes melted with relief over the fact that he had not had to utter the actual order. 'It's a ghastly business when dealt with on the personal level, I know, but when one considers the importance of The Dome. If we fail to set up our unit it could . . .'

'Let's get on with it,' Dorian said. He turned and walked slowly back to the rest of the party while Quinn followed just behind, avoiding even the suggestion of responsibility which might have resulted from his taking the lead.

Dorian examined his own feelings. He had killed often in his peculiar line of duty, but he had never before had to execute (flash!) anyone.

What in hell, he thought, was *that?*'

The word 'execute' had triggered off a spray of brilliant memory fragments in his mind, random stuff it seemed—glimpse of sunny fields in Devon, polished brown wood gleaming with oil, the black-and-white face of a cat. He dismissed the phenomenon irritably. The important thing was that, as far as the job in hand was concerned, his only emotion was a vast gratitude to nobody in particular that he was going to be at the right end of the gun.

Dorian nudged the agent with his toe, not gently, not roughly, and signalled him to stand up. The man got to his feet and stood huddled in his shabby brown parka, silvery stubble glinting like frost on his cheeks. When Dorian produced the pneumatic pistol he began gasping phrases of an unfamiliar language. Dorian did not understand the words but he guessed what they meant, and shook his head. The agent immediately fell silent, and Dorian felt the first touch of panic. He was beginning to have difficulty in thinking of the situation in terms of one professional versus another, or on anything but an execution *(flash!)* Glimpse of sunny fields, polished wood, black-and-white face of a cat . . .

Quinn coughed nervously.

'I don't need any help,' Dorian assured him. 'We passed a small gully with a lot of scrub at the bottom about a mile back. It would be best if I took him back there alone. I'll leave my pack with you in case anything goes wrong.' He unslung his pack which was heavy with the weight of his section of the repeater unit. The units were made of plastics to escape detection once they were safely assembled and buried, but each made a big load for five men.

Quinn busied himself eagerly with getting the pack lowered to the ground.

'It's hardly necessary to shoot him,' Hollerith said. 'He can't last long with that pneumonia.'

'Long enough to use a radio if he's got one hidden nearby, or to scratch a message on something. The Dome is too important.' Quinn spoke with firm conviction now that he felt absolved.

Dorian almost replied angrily then realised what it would do to his big, tough image. He shrugged and gave the agent a push to start him walking in the required direction. The trouble was that Quinn was right. Screens which would prevent ICBMs getting into a given area were only a partial answer to the Big Dilemma, because they were not impervious to radiation. But the establishment of screens capable of preventing long-range rockets coming *out* of an area was a project in which the question of individual human lives simply was not relevant. It was true that hundreds of repeaters were being installed in a great irregular line spanning the hemisphere and no single unit was vital, but nobody was going to give a Dorian a written guarantee of the success of the other furtive little expeditions in his region. He still had a job to do.

To reach the gully, Dorian and the agent had to cross a low morainic hill thickly covered with oak and naked grey beeches. The agent progressed from tree to tree, stopping to lean on each other for several seconds then pushing himself off towards the next without looking back at Dorian.

After the failure of his quiet, almost formal, protest he appeared to have given up all hope. The language barrier prevented any form of communication and Dorian walked slowly behind him in a cocoon world bounded by snow-glare and his own thoughts.

Guilt, he decided, pre-supposes choice. I can handle this job because without free will a man is neither obliged nor entitled to have a conscience, not even when he has to ex . . . (FLASH!)

Richard Dorian was twelve years old.

It was cool in the dim kitchen of the farmhouse, but beyond the doors and windows blazed one of the incredible summer days of childhood. He sprawled across his grandmother's table with a book, running his fingers over the ridged grain of the white wood eroded by years of daily scrubbings. Dorian was restless and moody, feeling himself poised for big things but unable to see where they lay. The big dark clock ticked authoritatively in the corner, destroying and re-creating distant universes with each swing of its pendulum.

His grandmother came in from the bright world outside —a tall, black-clad woman with thinning white hair. 'There's a job for your father when he gets back this evening.' Her voice was grim.

'What is it?' Dorian felt the stirrings of premonition.

'The cat killed four of my chickens. This time it has to be destroyed.'

'I'll do it!' Dorian spoke immediately, his eyes fixed on the heavy shotgun on the wall—the gun he had never yet been allowed to handle alone. His grandmother stared at him doubtfully. She hated the cat, prized her chickens, and loved her grandson. There was much to consider.

'I'll do it, Gran. What's the sense in waiting?'

His grandmother sighed with a strange kind of helplessness. She reached him down the massive, oil-smelling gun and took two orange cartridges from a box in the cupboard. He noticed her hands were scratched.

'The cat's in a sack outside,' she said. 'Take it well away from the house. Don't let it out of the sack—just shoot it and bring the gun straight back here.'

Dorian nodded and went outside. The cat struggled only a little as he carried it out of the cobbled yard and down a sloping field to the river. The colours, sounds and smells of summertime bombarded him as he walked, and he felt he had crossed a threshold to reality. He was elated, walking at the centre of an invisible atmosphere of power the radius of which was the range of the shotgun.

At a suitable spot he set the sack on the ground and slid the two dull-rattling cardboard tubes in the gun's breech. He pointed the muzzle at the twitching sack, then stopped to consider. The cat's name was Blackie. It was a stringy, dirty creature which seemed to have been his enemy since the day he was born—but an unexpected voice was telling him it deserved something better than being blown apart in the darkness of a potato sack. Besides, this way provided no opportunity to demonstrate the skill with a gun he instinctively knew he possessed. Dorian decided to give Blackie a chance that was not a chance.

Holding the gun at the ready he fumbled the sack open and shook the cat out onto the grass. Instead of running, as he had anticipated, Blackie sat at his feet and nuzzled his shins. Swearing savagely, Dorian kicked at it but as each impact rolled it away the cat dug its claws into the ground and came back to him. He frowned down in baffled rage, then a weight seemed to descend on him.

'All right,' Dorian muttered. He pointed the gun at Blackie's uncomprehending face and jerked the trigger, but the action was stiff and his left arm had weakened. The gun slewed to the right as it went off and the charge tore harmlessly into the ground.

Stunned by the explosion, Dorian had the impression that the cat had simply ceased to exist—then he saw it skimming across the field to safety with the speed of a low-flying bird. He flung the gun to his shoulder and frantically worked the second trigger. The gun blasted against him again, the streaking cat spun head over tail without slowing down and vanished through the hedge into a field of ripening barley.

Dorian stared after it, aghast, then walked slowly back to the farmhouse.

'Was everything all right?' His grandmother seemed taller than before and her grey eyes ransacked his ego.

'Oh, yes,' he said casually, laying the gun on the table.

'Did you let it out of the sack?'

'No.'

'Then why did you use the two cartridges?'

Dorian was startled. He had forgotten that the sounds would carry all the way to the cool, dim reaches of the kitchen. 'I was making sure of him,' he said.

The following month, when the men were reaping the field of barley, they found Blackie's body among the yellow stalks. It was twisted as though by a greater agony than its stringy little frame could possible have contained. And that night Dorian's father gave him the worst beating of his life.

Going down the slope towards the gully the agent fell and Dorian stood back impassively, waiting for him to regain his feet. The time bomb of memory had shaken him, but the most surprising thing about it was that some part of his subconscious apparently considered it relevant. The old black cat might be equated with the shabby, nameless agent, but there could be no comparison between his grandmother's disapproval and what might happen if the expedition failed. Nor were there any points of similarity between the twelve year old Dorian and the man he had become thirty years later.

It took the agent a long time to stand up. His breathing had become a sustained roar and Dorian even felt a faint wave of heat borne away from him on the wind. The man's temperature must have been well over the hundred mark, but he made it to the edge of the gully without falling again. Cold, brilliant sunlight poured onto him from above and below, bringing up every stain and flaw in his clothing.

'That's far enough!' Dorian spoke sharply to make his meaning clear.

The agent must have understood because he halted and raised his arms slightly clear of his body. A part of Dorian died. He stood close to the other man with the pistol levelled and looked desperately around the snow-bound world of low hills and dark, dripping trees. He knew there was nobody there to see him, but had to look.

'What's the matter with you?' The fierce whisper hurt his throat. 'Why don't you run? For Christ's sake, *run!*'

Dorian gave the agent a sudden, angry thrust with his left hand, sending him spinning off balance into the gully. He crumpled at once, with a surprised moan, and rolled down the slope in a silent flurry of snow. Near the bottom he crashed into the dense thickets of shrub and lush green

holly. The foliage fluttered noisily for a few seconds where he had vanished. Dorian squeezed the trigger briefly, sending four shots cracking through the scrub in a wide arc, then he turned and walked quickly up the slope.

The other members of the party were standing where he had left them and their eyes sought his, questioningly yet with a kind of wariness. He nodded and they turned away. Quinn helped him get into the harness of his pack and they trudged through the silent woods until dusk. The group ate a cold meal in the growing darkness, instinctively sitting in a circle although they could not risk having a fire. Above their world of aging snow and trees swollen with night the sky had turned a deep, perfect blue traversed by a single feather of white cloud.

Dorian felt colder than he had ever been before, and several times he found himself reaching his hands out towards the non-existent flames. He had an absurd longing to kneel in the snow and say, 'Forgive me.' The Northern Plain isn't the whole world, Dorian reminded himself, and these few days are not eternity. He decided to plan his much-delayed leave; to flood his mind with pictures of cities in the sun, candles glowing on dinner tables, jewellery at white throats . . .

This isn't working, Dorian thought desperately, he's still lying back there.

'We'll start early in the morning,' Quinn said as they crawled into the exclusive darkness of the tent. 'Another twelve kilometres or so will do it. I imagine we can plant the unit and be on our way back before noon.' He had become confident and precise again.

Dorian unrolled his sleeping bag. 'I hope it gets no colder.'

'The important thing to remember about coldness,' Quinn commented jovially, 'is that, philosophically speaking, it doesn't exist.'

'Then my trouble must be I haven't got philosophical feet.'

'Well, the coldness your feet feel does exist, of course, but it is simply the absence of heat and therefore belongs to a lesser order of reality. Darkness is similarly the absence of light. You can project a beam of light, but not a beam of darkness. The cheerful continuum! Brightness and warmth are real, the cold and dark don't exist—religions have been founded on less.' Quinn slid into his sleeping bag while Hollerith and Lapworth laughed appreciatively.

Dorian lay down and pulled the zippers on his bag. He tried to concentrate on his leave, but sleep was a long time in coming and he could *feel* the sick, defeated little man slowly dying in his utter loneliness, in that alien universe one finds in deep, wet tanglewood or down among the hard, yellow stalks of barley. Was guilt, he wondered as the world drifted away, merely the absence of innocence? Or was innocence the absence of guilt?

The sky was completely overcast and the faint dawn light seemed to have its source in the trees themselves. They had begun to shine greyly as though fluorescing in response to the sun's unseen ascent.

The group ate their packaged breakfasts standing up, then moved off towards the east. Dorian welcomed the weight of the repeater unit section and the unbalancing drag of his rifle as things against which he could pit his muscles. He took the lead and kept moving as fast as the terrain and conditions would allow, wondering if the nameless agent had yet succeeded in dying. Once he saw a wolf ghosting through distant trees but decided against trying to get it, although the fresh skin would have been useful in the event of trouble.

Two years of careful preparation had gone into the expedition, preparations which included the setting up near Breslau of a genuine business organisation for the importation of mining machinery. Most of the staff were well-proven agents of East German nationality. Five of them had overtly gone on previous wolf hunts in the region near the Polish border but this time their places and identities had been taken by Dorian and the four scientific intelligence men. Dorian was hoping to bag a few skins to back up the cover story, though not at the expense of prolonging the really critical phase during which the repeater unit was in their possession.

They made good time to the calculated optimum location for the unit. Dorian assembled the digging tools and cut a shallow hole in the hard ground while the others assembled the unit and carried out an intricate series of function tests. The principles on which the force screen operated had been discovered by the electronics designer Clifford Pryce who, before his death in 1962 had successfully applied them to the production of invisible aircraft wings of infinitely variable geometry. Since that time a great deal of feverish research activity had developed Pryce's original idea of regularising the Brownian movement of air molecules at right angles to the direction of gravity, and the really big screen had become feasible. The screen itself was self-perpetuating once activated and the repeater unit's task was merely to monitor and damp out any undesirable harmonics caused by temperature variations at different altitudes.

When the assembly and checking procedure was completed Quinn triggered the autoweld charges and the various sections fused themselves into a black, resinous cigar about five feet in length. Their breath hung about them in cloudy plumes as they manhandled the massive and still hot unit into the grave Dorian had made for it. As soon as the matted grass was replaced and swept over with snow the group headed west again almost at a run, with Quinn in the lead. Dorian noted their sense of urgency was, paradoxically, now greater than before, due to the fact that each man was filled with a growing sense of elation but was afraid to give way to it too soon. The march of science, he thought, speeded up by superstition.

Dorian was unable to feel anything but a sense of throbbing, crushing despair. The little agent had given himself up, hoping for a miraculously unprofessional act of mercy by which they would have given him their emergency drugs and assistance to reach medical air, or—failing that—a professional act of mercy in the form of a quick exit. Instead, Dorian had sent him down to lie with his face buried in the nether world of the barley roots, where great brown slugs rule over secret kingdoms. He was almost certainly dead by now but time was subjective and he might have lain for a million years, waiting . . .

Quinn maintained the rapid pace and by late afternoon they had passed slightly to the north of their previous night's resting place. Dorian did not want to go near the gully where the agent lay in case somebody decided to bury the body, or even check on it. If the story of his failure came out Dorian's career would be finished and, in spite of everything, his career was important to him. Perhaps the only thing of importance left. He moved unobtrusively into

the lead position and gradually deflected their course further to the north. As dusk began to gather behind the trees, awaiting reinforcements, falls on the treacherous surface became more frequent and Dorian decided to call a halt.

'What's the matter?' Quinn was flushed and happy. 'Let's get back to civilisation as soon as possible.' Hollerith, Lapworth and Carlsen leaned on their rifles, gasping for air and almost laughing with relief.

'That's the point,' Dorian said. 'If one of us breaks a leg we'll be in serious trouble and, besides, we're not behaving naturally. We're covering too much ground for men on a casual hunting trip.'

'Perhaps you're right,' Quinn answered indulgently. 'It's going to snow again, so our tracks will be lost anyway, but I suppose we're entitled to stop now that we're in the clear. How about a fire?'

Dorian shook his head. 'Our object now is to get back to the cottage and let the local men take over from us without our making any contacts at all. We aren't in the clear until we ge out of the country.'

Quinn gave an exaggerated salute. 'Very good, sir. Whatever you say, sir.' Lapworth sagged down on to his pack and giggled helplessly, shaking his head. The others sat beside him and Carlsen produced a silver flask, which he must have been saving for the occasion, and passed it round. Dorian hesitated then accepted a shot of brandy. They were behaving like small boys who had just successfully robbed an orchard, but he was in no position to criticise their conduct. Anybody's conduct. Ever again. If only the little man had tried something or shown a decent display of hatred Dorian might have been able to use the... But it wasn't a shotgun, he thought in panic, it was a pistol!

The group ate hungrily, again sitting in a circle around an imaginary fire, then erected the tent and settled in for the night. In spite of the weariness brought on by the day-long dash none of them was ready for sleep. They lay for hours, smoking almost continuously, maintaining a conversation which meandered from sex to philosophy to old movies. Dorian joined in eagerly, swimming with the warm currents of life, until much later he achieved an uneasy semblance of sleep.

He was awakened by the sound of a bugle.

Dorian jerked the zip of his sleeping bag and sat up in the diffuse greyness of pre-dawn. The others had heard the single bugle call and were threshing their way out of the tent. Dorian got outside and stood up painfully. There had been a fresh fall of snow during the night and the sky had returned to its state of scoured transparency. He listened intently, but a chill prehistoric silence hung in the misty tree lanes, pressing in from all sides.

'It must be the army,' Quinn whispered strickenly. 'What has gone wrong?'

'Nothing has gone wrong yet,' Dorian said shortly. 'If somebody *had* got hold of the whole story and sent a military unit after us they wouldn't blunder around blowing bugles.'

'What is it then?'

'I don't know. It can't be a regular unit, or even reserves, out on manoeuvres because our people would have known in advance. We'll have to take a look for ourselves. I don't think there's any real danger, but we'd better be prepared.' He opened an inner pocket of his parka and took out a flat black box. Quinn averted his eyes and Dorian understood why—he probably had most to lose if they were forced to use the box. The brain-brush was an exquisite refinement of all the knowledge man had accumulated about his central nervous system. Combining the techniques of electron surgery, neurochemical drugs and crash hypnosis it could wipe a person's mind clear in a matter of seconds. Every man in the expedition had a tiny artificial mole tattooed on each temple to mark the exact location where the instrument's hypodermic terminals had to be pushed through the skin, but it was something nobody thought about much.

Dorian slid the box back into his pocket, realising with dull surprise that his horror of the device had gone. It would give him the mind of a five-year-old child, and there seemed nothing very terrible about that. A gift of innocence. Or, a gift of absence of guilt...

Working in silence the group struck the tent and loaded up with their packs and rifles. Just as they were on the point of moving off the bugle sounded again, an urgent series of shrill notes which seemed as though they had originated less than a kilometre away. The direction from which they came was indeterminate. Dorian checked the silencer on his pneumatic pistol and they walked slowly westwards, trying not to be seen and at the same time trying not to look like men who were trying not to be seen. They crossed one of the low morainic hills which were so common in the region, then followed a frozen stream along a shallow curving valley.

Quite suddenly, where the valley opened into a treeless clearing, Dorian glimpsed tents and the movement of what looked like grey uniforms. He dropped to the ground and waved the rest of the party down behind him. His binoculars confirmed that the grey motes were military uniforms but there was something not quite right about the scene in the encampment, something he was for the moment unable to define.

Quinn slid in beside him. 'It is the army, isn't it? I said it was the army.'

'Hypothesis incorrect, Professor.' Dorian had pinned down the incongruity about the uniformed figures—they all were boys in their early teens. 'It's part of a cadet force—they must be doing a toughening up course. We'll detour round them. Let's back up before they see us.'

As they turned to move back along the valley Quinn slipped and caught Dorian for support. Dorian was thrown off balance and felt his feet slide over the edge of the snow-encrusted bank. He threw all his weight backwards, to avoid a noisy crash through the ice of the stream, and only when it was much too late saw the white spear-blade of a broken sapling. Gasping with effort and fear he twisted away but the sharp wood passed through his upper right arm behind the bone, gouged deep into his ribs and emerged through the right pectoral muscle.

For a second Dorian felt only a detached, clinical awareness of the sapling's exact path through his body—then came the pain. He had been hurt several times during his career, but was totally unprepared for the cataclysm which shattered his personal universe into shivering fragments. Volcanoes exploded, mountains tumbled, hurricanes savaged the earth. Dorian was nursing a feeble candle through the impossible violence and a swollen red sun moved ponderously overhead. Some time later the sun became Quinn's anxious face.

'Try not to make any more noise,' Quinn whispered. 'I've given you a multiple shot to ease things a bit, and another of surface coagualant, but I don't know what to do next.'

'Lift me off this thing! I'll be all right when we get clear.'

Quinn looked stricken. 'Good God, man—you should see your chest! And I don't know how we'll lift you, it'll take the four of us and those damned cadets are all over the place. They're bound to see us!'

'All right, then.' Dorian groaned as he slipped momentarily into the red world and struggled upwards again. 'Hide out and come back for me when it's dark.'

'But what if they find you? I'm sorry, Dorian.' Quinn reached into Dorian's clothing with a distressed yet stubborn look on his face. The pistol, Dorian thought, the bloody pistol! He grabbed at Quinn's wrist with his left hand but the involuntary chest movement overlaid his neural impulses with a blanket of agony and his hand fell back. When his vision cleared he saw Quinn fumbling with the extensible terminals of the brain-brush.

'Professor,' he snarled. 'I warn you—don't try to bring that thing near me! I'll bring those cadets running. I'll make so much noise they'll hear me in Berlin.'

'But, I *must* . . .'

'Get back, you bastard!' Dorian moaned. 'I'm not dead and I'm not going to die and nobody's going to scrub out my brain either.'

Quinn glanced over his shoulder in panic. 'Keep your voice down!'

'Then move out! Come back when it's dark. I can make it till then.'

'I'll report this,' Quinn said helplessly. His face withdrew from the restricted field of vision and Dorian settled down to wait for darkness. He bobbed on a fountain of pain for an hour, two hours, three; then he heard Quinn and the others crawl away and knew he had survived all of thirty seconds.

The sky was a clear, frigid blue straight above his face, then suddenly everything shifted sickeningly and he seemed not to be lying on the ground at all, but standing with his back to a snowy wall, hurtling into space with all the incredible mass of the planet behind him. Am I, he wondered, delirious already? Is it possible to get delirious in the cold? In the absence of heat? Of course! It's nothing to do with fever—it just means your head feels light, or feels absence of darkness, of weight.

Dorian turned his head towards the encampment and made an effort to look out for grey uniforms coming his way, and the pain grew worse. He watched for a hundred years, tied to a buffer in Grand Central station and every half hour of that hundred years an express train hit him. He then spent a thousand years lashed to a steel ball and an insane giant used him to demolish every structure in the universe. He opened his eyes and the morning sun was still touching the horizon.

He stared at the sun for ten thousand years and every while silver spiders chittered and ran for cover. He turned ten seconds a hydrogen bomb exploded in his right breast, his gaze back to zenith and spent a million years pinned once more to the forward curve of the world, travelling at the speed of light, while dark galaxies punched remorselessly through his chest. He saw eternity make its ponderous four-dimensional sweep, then he saw it all again, and again, in cycles punctuated by the recurrence of the events of the expedition, like tiny silent snowstorms inside a crystal motile . . .

They came back for him when it was dark.

Dorian felt their hands slide under his body and he tensed himself to endure the experience of being lifted, but either the task was accomplished with surprising ease or the mathematics of infinity were on his side—having suffered all pain, he could not feel more. Hollerith, the member of the group with most medical experience, cut open the insulated clothing and worked carefully on his arm and chest. Dorian searched his memory of the dim past for the knowledge of how to speak, and became vaguely aware of something missing. There was a feeling of lightness which he was unable to explain.

'How about the cadets? Did they come near me?'

'We don't know,' Quinn said, glancing towards the lights of the camp. 'We moved well away from here. Hunting party—remember?' His voice was strangely hard.

'I told you I could make it,' Dorian said cautiously, probing the other man's attitude. 'You know if I had been picked up with brain-brush effects . . .'

'We found him,' Quinn interrupted.

Dorian understood at once. The big axe had fallen; his reputation and career were gone—yet there was this inexplicable feeling of lightness.

'Take it easy, Professor,' Hollerith muttered, winding bandages on Dorian's arm. 'This is hardly the time.'

'He managed to get out of the gully,' Quinn continued heedlessly, 'and crawl about fifty metres. We threw the body back. He was dead when we found him, of course, and he had no radio, but that isn't the point. You risked the security of the project.'

'It was a considered decision,' Dorian lied quickly. 'Death from natural causes is a lot less suspicious than gunshot wounds.'

'There are other ways. A specialist can kill without leaving marks.'

'When somebody gets killed, Professor, it always leaves marks—somewhere.'

'Don't go all significant on me, Dorian. You were this expedition's muscles—not its conscience.'

Conscience! The feeling of lightness grew stronger in Dorian's mind and all at once he understood what had happened. The weight of guilt had lifted, and with his release came an insight into its true nature. His belief had been that he had betrayed the unknown agent by not giving him a quick exit from life. But Dorian too had lain with his face crushed against the ground, in the slug dominion of the barley stalks—and not once during that eternity of eternities had he wanted to call it quits. Each agonised breath had been worth while, even if for not other reason —and this was the revelation—than the chance of drawing the next agonised breath.

Dorian closed his eyes as Hollerith inexpertly jabbed a hypodermic into his shoulder, flooding the ruined arm with warmth. He was dimly aware that he had, in a way, betrayed the expedition, the Dome, the West, in failing to execute the little man; but this sort of guilt he could handle. The only thing that really mattered was—he had not made the big betrayal, of life itself.

Hollerith completed his work and, with unexpected gentleness, helped raise Dorian to his feet.

'The ground's fairly level from here on,' Hollerith said, 'so we're going to push on through the night and try to reach the cottage by dawn. It's going to be one hell of a journey though—do you think you can make it?'

'Don't worry about me,' Dorian said, 'I'm there already.' He squeezed Hollerith's shoulder gratefully and, walking as quickly as possible, they moved off through the starlit tree lanes.

The Ultimate Weapon

Damien Broderick

SEPTEMBER 12

Well, now that Nurse Kuenzli has at last brought me biro and paper, what am I to write?

It looks as though my dogged habit of jotting down the day's doings in my journal has become something more than a simple compulsive ritual. (That it has indeed become compulsive is an astonishing discovery, considering how painfully I had to force myself, those ten years ago, to maintain regular diary entries. Discovering how peremptory the habit has become shocks me somewhat—as though in this respect as well I have become no less mechanical than one of my light-winking laboratory instruments.)

Glancing back at the gush of words in the previous paragraph, I am for the first time today mildly amused, if only at the minor paradox involved.

What I began to write—nullified indeed by these words themselves, even if they in turn are negated by the circular triviality of my theme—was that the ritual of keeping current my pretentiously leather-bound journal has become so stereotyped that I could not write without it.

These sheets of Government-issue memo paper were fetched by Nurse Kuenzli when finally my monotonous complaints wore down her professional insistence that I should rest. The small success left me cheated and frustrated. I sat up in bed staring at the stack of virgin paper, irritably thumbing the retractable biro, and elaborated spurious conjectures.

Well. That exigency, at least, seems to have resolved itself. Perhaps (hallelujah!) I am after all more than a machine. To be honest, I suppose I first began my journal in the hope of allaying that surrealistic fear. Nine years of abstract study in the neon halls of learning, nine years of physics and mathematics and sub-quantal mechanics, had given me a pair of doctorates and a severe spiritual pain. The human part of me was shrivelling away, I guess, despite the fashional banalities I could spout arguing the creative identity of science and the humanities. I needed to speak human truth to myself at least.

So much for the literary customs of the scientific animal. I am, frankly, indulging in the crassest diversionary tactics.

It is my belief that I am dying.

Why else would they have rushed me here? (I am unable even to give the place a name; Nurse Kuenzli adroitly avoids any direct answer to my questions. 'The doctors will be here shortly to examine you, Professor Hull.') It's the damnedest hospital I've ever seen. A hospital with comfortable beds? Perhaps that is one of the fringe benefits of working in the most grandiloquent Security operation since the Manhatten Project.

(A slight worry: am I infringing Security in writing these notes? Surely not: the medical staff must have clearance at least as exalted as anyone on the Project. I was accompanied here by Aegis guards—I presume there's one or more on duty outside my room right now. Would they have given me the pen and paper, for that matter, if they were concerned about security? No.)

My fears are doubtless without foundation. Apart from one extravagant vomiting fit shortly after today's anti-radiation shot, I have had no indication of illness.

My predominant sentiment is boredom.

That's my major complaint, and probably the explanation for my difficulty in starting today's notes. There's nothing to write about, except the unthinkable—and I shan't encourage morbidity by going on about that.

The whole bloody tasteful place, hopefully with the exception of Nurse Kuenzli, is, in short, intolerably tedious.

Writing about tedium is no less tedious. I shall lay down my biro and turn once more to the study of my navel.

LATER

I have been provided with a wrist-watch. My own, together with all my clothes and personal effects, remain in custody. Presumably they will be destroyed to prevent further spread of the virus. The time is 2.17 a.m. Try as I will I cannot sleep.

The doctors have been to visit me.

Two of them. Lean, gandhi-ascetic Granger, who hurried me into the Project infirmary after my nausea yesterday, and then called for the ambulance which brought me here. I vaguely recall his sombre manner from one or two bull-sessions in the Rec Facility. The other man was a stranger, a short hairy fellow of amiable mien.

'Good evening, Dr. Hull,' he said, offering his hand. 'I'm Woodhouse, I believe you know Dr. Granger.'

I nodded. 'Would it be appropriate to ask why I've been brought here?'

Woodhouse laughed easily, stepped back as Granger put his black case on the teak desk beside my bed and began taking thinks out of it. 'Of course,' he said. 'I daresay your removal here to C Complex was rather disconcerting.'

'That's where I am, then,' I said, none the wiser. Granger gave me a sharp look, glanced at Woodhouse, and started plying his stethoscope about my torso.

'A deep breath please,' he ordered. 'I didn't know you were familiar with non-Project Complexes.'

'No,' I said between gasps. 'I meant that I didn't know the name of this hospital. Now I do.' I was becoming quite rattled. 'It's nice to know a place has a name, even if it doesn't convey anything to you.'

Woodhouse came to my aid. 'I know just how you feel.' He hitched himself onto the edge of the bed and took a folded sheet from his smock pocket. 'Here, I brought you a map of the Complex. We expect you'll be staying with us for a few days. You're quite at liberty to move about, so long as you don't leave this building.'

Granger was peering into my eyes through an illuminated device. He made another mark on the diagnostic chart, took up a short syringe and drew a small quantity of blood from my thumb. Woodhouse continued to regard me with benign interest from the end of the bed. My mental turmoil changed to exasperation.

'Well, look here,' I said, 'what on earth's all this about? I grant I was bilious this morning, but I feel perfectly well now. Why am I being treated like an invalid?'

'No, no,' exclaimed Woodhouse, waving his hands in the air. 'You've received the wrong impression altogether. It's most unlikely that you're seriously ill but,' with a sly grin and a gambit aimed directly at my self-esteem, 'you *are* a very important part of the Project, Dr. Hull, and we can't afford to take any chances.'

I am ashamed to admit it, but his ploy was not without success. My face grew warm, a flush compounded in equal parts of pride and confused annoyance. 'Well, yes, but—'

'We've reason to suspect,' said Woodhouse, all briskness now, 'that certain of the foodstuffs going into the A Complex kitchens this week contained impurities. In short, Doctor, you're probably suffering from a minor case of food poisoning.'

'Sabotage?' It seemed impossible. 'How serious—?'

Granger gave a sour chuckle. He had packed away all his medical devices and stood near the door. 'You have a suspicious mind, Professor. No, Project security remains unbreached. The impurities involve a fatigue-fault in one of the storage refrigerators. Unfortunate, but no machine is perfect.'

'As to its seriousness,' added Woodhouse, joining him at the door, 'the facilities we have in this hospital are more than adequate. Set your mind at ease, Doctor. You may be in for a little discomfort, but we'll have you out of here in a couple of days.' He nodded cheerily and strode out into the corridor. Granger lingered for a moment, as though aware that I was far from satifield. He had, however, little enough to add.

'There will be some pills brought in with your dinner. Take them before you go to sleep. If there's anything you want, press the button by your bed.' Dumbly, I nodded, and watched his narrow back disappear into the corridor.

I was violently sick again after dinner. Oddly, I was afflicted by little of the enervation and wretchedness which usually attend nausea. About midnight, unable to sleep, I took advantage of my liberty and briefly explored the surroundings.

Despite my earlier presentiments there was no guard at my door. The corridor was white and antiseptic, dully echoing. A different nurse nodded to me from her cubicle. I found a lounge complete with Max Ernst print and television set, a pale blue-tiled lavatory and bathroom. At the far end of the corridor, looking out onto a floodlit compound, was a sealed entrance with two plateglass doors, separated by a space of ten feet.

If my calligraphy is becoming shaky, it's as much from anger as belated exhaustion. Do they think me a complete fool?

An ordinary hospital has no use for double-doored Sterile Environment airlocks. Unquestionably, this C Complex is a centre for chemical and bacteriological weapons research.

Food poisoning! Can there be any doubt left that I have become the accidental victim of some experimental Free-World goddam Doomsday virus?

SEPTEMBER 13

I feel so strange this morning.

My sleep was broken and ruined by terrible dreams. I tossed and turned for perhaps five hours before Anna brought me a light breakfast. They were not nightmares, exactly, but torn and vivid pieces of my younger days—my frightened adolescence, my arid years at University. I had thought them forgotten, well buried in every sense, but back they came to haunt my night.

There's more to it than that— Not pain, I'm no longer sick, my stomach is rested and hungry indeed. But a vague dis. A what? I cannot find the word, a restlessness is what I meant but I've gnawed my pen for five minutes in a sweat searching for the word, a dis a dis a *disquiet* of course, good god the word just would not come until I dredged for it like some senile fool searching for his

Christ, what's wrong with me? The sweat is pouring off me, all for one bloody replaceable elusive word. Again! I had to stop and worry and hunt for that word *elusive*. Something is sick inside me, something hurts, I don't know what it is but dear Jesus.

LATER

Anna, I am appalled to record, found me weeping. She was entirely sensible about it, gave me two large white pills and left an egg-nog beside the bed. I drank it a few minutes later and felt ten times better. When I rang she was good enough to fetch me another, which I sipped slowly while talking to her about herself.

I meant to mention it earlier, before that strange frenzy burst over me. My little triumph! I have uncovered the charming lady's first name, and she now calls me Harold with hardly a trace of her previous professional distance. Sister Kuenzli no more; she is Anna, and I am her brilliant unmarried patient Harold Hull, and never mind the 'Professor', the 'Doctor'. (I did Anna an injustice before, by the way, in terming her a nurse. She is, of course, a graduate Sister with, it appears, qualifications in biochemistry and of all things psychiatry. My blushing tear-stained face!)

She is also beautiful.

LATER

I've been trying to read Stanislaw Lem's new novel, which Granger fetched over for me from the Project Complex along with a selection of my other books. I can't get into it, though. I've also tried to distract myself by going over the fifth equation in our non-static field theory. There's something wrong there, I'm sure, but I'm having trouble concentrating on it.

The doctors came after lunch. Well, during it actually but Woodhouse chatted away pleasantly while I finished my lemon jelly and cream. Hardly the meal one would have expected for a victim of food poisoning—slices of chicken, an excellent salad, even a glass of Moselle. My dark suspicions of last night seem absurd. Nevertheless I remarked on the feast to Woodhouse.

'No reason to starve you, Hull,' he smiled. 'Anyhow, the best way to cleanse your system is by offering it wholesome protein to work on.'

I gave him a guarded glance. 'You're sure of this poisoning, then? It couldn't be a bug of some kind?'

Granger cleared his throat, a grating sound. I'm beginning to detest that man. 'You can safely leave the diagnosis to us, Professor Hull.'

'Don't be too hard on the poor chap, Simon,' Woodhouse said. He adopted a speculative pose. 'My theory has always been that intellectuals labour under the burden of what could be termed the Socratic phobia. They remember the hemlock too well.'

Granger grunted, tugging out his instruments; I laughed out loud. It was a poor enough jest, but it soothed my anxieties. I thrust the last of the dessert into my mouth and submitted to their examination.

Since they left, fears have crept back. It really does seem quite incredible that an ordinary base hospital, even one serving the most important military project of all time, should have a viral-contagion Isolation Environment so elaborate as this one. Not to mention the peculiarity of *my* being confined to that section. Perhaps the others beds are all full up?

LATER

The time has dragged around to five o'clock. I feel worse and worse, in some way which has nothing to do with my body's health. Whatever I meant by that. Well, I mean at

least this: I have never *looked* better in my life. The tired old bachelor has been taking quite some notice of himself in the mirror today, trimming his raggedy beard, combing his hair. I even tried the nifty sunlamp I found in the bathroom. Does the crisp crinkle of Anna Kuenzli's smart uniform, the curve of her lips, the luminous blue of her eyes, explain all? No doubt, no doubt.

So. The fact is, Sister Anna visits me only too rarely. She explains she has other duties, though she's taken time to tell me a bit about her pre-Project life in a vast Life & Death factory down in the capital. Like all of us, Anna must know tedium and loneliness here in our self-protective Security blockade, but her obvious love of life (the French phrase which better expresses that escapes me, damn it) seems to carry her through. She is not, it seems, married.

My real point is that I feel like hell. And I'm scared as hell. I took a further wander this afternoon, clad in pajamas of a wild and purple hue supplied by the base and smelling just faintly of hospital antiseptic, my feet in ludicrous fluffy slippers, and found beyond the angle of the corridor one blank metal wall. I put my knuckles against it, a sharp rap or two, and got in return a flat metal clunck. It must be another door, there's no alternative way out, but it's thick as a bank vault.

I'm trapped, in short, in a luxurious prison designed to keep in not only viruses but people as well. What would happen if I smashed the first glass door in the airlock? Another metal wall smashing into place at the other end? I would not be surprised.

The map Woodhouse left me shows nothing of this; it is the barest outline of C Complex, labelled cryptically with letters and numbers. These are useless without the key, which the doctor carefully tore away, although the L-shaped section I inhabit is biro-annotated. The map's only function so far has been to guide me to an artfully concealed liquor cabinet in the lounge. I've brought the Jack Daniels back to my bedroom, but self-restraint prevents me from getting thoroughly sloshed. This is the *weirdest* hospital.

It is 13 minutes after 9 in the night.

I fell down. Anna came to help. My mouth was all frothy but I wasn't sick.

My head is funny. Anna bent over me and her breasts were pushing out behind her white dress and I wanted to give them a grab but I didn't dare. She's real sexy. I groaned a bit so I could move and look up her dress but I didn't see much she was too quick. 'Get up now,' she said, 'Harold,' and lifted me into bed.

I wonder if she knows I fancy her? But let's face it and why should she even get a charge out of me showing how randy I am only God please believe me I'm truly sorry. You know it just happened and I didn't really mean it to and I got down quick as I could and hid but anyway yeah why SHOULD she care about me where there's all them big tough military cops and tan-faced Generals and little clever smiling bastards like Doctor Woodhouse for that matter. Let's face it.

O my god I feel real strange why am I WRITING all this stuff anyway, I must be crazy, someone will see it and then I'll be in the crap up to my ears man oh man. Well, I'm writing it because I gotta, GOT TO, got to what? Write it out, thats what, cause Ive always written it down every night for ten goddam years, theres a funny ringing buzz in my ears I can see words jumping up and down in front of me, words leaking real fast out of the biro scrawly over the page, skid the page across the table, what the hell, grab another one, its like raping the page the virgin white page they used to say my god how corny Sister Kuenzli's no virgin for sure with tits like that, rape rape says the pen, ho ho, the PEN? short for what? a freudian slip like that dirty bastard Dr. Fraser used to snigger jesus jesus forgive me oh jesus its like all my brains were flaking off away out of my head an pouring down my ears like dandruff.

SEPTEMBER 14

I don't know what to do.

I really don't.

Habit, let habit show the way.

All right. Eight o'clock, maybe half a minute past. Ante meridian, morning of the day, an hour after breakfast and the doctor's silent visit, mutter mutter, or was it just that I didn't hear them very well? Very likely that, but I don't think they said much to me.

Go on, then, Professor Hull, put it on the paper:

I do not think any more that I am dying.

I think I am going out of my mind.

'Tush, Harold,' says beautiful crisp Sister Kuenzli, when I weep and clutch her arm most sexlessly and explain my fear, sob it at her, rant and hurl the plates sloshing messy on the carpet. 'It's just a fever, Harold,' says Sister Anna, crouching carefully and efficiently and cleaning up the mess, showing her disapproval by turning away her face, showing her fear (or is that a delusion of my madness? but if it is, then she has every reason to fear me, and it isn't) in the tightness of her muscles as she sponges up the milk. 'The doctors will look after you, Harold,' she explains, voice stern but matter-of-fact, 'it's just that touch of poison still in your tummy.'

Well, why no stomach pump? Why this fantastic set-up in the first place? I may not be the most popular of men, but old Marcus sits with me over chess, and Robinson enjoys an argument or three on quark theory, why haven't they arranged clearance and come to console the sick? Too many questions which can't be answered, not consistently: oh, there're glib replies to every one, I can think of plenty myself; but put them together and what picture fits the total bill?

There is, if I'm going to be rigorous—what an agony it was to find that word—that simple bloody word—the thought I had before: I've got some incredible disease mutated into existence by the bloody-minded military geniuses, some viral filth which has clutched my brain and squats there chewing up my mind. But how, how? Is it possible for a thing like that to escape their gentle care, flutter on the cold desert wind from C to A Complex, crawl up my skin and suck at my nerve-ends? Christ, it's the notion of a madman. What are Isolation Environments for, if not to prevent every chance of such a disaster? And why am I the only victim? The other rooms here are empty, four beds unmade, one freshly sheeted.

Those terrifying words I wrote.

They bring it back, the howling numbness in my mind, the cold grip, my raped soul, my very intelligence seeping away like blood drained into sand. And still it's there, the humming roar in my head, the numbing fingers tugging at my memories, cutting me to shreds, I can feel it chewing and gnawing, oh Christ bring it to a stop if You exist, stop this dreadful suction in my head.

I must concentrate on *facts*. I'm losing the words, losing *myself*, I pick up books from the elegant desk and flick

pages back and forth—the words are meaningless. I look at numbers and symbols, equations jotted in my own hand in the flyleaves, and *I don't know what they mean!*

Facts: My name is Harold Roger Hull, D.Sc., Ph.D.

I am one of the group which jointly developed the theory of sub-quantal parastatics.

For nearly two years, with my colleagues and assistants, with engineers and bomb experts, generals watching every move and men in uniforms with guns to keep away the baddies, I have been locked up for the benefit of the Free World in the desert research centre known as Aegis Project.

I have helped construct the first working model of an anti-nuclear screen.

The screen is a spherical parastatic field which damps out certain critical reactions in exploding nuclear weapons. So far as I know, our pilot rig is the only one in the world. With this screen, our nation and eventually those in alliance with us will be absolutely safe from atomic attack. Despite military wishful thinking, it is my opinion that our presumptive enemy and his allies will also shortly possess such a screen. This does not entirely dismay me. I believe it represents the salvation of mankind, since we will at least no longer be able to blow the whole race the hell and gone.

Writing these basic facts, I have discovered just how far my sickness has progressed. The attack last night was no fleeting aberration. All the details, all the equations and engineering data concerning the screen are gone from my mind, wiped away as though by a wet sponge. The amnesia is not restricted to those particular complicated ideas. My whole grasp of physics and math, and yes, those delightful subtleties in which I rejoice, the musical structure and form of Webern and Schonberg, all gone, dear Jesus; I look at lem and the words are not even words any longer—have I forgotten how to read Polish? Yes. And French is fading in my mind, German, Russian—like a smear of ice across a windscreen, my mind is blurring over and hardening into darkness.

Phooey on those silly old books.

I was real bored waiting for lunch, and Sister Kuenzli said Try the TV. Well I did andn guess what, there was lots of bottles of lemonade and Pepsi in the cupboard. Sister K. give me some buns and sponge cake too and I looked at Prince Planet and a quiz show but that one wasnt much good because it only had stupid fat women, and some other stuff. I didn't remember telly was so groovey but now I got one all to myself I'm gonna watch it all the time I think except those quizzes.

Proly its all rite to rite on this cos i did before only i kant unerstand any of them big werds.

Well I dont know but i feel pritty sad and glum wich is the werd my frend Ana sed.

Reel sad and glum cos it wood be nise to rite how i usedt too. Most times I jest sit hear and cry becoz there is a big pane in my hed wich is like a hole.

My hans are very big and klumzee and their are blak hares on them wich I kant rember it is very skary i think Sister Ana is reely my muther but wen I tolled her she just went away very qick an i think she was sad or sumthin.

Well, that is all i kan rite for now.

Harry Hull. Harry Hull. Harold Roger Hull.

Thatz how i rite my name.

Horrses an kows an berds an fetherz an hats an heds an fasez an nozes an muths an lips an eers and lolees

Haree Hull hari hull

Take in Zinco————————

SEPT. 16

They gave me the antigen this morning.

Their experiment, it would appear, is completed.

The bastards the bastards the filthy depraved bastards.

SEPTEMBER 19

Woodhouse allowed me an hour in the sun today. Not, needless to say, in the compound—I'm still bearing a potential pandemic in my tissues. Even so, a meditative hour beneath the glass roof of the Isolation sunroom was a relief.

My compulsion to keep the journal current has vanished these last several days. Understandably, perhaps; the memory of those tormented pages extruded while the 17-Tg-M Strain wrought havoc with my faculties is enough to destry forever the urge to communicate.

There is, however, a grim and bloody necessity which transcends my reluctance. I must not falter. I must set down this abomination.

Three days ago, drooling and sucking my thumb, I lay curled on the floor as Granger withdrew his needle from my arm. Woodhouse crouched watchfully at my shoulder, murmuring in a sing-song voice, offering a rainbow-spiralled confection. 'It doesn't hurt a bit now, does it Harry? Good boy, good little fellow, hush now, don't cry and we've got a lovely lolly for you, Harry, shoosh now, there, there.'

(That is the vile inhuman torture of it: the vividness of those scenes, those monstrous memories. Try as I might, as for hours I did try, I cannot blot it out. My degradation is scorched into my soul. But I no longer wish to forget. The obscenity they did to me must be recorded while the scar is livid.)

Sounds gurgled and dribbled through my lips. My hand clutched greedily for the sweet, fumbled it from his grasp, pushed it into my mouth. Granger motioned to the two hefty orderlies, stood back as they hoisted me into the big cot. I tossed my limbs about in mindless contentment, sucking and sucking. The noises I vaguely heard must have been Woodhouse clearing away the large polyethylene Alphabet Blocks he'd brought in the day before.

After they'd gone I just crawled around the cot, mind churning its infantile babble, and only began to cry when I wet myself again.

The first spasms of recovery hit me a few hours later. By six in the evening I was in full possession of everything but my self-respect.

I doubt whether that will ever, *can* ever, return to me.

I wanted to kill them.

I still want to kill them, but there is a more pressing need. It seems impossible that I might smuggle these pages out of here, yet I must continue in that hope. Perhaps I can convince Sister (or is it Doctor?) Kuenzli to carry this account to Marcus, or Robinson, or some other of the sane and conceivably brave men at the Aegis Complex. I cannot believe that she is entirely corrupt.

The two experimenters (they must be that) returned with the orderlies shortly after six and helped me to the bath-room. When I had cleaned myself and donned a fresh pair of pajamas, they dismissed the nurses and offered me their rueful version.

'You cannot know how sorry we are about this, Dr. Hull,' said Woodhouse, features carefully grave. 'You must have guessed by now that you've had something more serious than food-poisoning.'

I said nothing, my face, like stone, turned to the wall.

Granger grunted. 'It is only fair we give you an honest account. You must understand, however, that everything you're about to hear is under the highest security classification.'

'I'm sure the Doctor understands,' Woodhouse said gently. 'You see, old chap, it appears you've been the victim of a rather appalling accident. C Centre has been doing some terribly tricky stuff with mutated viruses, actually, and somehow you managed to pick up one of the bugs. Very nasty indeed, and the most incredible fluke. We've made double-damned sure,' he confided, 'that it won't happen again.'

I turned and looked at him, filled with loathing. 'You're all set now, aren't you? Load up a hundred ICBMs with virus, plaster China, and sit back in the happy assurance that no counter-attack can get through your Aegis screens. Then, of course, you can whip a few million marines into the country and cut everyone's throats while they gurgle at you like happy cretins.'

'Good grief, certainly not!' Woodhouse was sanctimoniously hurt. 'You've been under great stress, old fellow, but you should know our chaps'd never do anything so disgraceful as that. It's very horrid stuff, this 17-Tg-M virus, and it's a damn shame you caught it. Still, we have to keep abreast of what the others might be doing, just in case the worst comes to the worst, you know.'

I had a sick intuition that I should have kept my mouth shut. Granger and Woodhouse were carrying on a rapid-fire dialogue with their eyes. It was obvious they weren't happy. Finally Woodhouse rose and patted me on the arm.

'Just have a good rest now, Doctor, and we'll have you back with your mates as soon as the muck's quite gone from your system. You'll be a carrier for a little while, you see, so we'll have to keep you in isolation until then. Sister Kuenzli'll keep you cheery though, never fear, and if it makes you any happier you're well over the worst of it.'

Anna fetched me a meal after they'd left. I couldn't touch it.

Obviously I was correct. Accident be buggered. These ghouls don't make that kind of mistake. I must have been injected with it just before I got sick, during our routine monthly anti-radiation shots. They knew what they were doing all right, the bastards.

The nightmare implications are quite straightforward: given that the military develop a virus which can reduce a man to imbecility in a few days (perhaps hours when they refine it further) with no side-effects other than a little nausea, they *have* to use it. It's the way their paranoid minds work. Now they're potentially proof against nuclear retaliation, they *have* to get in first, before the Russians or Chinese develop a shield of their own.

I don't doubt the poor cretins really expect to walk in, take over all the key positions, get everyone back to normal with the antigen, and congratulate themselves on a fairly bloodless victory. A handful of the more fanatic might lust after Total Destruction Of The Enemy, but I suppose the bulk of them see attack with 17-Tg-M as the final glorious evolution of humanitarian warfare.

They're wrong, the fools. I *know* they're wrong, because I know beyond question what the inevitable reaction of their victims will be.

Can you grasp the ferocious hate, the murderous, vengeful loathing I feel for them? Can you comprehend the self-disgust, the degradation of everything which makes a man a man which they have put me through, which they will undoubtedly employ for their 'bloodless victory'? Do you know what it feels like to have all the dignity and self-respect squeezed inexorably out of you, until you roll gurgling like a baby in your own stinking excrement? And what you would do to those who had done such a thing to you?

They will have to slaughter every single one of their conquered enemy.

They will have no option. They will be forced into the genocide of half the human race.

And yet... I suppose I am not the first of their guinea-pigs. They must already have tried 17-Tg-M on criminals, on volunteer soldiers, on other scientists, on people from every walk of life. They would leave the rare birds, the geniuses (I have no time for false modesty) until last. Is it possible, then, they'll realise in time the consequences of this filthy thing, before military imperatives force them to use it in earnest?

No. They will not be baulked. They and their kind must have foreseen, before Hiroshima, the inevitable madness of the arms race which would follow. It did not stop them then. It will not stop them now. Dear Jesus, dear God.

There is only the slenderest chance that I can get this record out, into the hands of people who can try to stop them. I must hide it now, for I can hear approaching footsteps and I fear.

IN TIME TO COME . . .

They found him in Crater 4, the festering wound in the heart of the Mato Grosso where the early ships had sprayed the area with radioactives from their dirty atomic exhausts and mutated flora and fauna alike. They found Jules Carmodine, the only survivor of the first expediton to Pluto, and deep within his mind was buried the secret of the horrible alien life of the outermost planet. Watch for ALIEN LIFE, E. C. Tubb's most exciting novel . . . in time to come!

FANTASY REVIEW

THE MAN WHO CALLED HIMSELF POE
Edited by Sam Moskowitz
Doubleday & Co., New York. 244pp. 4.95 dollars

They say newspaper sub-editors exist to delete adjectives from copy. They could, on occasion, pass them on to critics who are lost for descriptive words, as I am concerning Moskcowitz' book. Brilliant? Masterly? Superb? Scholarly? It's all of these and yet much more, which words cannot convey, rich as our language is.

It is a pleasure to read a book which has so obviously been compiled for love as well as money. Sam has researched thoroughly and his notes skilfully prepare the background for the reader. They are, one could say, appo(e)site . . . The anthology is subtly blended to give maximum entertainment and information and at no time is the editor intrusive.

There can be few people who have not read something written by Poe. And there must be many who have read most, if not quite all, of his work. Until I read this book, I knew nothing about Poe the man. When I come to re-read Poe, as is inevitable after this review, knowing something about the writer, I shall enjoy and appreciate the stories more than I did before.

There are cults about everybody and everything, from Manfred von Richthofen to the American Civil War. So I shouldn't have been surprised to discover that there is one with Edgar Allen Poe as its focus. But I am. Also, I'm not sure that cult is the right word, with its overtones of obsession.

The book is in five parts. In his perceptive introduction, talking of the Sherlock Holmes cult, Moskowitz says: 'As can be seen, the efforts of the Baker Street Irregulars has been dedicated to turning a fictional character into a real person. Only one readership phenomenon in literary history can be compared to it and that is the attempts of admirers of Edgar Allen Poe to turn his life into fiction!' Poe himself evidently gave a lead to his devotees.

The second part is a detailed and honest biography by Thomas Mabbott, which, with the introduction, sets the scene.

The three main parts deal with fiction about Poe, fiction by Poe(?)—the editor's question mark—and poetry about Poe.

Bloch, Hamilton, Derleth, Lowndes, Lovecraft and Wellman all contribute to the anthology.

Edmond Hamilton's tale, *Castaway*, was specially written for the book and a haunting story it is. Poe is represented as a dual personality; one, his own, of the nineteenth century, the other from the far future. Poe's stories are, in fact, memories of the time traveller, which is an intriguing premise. Having first read the biography, I thought that Hamilton caught the essence of Poe, to achieve a memorable story, worthy of initial publication in a book of such high quality.

Manly Wade Wellman's story, *When It Was Moonlight*, cleverly seeks to explain the genesis of some of Poe's work. Wellman seems to have put a lot of spadework into this grisly piece.

The partition between the success, or failure, of a horror story is thin indeed. In such a story, the sequence of events is quite often open to the reader. There is no mystery to solve, no clues to unravel. Here the skill of the writer is paramount. He has to create a mood and communicate the terror and apprehension to the reader. Poe's own story, *Hop Frog*, illustrates the point perfectly.

Bloch's story, *The Man Who Collected Poe*, comes near to beating Poe at his own game. Would Poe, living and writing today (actually 1951), be able to sell his work? Bloch's answer to his own question is a story in the Poe manner. On the basis of this one story, I would say yes. The kind of imagination that produced *Psycho* can be seen at work here.

'Style is the man.' Or is it? Poe left 600 words of an unfinished story, *The Lighthouse*, which Robert Bloch completed. Moskowitz tells us where he took up the narrative. I'm sorry that the editor didn't cause the clue to be put under seal at the end of the book. A poll of readers' guesses as to who wrote what would have been illuminating. I couldn't tell. The story could have been Poe's.

The other item in this direction, *The Atlantis* by Peter Prospero, is considered by some to have been written by Poe. Other experts deny this. For what's it worth, I don't think it was. I'd need to study the fragment printed in the book in order to put my finger exactly on my reason for saying that. It is witty and satirical, but there is, here and there, a hint of pretentiousness, which seems at odds with Poe's character.

Moskowitz says, 'His small production the years 1838 and 1839 could be rationalized if this novel-length piece was attributed to him.' You could be right, Sam. Me, I think Poe had troubles, like any other writer, only more so. Still, if *Atlantis* was by Poe, it reveals an obscure facet of his work.

The poetry is often tender and quite beautiful. Here, from R. H. Barlow's *St. John's Churchyard:*

> 'Perhaps the shadows stir, perhaps they show
> Outcast by life and death, the lonely form
> Exiled, of Poe, the man of night and storms.'

Astutely chosen, books are a sound investment as well as an ever-present joy. This book is that, and it must become a collectors' item. In a few years' time, first editions will be much sought after and prized.

I don't know what senior pupils are reading in schools these days, but I'd certainly like to see this one on the lists. It is a revelation of a literary giant known only in a limited sense.

—Donald Malcolm

HEINLEIN IN DIMENSION

By Alexei Panshin
Advent: Publishers Inc. Fantast (Medway) Ltd. in Britain
204pp. 50s.

From somewhere in the bilges of sf, I have been elected by your Editor to review a book by a science fiction writer about another science fiction writer, so here goes.

Mr. Panshin set himself a formidable task and he succeeded brilliantly. Heinlein is one of the giants of sf and it is a brave man who would dare poke around another's reputation, running the very real risk of discovering not only feet of clay, but most of the body as well.

Heinlein is part of the fabric of science fiction. We lowraters are mere blotches of colour in the design. Anyone who professes to read science fiction and who hasn't read some Heinlein, really does live on another planet.

Criticism of a living writer is a dangerous game, especially in our closed world. To undertake the job presupposes a great admiration for the writer in question. That, in turn, poses problems. The twin nooses of harshness and sycophancy await the unwary. Panshin adroitly avoids hanging himself. Besides, he has the trapdoor nailed down.

'This book is a personal reaction to Heinlein's writing. I don't believe in the possibility of objective criticism.'

He's right. The best that any critic can be is subjectively objective.

I would never have thought it possible for any writer to get so shredded, as Heinlein is in this book, and still emerge as a whole man, his stature enhanced, if anything. By turns, Panshin raises blisters, then applies soothing ointment.

This is literary sleight-of-hand at its best. The creative process is much more than the mere assembly of the basic tools. Something of a man rubs off in his writing and, in the case of a writer such as Heinlein, the unknown quality is distinctive.

It's that additive to the ingredients of fiction that allows a writer to make mistakes and still get published.

Panshin's writing skill, his research and his knowledge, have enabled him to escape being blown-up by a book with all the elements of a booby-trap.

I don't think that it will change anyone's views of Heinlein's work. But it will stimulate considerable interest. People will re-read, or read for the first time, his stories.

Panshin doesn't attempt to convert anyone to Heinlein's unmistakeable—and I suspect, unshakeable—philosophies. Nor does he try to foist on us his views of Heinlein's 'influence', a common pitfall of criticism, as James Blish points out in his introduction.

Heinlein's writing speaks for itself. You don't have to agree with what it says, but you can't ignore it.

Panshin feels that, as long as science fiction endures, so will Heinlein. He is in no danger of toppling; sf is going to be around for a long time to come.

Heinlein once said: '... the science fiction writer—*any* fiction writer—must keep entertainment consciously in mind as his prime purpose.'

Heinlein has given his readers plenty of that. If, occasionally, he has forgotten his own advice, it is still no solace to those who think that entertainment is the lowest, perhaps superfluous, function of science fiction.

Ah, well, back to the bilges. But it's not quite so cold, sitting in the shadow of a great writer, one of the pathfinders of science fiction.

Donald Malcolm

THE PALACE OF ETERNITY

by Bob Shaw
Published by Gollancz at 25s., 192 pages.
Reviewed by Kathryn Buckley

THE PALACE OF ETERNITY starts off as a rattling good adventure yarn, but two-thirds of the way through Bob Shaw remembered he was supposed to be being profound. This is a pity because what he winds up with is two half books which, handled separately, could have given us two first-rate books, totally different in character, but each succeeding in what it set out to do. Instead the two halves are not blended so that the whole does not quite come off.

It is a great pity that the fast moving adventure story should have been devalued to such an extent that authors feel obliged to make their work significant because, like trying to be sincere, once an author tries to be significant, he ceases to be so.

Mack Tavernor, the red-blooded hero has retired to Mnemosyne 'The Poets Planet,' well out of the way of the Interstellar war waging with the Syccans since the Butterfly ships cannot land there. When computers decide to move the war headquarters to Mnemosyne, steps are taken to ensure that Butterfly ships can land there and Tavernor becomes involved in a resistance movement against the army takeover.

Up to the point where Tavernor gets killed, its all very exciting, quite convincing and enjoyable, but when we arrive at the Palace of Eternity it becomes a different kind of book.

Unfortunately it is quite impossible to discuss the book without revealing a good deal of the plot, but since Bob Shaw appears to be more concerned with his message, I think it is valid to examine it in these terms. What he is doing is to speculate with a scientific explanation of an afterlife.

Egons, alien beings composed of electrical energy exist in space but form a symbiotic relationship with living creatures to heighten their development. On their host's death they are released to their own place of existence but take with them a copy of their host's identity. The life form is the negative, the egon the print. Thus mankind becomes immortal, or almost so, since he unknowingly has the means of destroying his own egons and with them what amounts to his racial subconcious. Unfortunately, this whole idea comes slap up against personal belief in a way which could be irritating.

The scientific explanation is enough to put an empiricist off mysticism for life, since the electrical energy being or egon destroys the powerful mystery of the idea of a human soul. On the other hand, the rationalist will be unable to entertain the scientific extrapolation since it presupposes the existence of the human soul, without which there would be nothing for the egon to copy, and a racial subconscious.

Implicit in the whole story is the idea that man's progress, or his technology is destroying himself. The symbol of the Butterfly ships which is used to give force to this idea is however too divorced from reality to

become significant, to take hold of the reader and say 'Care, damn you, *care*.' The dangers to our ecology presented by our swiftly advancing technology are very real and have existed since the first trees were felled, and the clearing farmed. These dangers are quite forcibly illustrated in the description of the army takeover of Mnemosyn and the rape of its ecology, until one realises that the human race is in a fight for its own survival. In effect Bob Shaw weakens his case by pleading extenuating circumstances.

He performs the same volte face with the Syccans who are slaughtering humans because one day they may be robbed of their own heaven. The human race is accused, judged and condemned for committing a crime of which it is totally unaware. Further, the reader's respect for the moral reasoning which could suggest that, viewed by aliens, the human race is unworthy to survive, disappears when those same aliens take steps to prevent discovery of the crime by the perpetrators. It becomes a case of the pot calling the kettle black and the moral superiority of a race in communion with its own afterlife takes a nosedive.

Bob Shaw has not yet mastered the technique of using mumbo-jumbo so that it sounds profound. The science fiction interpretation of an afterlife is neat and clever, but despite his inexorable logic it remains philosophically very facile. It is a cumbersome way of trying to give significance to the dangers of technology and science tampering with ecology. The old argument that man is destroying himself does not acquire any greater meaning from such an unsubtle treatment, especially since he implies that man cannot survive without a soul. He has in effect been seduced by an idea which does not lend itself to his particular and considerable talent.

The early stages of the book show Bob Shaw's inventive ingenuity and the background to Mnemosyne is vivid and colourful. Mack Tavernor is a very realistic figure and the section dealing with his life with the guerilla fighters is exciting and enjoyable. The reaction of the colony on Mnemosyne when the war headquarters are moved there is very convincing and this whole first two-thirds moves very well indeed. What is such a pity is that Bob Shaw did not give full reign to his own perceptive wit in a branch of fiction so flooded with amateur philosophers and so denuded of humourists.

Other titles received and recommended:

UBIK by Philip K. Dick
(Rapp & Whiting Ltd., 202pp., 28s.)

THE WHITE ROOM by L. P. Davies
(Barrie & Jenkins, 189pp., 25s.)

NIGHTFALL by Isaac Asimov
(Rapp & Whiting Ltd., 343pp., 35s.)

THE THINKING SEAT by Peter Tate
(Faber & Faber, 225pp., 30s.)

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