NEW WORLDS SCIENCE FICTION

No. 77
VOLUME 26
2/-

13th Year
of Publication

Robert Presslie

London

Mr. Presslie's first science fiction stories appeared in the now-defunct *Authentic Science Fiction,* since when he has appeared in all the British magazines but notably in *New Worlds* and *Science Fantasy*. A native of the same Scottish city which produced author J. T. McIntosh, he states, "I am an alien from Aberdeen who touched down on London four years ago and am pleased to report no signs of allergies to the local beverages. Gainfully employed as a pharmacy manager for a firm of multiple chemists, I believe the scientific education which went before is probably the reason for a long-standing love affair with science fiction. On the other hand, it could well be that boyhood reading of science fiction had something to do with the choice of career. This is an egg-and-chicken type problem which I have never been able to solve.

"If I was given the choice of an era to live in, I would choose the one I have because—like everyone who is in science fiction—I am a dreamer, and dreamers never had it so good. This must be the only age in which dreams come true while you wait. And for this selfsame fact I think the next few years will see a drastic and dramatic change in science fiction: who wants to read a make-believe yarn about the first man on the Moon when his photograph could well be on the front page of tomorrow's newspapers?

"The change is going to call for a vast unfolding of the imagination by readers and writers alike. I hope to be able to contribute to that change."

NEW WORLDS SCIENCE FICTION

VOLUME 26

No. 77

MONTHLY

NOVEMBER 1958

CONTENTS

Editor : JOHN CARNELL

Cover painting by LEWIS illustrating " Trouble With Emily "

TWO SHILLINGS

Subscription Rates

Great Britain and the Commonwealth 12 issues 28/. post free

United States of America 12 issues $5.00 post free

Published on the last Friday in each month by

NOVA PUBLICATIONS LTD.,

Maclaren House, 131 Great Suffolk Street, London, S.E.1.

Telephone : HOP 5712

Sole Distributors in Australia : Gordon & Gotch (Australia) Ltd.

In New Zealand : Messrs. P. B. Fisher, 564 Colombo Street, Christchurch, N.Z.

Printed in England by The Rugby Advertiser Ltd., Albert Street, Rugby

Is this the . . .

Although the winter is practically upon us, this autumn period is one of the quietest in the science fiction field for many years. During the summer months both hard—and soft-cover publishers are usually planning their winter lists and information about impending plans and titles trickles through from authors, agents and publishers, which builds up a comprehensive picture of what the coming winter season is likely to produce in the way of expansion or contraction, according to the prevailing interest in the field.

Much can be guessed about British prospects by what has been happening in the American market, although it is not always true to assume that our field automatically follows the peaks and depressions across the Atlantic. In fact, 1958 has been a peak year for British writers selling to USA—more novels have been published in the States after first publication here than in any year since the science fiction boom commenced in 1948, and all indications point to a continuance of the east-to-west sales.

Despite this lack of news, however, one significant feature is particularly noticeable on both sides of the Atlantic—the sudden expansion of science fiction pocketbook titles. In my April Editorial I quoted from an investigation undertaken in New York by the *Publishers' Weekly* in which it was shown that sales of s-f pocketbooks had increased sharply after the launching of the space satellites but at that time American publishers did not expect to increase the number of titles already scheduled.

However, publishers in the general fiction field must have been interested in the *PW* report and assessed the possibilities, for we now find an imposing array of American companies offering s-f titles. Still pre-eminent are the regulars: Ballantine, New American Library, Bantam, and Ace ; followed by Berkley, Pyramid, Avon, Crest, and more recently Dell Books after the success of their third regular definitive *S-F : The Year's Greatest*, edited by Judith Merril.

The sudden increase in the British market is not a reflection of the American trend in this instance. Here we have seen the belated rise of all types of pocketbooks into a major form of

. . . New Trend ?

publishing—certainly the popularity of the cheap mass market approach was a natural outcome of the high cost of bound books. No-one quite knows when the pocketbook field will reach its saturation point although there are plenty of indications that it is levelling off.

In view of this vast new potential we can expect to find an increase in the number of s-f titles being offered in Britain. The percentage of such titles is still extremely low, naturally, but represents a far higher quantity for the year so far than ever appeared in hard covers at the peak of the initial upsurge four years ago.

Reports both from London and New York indicate that sales of s-f pocketbook titles are higher than were enjoyed previously despite the additional competition. A significant pointer to British sales potential is the fact that publishers are now offering four times as much for pocketbook Rights than they were five years ago. Most of our top writers are finding that one novel now sells in hard and soft-cover editions in Britain and America and produces a nett return never before expected in this specialised medium.

This more lucrative return means that a greater number of writers are turning to the novel, but at present there is a controlling factor in the pocketbook field which does not offer a great deal of hope for the newcomer. Practically all pocketbook titles are taken from the lists of already published hardcover books, where at present there is a considerable backlog of good material by well-known authors. The few " original " titles are *always* by established writers—no pocketbook publisher is going to risk his money on an unknown unless his name has at least been established in the s-f magazines.

Undoubtedly a compromise will materialise in the form of limited bound editions for sale to libraries and the connoisseur, followed by large printings of paper editions. In fact many book publishers are already working to this end for the future.

It looks, therefore, as though the novel-length s-f story will come into its own very shortly.

John Carnell

James White's 'Sector General' hospital is one of the most fabulous places any author has yet conceived. Situated out at the rim of the galaxy it is equipped to handle patients from every type of planet, its vast bulk containing layer upon layer of wards filled with every type of non-human life—and some human. The first story appeared in No. 65 and is still available.

TROUBLE WITH EMILY

By JAMES WHITE

I

It must have been one of the big colonial transports of the type which had carried four generations of colonists between the stars before the hyperdrive made such gargantuan ships obsolete, Conway thought as he stared at the great tear-drop shape framed in the direct vision port beside O'Mara's desk. With the exception of the pilot's greenhouse its banks of observation galleries and viewports were blocked off by thick metal plating, and braced solidly from the outside to withstand considerable internal pressure. Even beside the tremendous bulk of Sector General it looked huge.

"You are to act as liaison between the hospital here and the doctor and patient from that ship," said Chief Psychologist O'Mara, watching him closely. "The doctor is quite a small life-form. The patient is a dinosaur."

Conway tried to keep the astonishment he felt from showing in his face. O'Mara was analysing his reactions, he knew, and

perversely he wanted to make the other's job as difficult as possible. He said simply, " What's wrong with it ?"

" Nothing," said O'Mara.

" It must be psychological, then . . .?"

O'Mara shook his head.

" Then what is a healthy, sane and intelligent being doing in a hos—"

" It isn't intelligent."

Conway breathed slowly in and out. O'Mara was obviously playing guessing games with him again—not that Conway minded that, provided he was given a sporting chance to guess the right answers. He looked again at the great mass of the converted transport, and meditated.

Putting hyperdrive engines into that great sow of a ship had cost money, and the extensive structural alterations to the hull a great deal more. It seemed an awful lot of trouble to to go for a . . .

" I've got it !" said Conway, grinning. " It's a new specimen for us to take apart and investigate . . ."

" Good Lord, *no* !" cried O'Mara, horrified. He shot a quick almost frightened look at a small sphere of plastic which was half hidden by some books on his desk, then went on seriously, " This whole business has been arranged at the highest level—a sub-assembly of the Galactic Council, no less. As to what exactly it is all about neither I nor anyone else in Sector General knows. Possibly the doctor who accompanied the patient and who has charge of it may tell you sometime . . ."

O'Mara's tone at that point implied that he very much doubted it. ". . . However, all that the hospital and yourself are required to do is co-operate."

Apparently the being who was the doctor in the case came from a race which had been only recently discovered, O'Mara went on to explain, which had tentatively been given the classification VUXG : that was, they were a life-form possessing certain psi faculties, had the ability to convert practically any substance into energy for their physical needs and could adapt to virtually any environment. They were small and wellnigh indestructible.

The VUXG doctor was telepathic, but ethics and the privacy taboo forbade it using this faculty to communicate with a non-telepathic life-form, even if its range included the Earth-

human frequency. For that reason the Translator would be used exclusively. This doctor belonged to a species long-lived both as individuals and in recorded history, and in all that vast sweep of time there had been no war.

They were an old, wise and humble race, O'Mara concluded; intensely humble. So much so that they tended to look down on other races who were not so humble as they. Conway would have to be very tactful because this extreme, this almost overbearing humility might easily be mistaken for something else . . .

Conway looked closely at O'Mara. Was there not a faintly sardonic gleam in those keen, iron-grey eyes and a too carefully neutral expression on that square-chiselled competent face? Then with a feeling of complete bafflement he saw O'Mara wink.

Ignoring it, Conway said, " This race, they sound stuck up to me."

He saw O'Mara's lips twitch, then a new voice broke in on the proceedings with dramatic suddenness. It was a flat, toneless, Translated voice which boomed, " The sense of the preceeding remark is not clear to me. We are stuck—adhering —up where?" There was a short pause, then; "While I admit that my own mental capabilities are very low, at the same time I would suggest in all humility that the fault may not altogether lie with me, but be due in part to the lamentable tendency for you younger and more impractical races to make sense-free noises when there is no necessity for a noise to be made at all."

It was then that Conway's wildly searching eyes lit on the transparent plastic globe on O'Mara's desk. Now that he was really looking at it he could see several lengths of strapping attached to it, together with the unmistakable shape of a Translator pack. Inside the container there floated a *something* . . .

" Dr. Conway," said O'Mara drily, " meet Dr. Arretapec, your new boss." Mouthing silently, he added, " You and your big mouth !"

The thing in the plastic globe, which resembled nothing so much as a withered prune floating in a spherical gob of syrup, was the VUXG doctor ! Conway felt his face burning. It was a good thing that the Translator dealt only with words and did not also transfer their emotional—in this instance sarcastic—connotations, otherwise he would have been in a most embarrassing position.

" As the closest co-operation is required," O'Mara went on quickly, " and the mass of the being Arretapec is slight, you will *wear* it while on duty." O'Mara deftly suited actions to his words and strapped the container onto Conway's shoulder. When he had finished he added, " You can go, Dr. Conway. Detailed orders, when and where necessary, will be given to you direct by Dr. Arretapec."

It could only happen here, Conway thought wryly as they left. Here he was with an e-t doctor riding on his shoulder like a quivering, transparent dumpling, their patient a healthy and husky dinosaur, and the purpose of the whole business was something which his colleague was reluctant to clarify. Conway had heard of blind obedience, but blind co-operation was a new —and he thought, rather stupid—concept.

On the way to Lock Seventeen, the point where the hospital was joined to the ship containing their patient, Conway tried to explain the organisation of Sector Twelve General Hospital to the extra-terrestrial doctor.

Equipped as they were to treat every known form of intelligent life it was understandable that no single being—Earth-human or otherwise—could hold in its brain even a fraction of the physiological data necessary to perform this function. Surgical dexterity had to be learned over the years, of course, but complete physiological data could usually be furnished on any patient by means of Educator tape, which was nothing less than the brain record of some great medical genius belonging to the same or similar species as the patient to be treated. Normally this knowledge was impressed on the brain of the doctor in charge of the case only until the operation or course of treatment was completed, then it was erased. The sole exceptions to this rule were the Diagnosticians.

They were the beings whose minds were considered stable enough to contain, permanently, six, seven or even ten Educator tapes. To these Diagnosticians fell the job of original research in xenological medicine, using their data-crammed minds as the jumping-off point, and the diagnosis of new diseases treatments in hitherto unknown life-forms.

On the purely structural side Conway tried to give some idea of the complexity of the great hospital floating in interstellar space on the galactic periphery : the wards for the treatment of high-temperature life-forms, of low-gravity, water-breathing or energy-eating types, and species requiring such a degree of

cold and darkness that they had to be shielded from even the faint starlight which filtered through the direct vision ports from the parent galaxy.

Dr. Arretapec asked some pertinent questions from time to time, so presumably he was interested.

Even though he had been expecting it, the sheer size of the converted transport's interior shocked Conway. With the exception of the two levels nearest the ship's outer skin, which at the moment housed the artificial gravity generators, the Monitor Corps engineer had cut away everything to leave a great sphere of emptiness some two thousand feet in diameter. The inner surface of this sphere was a wet and muddy shambles. Great untidy heaps of uprooted vegetation were piled indescriminately about, most of it partially trampled into the mud. Conway also noticed that quite a lot of it was withered and dying.

After the gleaming, aseptic cleanliness which he was used to Conway found that the sight was doing peculiar things to his nervous system. He began looking around for the patient.

His gaze moved out and upwards across the acres of mud and tumbled vegetation until, high above his head on the opposite side of the sphere the swamp merged into a small, deep lake. There were shadowy movements and swirlings below its surface. Suddenly a tiny head mounted on a great sinuous neck broke the surface, looked around, then submerged again with a tremendous splash.

Conway surveyed the distance to the lake and the quality of the terrain between it and himself. He said, " It's a long way to walk, I'll get an antigravity belt . . ."

" That will not be necessary," said Arretapec. The ground abruptly flung itself away from them and they were hurtling towards the distant lake.

Classification VUXG, Conway reminded himself when he got his breath back ; *possessing certain psi faculties* . . .

II

They landed gently near the edge of the lake. Arretapec told Conway that it wanted to concentrate its thinking processes for a few minutes and requested him to keep both quiet and still. A few seconds later an itching started deep inside his ear somewhere. Conway manfully refrained from poking at it

with his finger and instead kept all his attention on the surface of the lake.

Suddenly a great grey-brown, mountainous body broke the surface, a long, tapering neck and tail slapping at the water with explosive violence. For an instant Conway thought that the great beast had simply bobbed to the surface like a rubber ball but then he told himself that the bed of the lake must have shelved suddenly under the monster, giving an optically similar effect. Still threshing madly with neck, tail and four massive columnar legs the giant reptile gained the lake's edge and floundered onto, or rather *into*, the mud, because it sank over its knee joints Conway estimated that the said knee-joints were at least ten feet from ground level, that the thickest diameter of the great body was about eighteen feet and that from head to tail the brute measured well over one hundred feet. He guessed its weight at about 80,000 pounds. It possessed no natural body armour but the extreme end of its tail, which showed surprising mobility for such a heavy member, had an osseous bulge from which spouted two wicked, forward-curving boney spikes.

As Conway watched, the great reptile continued to churn up the mud in obvious agitation. Then abruptly it fell onto its knees and its great neck curved around and inwards until its head muzzled underneath its own underbelly. It was a ridiculous but oddly pathetic posture.

" It is badly frightened," said Arretapec. " These conditions do not adequately stimulate its true environment."

Conway could understand and sympathise with the beast. The ingredients of its environment were no doubt accurately reproduced but rather than being arranged in a life-like manner they had just been thrown together into a large, muddy stew. Probably not deliberately, he thought, there must have been some trouble with the artificial gravity grids on the way out to account for this jumbled landscape. He said ;

" Is the mental state of the patient of importance to the purpose of your work ?"

" Very much so," said Arretapec.

" Then the first step is to make it a little more happy with its lot," said Conway, and went down on his haunches. He took a sample of the lake water, the mud and several of the varieties of vegetation nearby. Finally he straightened up and said, " Is there anything else we have to do here ?"

"I can do nothing at present," Arretapec replied. The Translated voice was toneless and utterly without emotion, naturally, but from the spacing of the words Conway thought that the other sounded deeply disappointed.

Back at the entry lock Conway made determined tracks towards the dining hall reserved for warm-blooded, oxygen-breathing life-forms. He was hungry.

Many of his colleagues were in the hall—DBLF caterpillars who were slow everywhere but in the operating theatre, Earth-human DBDG's like himself and the great, elephantine Tralthan—classification FGLI—who, with the little OTSB life-form who lived in symbiosis with it, was well on the way to joining the ranks of the lordly Diagnosticians. But instead of engaging in conversation all round, Conway concentrated on gaining all the data possible on the planet of origin of the reptilian patient.

For greater ease of conversation he had taken Arretapec out of its plastic container and placed it on the table in a space between the potatoes and gravy dish. At the end of the meal Conway was startled to find that the being had dissolved—ingested—a two inch hole in the table !

"When in deep cogitation," Arretapec replied when Conway rather exasperatedly wanted to know why, "the process of food-gathering and ingestion is automatic and unconscious with us. We do not indulge in eating as a pleasure as you obviously do, it dilutes the quality of our thinking. However, if I have caused damage . . .?"

Conway hastily reassured him that a plastic tabletop was relatively valueless in the present circumstances, and beat a quick retreat from the place. He did not try to explain how catering officers could feel rather peeved over their relatively valueless property.

He had left the samples in for analysis on the way to lunch, so Conway called for the results on the way to the Maintenence Chief's office. This was occupied by a small humanoid life-form with seven-fingered hands, an overall coat of curly red fur and wearing a Maintenence armband which had gold edging. It also held an Earth-human in Monitor Corps green with Colonel's insignia on his collar over an Engineering flash. Conway had once held a poor and very inaccurate opinion of Monitors, and it had taken a runaway ship ploughing into the hospital and close contact with another Monitor which had

ensued to get him straightened out on the subject.* Now he quietly described the situation and what he wanted done, if such a thing was possible.

" It is possible," said the red teddybear after they had gone into a huddle over Conway's data sheets, " but—"

" O'Mara told me expense is no object," Conway interrupted, nodding towards the tiny being on his shoulder. " Maximum co-operation, he said."

" In that case we can do it," the Monitor Colonel put in briskly. He was regarding Arretapec with an expression close to awe. " Let's see, transports to bring the stuff from its home planet—quicker and cheaper in the long run than sythesising its food here. And we'll need two full companies of the Engineer's Division with their robots to make its house a happy home, instead of the twenty-odd men responsible for bringing it here." His eyes became unfocussed as rapid calculations went on behind them, then : " Three days."

Even allowing for the fact that hyperdrive travel was instantaneous, Conway thought that that was very fast indeed. He said so.

The Colonel acknowledged the compliment with the thinnest of smiles. He said, " What is all this in aid of, you haven't told us yet ?"

Conway waited for a full minute to give Arretapec plenty of time to answer the question, but the VUXG kept silent. He could only mumble " I don't know " and leave quickly.

The next door they entered was boldly labelled " Dietician-in-Chief—Species DBDG, DBLF and FGLI. Dr. K. W. HARDIN." Inside, the whitehaired and distinguished head of Dr. Hardin raised itself from some charts he was studying and bawled, " And what's biting *you* . . .?"

While Conway was impressed by and greatly respected Dr. Hardin, he was no longer afraid of him. The Chief Dietician was a man who was quite charming to strangers, Conway had learned ; with acquaintances he tended to be a little on the abrupt side, and towards his friends he was downright rude. As briefly as possible Conway tried to explain what was biting him.

" You mean I have to go around replanting the stuff it's eaten, so that it doesn't know but that it grew naturally ?"

* " Sector General "—New Worlds No. 65, November 1957

Harding interrupted at one point. " Who the blazes do you think I am ? And how much does this dirty great cow eat, anyway ?"

Conway gave him the figures he had worked out.

" Three and a half *tons* of palm fronds a day !" Hardin roared, practically climbing his desk. " And tender green shoots of . . . Ye Gods ! And they tell me dietetics is an exact science. Three-and-a-half tons of shrubbery, exact! *Hah* . . .!"

They left Hardin at that point. Conway knew that everything would be all right because the dietician had shown no signs of becoming charming.

To the VUXG Conway explained that Hardin had not been non-co-operative, but had just sounded that way. He was keen to help as had been the other two. Arretapec replied to the effect that members of such immature and short-lived races could not help behaving in an unsane fashion.

A second visit to their patient followed. Conway brought a G-belt along with him this time and so was independent of Arretapec's teleportive ability. They drifted around and above the great, ambulating mountain of flesh and bone, but not once did Arretapec so much as touch the creature. Nothing whatever happened except that the patient once again showed signs of agitation and Conway suffered a periodic itch deep inside his ear. He sneaked a quick look at the tell-tale which was surgically embedded in his fore-arm to see if there was anything foreign in his bloodstream, but everything was normal. Maybe he was just allergic to dinosaurs.

Back in the hospital proper Conway found that the frequency and violence of his yawns was threatening to dislocate his jaw, and he realised that he had had a hard day. The concept of sleep was completely strange to Arretapec, but the being raised no objections to Conway indulging in it if it was necessary to his physical well-being. Conway gravely assured it that it was, and headed for his room by the shortest route.

This involved donning a lightweight diving suit for a fifty-yard swim through a water filled corridor in the section inhabited by the AUGLs, a large, armoured, fish-like species, and a walk through another in the PVSJ section. The PVSJ's —spiny, membraneous, chlorine-breathers—were inclined to be sociable, so that the walk usually took several minutes, but this time he was lucky in not meeting anyone.

What to do with Dr. Arretapec bothered him for a while. The VUXG was an important personage ; he could not very well leave it in a storage closet or in a corner somewhere, even though the being was tough enough to be comfortable in much more rugged surroundings. Nor could he simply put it out for the night without gravely hurting its feelings—at least, if the positions had been reversed *his* feelings would have been hurt. He wished O'Mara had given instructions to cover this contingency. Finally he placed the being on top of his writing desk and forgot about it.

Arretapec must have thought deeply during the night, because there was a three inch hole in the desk-top next morning.

III

During the afternoon of the second day a row started between the two doctors. At least Conway considered it a row: what an entirely alien mind like Arretapec's chose to think of it was anybody's guess.

It started when the VUXG requested Conway to be quiet and still while it went into one of its silences. The being had gone back to the old position on Conway's shoulder, explaining that it could concentrate more effectively while at rest rather than with part of its mind engaged in levitating. Conway had done as he was told without comment though there were several things he would have liked to say ; What was wrong with the patient ? What was Arretapec doing about it ? And *how* was it being done when neither of them so much as touched the creature ? Conway was in the intensely frustrating position of a doctor confronted with a patient on whom he is not allowed to practise his craft : he was eaten up with curiosity and it was bothering him. Yet he did his best to stand still. He tried.

But the itching started inside his ear again, worse than ever before. He barely noticed the geysers of mud and water flung up by the dinosaur as it threshed its way out of the shallows and onto the bank. The gnawing, unlocalised itch built up remorselessly until with a sudden yell of fright he slapped at the side of his head and began poking frantically at his ear. The action brought immediate and blessed relief, but . . .

" I cannot work if you fidget," said Arretapec, the rapidity of the words the only indication of their emotional content. " You will therefore leave me at once."

" I wasn't fidgeting," Conway protested angrily. " My ear itched and I—"

" An itch, especially one capable of making you move as this one has done, is a symptom of a physical disorder which should be treated," the VUXG interrupted. " Or it is caused by a parasitic or symbiotic life-form dwelling, perhaps unknown to you, on your body.

" Now, I expressly stated that my assistant should be in perfect physical health and not a member of a species who either consciously or unconsciously harboured parasites—a type, you must understand, which are particularly prone to fidget—so that you can understand my displeasure. Had it not been for your sudden movement I might have accomplished something, therefore go."

" Why you supercilious—"

The dinosaur chose that moment to stagger into the shallow water again, lose its footing and come the great grand-daddy of all bellyflops. Falling mud and spray drenched Conway and a small tidal wave surged over his feet. The distraction was enough to make him pause, and the pause gave him time to realise that he had not been personally insulted. There were many intelligent species who harboured parasites—some of them actually necessary to the health of the host body, so that in their case the slang expression being lousy also meant being in tiptop condition. Maybe Arretapec had meant to be insulting, but he could not be sure. And the VUXG was, after all, a very important person . . .

" What exactly might you have accomplished ?" Conway asked sarcastically. He was still angry, but had decided to fight on the professional rather than the personal level. Besides, he knew that the Translator would take the insulting edge off his words. " What are you *trying* to accomplish, and how do you expect to do it merely by—from what I can see, anyway—just looking at the patient ?"

" I cannot tell you," Arretapec replied after a few seconds. " My purpose is . . . is vast. It is for the future. You would not understand."

" How do you know ? If you told me what you were doing maybe I could help."

" You cannot help."

" Look," said Conway, exasperated, " you haven't even tried to use the full facilities of the hospital yet. No matter what you are trying to do for your patient, the first step should have been a thorough examination—immobilisation, followed by X-rays, biopsys, the lot. This would have given you valuable physiological data upon which to work—"

" To state the matter simply," Arretapec broke in, " you are saying that in order to understand a complicated organism or mechanism, one must first be broken down into its component parts that they might be understood individually. My race does not believe that an object must be destroyed—even in part—before it can be understood. Your crude methods of investigation are therefore worthless to me.

" I suggest that you leave."

Seething, Conway left.

His first impulse was to storm into O'Mara's office and tell the Chief Psychologist to find somebody else to run errands for the VUXG. But O'Mara had told him that his present assignment was important, and O'Mara would have unkind things to say if he thought that Conway was throwing his hand in simply out of pique because his curiosity had not been satisfied or his pride hurt. There were lots of doctors—the assistants to Diagnosticians, particularly—who were not allowed to touch their superior's patients, or was it just that Conway resented a being like Arretapec being his superior . . .?

The hospital's Chief Psychologist had an important job. Given even the highest qualities of tolerance and mutual respect in its personnel there were still occasions when friction occurred. Awkward situations arose through sheer ignorance or misunderstanding, or a being would develop a xenophobic neurosis which affected both his stability and efficiency. An Earth-human, for instance, who discovered that he had a horror of spiders would not be able to bring to bear on an Illensan patient the proper amount of clinical detachment necessary for its treatment, and if one of the spidery Illensan doctors should have occasion to treat *him* . . . well, the services of a top psychologist would be needed in a hurry. But it was O'Mara's duty to eradicate such signs of trouble, or remove potentially troublesome individuals, long before they could develop into open conflict.

If Conway went to O'Mara in his present frame of mind there was real danger of the psychologist deciding that he was temperamently unsuited for his position. Quite apart from the prestige attached to a post at Sector General, the work performed in it was both stimulating and very much worthwhile. Should O'Mara decide that he was unfit to remain here and pack him off to some planetary hospital, it would be the greatest tragedy of Conway's life.

But if he could not go to O'Mara, where could he go? Ordered off one job and not having another, Conway was at a loose end. He stood at a corridor intersection for several minutes thinking, while beings representing a cross-section of all the intelligent races of the galaxy strode, undulated or skittered past him, then suddenly he had it. There was something he could do, something which he would have done anyway if everything had not happened with such a rush.

The hospital library had several items on the pre-historic period of Earth, both taped and in the old-fashioned and more cumbersome book form. Conway heaped them on a reading desk and prepared to make an attempt to satisfy his professional curiosity about the patient in this roundabout fashion.

The time passed very quickly.

Dinosaur, Conway discovered at once, was simply a general term applied to the giant reptiles. The patient, except for its larger size and bony enlargement of the tip of the tail, was identical in outward physical characteristics to the Brontosaurus which lived among the swamps of the Jurassic Period. It also was herbiverous, but unlike their patient had no means of defence against the carniverous reptiles of its time. There was a surprising amount of physiological data available as well, which Conway absorbed greedily.

The spinal column was composed of huge vertabrae, and with the exception of the caudal vertabrae all were hollow—which saving of osseous material making possible a relatively low body weight in comparison with its tremendous size. It was oviparous. The head was small, the brain case one of the smallest found among the vertabrates. But in addition to this brain there was a well-developed nerve centre in the region of the sacral vertabrae which was several times as large as the brain proper. It was thought that the brontosaur grew slowly, their great size being explained by the fact that they could live two hundred or more years.

Their only defence against comtempory rivals was to take to and remain in the water—they could pasture under water and required only brief mouthfuls of air, apparently. They became extinct when geologic changes caused their swampy habitats to dry up and leave them at the mercy of their natural enemies.

One authority stated that these saurians were nature's biggest failure. Yet they had flourished, said another, through three geologic periods—the Triassic, Jurassic and Cretaceous —which totalled 140 million years, a long time indeed for a 'failure' to be around considering the fact that Man had existed only for approximately half a million years . . . !

Conway left the library with the conviction that he had discovered something important, but what exactly it was he could not say ; it was an intensely frustrating feeling. Over a hurried meal he decided that he badly needed more information and there was only one person who might be able to give it to him. He would see O'Mara again.

" Where is our small friend ?" said the psychologist sharply when Conway entered his office a few minutes later. " Have you had a fight or something ?"

Conway gulped and tried to keep his voice steady as he replied, " Dr. Arretapec wished to work with the patient alone for a while, and I've been doing some research on dinosaurs in the library. I wondered if you had any more information for me ?"

" A little," O'Mara said. He looked steadily at Conway for several very uncomfortable seconds, then grunted, " Here it is . . ."

The Monitor Corps survey vessel which had discovered Arretapec's home planet had, after realising the high stage of civilisation reached by the inhabitants, given them the hyper-drive. One of the first planets visited had been a raw, young world devoid of intelligent life, but one of its life-forms had interested them—the giant saurian. They had told the Galactic powers-that-be that given the proper assistance they might be able to do something which would benefit civilisation as a whole, and as it was impossible for any telepathic race to tell a lie or even understand what a lie is, they were given the assistance asked for and Arretapec and his patient had come to Sector General.

There was one other small item as well, O'Mara told Conway. Apparently the VUXG's psi faculties included a sort

of precognitive ability. This latter did not appear to be of much use because it did not work with individuals but only with populations, and then so far in the future and in such a haphazard manner that it was practically useless.

Conway left O'Mara feeling more confused than ever.

He was still trying to make the odd bits and pieces of information add up to something which made sense, but either he was too tired or too stupid. And definitely he was tired ; when it came to this time these past two days his brain had been just so much thick, weary fog . . .

There must be an association between the two factors, Arretapec's coming and this unaccountable weariness, Conway thought : he was in good physical condition and no amount of muscular or mental exertion had left him feeling this way before. And had not Arretapec said something about the itching sensations he had felt being symtomatic of a disorder?

All of a sudden his job with the VUXG doctor was no longer merely frustrating or annoying, Conway was beginning to feel anxiety for his own personal safety. Suppose the itching was due to some new type of bacteria which did not show up on his personal tell-tale ? He had thought something like this when his fidgeting had caused Arretapec to send him away, but for the rest of the day he had been subconsciously trying to convince himself that it was nothing because the intensity of the sensations had diminished to practically zero. Now he knew that he should have had one of the senior physicians look into it. He should, in fact, do it now.

But Conway was very tired. He promised himself that he would get Dr. Mannen, his previous superior, to give him a going over in the morning. And in the morning he would have to get on the right side of Arretapec again. He was still worrying about the strange new disease he might have caught and the correct method of apologising to a VUXG life-form when he fell asleep.

IV

Next morning there was another two-inch hollow eaten in the top of his desk and Arretapec was nestling inside it. As soon as Conway demonstrated that he was awake by sitting up, the being spoke :

" It had occurred to me since yesterday," the VUXG said, " that I have perhaps been expecting too much in the way of

self-control, emotional stability, and the ability to endure or to discount minor physical irritants in a member of a species which is—relatively, you understand—of low mentality. I will therefore do my utmost to bear these points in mind during our future relations together."

It took a few seconds for Conway to realise that Arretapec had apologised to him. When he did he thought that it was the most insulting apology he had ever had tendered to him, and that it spoke well for his self-control that he did not tell the other so. Instead he smiled and insisted that it was all his fault. They left to see their patient again.

The interior of the converted transport had changed out of all recognition. Instead of a hollow sphere covered with a muddy shambles of soil, water and foliage, three-quarters of the available surface was now a perfect representation of a Mesozoic landscape. Yet it was not exactly the same as the pictures Conway had studied yesterday, because they had been of a distant age of Earth and this flora had been transplanted from the patient's own world, but the differences were surprisingly small. The greatest change was in the sky.

Where previously it had been possible to look up at the opposite side of the hollow sphere, now one looked up into a blue-white mist in which burned a very lifelike sun. The hollow centre of the ship had been almost filled with this semi-opaque gas so that now it would take a keen eye and a mind armed with foreknowledge for a person to know that he was not standing on a real planet with a real sun in the foggy sky above him. The engineers had done a fine job.

" I had not thought such an elaborate and life-like reconstruction possible here," said Arretapec suddenly. " You are to be commended. This should have a very good affect on the patient."

The life-form under discussion—for some peculiar reason the engineers insisted on calling it Emily—was contentedly shredding the fronds from the top of a thirty foot high palm-like growth. The fact of its being on dry land instead of pasturing under water was indicative of its state of mind, Conway knew, because the old-time brontosaur invariably took to the water when threatened by enemies, that being its only defence. Apparently this neo-brontosaurus hadn't a care in the world.

" Essentially it is the same as fitting up a new ward for the treatment of any extra-terrestrial patient," said Conway modestly, " the chief difference here being in the scale of the work undertaken."

" I am nevertheless impressed," said Arretapec.

First apologies and now compliments, Conway thought wryly. As they moved closer and Arretapec once again warned him to keep quiet and still, Conway guessed that the VUXG's change of manner was due to the work of the engineers. With the patient now in ideal surroundings the treatment, whatever form it was taking, might have an increased chance of success . . .

Suddenly Conway began to itch again. It started in the usual place deep inside his right ear, but this time it spread and built up in intensity until his whole brain seemed to be crawling with viciously biting insects. He felt cold sweat break on him, and remembered his fears of the previous evening when he had resolved to go to Mannen. This wasn't imagination, this was serious, perhaps deadly serious. His hands flew to his head with a panicky, involuntary motion, knocking the container holding Arretapec to the ground.

" You are fidgeting again . . ." began the VUXG.

" I . . . I'm sorry," Conway stammered. He mumbled something incoherent about having to leave, that it was important and couldn't wait, then fled in disorder.

Three hours later he was sitting in Dr. Mannen's DBDG examination room while Mannen's dog alternately growled fiercely at him or rolled on its back and looked appealing in vain attempts to entice him to play with it. But Conway had no inclination for the ritual pummelling and wrestling that the dog and himself enjoyed when he had the time for it. All his attention was focussed on the bent head of his former superior and on the charts lying on Mannen's desk. Suddenly the other looked up.

" There's nothing wrong with you," he said in the peremptory manner reserved for students and patients suspected of malingering. A few seconds later he added, " Oh, I've no doubt you've felt these sensations—tiredness, itching, and so on —but all the indications are that it is psychosomatic. Tell me, what sort of case are you working on at the moment ?"

Conway told him. A few times during the narration Mannen grinned.

" I take it this is your first long-term—er—exposure to a telepathic life-form, and that I am the first you've mentioned this trouble to ?" Mannen's tone was of one making a statement rather than of asking a question. " And, of course, although you feel this itching sensation intensely when close to the VUXG and the patient, it continues in a weaker form at other times."

Conway nodded. " I felt it for a while just five minutes ago."

" Naturally, there is attenuation with distance," Mannen said. " But as regards yourself, you have nothing to worry about. Arretapec is—all unknowingly, you understand—simply trying to make a telepath out of you. I'll explain . . ."

Apparently prolonged contact with some telepathic life-forms stimulated a certain area in the human brain which was either the beginnings of a telepathic function that would evolve in the future, or the atrophied remnant of something possessed in the primitive past and since lost. The result was a troublesome but quite harmless irritation. On very rare occasion however, Mannen added, this proximity produced in the human a sort of artificial telepathic faculty—that was, he could sometimes receive thoughts from the telepath to whom he had been exposed, but of no other being. The faculty was in all cases strictly temporary, and disappeared when the being responsible for bringing it about left the human.

" But these cases of induced telepathy are extremely rare," Mannen concluded, " and obviously you are getting only the irritant by-product, otherwise you might know what Arretapec is playing at simply by reading its mind . . ."

While Dr. Mannen had been talking, and relieved of the worry that he had caught some strange new disease, Conway's mind had been working furiously. Vaguely, as odd events with Arretapec and the brontosaurus returned to his mind and were added to scraps of the VUXG's conversations and his own studying of the life—and extinction—of Earth's long-gone race of giant reptiles, a picture was forming in his mind. It was a crazy—or at least cock-eyed—picture, and it was still incomplete, but what else *could* a being like Arretapec be doing to a patient like the brontosaurus, a patient who had nothing at all wrong with it ?

" Pardon ?" Conway said. He had become aware that Mannen had said something which he had not caught.

" I said if you find out what Arretapec is doing, let me know," Mannen repeated.

" Oh, I know what it's doing," said Conway. " At least I think I do—and I understand why Arretapec does not want to talk about it. The ridicule if it tried and failed, why even the idea of its trying is ridiculous. What I don't know is *why* it is doing it . . ."

" Dr. Conway," said Mannen in a deceptively mild voice, " if you don't tell me what you're talking about I will, as our cruder-minded interns so succinctly put it, have your guts for garters."

Conway stood up quickly. He had to get back to Arretapec without further delay. Now that he had a rough idea of what was going on there were things he must see to —urgent safety precautions that a being such as the VUXG might not think of. Absently, he said, " I'm sorry, sir, I can't tell you. You see, from what you've told me there is a possibility that my knowledge derives directly from Arretapec's mind, telepathically, and is therefore priviliged information. I've got to rush now, but thanks very much."

Once outside Conway practically ran to the nearest communicator and called Maintenance. The voice which answered he recognised as belonging to the engineer Colonel he had met earlier. He said quickly, " Is the hull of that converted transport strong enough to take the shock of a body of approximately eighty thousand pounds moving at, uh, anything between twenty and one hundred miles an hour, and what safety measures can you take against such an occurrance ?"

There was a long, loaded silence, then ; " Are you kidding ? It would go through the hull like so much plywood. But in the event of a major puncture like that, the volume of air inside the ship is such that there would be plenty of time for the Maintenence people to get into suits. Why do you ask ?"

Conway thought quickly. He wanted a job done but did not want to tell why. He told the Colonel that he was worried about the gravity grids which maintained the artificial gravity inside the ship. There were so many of them that if one section should accidentally reverse its polarity and fling the brontosaurus away from it instead of holding it down . . .

Rather testily the Colonel agreed that the gravity grids could be switched to repulsion, also focussed into pressor or attractor beams, but that the changeover did not occur simply because

somebody breathed on them. There were safety devices incoporated which . . .

" All the same," Conway broke in, " I would feel much safer about things if you could fix all the gravity grids so that at the approach of a heavy falling body they would automatically switch over to repulsion—just in case the worst happens. Is that possible ?"

" Is this an order," said the Colonel, " or are you just the worrying type ?"

" It's an order, I'm afraid," said Conway.

" Then it's possible." A sharp click put a full stop to the conversation.

Conway set out to rejoin Arretapec again to become an ideal assistant to his chief in that he would have answers ready before the questions were asked. Also, he thought wryly, he would have to manoeuvre the VUXG into asking the proper questions so that he could answer them.

V

On the fifth day of their association, Conway said to Arretapec, " I have been assured that your patient is not suffering from either a physical condition or one requiring psychiatric correction, so that I am led to the conclusion that you are trying to effect some change in the brain structure by telepathic, or some related means. If my conclusions are correct, I have information which might aid or at least interest you.

" There was a giant reptile similar to the patient which lived on my own planet in primitive times. From remains unearthed by archeologists we know that it possessed, or required, a second nerve centre several times as big as the brain proper in the region of the sacral vertabrae, and presumably to handle movements of the hind legs, tail and so on. If such was the case here you might have two brains to deal with instead of one."

As he waited for Arretapec to reply Conway gave thanks that the VUXG belonged to a highly ethical species which did not hold with using their telepathy on non-telepaths, otherwise the being would have known that Conway *knew* that their patient had two nerve-centres—that he knew because while Arretapec had been slowly eating another hole in his desk one night and Conway and the patient had been asleep, a colleague of

Conway's had surruptitiously used an X-ray scanner and camera on the unsuspecting dinosaur.

" Your conclusions are correct," said Arretapec at last, " and your information is interesting. I had not thought it possible for one entity to possess two brains. However this would explain the unusual difficulty of communication I have with this creature. I will investigate."

Conway felt the itching start inside his head again, but now that he knew what it was he was able to take it without ' fidgeting.' The itch died away and Arretapec said, " I am getting a response. For the first time I am getting a response." The itching sensation began inside his skull again and slowly built up, and up . . .

It wasn't just like ants with red-hot pincers chewing at his brain cells, Conway thought agonisedly as he fought to keep from moving and distracting Arretapec now that the being appeared to be getting somewhere ; it felt as though somebody was punching holes in his poor, quivering brain with a rusty nail. It had never been like this before, this was sheer torture.

Then suddenly there was a subtle change in the sensations. Not a lessening, but of something added. Conway had a brief, blinding glimpse of something—it was like a phrase of great music played on a damaged recording, or the beauty of a masterpiece that is cracked and disfigured almost beyond recognition. He knew that for an instant, through the distorting waves of pain, he had actually seen into Arretapec's mind.

Now he knew *everything* . . .

The VUXG continued to have response all that day, but they were erratic, violent and uncontrolled. After one particular dramatic response had caused the panicky dinosaur to level a couple of acres of trees, then sent it charging into the lake in terror, Arretapec called a halt.

" It is useless," said the doctor. " The being will not use what I am trying to teach it for itself, and when I force the process it becomes afraid."

There was no emotion in the flat, Translated tones, but Conway who had had a glimpse of Arretapec's mind knew the bitter disappointment that the other felt. He wished desperately that he could help, but he knew that he could do nothing directly of assistance—Arretapec was the one who had to do the real work in this case, he could only prod things along now and then. He was still wracking his brain for an answer to the

problem when he turned in that night, and just before he went to sleep he thought he found it.

Next morning they tracked down Dr. Mannen just as he was entering the DBLF operating theatre. Conway said, " Sir, can we borrow your dog ?"

" Business or pleasure ?" said Mannen suspiciously. He was very attached to his dog, so much so that non-human members of the staff suspected a symbiotic relationship.

" We won't hurt it at all," said Conway reassuringly.

" Thanks." He took the lead from the appendage of the Tralthan intern holding it, then said to Arretapec, " Now back to my room . . ."

Ten minutes later the dog, barking furiously, was dashing around Conway's room while Conway himself hurled cushions and pillows at it. Suddenly one connected fairly, bowling it over. Paws scrabbling and skidding on the plastic flooring it erupted into frantic bursts of high-pitched yelps and snarls.

And Conway found himself whipped off his feet and suspended eight feet up in mid-air.

" I did not realise," boomed the voice of Arretapec from his position on the desk, " that you had intended this to be a demonstration of Earth-human sadism. I am shocked, horrified. You will release this unfortunate animal at once."

Conway said, " Put me down and I'll explain . . ."

On the eight day they returned the dog to Dr. Mannen and went back to work on the dinosaur. At the end of the second week they were still working and Arretapec, Conway and their patient were being talked, whistled, cheeped and grunted about in every language in use at the hospital. They were in the dining hall one day when Conway became aware that the annunciator which had been droning out messages in the background was now calling his name.

" . . . O'Mara on the intercom," it was saying monotonously, " Doctor Conway, please. Would you contact Major O'Mara on the intercom as soon as possible . . ."

" Excuse me," Conway said to Arretapec, who was nestling on the plastic block which the catering superintendant had rather pointedly placed at Conway's table, and headed for the nearest communicator.

" It isn't a life-and-death matter," said O'Mara when he called and asked what was wrong. " I would like to have some things explained to me. For instance :

" Dr. Hardin is practically frothing at the mouth because the food-vegetation which he plants and replenishes so carefully has now got to be sprayed with some chemical which will render it less pleasant to taste, and why is a certain amount of the vegetation kept at its full flavour but in storage ? What are you doing with a tri-di projector ? And where does Mannen's dog fit into this ?" O'Mara paused, reluctantly, for breath then went on, " And Colonel Skempton says that his engineers are run ragged setting up tractor and pressor beam mounts for you two—not that he minds that so much, but he says that if all that gadgetry was pointed outwards instead of inwards that hulk you're messing around in could take on and lick a Federation cruiser.

" And his men, well . . ." O'Mara was holding his tone to a conversational level, but it was obvious that he was having trouble doing so. " . . . quite a few of them are having to consult me professionally. Some of them, the lucky ones perhaps, just don't believe their eyes. The other would *much* prefer pink elephants."

There was a short silence, then O'Mara said, " Mannen tells me that you climbed onto your ethical high horse and wouldn't say a thing when he asked you. I was wondering—"

" I'm sorry, sir," said Conway awkwardly.

" But what the blinding blue blazes are you *doing* ?" O'Mara erupted, then ; "Well, good luck with it anyway. Off."

Conway hurried to rejoin Arretapec and take up the conversation where it had been left off. As they were leaving a little later, Conway said, " It was stupid of me not to take the size factor into consideration. But now that we have—"

" Stupid of us, friend Conway," Arretapec corrected in its toneless voice. " Most of your ideas have worked out successfully so far. You have been of invaluable assistance to me, so much so that I sometimes think that you have guessed my purpose. I am hoping that this idea, also, will work."

" We'll keep our fingers crossed."

On this occasion Arretapec did not, as it usually did, point out that firstly it did not believe in luck and secondly that it possessed no fingers. Arretapec was definitely growing more understanding of the ways of humans. And Conway now wished that the high-minded VUXG would read his mind, just so that the being would know how much he was with it in this,

how much he wanted Arretapec's experiment to succeed this afternoon.

Conway could feel the tension mounting in him all the way to the ship. When he was giving the engineers and maintenence-men their final instructions and making sure that they knew what to do in any emergency, he knew that he was joking a bit too much and laughing a little too heartily. But then everyone was showing signs of strain. A little later, however, as he stood less than fifty yards from the patient and with equipment festooning like a Christmas tree—an anti-gravity pack belted round his waist, a tri-di projector locus and viewer strapped to his chest and his shoulders hung with a heavy radio pack—his tension had reached the point of immobility and outward calm of the spring which can be wound no tighter.

" Projector crew ready," said a voice.

" The food's in place," came another.

" All tractor and pressor beam men on top line," reported a third.

" Right, Doctor," Conway said to the hovering Arretapec, and ran a suddenly dry tongue around drier lips. " Do your stuff."

He pressed a stud on the locus mechanism on his chest and and immediately there sprang into being around and above him the immaterial image of a Conway who was fifty feet high. He saw the patient's head go up, heard the low-pitched whinnying sound that it made when agitated or afraid and which contrasted so oddly with its bulk, and saw it backing ponderously towards the water's edge. But Arretapec was radiating furiously at the brontosaur's two small, almost rudimentary, brains—sending out great waves of calm and reassurance—and the great reptile grew quiet. Very slowly, so as not to alarm it, Conway went through the motions of reaching behind him, picking something up and placing it well in front of him. Above and around him his fifty-foot image did the same.

But where the image's great hand came down there was a bundle of greenery, and when the solid-seeming but immaterial hand moved upwards the bundle followed it, kept in position at the apex of three delicately manipulated pressor beams. The fresh, moist bundle of plants and palm fronds was placed close to the still uneasy dinosaur, apparently by the hand which then withdrew.

After what seemed like an eternity to the waiting Conway the massive, sinuous neck arched downwards. It began poking at the greenery. It began to nibble . . .

Conway went through the same motions again, and again. All the time he and his fifty-foot image kept edging closer.

The brontosaur, he knew, could at a pinch eat the vegetation which grew around it, but since Dr. Hardin's sprayer had gone into operation it wasn't very nice stufi. But it could tell that these titbits were the real, old stuff ; the fresh, juicy, sweet-smelling food that it used to know which had so unaccountably disappeared of late. Its nibbles became hungry gobblings.

Conway said, " All right. Stage Two . . ."

VI

Using the tiny viewer which showed his image's relationship to the dinosaur as a guide, Conway reached forward again. High up and invisible on the opposite wall of the hull another pressor beam went into operation, synchronising its movements with the hand which was now apparently stroking the patient's great neck, and administering a firm but gentle pressure. After an initial instant of panic the patient went back to eating, and occasionally shuddering a little. Arretapec reported that it was enjoying the sensation.

" Now," said Conway, " we'll start playing rough."

Two great hands were placed against its side and massed pressors toppled it over with a groundshaking crash. In real terror now it threshed and heaved madly in a vain attempt to get its ponderous and ungainly body upright on its feet. But instead of inflicting mortal damage, the great hands continued only to stroke and pat. The brontosaur had quietened and was showing signs of enjoying itself again when the hands moved to a new position. Tractor and pressor beams both seized the recumbent body, yanked it upright and toppled it onto the opposite side.

Using the anti-gravity belt to increase his mobility, Conway began hopping over and around the brontosaur, with Arretapec, who was in rapport with the patient, reporting constantly on the effects of the various stimuli. He stroked, patted, pummelled and pushed at the giant reptile with blownup, immaterial hands and feet. He yanked its tail and he slapped

its neck, and all the time the tractor and pressor crews kept perfect time with him . . .

Something like this had occurred before, not to mention other things which, it was rumoured, had driven one engineer to drink and at least four off it. But it was not until the size factor had been taken into consideration as it had today with this monster tri-di projection that there had been such promising results. Previously it had been as if a mouse were manhandling a St. Bernard during the past week or so— no wonder the brontosaurus had been in a frenzy of panic when all sorts of inexplicable things had been happening to it and the only reason it could see for them was two tiny creatures that were just barely visible to it !

But the patient's species had roamed its home planet for a hundred million years, and it personally was immensely long-lived. Although its two brains were tiny it was really much smarter than a dog, so that very soon Conway had it trying to sit up and beg.

And two hours later the brontosaurus took off.

It rose rapidly from the ground, a monstrous, ungainly and indescribable object with its massive legs making involuntary walking movements and the great neck and tail hanging down and waving slowly. Obviously it was the brain in the sacral area and not the cranium which was handling the levitation, Conway thought, as the great reptile approached the bunch of palm fronds which were balanced tantalisingly two hundred feet above its head. But that was a detail, it was levitating, that was the main thing. Unless—

" Are you helping ?" Conway said sharply to Arretapec.

" No."

The reply was flat and emotionless by necessity, but had the VUXG been human it would have been a yell of sheer triumph.

" Good old Emily !" somebody shouted in Conway's phones, probably one of the beam operators, then ; " Look, she's passing it !"

The brontosaur had missed the suspended bundle of foliage and was still rising fast. It made a clumsy, convulsive attempt to reach it in passing which had set up a definite spin. Further wild movements of neck and tail were aggravating it . . .

" Better get her down out of there," said a second voice urgently. " That artificial sun could scorch her tail off."

" . . . And that spin is making it panicky," agreed Conway. " Tractor beam men . . .!"

But he was too late. Sun, earth and sky were careening in wild, twisting loops around a being which had been hitherto accustomed to solid ground under its feet. It wanted down, or up, or *somewhere.* Despite Arretapec's frantic attempts to soothe it, it teleported again.

Conway saw the great mountain of flesh and bone go hurtling off at a tangent, at least four times faster than its original speed. He yelled, " H-sector men ! Cushion it down, *gently.*"

But there was neither time nor the space for the pressor beam men to slow it down gently. To keep it from crashing fatally to the surface—also through the underlying plating and out into space outside—they had to slow it down steadily but firmly, and to the brontosaurus that necessarily sharp braking must have felt like a physical blow. It teleported again.

" C-sector, it's coming at you !"

But at C it was a repetition of what happened with H, the beast panicked and shot off in another direction. And so it went on, with the great reptile rocketting from one side of the ship's interior to the other until . . .

" Skempton here," said a brisk, authoritive voice. " My men say the pressor beam mounts were not designed to stand this sort of thing. Insufficiently braced. The hull plating has sprung in eight places."

" Can't you—"

" We're sealing the leaks as fast as we can," Skempton cut in, answering Conway's question before he could ask it. " But this battering is shaking the ship apart . . ."

Dr. Arretapec joined in at that point.

" Doctor Conway," the being said, " while it is obvious that the patient has shown a surprising aptitude with its new talent, its use is controlled because of its fear and confusion. This traumatic experience will cause irrepairable damage, I am convinced, to the being's thinking processes . . ."

" Conway, *look out* !"

The reptile had come to a halt near ground level a few hundred yards away, then shot off at right angles towards Conway's position. But it was travelling a straight line inside a hollow sphere, and the surface was curving up to meet it.

Conway saw the hurtling body lurch and spin as the beam operators sought desperately to check its velocity. Then suddenly the mighty body was ripping through the low, thickly-growing trees, then it was ploughing a wide, shallow furrow through the soft, swampy ground and with a small mountain of earth-uprooted vegetation piling up in front of it, and Conway was right in its path.

Before he could adjust the control of his antigravity pack the ground came up and fell on him. For a few minutes he was too dazed to realise why it was he couldn't move, then he saw that he was buried to the waist in a sticky cement of splintered branches and muddy earth. The heavings and shudderings he felt in the ground were the brontosaurus climbing to its feet. He looked up to see the great mass towering over him, saw it turn awkwardly and heard the sucking and crackling noises as the massive, pile-driver legs drove almost ankle deep into the soil and underbrush.

Emily was heading for the lake again, and between the water and it was Conway . . .

He shouted and struggled in a frenzied attempt to attract attention, because the anti-grav and radio were smashed and he was stuck fast. The great reptilian mountain rolled up to him, the immense, slowly-waving neck was cutting off the light and one gigantic forefoot was poised to both kill and bury him in one operation, then Conway was yanked suddenly upwards and to the side to where a prune in a gob of syrup was floating in the air.

" In the excitement of the moment," Arretapec said, " I had forgotten that you require a mechanical device to teleport. Please accept my apologies."

" Q-quite all right," said Conway shakily He made an effort to steady his jumping nerves, then caught sight of a pressor beam crew on the surface below him. He called suddenly, " Get another radio and projector locus here, quick !"

Ten minute later he was bruised, battered but ready to continue again. He stood at the water's edge with Arretapec hovering at his shoulder and his fifty-foot image again rising above him. The VUXG doctor, in rapport with the brontosaur under the surface of the lake, reported that success or failure hung in the balance. The patient had gone through what was to it a mind-wrecking experience, but the fact that it was now in what it felt to be the safety of underwater—where it had

hitherto sought refuge from hunger and the attacks of its enemies—was, together with the mental reassurances of Arretapec, exerting a steadying influence.

At times hopefully, at others in utter despair, Conway waited. Sometimes the strength of his feelings made him swear. It would not have been so bad, meant so much to him, if he hadn't caught that glimpse of what Arretapec's purpose had been, or if he had not grown to like the rather prim and overcondescending ball of goo so much. But any being with a mind like that who intended doing what it hoped to do had a right to be condescending.

Abruptly the huge head broke surface and the enormous body heaved itself onto the bank. Slowly, ponderously, the hind legs bent double and the long, tapering neck stretched upwards. The brontosaurus wanted to play again.

Something caught in Conway's throat. He looked to where a dozen bundles of succulent greenery lay ready for use, with one already being manoevured towards him. He waved his arm abruptly and said, " Oh, give it the whole lot, it deserves them . . ."

". . . So that when Arretapec saw the conditions on the patient's world," Conway said a little stiffly, "and its precognitive faculty told him what the brontosaur's most likely future would be, it just had to try to change it."

Conway was in the Chief Psychologist's office making a preliminary, verbal report and the intent faces of O'Mara, Hardin, Skempton and the hospital's Director encircled him. He felt anything but comfortable as clearing his throat he went on, " But Arretapec belongs to an old, proud race, and being telepathic added to its sensitivity—telepaths really *feel* what others think about them. What Arretapec proposed doing was so radical, it would leave itself and its race open to such ridicule if it failed, that it just had to be secretive.

" Conditions on the brontosaur's planet indicated that there would be no rise of an intelligent life-form after the great reptiles became extinct, and geologically speaking that extinction would not be long delayed. The patient's species had been around for a long time—that armoured tail and amphibious nature had allowed it to survive more predatory and specilised contempories—but climatic changes were imminent and it

could not follow the sun towards the equator because the planetary surface was composed of a large number of island continents. A brontosaurus could not cross an ocean.

" But if these giant reptiles could be made to develop the psi faculty of teleportation," Conway continued, " the ocean barrier would disappear and with it the danger from encroaching cold and shortage of food, and it was this which Dr. Arretapec succeeded in doing."

O'Mara broke in at that point. He said, " If Arretapec gave the brontosaurus the teleportive ability by working directly on its brain, why can't the same be done for us ?"

" Probably because we've managed fine without it," replied Conway. " The patient, on the other hand, was shown and made to understand that this faculty was necessary for its survival. Once this is realised the ability will be used and passed on, because it is latent in nearly all species. Now that Arretapec has proved the idea possible his whole race will want to get in on it. Fostering intelligence on what would otherwise be a dead planet is the sort of *big* project which appeals to those high-minded types . . ."

Conway was thinking of that single, precognitive glimpse he had had into Arretapec's mind, of the civilisation which would develop on the brontosaur's world and the monstrous yet strangely graceful beings that it would contain in some far, far, future day. But he did not mention these thoughts aloud. Instead he said, " Like most telepaths Arretapec was both squeamish and inclined to discount purely physical methods of investigation. It was not until I introduced him to Dr. Mannen's dog, and pointed out that a good way to get an animal to use a new ability was to teach it tricks with it, that we got anywhere. I showed that trick where I throw cushions at the dog and after wrestling with them for a while it arranges them in a heap and lets me throw it on top of them, thus demonstrating that simpleminded creatures don't mind—within limits, that is—a little rough-housing—"

" So that," said O'Mara, gazing reflectively at the ceiling, " is what you do in your spare time . . ."

Colonel Skempton coughed. He said, " You're playing down your own part in this. Your foresight in stuffing that hulk with tractor and pressor beams . . ."

" There's just one other thing before I see it off," Conway broke in hastily. " Arretapec heard some of the men calling the patient " Emily." It would like to know why."

" It would," said O'Mara disgustedly. He pursed his lips, then went on, "Apparently one of the Maintenencemen with an appetite for early historical fiction—the Bronte sisters, Charlotte, Emily and Jane to be exact—dubbed our patient Emily Brontosaurus. I must say that I feel a pathological interest in a mind which thinks like that . . ." O'Mara looked as though there was a bad smell in the room.

Conway groaned in sympathy. As he turned to go he thought that his last and hardest job might be in explaining what a pun was to the high-minded Dr. Arretapec.

James White

THE LITERARY LINE-UP

It was as long ago as May that we mentioned Lan Wright's new serial " A Man Called Destiny " being on hand and next month's issue will see the opening instalment. Once again against a galactic setting author Wright introduces a highly skillful plot in which you will meet Richard Argyle, a man continually pushed around by mysterious circumatances in a commercial war between out-world Traders and the Combines of Earth. Behind the thrust and counter-thrust, however, are the schemings of the galaxy's first teleport. The complications are enormous and, as usual, it's another " cannot-be-put-down " story to our credit.

Short stories, naturally, are of high quality. A long one by Lester del Rey, " The Still Waters," ; " Another Word For Man " by Robert Presslie, an unusual alien-on-Earth story ; " Incentive " by Brian W. Aldiss, and John W. Ashton's piece of poetic nostalgia " Signora Porfiria."

Story ratings for No. 73 were :

1.	The Thin Gnat-Voices	John Wyndham
2.	Segregation	Brian W. Aldiss
3.	Keepers Of The House	Lester del Rey
4.	Tower For One	John Kippax
	The Shadow People	Arthur Sellings
5.	Outside	Sydney J. Bounds

SENDOFF

If you remember " One For The Road " in the June issue you will agree that Robert Presslie is a master of the ' conversation piece '. He maintains his reputation in the delightful vignette which follows, too.

By ROBERT PRESSLIE

The whole street turned out for Willy's sendoff.

From end to end it did not measure much more than half a mile but in its short length there was a representative selection of all humanity. It ran east and west, and the east end was so many yards nearer sea-level that almost any winter the houses at the foot of the steep street were flooded. On account of this inconvenience it was cheaper to live at the foot of the street than at the top, but this did not mean that all the best people were at one end—a fact which nobody knew better than Willy.

His farewell march was to take him from the top of the street to the bottom. Not because he lived at the top. Willy had a shack of his own, not in the street at all but set at a respectable distance outside the village. His walk was from top to bottom because that is how things are arranged in any street ; you always start with the important people.

The government men had arrived the day before to organise Willy's sendoff. Decker stood at Willy's side ; Ponting waited at the other end of the street. The villagers were ranked three and four deep on both sides of the road so that even if Willy had wanted to dodge the parade he would have found it impossible to duck into any of the few side alleys.

Behind Willy, marking the highest point of the village, the church clock boomed out the last stroke of noon. At his side, Decker moved his elbow imperceptibly.

" Okay, Willy," he said. " Let's get it over with."

Orville Jace owned the biggest house in the village, number one in the street. He also owned the factory on which the village lived like a suckling infant. One way or another, Orville Jace owned the village. Anybody who did not already know this could see it in his confident stride from the double gates of his house.

He extended a hand to Willy, put the other on a shoulder in true brotherly fashion.

" So it's goodbye," he said. There was nothing in the words but the words themselves : no concealed pleasure, no feigned regret.

Willy was facing into the sunshine. He squinted.

" That's right, Mr. Jace. Fifty years I've been here and now it's time to go. You're one of the few people who have known me all those years. Not many remember my coming."

Jace put on a fat smile. The villagers would remember this day. They would remember the next hour in particular ; they would remember it in every detail ; they would remember how each and every person had said goodbye to Willy. Jace knew they were watching to see how he reacted. Behind his smile nobody would have guessed at his elation—except Willy, of course, and he did not matter because Jace was so complacent he did not care what Willy thought.

" I was only a boy," he said. He looked around, giving his smile to the onlookers so that they should know that Orville Jace was just like any one of them ; he too had been a boy.

Willy said, " A rude one, Mr. Jace. You sure were a rude little boy."

Jace thumbed his nose and the fat smile, unfaltering, went up one side of his mouth.

" Now, Willy, you're showing up my past to all these good people ! Still, I don't deny it. I guess I called you just as many

names as all the other kids did. After all, you must admit—"

" Sure. No offence meant, Mr. Jace. You were no different. Forget it."

" But I don't want to forget it. I'm proud to think that I, who was once one of the worst offenders against good manners, one of the loudest advocates against your presence, was also one of the first to accept you as an ordinary person."

Willy looked down to avoid the sun's glare. " I remember," he said, quietly. " That was after your father died. You had inherited the factory. And I suggested switching the layout to concentrate on printed circuits."

" Quite." Orville Jace's smile was on automatic control. It might have broken down otherwise. " Well, I mustn't keep you, mustn't monopolise you—"

Willy was not playing according to the social rules today. He retained Jace's hand while he finished what he had been saying.

" You didn't believe me when I said printed circuits were to be the thing. You lost out for two years running when your rivals were eating into your share of the market. Yet you could have had twelve months start on them. If you had believed me, it could have been you that ate into their market."

" How was I to know ? You weren't in the business. I ask you—an outsider suddenly predicts what's going to happen tomorrow—who's going to risk his living, not to mention the living of all the good people whose welfare depends on him, on a thing like that ?"

Jace hitched up his smile and showed it around again. He thought that bit about the workers' welfare was good.

" Don't forget," he went on. " Don't forget I didn't hesitate when you said to drop radio and television in favour of ballistic computers. I didn't hesitate when you predicted the government would be contracting for computers twelve months later. And I have never hesitated since, not once. As I said, I was one of the first to accept you. Whatever you advised, I did."

Willy had not intended baiting him and now he was tired of it. He could have told Jace he had grown fat on the advice he had accepted. Or he could have countered everything by telling him he knew who had organised the Vigilance Committee responsible for his sendoff. Instead, he simply nodded, released Jace's hand and moved down the street.

For the next two hundred yards his walk was a solemn procession. He crossed from one sidewalk to the other, exchanging a few words of farewell with as many people as possible.

But he was hurrying because most of the people were friends of Jace or executives employed by Jace ; for one reason or another they took their lead from Jace and Willy cared as little for them as they did for him.

He slowed down when he came to the school. It was a long low glass-walled building, set back from the street. It was fronted by a railed-off oval of grass with a marble memorial to the ' Glorious Dead ' in the centre background. On each side of the monolith there was a green rest-bench, endowed in the past by Orville Jace's father.

At the moment the grass was invisible beneath an orderly mass of children, all scrubbed and in their best attire as if it was the day of the annual school photograph. Even the scars of generations of initials carved on the benches were hidden ; one bench held the white-bloused female teaching staff, the other was adorned by Warren, Digman, Page and Abbott—known respectively and disrespectfully to their pupils as Warhorse, Digger, Fatso and The Monk.

The head of the school took two steps forward to shake Willy's hand and to act as spokesman for teachers and pupils.

" On behalf—" he started.

Willy walked round him. " Hi, kids," he said hopefully.

But they had been too well drilled. Their behaviour was impeccable, exactly as Kyle, the headmaster, had demanded. A few small faces creased in the beginnings of a grin, a few others twisted in ugly adult disdain.

Willy's shoulders sagged. He had hoped for something better from this generation. After all, it was fifty years now. He was no longer a freak or novelty. The days were gone when he had been openly shouted at. Yet the antagonism was as strong as ever, freshly renewed in each generation by the preceding one.

Impossibly late as it was to effect any change. Willy felt compelled to try.

" What do you tell them ?" he asked Kyle. " Do you just say I am an android or do you tell them, as you used to tell me, that I am the spawn of the ungodly, worse than a bastard because even he has parents ?"

Kyle took off his glasses, examined the lenses and replaced them. Willy thought : still the same old Kyle, still having to go through some minute distracting ritual while he rallied his small courage to speak.

" Mind your language in front of the children," he whispered to Willy.

" You mean don't talk so loud that they can hear my opinion of you ? Don't worry, Kyle. I only wanted to know why you tell them these things."

" Isn't it obvious ?" Kyle sounded bitter. " We have to spend the first eighteen years of our lives being educated, being taught the things you assimilated in a tenth of that time."

" You're forgetting. I was the equivalent of twenty years old when I came out of the vat. I looked twenty so they said that was my nominal age. I suppose learning came easier because I was born mature."

" Born !"

Willy apologised. " That slipped out. Technically speaking, I was—"

" That's right, show off. Show how much more than me you know, even though I went to university."

" Goodbye, Kyle." Willy cut the conversation short. He had learned at least some part of the reason for Kyle's antagonism.

He had known that he had never been completely accepted for a variety of reasons, each of which were now being confirmed. Yet on this last day he had expected some show of regret at his going, perhaps even a request to stay.

But behind the mass display of mild regret, there was a rock-hard core of decision : this was his sendoff, there was to be no recall.

With the older ones it was a case of fear. Willy had been placed among them in the days when an android was something new, something of unknown potentialities. And his omniscience, his uncanny ability to assess a mass of random factors and predict a future event only substantiated their suspicions.

With those aged between thirty and fifty the cause of their antagonism was injured pride, the ever-present knowledge that anything they could do, he could do better. He had tried hard not to do things better than the norm, but it seemed as if his potential alone was enough to mark him as an outsider.

The young were impressionable and the teachings of their elders outweighed the evidence of their experience. They knew Willy was a nice guy to talk to, friendly, harmless, entertaining. But they had been told of the stigma underneath his affability and wisdom. So they were silent behind their regimented cheering.

Halfway down the street there was a break in the terraced houses. One side of the street was gay with the striped sunblinds above shop windows. Opposite the dozen shops, the street parted into a wide asphalted avenue leading to the factory, whose workers had been given an extra hour's lunch break so that they might fill the avenue to witness Willy's sendoff.

Willy did not feel up to dealing with any more massed humanity. He purposely moved to the side of the street which had the shops.

He was not surprised when Viner took his hand eagerly and made earnest conversation. Viner's store was the largest of the group. Proprietor and store had grown fat together. Viner would probably die of fatty degeneration of the liver within a couple of years, but that was the sort of prediction Willy had understandably avoided making.

" Something I want to ask you before you go, Willy. Remember you said this was going to be a big town pretty soon?"

Willy nodded.

" How soon, Willy ? Two years ? Four—five ? I've had the chance to take an option on this whole block of property. I was thinking about a supermarket. But it would take a lot of money. I would have to borrow heavily. I wouldn't like to risk that unless I knew exactly—"

" Exactly ?"

" Well, you know, approximately exactly."

" More than two years, Viner."

" How much more ?"

" I couldn't really say. I need more facts, need to see how the trends continue. If I was here another six months I could tell you. But I won't be here, will I ?"

Willy had put hope aside when he asked, " You'd like it if I stayed, eh ?"

" Sure. Sure, I've got nothing against you, nothing at all."

" Did you stand up and say so at the last meeting of the Vigilance Committee ?"

" Aw, now, Willy—you're not being realistic. I've got a business to think about."

" But you personally wouldn't mind if I didn't have to leave today ?"

" Not a bit."

" Not even if I was only a simple android, if I had no talents, if I couldn't tell you when to start converting your store to a supermarket ?"

Viner licked his lips. He said, " You can stay for me." It came out in a strangled gulp and Willy knew he was lying.

" Sorry," he said. " It's too late now. You've been overruled."

At his side, Decker whispered, " Speed it up, Willy. We're supposed to be out of here before one." And Willy took leave of Viner without regrets.

The tone of the street went down rapidly with the gradient. From here on, right down to the bottom where Ponting waited, the houses were older. Even the people who stood outside them had an older look about them. It was as if living at the bottom automatically put you ten years nearer your allotted span.

Yet the smiles and the shouts were more genuine. Of all the people Willy had helped, these were the ones who most appreciated it.

There was Janie Stout, ninety if she was a day—though she would never admit to more than eighty. She had been the same back at the time of Willy's arrival ; thirty years declared when everybody knew she was forty and would never see forty-one.

The guess at her age had been correct but the gloomy forecast had come unstuck. That had been Willy's doing.

It was just about the very first display of his uncanny powers. Then, Janie had been a spinster. Her age was truly troubling her, in the way it troubles a woman of forty, especially the single ones.

The neighbours could hear Janie crying out every night. They knew something would have to snap. The popular guess was that she would choose the gas oven. There was no callousness in their discussion of Janie. They had every sympathy for her. They knew her trials were great ; there were

the blinding headaches that made her cry and the terrible moods of depression that gave birth to the forecast. And there was nothing much the doctors could do, because the root of Janie's trouble was in her head.

As Willy stood now and let Janie's babbling reminiscences flow over him, he thought it was funny how the prediction he had made fifty years ago had been the one and only occasion on which he had pretended to foresight.

He had told Janie the headaches would end within a week, that she would meet a man soon afterwards who would become her husband and that she would have a child. And the sheer unlikeliness of it all was just the thing to shake Janie out of her hysterical rut. She got so intent in prettying herself up she forgot to have depressions—and without the black moods she seemed to bloom again with youth so that Joe Stout who came to the village for work at the factory found a job and a wife too.

" But I'll never forgive you for the rest of it, Willy." Janie's words came into focus.

Willy hung his head. He knew what was coming.

" It wasn't right. Not at our age. We wouldn't have tried if you hadn't said I would have a baby. You forgot to tell me it would be queer ! I'm glad you're going away, I'm glad. Interfering in things like that—"

There were more like Janie. They had been glad of Willy's help and advice at the time ; they were still grateful ; but one and all they had dug up some reason to justify their desire for his going.

" Come on, Willy," urged Decker. " Skip the rest. Ponting's making signs, you're running out of time."

" One more," Willy begged, and forestalled any denial by making straight for the last house in the street.

Three people stood outside the house. A burly young husband who was destined to be a labourer all his life, his meek and fragile wife, their son who was five years old.

Their name was Bond and they were the most recent beneficiaries of Willy's prescience. It was only yesterday that he had saved Bond's life.

May Bond was effusive with her thanks. She wept tears of gratitude.

" It was luck," Willy said honestly. " I happened to be at the site of the new wing they're adding to the factory. If I hadn't been there it might never have occurred to me there would be a subsidence."

" Yes, but you *were* there !"

" Fortunately. Even so, somebody else might have noticed the state of the ground and warned Joe that the sheer weight of the excavator—"

Half a mile away the village clock struck one. The sound made Willy stop in what he was saying. Up and down the length of the street, everyone was suddenly as silent as Willy and the Bonds.

To a five year old, the silence was a heaven-sent opportunity. Joe Bond's son seized it before it disappeared.

" You're the bestest man in all the world !"

His face was as solemn and earnest as his declaration. " You saved my Dad so he didn't die. Maybe he won't ever die now. Not ever."

Surprise prevented his parents from stopping him and he babbled on.

" Why does everybody have to die, anyhow ? I wish I was like you, Willy. I could live forever and do good things. 'Cos it's only when you haven't much time you do bad things."

Joe Bond put a hand over his child's mouth. But the thing that nobody else had dared to say to Willy's face had been said.

" He's too young to know what he's talking about," Joe said. " He doesn't understand yet what it is to grow old and watch an android who is seventy looking younger than you do. You're a good guy, Willy, and you saved my life yesterday. But you see how it is. If it hadn't been for men, you would never had been alive at all, so I guess it's only right you should be . . . well, why shouldn't you go at threescore years and ten like we have to ?"

The general silence was swept away by a burst of cheering as Willy left the Bonds and marched between Decker and Ponting to the government car. The car was out in the open country before anyone spoke.

It was Decker who said, " That was a flop, wasn't it ?"

Willy agreed. " Except for the Bond kid. Too young for school, he was still thinking for himself. He didn't think immortality was such a bad thing."

" For humans."

" True, but the point is that he didn't grudge me mine."

" One voice in five thousand—and a child's at that."

Willy said despondently, " It looks as if you'll really have to end my life, do what they think you're going to do."

Decker put a hand on his knee. " You've got me wrong. I didn't mean *you* were a flop. It wasn't your fault the experiment failed. And, as you say, there was a tiny glimmer of hope. Ponting—"

The driver said, " Yes ?"

" We're going to try again. Stop when we've put a hundred miles behind us. We'll try another village, another street."

He turned to Willy. " We'll call you twenty again, give them another fifty years to swallow their prejudices."

Robert Presslie

CARRION COUNTRY

Here is another adventure of the PEST characters which Brian Aldiss so successfully started in " Segregation " published in the July issue. Different worlds, different conditions, but ecology is the key to all of them. In this story the findings are somewhat gruesome.

By BRIAN W. ALDISS

The great sea of grass rippled and then stood silent again. A breeze rose momentarily, and died. A flock of birds rose startled into the air, dived about the ship, and then returned once more to their perches. The landing of the PEST craft had caused only a momentary diversion.

" Quite an innocent-looking spot," young Tim Anderson commented, as the three ecologists climbed down into the open.

" Innocent's a nice word," Barney Brangwyn agreed. " In this case, it means nothing but running water to drink !"

The discovery Team which had found Lancelyn II, had made a rapid stratospheric survey and reported a complete absence of civilization. Lack of drink apart, it looked an easy planet to crack, from the point of view of Barney and the other two members of the Planetary Ecological Survey Team (known for short as PEST).

" Let's take the usual preliminary ride-around before we split up," Craig Hodges, leader of the team, said. " Get the first overlander out, Tim."

As the boy turned obediently back to the ship, Barney remarked to his old friend, " We've seldom run up against such a quiet place."

It was a remark which might have been taken two ways, since Barney did not say whether he found quiet soothing or bad for the nerves. As first men on Lancelyn II—men on the look out for threats to the colonists who would follow them—they had every right to be wary. Suspicion was their stock-in-trade.

Not that Barney, or Craig for that matter, looked the nervous type. Which was because Barney's black, flowing beard, his barrel chest, his massive stature, were more striking than his neatly manicured nails or the gentleness of his mouth.

When the overlander arrived out of the ship, he took over the wheel from Tim Anderson and gunned her hard as Craig scrambled aboard.

As Barney had said, it was quiet. From an ecologist's point of view, that could be bad. They drove across a gently undulating plain towards a ridge of high ground. Bright flowers grew in the grass, birds sang overhead. Occasional copses of graceful trees added variety to the landscape. Coming in to land in the space ship, they had noted how this same gentle landscape filled most of Lancelyn II.

" Evolution must have been sitting on its beam end not to raise a dominant species in a likely spot like this," Tim commented. If he felt slightly unsure, this was only his second trip with PEST.

Craig said nothing. As chief ecologist, he did not waste words, but sat alertly looking out.

As they began to climb the high ground, more of the peaceful country was revealed on either side. Then they came across the first corpses.

Without fuss, Tim slid his express rifle onto his knee. The corpses rapidly became more frequent. They lay everywhere, silent in the waving grass. Barney braked the overlander ; it was impossible to go further without running over the carcasses. The ecologists sat there with the engine barely turning, looking out of the windows, each with his private speculations.

Now there could be no doubt about the quiet everywhere. It was not peaceful ; it was sinister.

The corpses belonged to creatures like centaurs, with bodies the size of Shetland ponies and, in place of a horse's head and neck, a head and torso which looked—as far as one could judge, considering the corpses' advanced state of decomposi-

tion—remarkable human. The torso was covered with a thick brown coat which extended over the rest of the body ; there were no signs of arms or hands.

Their coats, once glossy, were now bedraggled and slimed with putrescence. The flesh had rotted or been torn from their faces to reveal skull and cheek bones. Their chests appeared to have been savaged ; black and green traceries of putrescence grew in the mutilated skin, flowering outwards like tar. Only their feet, which were hoofless, showed no sign of corruption.

" Not a pretty sight," Craig remarked.

" There must be at least two hundred head of them lying here," Barney said. " All killed at the same time. Been dead a week maybe."

" But what could have struck down a whole herd of them at once like this ?" Tim demanded.

" It's a problem right up our street, isn't it ?" Craig said dryly. " Back her out, Barney, and let's get back to the ship. The sooner the three of us start work as planned, the better."

Bumping back the way they had come, they soon lost sight of the rotting bodies, lying peacefully on their sides as if in life they had never done anything better. The thought of them was not so easily lost.

" They must have been surrounded by a pack of fast-running predators," Tim said. This was his first field job ; it appalled him to think that in an hour the three of them would go their separate ways. That was the way PEST set its teams to work.

" Predators, no doubt," Barney replied. " Wolves maybe. Yet I fancy they would not need to be as fast-moving as you think to catch up with our dead friends back there. Though their lower bodies were shaped roughly like ponies, I doubt whether they could cover ground as rapidly as a pony. Their limbs were too clumsy, their feet too spongy. I'd say they were plodders all."

" Whatever killed them," Craig said, in his unemphatic way, " did not do it for food. Those bodies were not eaten. The slaughter, for my money, was carried out for pleasure . . ."

Back at the spaceship, they drove out the other two overlanders. PEST procedure was observed, based on centuries of investigation of strange planets. The ancient idea of a primary exploration party, which battered its way across the new world, giving all concerned warning of its coming, had long ago been

abandoned. Nowadays, the three ecologists simply established three points eighty miles apart, the ship being at one of the points of the equilateral triangle so formed ; they then sat tight and observed the network of life about them, disturbing as little as possible. That way, it rarely took an experienced team more than one day to find trouble—or three to lick it !

As usual on these occasions, lots were drawn to see who remained in the vicinity of the ship. Barney Brangwyn won.

" Lucky devil !" Tim remarked enviously. " All home comforts for you, while Craig and I rough it in the bush. Well, don't forget to keep the radio watch open."

As Barney saw the others into their overlanders, which were already loaded with kit, Craig turned to him.

You knew instinctively that Craig Hodges was a man to be reckoned with. A specialist in parasitology, he was of average height, solidly built, without much neck ; thin hair emphasised the massiveness of his skull. His appearance suggested physical power ; but when he moved—even if only to take a cigarette or lace his boots—when he looked at you, and above all when he spoke, you were conscious of a controlling mind as muscular as his body.

" I'm sorry to be leaving this interesting strip of country," he said. " Eighty miles away, there may only be butterflies to look at. The key to Lancelyn lies here, to my way of thinking."

" Sure, these are the happy, happy, hunting grounds—God's little acre !" Barney exclaimed, grinning. " I hereby christen this neck of the woods Carrion Country."

Barney Brangwyn was alone.

He selected a hollow in the ground on the edge of a small wood, parking his vehicle and inflating his ' igloo ' in it. He sawed down small trees for light camouflage, and settled down peacefully to observe. It was an ideal site. The ship was only some five hundred yards away, easily visible from the overlander's observation blister. In the mild afternoon's sun, it looked surprisingly at home with the gentle surroundings.

Barney's way of working was simple. Zipping on a warm oversuit, he strapped himself into a harness of specimen containers, buckled on his blaster and belt, and commenced a tour of a small adjacent area of ground. Carefully, he noted all it contained. This was his Plot.

The Plot, not more than half an acre in extent, contained the hollow in one corner, a slender stream gurgling among stones,

a number of trees which at one spot merged into a thicket, shrubs, broken ground, tall and short grass, small boulders, a rotting log. To a non-specialist there would have been nothing particular about the Plot. They might have failed to observe the moss growing all round the boles of the trees, indicating lack of any strong prevailing wind ; or the ivy-type climber whose end-tendrils, fine as a spider's thread, lifted on a light breeze and enabled it to climb from tree to tree ; or, among the bush roots, a line of assorted gravel which suggested a moraine, which in its turn suggested a past ice age.

Barney noticed these and other details, and would later make a tape-report on them, with his observations. But what chiefly interested him was the Plot's content of insect and animal life.

To him, the Plot was a microcosm of Lancelyn II. As a good PEST man, he believed that the only way to find out anything valuable about a whole planet was to look carefully at one acre of its ground.

Accordingly, when he had made the superficial survey, Barney settled himself on the bank of the little stream with all the excitement of a big game hunter stalking rogue elephant. Yet Barney expected to see nothing bigger than a frog.

As an ecologist whose knowledge had been drawn from practical PEST work on thousands of worlds, Barney knew that, given time, the whole structure of animate life on a planet could be deduced from its humblest members. His very first discovery of minute life was a thread-like creature, not an inch long, worming its way under a flat stone. Barney levered it up with a spatula, examining it under a magnifying glass before dropping it into a specimen box. It was a green and grey leech which looked as if it had been sprinkled with black pepper. Undoubtedly, *protoclepsis tesselata* of the family Glossiphonidae, a duck-leech which established the presence of ducks on Lancelyn, for these birds are the leech's only hosts.

The grass on which he lay was short where it should have been long ; that meant that herbivores were about. Poking in the rubbish of a water-side burrow, he turned up the tiny remains of eyeless fleas, indicating that the water-going creature (he suspected a rat, from the formation of the nest), on which the fleas lived was very probably nocturnal in its habits. Bit by bit, a picture of the vast, multi-facetted existence of Lancelyn II grew in Barney's mind. He was engrossed.

He was so engrossed that the centaur was nearly on him before he chanced to look up and see it.

Jumping up with a cry of surprise, Barney caught his heel on loose gravel, slipped, and fell backwards. When he scrambled up again, the centaur had gone.

" Hi ! Come back ! I'm not going to hurt you !" Barney shouted. His reaction, when he had overcome his shock, was pleasure to think that his Plot had this large mammilian life form on or near it. He stood there waiting, stroking his beard with one hand and his bruised posterior with the other.

" It can't have gone far," Barney muttered, remembering his notion about the centaur's poor turn of speed.

With his blaster in his hand for safety's sake, he went forward, wondering if the centaur were crouching behind the dead tree trunk at the edge of the Plot. Barney jumped on top of it and looked down. Nothing there. Then, a few yards to one side, he saw something.

Beneath a thick, oleander-like bush, lay a dead and decaying centaur.

It looked just like the bodies the PEST party had found previously on the high ground. But round this one—and not only because Barney was now alone—lurked the authentic tang of fear.

Barney had been afraid before ; the sensation, it can be said without paradox, did not frighten him. He stood on the log, a light breeze ruffling his beard, trying to analyse just why the new corpse scared him. Finally, he decided his reasons stemmed from divergent facts which hardly seemed to make sense together.

This corpse had not been here an hour ago, when Barney surveyed the Plot. It must therefore be connected in some way with the live centaur, who had now vanished. To Barney's scientifically trained, connection-making mind, this implied human motivation—and consequently human intelligence—in the centaurs. What animal would drag a putrifying member of its own species about ?

The motivation implied was either that the living centaur had been undergoing, or was about to undergo, some sort of religious rite with the dead creature, or—that the two were murderer and murdered. Barney had a momentary picture of the wrongdoer with the putrifying corpse on its back, galloping about looking for a place to dispose of the evidence.

None of these thoughts pleased him.

"Bloodthirsty centaurs!" he exclaimed to himself. "Perhaps the dead herd we saw on the hill killed each other in battle."

He rejected this idea as soon as it occurred to him. The nasty chest wounds on the other bodies had hardly looked the kind of injury a centaur could inflict. He wanted to examine the corpse under the oleanders, to see if its pads concealed claws, to determine by the teeth whether the beasts were carnivorous or not. Seized by a belated caution, however, he would not go near the carcass, just in case it was intended as a decoy for him.

Dropping down onto hands and knees on the other side of the log, Barney prepared to wait to see if anything happened. Nursing the blaster, he looked cautiously about him.

The peaceful, parklike country seemed to have changed its character. Evening was creeping on ; Lancelyn was low behind thick cloud. The hush had malevolence in it. Barney scratched one hairy arm and sniffed. He knew of old how one hint of the strange, one suspicion that hostile intelligence might be lurking near, was sufficient to change one's whole attitude to a new environment. That subconscious safeguard, handed down from prehistoric ancestors, had been one of man's great aids on alien planets.

It helped Barney now.

He saw the puma directly it broke from the woods and headed in his direction.

Apart from a grey tuft at the end of its tail, the puma was all black.

Its head was feline, but the rest of it lacked any such grace. It most resembled a stubby-legged ox. It might have been laughable, but for its formidable armoury of teeth and claws. As it slunk forward in predatory fashion, Barney rose to his feet, keeping the blaster ready.

The puma had already seen him. Its yellow eyes bored at him.

When it ran at Barney, its comparatively slow turn of speed lent it a disconcerting air of confidence.

" Sorry to do this !" Barney said, and fired.

Taking the faint blue bolt smack in the chest, the creature heeled over, kicked vigorously with its hind paws, and lay still. Barney went over to it, shaking his head ; he hated taking life, but even more he hated losing his own. Standing near—but not too near—to the body, he produced from his equipment a long-armed scoop with automatic shutter and began to collect the puma's parasites as they left their cooling refuge. He would

study them later. Of all the sciences, parasitology offers the space ecologist the quickest ' Open Sesame ' to a new planet's mysteries.

When the body was clear of its fellow-travellers, Barney threw a loop of webbed rope round its neck and dragged it over to his H.Q. for examination. Then, struck by another thought, he ran back to where he had been crouching by the log. The decomposing body of the centaur had gone ; confused foot-prints by the oleander bush told him nothing.

Swearing colourfully, using esoteric terms picked up in taverns on a dozen planets, Barney returned to the overlander and shut himself in.

It was dark. A scintillating chip of icy moon rose in the east, filling Lancelyn II with arabesques of mystery.

Barney Brangwyn had worked for two hours dissecting the puma. He had paused only once to go to the window and watch a herd of centaurs gallop by about half a mile away.

The sight had been curiously stirring. Outlining themselves against the sky, the creatures, about fifty in number, had poured over a ridge, down a disused waterway, and disappeared into a sparse wood. As they went, they called to each other in high cat voices.

The light had been too poor for Barney to discern any details. One thing was clear ; their turn of speed was mediocre. Their fastest pace appeared to be a rather shambling trot. This made them natural prey for the puma who, although no record-breaker, had done better than that.

The puma would never have been a fleet-footed Mercury. Barney found that its cardio-vascular system was primitive, its lung capacity small. Apart from that, it had only one peculiarity to set it markedly apart from a terrestrial mammal. It had no sense of smell. Its nose consisted of a pair of simple breathing tubes, without olfactory nerves. For a beast of prey, this was odd, but its eyes, particularly adapted to far sight, were a compensation ; they had developed a type of long-range binocular vision Barney had never seen before.

Retaining its eyes in preserving fluid, Barney shot the rest of the carcass into the disposal chute, disinfected his hands and arms, and went to get himself supper.

He ate slowly and pleasurably, sipping an Aldebaran wine between mouthfuls, although without allowing his enjoyment to interrupt his thinking. Particularly, he was interested in the

puma's lack of a sense of a smell, for he knew some such apparently insignificant fact might relate to the larger problem of what had killed the centaurs, and why.

Barney had observed, before he was interrupted, that the small flowers growing on his Plot were brightly coloured but lacking perfume. That might well be relevant, even though puma's did not go about smelling flowers. Smell . . . Scent . . .

" My God !" Barney exclaimed, slopping wine into his lap. "I'm a prize clot! Why did I not note that consciously before? The centaur carrion did not stink ! It should have been strong enough to knock over an ox. Yet I was standing down-wind of that last carcass and could not smell a thing . . ."

Finishing his meal, he lit a cheroot and sat back abstractedly until nine o'clock, the time of the PEST group call.

Craig Hodges' voice came up first, slow and reassuring. Without wasting time on pleasantries, he asked for Barney's situation report.

Barney had played this game with Craig many times before. As experienced men, both knew what to report, what to hold back. Succinctly, Barney related all that had happened to him, without mentioning anything about smells or lack of them.

" I've been observing these pumas in action," Craig said. " They follow the centaurs. They move inefficiently. On Earth, they would not have survived for long at any period. Evolution moves at a kindlier, slower pace here on Lancelyn. What did you find in the belly of the puma you dissected ? Any beetles ?"

" That's the diet it would be condemned to on Earth ; it'd be too slow to catch anything else," Barney said, smiling. "But it feeds on the centaurs all right. They are even slower-witted and slower-footed than it is. What's been happening with you, Craig ?"

The leader paused for a moment, as if to collect his thoughts.

" I am established on the west side of a river forty yards wide," he stated. " There is plenty of cover all round me, mainly a waist-high brush on this bank of the river. I have seen no centaur since I arrived, although I have heard them calling nearby. I shot a puma which was stalking them, and have collected an amount of minute wild life from its body, which I shall soon investigate. I have trapped fish in the river,

only two species so far, but the night nets are out. I have trapped birds, which have some interesting structural chacteristics ; I will tell you more when I have collated a few more facts. Suffice it to say for the present that I suspect that a form of winged life might well be cock of the evolutionary walk here."

" Interesting," Barney commented. " Anything else ?"

" One thing. There's an island downstream, just a small one. Between trees, I can see primitive buildings of some sort, carved out of rock, by the look of things. I shall be investigating tomorrow."

Craig asked Tim Anderson for his report. The young man's voice sounded more steady now than when he had first answered the group call. No doubt, Barney reflected, their prosaic reports had calmed him.

" I'm in a sort of dell," he said. " There's a small cliff at one end, cutting off the view. The dell's damp—lot of bright flowers, all odourless, lot of really ingenious climbers. And —and I've found out something about the centaurs ! They must have some powerful parasites on them—micro-organisms. Craig, I'm frightened . . I was observing some ants, squatting down, quite still. The ants, by the way, move very slowly, like everything else here—except the micro-organisms. As I was squatting there, a centaur came round the little cliff at the end of the dell."

He paused. Both the older men caught the tension in his voice.

" About how far apart were you ?" Craig asked gently.

" About . . . oh, only twenty five yards, I suppose. We were both startled at the sight of the other. I got over the shock first—better reaction time, probably. I pulled my blaster and shot the creature down. That was a mistake, wasn't it ?"

" If it was, we all make 'em," Craig replied reassuringly. " Carry on."

" I hit the creature," Tim's voice said. " After waiting for a couple of minutes, to make sure it was dead, I got up and went to it. It—she was a female : two breasts, udders, low on the torso, two pendant under the body. A healthy, young specimen, by the looks of her. When I had inspected it, I . . . I rolled it over with my foot . . . Oh Lord, Craig—the underside of it, which had been pressed against the ground, the

underside was already well decayed. It—well, it just turned me sick !"

He paused. Both the others felt something of his sense of shock.

" What did you do then, Tim ?" Barney asked.

" I'm afraid I turned tail. Panic. I shut myself in the overlander and took a disinfectant shower. It must have been something so *virulent*, you see, to wreak that amount of damage on a carcass within five minutes of death. The face—was all eaten away. And the underside of the breasts."

" Any . . . flies or suchlike about the body ?" Craig inquired, in a detached tone.

" Not that I noticed," Tim said. " Perhaps it's something comes out of the ground."

" Have you been outside since the incident ?" inquired Barney sharply.

" No," Tim confessed. " I'm sorry. I'll have pulled myself together by daylight."

" Don't worry, son. Get drunk ! Remember we're only eighty miles away, if you want us. Next routine call, twelve noon tomorrow. Adios and out."

A subsidiary duty of the PEST fieldworkers was to send back full reports of their work to PEST H.Q. for more fully-equipped scientists to use later as the basis of further study. Their main duty was to check on a planet's fitness for colonists. A planet, even if it was uninhabited by intelligent beings (according to galactic definition of that term) often had another species, known as the Plimsol Species, which made the world unsafe for peaceful farmers or their herds.

PEST's task was to discover if a Plimsol Species existed and, if so, suggest a way of eliminating it without upsetting the entire ecological balance of the world. This second part of the business was often the most difficult ; it looked as if it were not going to be easy on Lancelyn II, Barney thought grimly, smoking his fifth successive cheroot and glancing out into the blue moonlight.

Sexton beetles ? A virus ? Bugs ? If one of those three constituted a Plimsol Species, they could never be eradicated.

Suddenly he laughed harshly, spat his butt end aside, and got up to prepare a lasso for the morning. Then he threw himself contentedly onto his bunk.

He was up with the sun, standing at the door of his igloo, combing his beard, and sniffing the fresh air as dawn brightened. Behind him, frying liver and eggs smelt equally good.

It was an hour later, when Barney had finished his breakfast, that he observed some centaurs. Two males, a female, and a baby came slowly through the wood, cropping low bushes on their way. The female and the child were diverging further and further from the males. Owing to the thickness of the vegetation, when the female emerged onto the perimeter of the Plot, the two males were out of sight.

At his first glimpse of them, Barney seized up his tackle and ran like mad, bent low, to intercept them. As the female broke cover, he stood up only twenty feet from her. She stood frozen, staring at him without attempting to move, as he raised the blaster and fired ; she dropped to the ground at once, without uttering a sound.

The child gave a bleat of puzzlement, circled its mother, and then began to head for the undergrowth, breaking into an uncertain jog-trot.

" Come back, you little dodger, I want you too !" Barney called, blundering after it.

He easily outpaced it, seized its shoulder, and turned it back towards the Plot. Taking a length of rope from one of the containers of his harness, Barney put a halter round the little thing's neck, whereupon it followed him docilely enough, mewing its bewilderment.

When they reached the mother again, Barney slipped his lasso over her head, paying out the line as he returned with the child to his igloo. There he drew the line tight and fixed it to an alarm system, after which he was free to examine the youngster he had caught.

" You're a pretty little beggar," Barney said, " and no more than a couple of days old, I'll be bound. Wait and I'll get you a lump of sugar. H'm, blind in one eye ! Well, that's hard old mother Nature for you . . . Don't let it worry you."

He continued to talk gently and meditatively to the little beast. Its shivering stopped, it seemed to lose its fear. Standing no higher than Barney's massive knee, it looked more like a mixture of shaggy dog and monkey than pony and human ; its little face was wrinkled ; its teeth, just appearing through its gums, were the wide, blunt kind which indicates vegetarian habits. It had an instinctive way of springing sideways on to

Barney, presenting him with its good eye, but it turned about submissively enough when he handled it.

Highly pleased with his catch, Barney was still fondling the creature when his alarm bell rang. Dashing to the door, he was in time to see his corpse rising to its feet.

With a shout, he abruptly changed direction and headed for the overlander, where he sent out a call to Craig and Tim Anderson to come back to base at once.

Craig Hodges' leisurely voice responded within a matter of seconds. There was no reply from Tim, even after several minutes. Barney held the microphone as if he would wring its neck and swore into it.

" What's the matter with him ?" he asked. " What's the boy playing at ? Why doesn't he answer ?"

" Do you think those microbes he was afraid of have got him, Barney ?" Craig asked.

Barney could detect the faint mockery in the other's voice. He knew if he answered ' yes,' his reputation would go down several notches ; this made him wonder how much of the puzzle the leader of the expedition had already worked out for himself.

" There should be a simple explanation of why Tim doesn't answer," he said, with a hint of surliness. " He may be on his way back here now, in which case he would probably not have bothered to leave the link open."

" Check," Craig conceded. " A very large herd of centaurs passed near here in the night, heading in Tim's direction. Maybe he didn't like their company ; personally, I don't think they are very agreeable creatures either."

" Have you seen any close to yet, Craig ?" Barney could not forbear to ask.

" No," Craig said, with a mysterious chuckle of triumph in his voice. " Be with you inside two hours, Barney. Adios and out."

Ninety minutes later, Tim Anderson's overlander sped into view and drew up by the spaceship. Barney strolled over to meet it, hands in pockets. Tim sat in the driving cabin, windows closed, his face as white as a sheet ; only his nose had any colour.

" Better stay away from me, Barney," he advised thickly, shouting through the window, " just in case you haven't caught the plague yet."

" Plague ? What plague would that be ?" Barney asked mildly.

" The plague that's carried by every centaur on Lancelyn II," Tim said. " I'm thick with it, better keep off !"

" If you've got the plague, why come back here ?"

" I couldn't bear to die alone !"

" You're crazy, Tim ! Come on, get out of that buggy. There's nothing more the matter with you than a common cold. Fresh air's what you need !"

The boy made a despairing gesture behind the glass.

" I tell you I've got something I caught off the centaurs," he persisted. " Listen Barney, early this morning a terrific herd of centaurs passed over the downs just beyond my dell. When I flashed the headlights onto them, all the ones touched by the beam dropped down dead. I didn't hang round to examine them, but obviously they are infected by a parasite in the nervous system which kills and then devours them when their adrenalin flow increases."

" You're off the beam, son," Barney said kindly. " Come out and let me show you something."

By the time he had finally persuaded Tim to climb out, Craig had also arrived. When he had heard Tim's protestations, he shook his head in disagreement.

" Well, I'm sure I'm right," Tim said, blowing his nose voluminously. " We came to find the leading Plimsol species, and for my money the conqueror microbe is it. Best thing is to clear out and leave the planet entirely alone."

" No," Craig said. " Sorry, but you're wrong, son. I found the predominant species this morning—only it no longer predominates. It's extinct, or nearly extinct. The buildings on the island I mentioned in my report last night were very primitive mud huts, erected by a race of winged creatures—flying monkeys. They were carrion eaters. In every hut, I found their bodies buried under the mud of the floor."

" Religious rite ?" Barney inquired.

" No. Mass suicide. Piecing the evidence together, I found they had had some sort of mass self-murder pact. In every case, the deed had been done with sharp fish bones piercing the eye and brain."

" I've never heard of such a thing before !" Tim exclaimed, temporarily diverted from his plague. " Oh, lemmings, of course . . . But what made the flying monkeys do it ?"

" The predominant species of a planet is generally unbalanced," Craig said slowly. " Man is a case in point. It seems to be nature's traditional penalty she extracts from the top dogs. However, before we go into all that, let's see what excited Barney enough to make him call us back here."

" This isn't pretty," Barney said, with relish, " but it will cure Tim of his plague."

He led them to the hollow, to his temporary H.Q.

The baby centaur was tethered by the overlander. Close by, tied to the vehicle so that she could only stand up, was the mother centaur. She rolled an eye at the three men and mewed hopelessly as they approached. The baby showed signs of pleasure at seeing Barney again.

" Come up, my beauty !" Barney said, patting the mother's flank. As she faced them, her coat was glossy and thick. Slowly, Barney pushed her round, away from the overlander, displaying her other side to Tim and Craig.

Tim gasped. The bones of her skull, on this side, shone white and green amid putrescent flesh. Her torso was savaged and torn, the exposed skin giving every appearance of corruption. Where the other side of her had been sleek, on this side her coat was slimed and foul and rancid, her ribs mere ragged carrion.

" Camouflage," Barney explained. " If you look at her head on, the effect is quite alarming. When you are right up close to her, looking hard, you can see it's all a fake—all the exposed bones and putrescence just a put-up job. Very ingenious."

Hesitantly, Tim went nearer.

" It's all right, she doesn't stink," Barney said. " She didn't carry protective mimicry that far ; fortunately there was no need to. The puma, the centaur's natural foe, has no sense of smell. And since it is longsighted, it cannot detect the difference, close up, between a real and a fake corpse. So the centaurs have this ideal way of protection—as they can't run away, they just literally drop dead, bad side up, and get up again when they think danger is past. Fortunately, pumas won't touch decaying flesh."

" Whereas the flying monkeys lived on it," Craig interposed. " I think that's what drove them neurotic—every time they thought they'd found a rotting corpse, it got up and walked away."

" That can be shattering," Barney agreed. " I flushed a centaur yesterday, over by that dead log ; when I went across and discovered what I thought was a corpse, I concluded two beasts were involved. It gave me nasty ideas about murderous centaurs, I tell you. I had not twigged the truth then."

Both Barney and Craig had noticed Tim's growing embarrassment. They turned smilingly to him as he said, " But the one I reported shooting in the dell yesterday—she fell camouflaged side down. That was when I began getting my plague theory."

Barney laughed.

" She couldn't choose which side she landed on," he said, " because she was dead. Now when I caught this prize girl here, I fired over her head, and she dropped instinctively, carrion-side up."

" The herd we came across first, when we arrived, were just shamming," Craig said. " We should have had quite a shock then if the slaughtered masses had got up and walked off !"

Colour grew in Tim's cheeks. To hide it, he turned away and petted the baby centaur, which now frisked contentedly by its mother's side.

" I'm sorry I've made such a fool of myself," he said. " I guess I was way off the beam."

" It happens to the best of us, especially at first," Barney replied. " Come on inside and have a coffee. It'll do your cold good."

" The centaur foal looks okay on both sides," Tim said, following them into the igloo. " I suppose the camouflage develops as the shaggy baby coat falls off ?"

" It must be so," Barney agreed. " You notice it already has a nasty looking dead eye on one side. And watch its trick of springing round so that an observer sees only its good side —like a card-player concealing his trump card as long as possible.

" Nature has some strange devices . . . The centaurs are fairly close mammalian parallels to earthly flatfish—the plaice or the sole, for instance, which start life much like ordinary fish, with an eye on each side of their heads. As they develop, they flatten, and one eye actually travels across the forehead. If you've ever watched the transition filmed by high-speed photography, it's more impressive for a naturalist than a comet crossing the sky."

He served up the coffee, handed round cheroots and sat back, grinning across the table at Craig.

" Well then old-timer," hes aid mock-pugnaciously, " you obviously aren't much impressed by my lucid exposition of the wonders of Carrion Country ! I suppose you beat me to the punch, eh ?"

Craig nodded his massive head and blew smoke from his nostrils, grinning in self-deprecation.

" While you were doing your trapper's hilly-billy act," he remarked, " I was solving the problem by scientific deduction, a la Sherlock Holmes. It's this fatal difference in our temperaments, Barney, which makes us the best PEST in the galaxy."

" No compliments, please," Barney begged. " They make my beard wither. Let's hear how you found out about these two-faced centaurs."

" I told you I shot a puma last night, and collected the parasites from its body," Craig said. " Chief among these was a flea whose appearance strongly resembled the common rabbit flea, *spilopsyllus cuniculi.* Now the body temperature of the puma is low—only eighty five degrees."

" Agreed," Barney said. " It's whole metabolism is low, by Earth standards."

" I found that by enclosing these fleas in a container at eighty five, and then raising the temperature ten degrees, the fleas were forced into the next stage of their life-cycle. On my way back here just now, I trapped a centaur to check my results, and found its body temperature was ninety five, as I had suspected. That proved to me that the bodies we had seen could not really have been dead."

Tim threw a lump of sugar to the small, enquiring nose thrust round the igloo door.

" This isn't my lucky day, Craig," he confessed. " How does that prove anything ? I don't see it."

" Parasitology proves anything," Craig said, winking at Barney. " The fleas use pumas and centaurs as hosts. As you know, both sides of the predator-prey relationship are frequently utilised by parasites. These particular fleas transfer from one to the other at the moment when the puma is nuzzling disgruntedly round what it thinks is a dead, rotting body. They leave the pumas because their life-cycle impells them to seek a higher temperature—ninety five degrees, in fact—for their next metamorphosis. Well, did you ever know a corpse retain a

temperature of ninety five degrees ? The fleas aren't fooled by the centaurs' act, even if the pumas are."

" The moral of which is, we are all looking for something different in life," said Barney.

" Well, it seems as if we've found what the colonists are looking for, after all," Tim remarked. " A nice, safe world with nothing very ferocious to scare them—once they've got used to the gruesome looks of the camouflage experts."

" The colonists are welcome to Lancelyn," Craig said, draining his coffee mug and rising. " Once you get to the bottom of it, it's a pretty dead-and-alive hole."

" Complete with a dead-and-alive animal," Barney agreed. " Depending on which way you look at it !"

Brian W. Aldiss

LIFE WITH CORIOLIS

You may remember Mr. Francis's article concerning low gravity on the Moon in the April issue wherein he pointed out some of the fallacies many science fiction writers employ when placing their action there. This month he takes you into spinning space satellites and revolving spaceships and introduces some further overwhelming factors not conducive to comfortable space travel.

By D. J. FRANCIS

In existing plans to use centrifugal force as artificial weight in free-falling satellites and space-craft, little attention seems to have been paid to the odd and sometimes weird illusions that will result. Indeed, one writer who has published many interesting and well-reasoned articles on allied topics said once : " There is no experiment we can devise by means of which we can distinguish centrifugal force from weight." I hope he never has to spend much time where it and its attendant imp Coriolis hold their sway !

A crazy world it will be in truth, where men who rise from seats are thrust back by unseen hands, objects roll or slide over level table-tops and hit the floor a foot from where they should ; where mortal weakness assails those who run one way, while those who run the other way feel like feathers in the breeze ; a world where floors tilt beneath the feet of men who stoop, and anyone who rashly runs downstairs is promptly tripped and sent head first to the bottom ! No haunted house was ever so afflicted as will be our spinning satellites.

To understand these goblin tricks and prepare for more we must examine past manifestations of those two elemental

spirits, Centrifugal Force and Coriolis. We must consider both, for if we invoke the one to aid us, along the other comes unbidden.

Centrifugal Force is what we call the pressure forcing us against whatever makes us swerve along a circular course. It gets stronger if we go faster, such as when we run the same way as the spin, or when we move out farther from the axis. Coriolis is more subtle, and its tricks more baffling on that account. The farther you are from the axis of a spinning body, the faster you must go to lap in the same time as you did when farther in. It is as you move along a radius that you meet Coriolis. To stay on a radius as you go outwards, you must accelerate in the direction of your other motion round the circle. Coriolis is the force the ladder, stairs, or guide rail exerts on you to give you that acceleration. The trouble is that it can act only on those parts of you in contact with the turning body. If your feet are all it has to work on, as in walking downstairs, it takes them out from under you and down you go, headfirst ! The faster you move away from the axis the greater it becomes, as also it does the higher the r.p.m. of the body inside which you move.

If you turn around and climb nearer to the axis, the sideways push of Coriolis changes round and acts the other way.

Well, there they are, and now we can try predicting what they will do to men who spin in outer space.

The two hundred-foot diameter wheel in the sky has been spun up to its appointed five point four r.p.m. Centrifugal force of one gravity has banished that sinking feeling, and grateful men jump down from bunks and hammocks where they have passed the spin-up period. At once the Unseen strikes. In dropping five feet to the floor they land a clear foot to one side of where they aimed, on a surface moving sideways, and end up full-length on the floor half a stone heavier than when they jumped ! To their feet they climb, doubtless swearing volubly, to receive sly pushes as they bend to gather dropped possessions. More slowly now, they emerge from cubicles into the passage where they meet the astonishing spectacle of a floor that sweeps up ever steeper before them and behind, and yet is always level where they are. If the designers try to get a change of scene by providing compartments with flat floors, a walk from end to end of one will feel as if the floor arched upwards ! Spilt water will

confirm that feeling, and confound the evidence of one's eyes by trickling steadily along the flat floor and gathering at the ends in pools with sloping surfaces !

The unseen spirits will never leave the harassed men in peace. " One way round " they will insist, and punish those who disobey in proportion to the square of their disobedience. Work it out—for one-g at one hundred feet radius the floor must be travelling in its circular path at fifty-six feet per second. If a man walks the same way at five feet per second he is doing sixty-one feet per second round the circle, nine per cent faster than the speed for one gravity. Since the centrifugal force varies as the square of the speed, he will become not nine per cent but nearly twenty per cent heavier. If he dares to run at, say, fifteen feet per second his real speed will be seventy-one feet per second, and his weight will increase by more than sixty per cent ! A walking ten-stone man becomes a twelve-stoner and a runner sixteen stones ! But go the approved way round, and they are at once rewarded by reducing weight to eight and a half and five and a half stones respectively. " Going round widdershins " will take on a new and very real meaning for the satellite crews !

Life will never cease to produce fresh surprises. Put down a pencil and off it rolls from a perfectly level table, because of the change of direction of " down " over the length of the table ; lift a tray of glasses on one hand, and watchful Coriolis sends it sideways to disaster ; toss something to a companion on a lower deck, and watch it swerve aside three feet as it descends ten.

Darts and table-tennis will be frustrating pastimes indeed, with the dart flung spinwise diving for the floor and that flung counter-spinwise climbing for the ceiling ; and a table-tennis ball possessed of similar traits, played on a hump-backed table an inch and a half higher in the middle than at the ends ! Play either game across the direction of the spin, and at once Coriolis takes over from his partner and swerves both ball and dart sideways in the air ; and the table is now humped crosswise. Any gymnastics tried had better exclude such stunts as vaulting or hand-standing on parallel bars, or else the ersatz gravity will cause some painful falls.

In a large wheel-shaped vessel of the type proposed for a permanent manned satellite the effects we have described would be vivid enough. When smaller versions leave to orbit

other planets the enhanced effects may well make men prefer free-fall. In a fifty-foot diameter wheel with one-g at the rim, an object dropped three feet will swerve a foot aside, and slide farther on landing ; a flat table six feet long will be effectively a circular arc, four and a half inches higher at the middle than at the ends ; walking with the spin will add a third to a man's weight and take off a quarter if he walks the other way. Imagine how he'd feel on turning back suddenly, or the sensations as he conducts a boxing match with a B.E.M. stowaway or some fellow-crewman who wants to get off and walk back home, driven space-happy by the gremlins ! Should either fall and scramble up, he'll feel a rare—on Earth—sensation as the weight of his head changes by a quarter and sleepless Coriolis gives him a sideways push of twenty pounds.

How much more impossible would life become in a vessel of, say, twenty feet diameter. Even the variation of apparent weight over a man's height would be enough to give him a fainting fit and sore feet at the same time ! To sit down for the relief of both extremities would send up his head weight by a quarter in perhaps one second, and produce a Coriolis punch of up to forty pounds.

By accepting fractional weight, with the inevitable slippy floors and perpetual sinking feeling, it might be thought that we can reduce these phenomena to tolerable levels. It certainly won't flatten out the hog-backed tables or swerving falls, and will increase the percentage change of weight in walking either way. Also, there is a physiological law which states: " The apparent magnitude of a change in sensual stimuli is proportional to the mean intensity during the change." In our case that implies that a twenty per cent change of weight will be just as much of a sensation under half gravity as under one. So although that will be very handy on the lunar surface and may mean we can use stilts, it also means that we will not escape our spinning troubles by slowing the rate of spin.

Only increasing size can save us ; vessels whose radius of curvature is very large compared with the human body, whose rate of rotation is very low, and whose peripheral speed is high compared with that of a running man. The weight changes associated with running will never be reduced to negligible size, as to get them down to five per cent—half a stone up or down for our ten stone man—we would need a radius of rotation of more than two miles ! And a real sprinter would still put on a stone in that gargantuan edifice.

When deep-space vessels of the future carry passengers as regularly as do ocean liners of today, artificial weight will certainly be demanded ; one can hardly imagine someone's mother or a portly interplanetary financier living for weeks in free-fall. So, unless some mystic " pro-grav " appears before that time, we will have to spin. To keep some semblance of normal weight conditions, avoiding appreciable local variations and coriolis forces, very large radii will have to be adopted somehow. We could let two parts of the vessel separate at the ends of a long cable, but so many new problems would then arise that this would be rather a Heath-Robinson contraption.

Perhaps a more practicable layout would be a large flat disc divided into concentric floors, with the passengers living in the rim. Its gyroscopic resistance would be enormous, so its propulsion unit would have to be mounted on gymbals at the centre. The poor structural layout and passenger comfort would make very low thrusts essential, as these would act at an angle with the apparent " down " which varied as the ship spun round its axis.

Travelling by lift or moving staircase between the floors of such a vessel would be an experience to remember. In the lift the floor would seem to tilt at varying angles throughout motion, while reducing weight on ascent and increasing weight on descent would undoubtedly convince passengers that the lift was going the wrong way. A moving staircase from the entrance at the hub to the rim would have to follow a most intricate spiral in the " vertical " plane if it were to feel level all the way, its curve depending on the speed with which it was designed to move. Only by moving at that speed would the passengers be safe from the attentions of Coriolis ; a hasty person who tried to walk down would feel as if the treads were tilting under him as he moved. That and the steadily increasing weight of his similarly-affected suitcases should ensure that the warning notices were obeyed !

With so many unusual effects at their disposal, the social organisers would not find much difficulty in providing diversions for the long voyages. Aerial sports in the hub for the small boys, and for the little girls who want to play at fairies ; dancing under half-weight for the teenagers; "drop-skittles " for father, who would have to match his wits against Coriolis by dropping his missiles down a vertical shaft ; and the

swimming-pool, its sagging surface an impossible sight, with all the tricks of space at work on those bold enough to dive !

The vision I find most intriguing of them all is that of a game of football played inside a huge cylinder spinning about its axis. The goals stand back to back and the pitch extends round the circumference. Packed vertical rings of seats hold the spectators, whose echoing cheers spur on a mass of players scattered over walls and roof, in pursuit of a ball whose antics no earthly ball ever knew. To mention only one : a strong kick downfield might send the ball so that its true motion was straight across a diameter. As seen from inside the arena, it climbs along a rising curve, spirals about the centre in ever-decreasing loops, stops, then spirals out again faster and faster until it touches the distant roof of the cavern, where inverted players run staring downwards to intercept it.

Yet an equally-strong kick the opposite way only sends it rolling like a cannon-ball along the floor.

The choice of ends would be a weighty decision, in both senses of the term. Should the captain winning the toss open with or against the spin ? Playing with it would mean the ball going fast and keeping down when shooting or passing forward, but his men would feel as if they were playing up a steep hillside ; if they play the opposite way it will be something like playing downhill against a strong gale of wind !

One could go on indefinitely. Imagine the havoc a hefty slogger could create in a game of cricket or baseball in such a place ; the panic efforts of a bird trying to take off with the spin ; the little dog who ran too fast the other way, and spent a frustrating hour as an internal satellite !

Experience will bring many other illusions to light, and may well present the mechanical effects to the senses in some ways different from those described above ; but of one thing we can be sure, centrifugal weight will never cease to startle us, and never be mistaken for the sane and steady grip of Mother Earth.

D. J. Francis

John Kippax's last story in New Worlds *was the delightful "Tower For One" in the July issue and now he returns with an equally fine story, but completely different in theme. A fairly simple story of just how much a death trap the Moon will be when once Man manages to place a foot on it.*

THE DUSTY DEATH

By JOHN KIPPAX

The lieutenant's name was William Eversley Dale. He was of medium height, squarely built and dark, with rather too much jaw to be called handsome, though, back home on Earth, the girls did tend to fall for him. There were no girls here at the United Nations base on Moon, but there was still trouble, and without looking for it.

He sat in his tiny cabin deep in the rock. It was steel walled, grey, and completely utilitarian. It contained a small bed, a table, a chair and a wardrobe, and little else. The only human touch was a portrait of his mother ; her eyes seemed the same steady kind as her son's. He drummed his fingers on his knee, and listened to the sighing of the air conditioning, and the distant thrum of generators.

He swore softly. "Thompson !" he muttered. "Thompson for driver !" He picked up his mother's photograph and stared at it. "Ma," he said, "why did I have to qualify in survey ? Why didn't I pick a job I could do on my own ?" He grinned wryly at the sweet face, and replaced the picture.

On the wall a light flashed, and a little buzzer sounded. He pressed a switch. "Lieutenant Dale."

A cockney voice squawked back at him. " Artificer Wells here, sir. Number three air lock. Survey tractor fuelled and ready. All routine checks completed."

" Thank you, Wells." He snapped back at the switch. Yes, a mechanical genius like Wells could report and be relied on ; but when you were out on survey, you were one of a two-man team. You both had to be efficient, and to be able to get on together. That was what upset him ; Lieutenant Harris had food poisoning, Sub-Lieutenant Morgan had a broken rib, and that left only George Thompson to drive the great vehicle ; and if there was anything certain on Moon and Earth, it was that George Thompson got on with no one.

Dale remembered with annoyance the first time they had clashed ; it had been at the time when the old First Base, as it was called, was being extended to take a complement of a hundred and ten officers and men, and all hands had to turn to and help the highly paid civilians called, for short, XTE's—extra terrestrial engineers. One of the XTE's had been crawling along a ventilation shaft, checking some couplings from the inside. For some reason, the man had fainted. The thin, red-haired Thompson had been on the scene and knew what had happened, and he got into a flap and Dale found him just as he was going to sound emergency one. Dale stopped him, tied a rope round his own waist and crawled along the shaft to the XTE. Then he yelled to be pulled out backwards, dragging the engineer with him.

Having seen that the man was all right, Dale proceeded to bawl Thompson out. " Why the hell sound off an emergency? All you had to do was to go down and get him ! Plenty of help around."

Thompson was flushed and angry, and he was shivering slightly. " I wanted the rescue men to do it ; it's their job—"

Dale stuck his jaw out. " You're an officer. You're the one to do a job like *that*."

Thompson was three inches taller than Dale. He looked now like an angry turkey cock. " Are you telling me what I should do ?"

" Yes," snapped the other. " Want to make something out of it ?"

It was nearly a fight, the officers-and-gentlemen code notwithstanding. Since then George Thompson had got himself disliked by everyone on the base. He could not be accused of inefficiency ; that would have been pounced on at once. It was

his growling voice and surly manner which made him a pain in the neck, and in a tight little community like Moon base there was not much chance of getting away from people. The only consolation, thought Bill Dale, was that sooner or later the doctor or the CO would decide that Thompson could go home, for the sake of peace and quiet. But so far, they didn't seem to have noticed anything wrong with the man . . .

He slipped on a suit of blue overalls, on which the only decorative feature was the little badge of rank on his left breast. He left his cabin then, and stepped out into the corridor, grey and cheerless as the rest of the place. The humming of motors came louder. Junior officers lived close to the motor rooms, while senior and admin people were higher up, near the surface.

The lift took him three hundred feet up to the first level. He stepped out, into a broader corridor where men walked with swift purpose, and then through a door where he was greeted by the booming hum of tractor motors being revved. This was the entrance to number three airlock. It was like being in a super-clean tunnel of the London Underground, with deep scuttled lights throwing a blue-white glare upon the steel plating of the floor, and upon the enormous survey tractor which three parts filled the place. He had long since ceased to be awed by the fact beyond the inner lock door, then the lock, and the outer lock door, was a world of airless death. He did not fear the Moon, though—only the possible errors of his fellow men which might put him at its mercy. And it had no mercy.

Signs along the wall were beginning to flash. One announced in green, ' Exit clear—proceed when ready.' A permanent yellow one said, ' When in lock wait for third cycling light change before steady red.' A permanent red sign asked, ' Have you completed all routine checks and reported to expediting officer ?'—and added grimly—" YOU CAN DIE ANY TIME : WHY DO IT NOW ?"

The tractor was forty feet long and twenty broad, with its monstrous caterpillar tracks almost totally enclosed within its smooth body. It was a completely self contained machine, with its one-man air lock, its survey instruments, and its powerful moon-earth-moon radio. It had everything, except, so it seemed, a crew that was prepared to work in harmony.

A squat man, wearing the fist and flame badge of a master artificer, came forward and saluted Dale. " She's all ready sir. Lieutenant Thompson's aboard now, I laid out all your charts for checking."

" Thank you," answered Dale, and moved forward to the great machine. How like Wells to do that. Did he do similar little things beyond the run of ordinary duty for other people ? For people like Thompson, say ? Dale growled to himself as he swung his body up to the open air lock, and stepped through into the crammed interior. Thompson looked up at him, nodded, and turned his attention again to the banks of dials on the instrument dash. Dale went to his maps and seismographs, thankful for the lack of conversation. If they kept their talk strictly to service matters, they might manage to co-operate. One thing—Thompson must never know that Dale had managed to see his medical record. Bill had been surprised to find that in every way it was as good as his own.

He asked, " You OK ? Can I report back for out ?"

Thompson nodded. Dale used the radio. " Lieutenant Dale for Major Carter."

The expediting officer came on. " Carter."

" Dale here sir. We're ready to go."

" Good ; this will be—how many craters you've done ?"

" Twenty-one sir. But this is a much longer trip."

Carter said, " We don't expect miracles. If you can sort out some of the major snags of Aristarchus in forty-eight hours, I shall be satisfied. Don't take any unnecessary risks. Satisfied with everything ?"

Now would be the time ; all he had to say was, " I can't work with Thompson. I distrust him—" and maybe a replacement would be found, or the trip postponed. Somehow he couldn't say it, true though it was. He replied, " Everything OK sir."

" Right. We'll be listening for you. Good luck."

" Thank you sir." He broke contact, and asked Thompson, " Ready ? My routes clear on the crater map ?"

" I can't read it," said Thompson. He did not look at the other. Dale tightened his lips as Thompson turned away as though the effort of facing his companion was too great.

" I'll give the ' moving out.' "

Thompson hitched himself comfortable in the driver's seat and thumbed the throttles of the steering columns. The rising hum of the motors, accompanied by a brief nod, was his answer.

Dale spoke into the mike. " Moving into lock."

The great door slid back, and the tractor surged forward into the lock. The door closed behind them.

Control asked, " Are you sealed ? Check."

Dale made the routine checks. " Tractor sealed."

" OK." A light flashed. The recorded voice of the lock announced, " Lock will open in ten seconds from now."

An amber light changed to red, and in a few seconds there came the muffled sigh as the air in the lock whipped out into the void. Then the pale, harsh, cruel outside world was visible as the outer door slid fully back to let them go.

The tractor was on the broad road which led to the crater of Aristarchus. The great headlamps gleamed whitely along it as the machine proceeded at about thirty-five miles an hour. Everything was going smoothly, but Dale had been feeling uneasy since the time he had seen the domes of Moonbase disappear behind them. He shrugged the thoughts away and concentrated on his own job, as Thompson guided the machine along the comparatively smooth road of pounded rock.

Bill went over his orders. They had to go to the end of A-road, and then, having reported by radio signal which was bounced off Earth and back again to Moon, they were to proceed through the passage which had been prepared through the side of the Aristarchian crater. Already, that crater had been roughly plotted by seismographic devices to show the lines of surface faults where there might be hidden crevasses. It was the dust that was the trouble. It covered everything, so that while a crater floor might be deceptively smooth, it could contain great crevasses, and all of those had to be known before the geologists and the miners could get to work.

Satisfied at length, Dale leaned back in his seat and watched the advancing road. " We're making good time."

" So we should, in this crate."

Dale studied the other man's face, sharp and dark shadowed. " You OK ?"

" I'm all right." Thompson watched the road.

Dale said, " If you're still sore about that affair of the XTE—"

" I'm not sore." Thompson kept looking ahead, and his voice sounded strained, as though he was deliberately trying to dodge any show of friendliness. " You might like to know that

I asked to come on this trip. Morgan could have done it, but I persuaded him to have another duty period off."

Dale felt utterly amazed ; was Thompson saying that he wanted to be with Dale ? The next words denied that.

" I've not had chance to put in enough hours on survey tractors. It all counts for promotion, you know."

Dale muttered, " Yes, of course." He consulted a map. " According to this, there's a possible fault line which runs along the floor of the passage blasted into the crater. Take it dead slow, will you ?"

Thompson's mouth hardened. " Think I don't know my job ?"

" I didn't say—"

" I can handle it, Dale."

Dale made no reply to the offensive tone for a minute. Then he said, " She's all yours."

The tractor thrummed on towards Aristarchus.

They passed through the entrance to the crater about two Earth hours after leaving base. Though he had seen it all before, the eeriness of the scene still exercised its fascination upon Bill Dale. Never, never, would he be completely used to Moon, with its dead black, star-dusted sky, and the jagged peaks which reared white and grey and ghastly into the velvet dark.

They readied for beginning the survey. The gyro control of the tractor was locked onto the map routes based on the early seismographic reports, so that the great machine would follow and record along the most likely places for the hidden hollows and crevasses. Another automatic device would stop the tractor dead if at any time more than a quarter of the total track area was without a solid surface beneath it. Even then, there was plenty of risk.

For a moment Bill sat in contemplation of the Earthlight, then he asked, " Fit ?"

" Fit."

" Let her roll."

The tractor moved forward ; now the two men were entirely separate in their duties ; Thompson was responsible for the tractor, Dale had to watch his maps and his recording instruments.

After two hours had passed, there had been no unusual incidents. Twice they were saved by the automatic stop, and

they were forced to back and retrace to a point where they could cross the crevasse which merged with another, all secret and eerie under the smothering dust, which rippled like the waves of a chalky sea under the push of the machine, slow to settle in the gentle gravity.

After another hour they heated up some food and ate. Thompson did not seem hungry, and once again Dale found himself thinking that the man must be under some great strain. Etiquette or not, it might be a good idea to have a word with the doc when they got back to base.

They shoved their plates into the disposal box and took up their perilous journey again. Now they came to where the surface, under the dust, was broken and tricky ; the dust boiled and billowed around them, sometimes reaching as high as the transparent half egg of plastic which enclosed the two men. The motor groaned and rumbled as Thompson, his face set in a frown of concentration, continued to guide the machine upon its pre-set route. Once the main safety lines across the crater had been ascertained, then a flock of smaller tractors could complete the work . . .

There was a grating rattle, and the tractor tilted wildly to the left, and stopped with a stomach-wrenching jerk. The engines dropped to idling level as Thompson shut them down. The dust surged up in front of the machine, and then slowly subsided. Thompson said, in a choking voice, " I didn't like that."

Dale glanced at him. Strain was very evident in the other's voice. " Take her back, shift a bit right, eh ?"

" Yes," said Thompson quietly, and did it. They travelled another mile, and still the surface below the dust was rough and uncertain, jolting and pitching them about.

" Steady as she goes," said Dale. " It can't last forever." He thought, I'm talking to him as though he was a nervous kid; funny though, that's how he looks.

The automatics stopped the machine with a crunch, and a shiver from below. Thompson began to reverse slowly, but as he did so the ground beneath began to quiver, and to give way. Then, with a terrible slowness, the tractor began to slide forward. The surface underneath had given way completely, and they were sinking ! Thompson cried out as the sea of dust swirled and rippled over the front of the tractor, putting out the stars ! Bill was scared, but he strove to ignore the angui-

shed gulping noise which came from Thompson as he counted, " One, two, three, four—" At five, the rear of the machine touched solid rock under the dust ; the nose fell forward, until they were resting at an angle of forty degrees, canting over to the right. In the light from inside, they could see the eternal moondust pressed over them, grey and evil-seeming.

" We must be about fifteen feet down, Thompson." He tried to keep his voice steady. He knew that their plight was serious, but he didn't waste words on the point. He saw that Thompson was shaking, and affected not to notice. " Try to back her."

Thompson said nothing, and tried it. The engine roared, and the rear canted at a steeper angle until it seemed that they might turn over. Thompson stopped the motors, and turned to show a face that was grey and sweating.

" Must be an overhang," said Bill. " And if we try to go forward there's no telling—" he stopped, alarmed by the sight of Thompson's dropping jaw and staring eyes. " What's the matter with you ?"

For some seconds the terrified man could not speak. Then he stuttered, " That dust—all-over us ! We're all closed in !" He gasped and clutched at his heaving chest.

" *All closed in* !" the man whimpered.

Dale stared at him. Then he remembered the affair of the XTE, and he knew what was wrong with Thompson. Dale took the other by the shoulder. " Are you a claustrophobic ?"

Thompson stared and nodded ; he shivered.

" How the hell did you get to Moonbase ?"

" I—I took two stimulant pills before part of the medical. I wanted to be here so much ; my qualifications were good—"

He muttered and moaned. Dale knew that anger was useless, but he felt anger, all the same. He tried a firm, matter-of-fact line, and hoped that the distraught man would respond. " Listen, Thompson. The radio won't work down here. There's no telling how far down another subsidence might take us. We've got to get out now, and we can." Give him something to be doing, thought Dale ; it was a crazy idea, but it might just work. " Get your pressure suit on. Go on, man ! Here, let me help."

Eventually they were both suited. They tested suit radios. Dale kept talking, striving to occupy Thompson's mind. " Now listen ; I think we can get up." He patted a torch, and

four small prepacked charges of explosive at his belt. " I'm going to climb into the air lock. I want you to let me get in, then, before the outside door opens, jam a lever under the seal so that you can let the air out of the tractor." He tested the clamp on Thompson's helmet. " Your air OK ?"

But Thompson was staring without understanding. " Let the air out—"

" Yes ! When I signal, I want you to let the air out, as steadily as you can. The force of it should disturb the dust sufficiently for me to get out and up to the surface.

It sank in. Thompson's squeal of horror sounded sharp on the radio. " But that will leave me alone ! Don't leave me alone Dale, don't !"

Dale took hold of him clumsily. " Listen—do *you* want to go out into that dust and leave me here ? For God's sake, one of us has to go !"

Thompson made harsh throaty noises.

" Pull yourself together, man ! Both our lives may depend on your letting that air out in a steady stream, so as to get the most lift of the dust for the longest time. *Do you understand* ?"

Dale hid his own fear and tried not to see the horrible risk so clearly. There was no telling what weight of dust was above them, no certainty that he would be able to find his way to the surface before dust settled again. " Look. Tie this line round you. I'm putting the other end round me. Firmly now." Coax him, thought Dale, speak gently, firmly, make him forget his fear. " I'll pay this out as I go up. When I get up to the top I'll give a tug, and then you must come out into the dust, and climb, and I'll pull you up. Got that ?"

Thompson's face looked ghastly ; he mouthed behind his helmet face plate like some senseless caricature of a fish. He gasped, " No, I daren't !"

" If you don't, you'll have to stay here, alone under the dust, until help comes. Well ?"

Thompson's breathing rasped in the earphones on Dale's helmet. " O.K." He muttered the syllables almost inaudibly. Dale knew that there was no telling what the frightened man might do when left alone, but the chance had to be taken. He got into the lock, saw that Thompson was ready to prise at the inner door when the outer opened, and signalled. He prayed that the light gravity of the Moon might help to bring about the miracle.

Now the door was opening, and dust was tumbling in past

the small outrush of air from the lock. Thompson prised the inner door—so far the fearful man had had sense enough to do as he was told. Dale saw the dust surge back a little, and then there came a great flurrying of the stuff, and, with a prayer, he launched himself out and round to the up-tilted back of the tractor. Without sight, but determined, he found a ledge just above the back of the machine, and hauled himself up in the swirling dark. He gained the top of the ledge, and then found his way up a gentler slope. Here he had to push harder, for the dust was not greatly disturbed. Sweating inside the heated suit, cursing to himself, he struggled up, a fierce desire to survive guiding him on. He walked, stumbled, then stood upright.

And above him, he saw the stars.

He looked down to where he had come from the boiling, rippling dust. It was just beginning to settle ; hoping that Thompson was still sane, he tugged on the rope. Perhaps this had been a bad idea. Perhaps he would have to cut himself free from a dead man, or a wild idiot.

There came an answering tug. Dale brace himself, and gave a steady pull. The line was live. Wondering if Thompson would be out of the lock before the dust had completely settled, he kept a steady pull until the line gave. Then he pulled harder, and he knew that Thompson was coming up. For about eight feet, all went well, and then he could not pull again. He felt anxiety rise and knead at his stomach. In his mind's eye he saw Thompson struggling to negotiate that short vertical face. Then the line slackened and Dale gasped with relief, and then pulled stronger and stronger, until one place in the settling dust began to agitate again. Sweat poured into his eyes, and his heart thumped with the effort. And would Thompson be sane when he got out ?

Then came a great pothering of the dust ; a fraction of a second later he saw a helmet, and then the helmet radio, free from its insulation at last, began to send the welcome sound of Thompson's spluttering and panting. Dale pulled the staggering man in ; when Thompson reached level ground, he collapsed.

Bill made sure that the other's suit was undamaged, then he left him to recover, moving about fifty yards away, going back in the marks made by the vanished tractor. He laid down a charge, pulled the time firing device, and walked away. When

the explosion had taken place, spattering and soundless, he twice repeated the process, and then returned to Thompson, now sitting up.

" What did you do that for ?"

Bill could have shouted with relief ; he sounded all right. " Three charges. When they record those shocks at base, they'll know something is wrong. Better than waiting for radio call-time. They'll be sending help right now." He knelt beside Thompson. " How do you feel ?"

The reply came weakly. " Not too bad. I'm—damned sorry about this, Dale. I've been a fool. I was mad to try to conceal that fear of enclosed places."

" Explains a few things about your past behaviour."

" Yes, I know I was disliked—"

" Forget it."

" You saved my life—"

" And you save your breath," said Dale, kindly. " Get this straight, though. They've got to know, at base. Whatever they do, even if they send you back to Earth, you've got to take it. Now, let's start walking."

" OK—Bill," said George Thompson, and, under the eternal stars the two clumsy clad men started to walk back to the entrance of the crater. Around, the dust which could have buried them forever lapped and rolled and slowly became still again as they plodded on.

John Kippax

Arthur Sellings' latest story contains a really ingenious idea—given an alien with powers capable of granting a scientific blessing to humanity (and one that would eliminate war, at that) how would he accomplish it ? Formulate your own theory before reading the end of the story—and then see how wrong you were !

FLATIRON

By ARTHUR SELLINGS

The noise became wilder, more urgent. After twenty four hours of it, on and off, Shand still found it disturbing. It was bad enough when it was happening in the same room, with a noise like a huge jellyfish dragging itself across the floor. At least then it sounded more natural, because that was just what it looked like.

But when it was going on in the room overhead, when the creature was obviously reaching some kind of crisis—when moreover the influence, the somehow reassuring influence of the thing, was withdrawn however short a distance—it made Shand feel as if something infinitely cold were exploring his spine. In the same room the bulk of the thing covered the noise it made as it heaved along. With only floorboards and a ceiling between, the noise was magnified eerily. You could hear the *gasping* of the soggy flesh.

Shand shuddered to imagine what his wife would have said if she had been here, instead of visiting her sick mother. Then, Jean would surely never have admitted the thing in the first place. Or would she have been able to refuse—any more than he had ?

There had been that strange ringing noise outside. After telling himself that it was just a jet plane passing high overhead, or telephone lines, or simply a ringing in his ears . . . the decision that it might be none of those things . . . he had gone to the door and peered out into the night.

And there it had been, rearing up against the stars, piteously rampant and radiating distress.

At that moment Shand hadn't considered that he had a choice. And in the hours since, as the creature's pain and his own compulsion had both abated, he had wondered whether in fact he had. In any case what *could* he have done? Run screaming from the house? Slam the door shut and gibber into a phone?

He had done neither. He had helped the creature in and waited on it. Conscious of its alien needs in some way that he hadn't stopped to fathom, he had brought it copper—two antique warming pans that flanked the farmhouse fireplace, a copper kettle, wiring that he stripped from circuits and appliances that he told himself were expendable.

These things he placed by the creature and watched it envelope, absorb them, bit by bit. He fetched it alcohol from his small drinks cupboard, rejecting wine as instinctively as a barman attending to an old and familiar customer. But spirits of any kind—including a big bottle of rubbing alcohol—he gravely, methodically, emptied onto the bluish flesh.

Then it had been a matter of waiting, trying to analyse the vague impulses that seemed to come from the creature.

All he learned was that the creature was mending, that he, Shand had saved it from extinction, that it was not of this earth, that it was not hostile. Simply those things, with no shade of qualification, such as just *where* it had come from—or how. Or whether, being unhostile, it might be co-operative, to tell him things that no man had heard before.

For answers to those questions he would have to wait. Six hours before, the creature had gone upstairs. Spurning assistance, as if that small excursion were a test for it, it had hauled itself up the stairs and into a room above.

And Shand waited below, knowing that he was neither needed nor desired—that the creature had something crucial to undergo . . . and overcome.

Now the noise above his head mounted. It sounded just as if the thing upstairs had been seized in a huge hand and was being thrashed about like a mop.

Then it was quiet, dead quiet. Shand started to get up from his chair, but subsided, knowing that the thing was not dead but had prevailed. For the atmosphere that had possessed the house for the past twenty-four hours changed suddenly. Up

to now it had been like a sad colour, a dirge, a pain in some unearthly nerve ending, muted by the low vitality of the maimed creature. Now its vitality was high and the atmosphere became calm.

Despite that, Shand felt abruptly panicky. Something had happened up there. Till now the creature had been dependant on him. Now it was not.

Then suddenly he thought he could hear movement overhead, far less cumbrous than before. Then he was sure. It sounded as if the creature had recovered means of locomotion that had been lost in whatever calamity had befallen it.

He heard the upstairs door open. Steps, muffled by carpets, reached the top of the stairs. And Shand, like a man in a dream looked upward.

" Good evening," said a pleasant voice. " I want to thank you for the care you have shown me." And down the stairs, wearing one of Shand's suits, stepped a man.

Shand groped for words, and was conscious in that moment of a shocking ludicrousness. *He* might have been the alien creature. For the other moved to the armchair opposite Shand's own and sat down without a trace of gaucheness. There was just a slight, all but imperceptible interval before he—it—hitched his trousers.

It was that gesture, infinitesimal in itself, that put things in alarming perspective. Here was a being which a few hours before had been a shapeless inarticulate mass. Now it was man-shape, spoke perfect English, wore man's clothes as if it had done so for years ! That spoke of—just what ? Of uncanny powers, a capacity to learn at an astonishing speed, an ability to cast itself into a human matrix, to stretch its awareness to every point of human behaviours and response. Unless—

Unless this were *really* a man, the other shape an assumed one.

Shand cleared his throat nervously. " Just what shape *are* you ?" he asked in a whisper.

The other smiled faintly. " What shape is a cloud ?" Then, seeing Shand's puzzlement, " We are adaptable."

" But the shape you came in—why was that ?"

" A rudimentary one, forced on me by the accident. My organisational powers became useless. I was careless in making transit. It is so simple that one's vigilance can be relaxed.

But there are stresses sometimes met with that demand one's whole attention." He spread his hands in an uncannily human manner. " I failed to do that and almost disintegrated."

" Transit ? From where ? How ?"

" I couldn't begin to explain. How could I behave as one of you if I hadn't investigated your mind ? And how do that without learning that your understanding is limited ?"

If such a calm assumption of superiority had come from an alien shape Shand would probably have accepted it. But because it was spoken by something in the guise of an ordinary man, irrationally Shand bridled. He was a typographer, which hardly qualified him for a scientist, but his mind rebelled at the implication of stupidity.

" I don't mean you only," said the other, " but the limitations of your species."

Shand still protested. " If you can read my mind why don't you *show* me what you say I can't understand ? Through your mind, I mean."

" The fact that I can read—as you put it—yours does not imply that you can read mine. And reading would not mean that you would understand."

" Can't I try ?"

" It could be dangerous."

" Dangerous ?" Shand echoed disbelievingly. " I'll take the chance."

" Very well. Ready ?"

Shand nodded. And a second later was whimpering soundlessly for contact to be broken. But it didn't need him to speak. The clamour of his mind's cry sounded in that utterly alien intelligence—and was immediately acted upon.

Shand sat shuddering. He had just been given sight into a world of universes and dimensions which could have destroyed his mind. It wasn't that the creature's sensory equipment was set in a different key. Nor was it just size or strangeness of form, but something infinitely more complicated, more *other* . . . . dimension and matter and mind in totally strange relationships . . . awareness and will to be and will to act fused with the thing acted upon . . . and beyond everything *space*, nothingness itself, not as a concept or a neat factor in a human equation, but as something real and terrifyingly beautiful and infinitely fruitful of creation—but to a mind as tiny as his own, of madness.

" Are you all right ?" The creature seemed genuinely concerned.

Shand nodded dumbly.

" Now do you see what I meant ?"

" But—" Shand's voice was hollow—" what, with all *that*, are you doing here ? How can *we* concern *you* ?"

" I told you. It was an accident."

" I see."

So it hadn't been an accident on arrival, merely one that happened in passing—in some unimaginable continuum. Shand, as everybody at some time or another, had imagined what a visitor from another world might look like. He had thought it would have powers that would be astonishing—but visible. The very fact that one would be able to arrive would be proof, descending in some fantastic ship.

He could laugh now at such images. Their materialistic nature showed how impossible it was to comprehend the nature and process of a being from another world when it arrived. As now it had arrived. Not on some great mission, to communicate or warn, even to invade—but simply by accident.

" I have offended you," the creature said. " I am sorry. I did not mean to do that. For all the limitations of your kind, you helped me, saved my life. And I will show my gratitude, because there is a community of feeling between all intelligent creatures. But, you see . . . how to explain the gulf between us without hurting your sensibility more ? . . my kind evolved in conditions far different from yours."

" More favourable, you mean ?"

" Not as you would see them. In fact, the absolute reverse. We emerged, not in the warm seas of a bright planet, but among the harsh rocks of an airless world. Life, not matter or the crude explosions of suns, is the dominant function of the universe. It is not dependent on the optimum conditions that obtain on such worlds as this. Here life can teem, its only enemy itself.

" But on a world like the one my kind sprang from the struggle is against all the hostile forces of the universe, unaided except by the first primitive spark of awareness and will to survive. A life form that conquers in *that* environment develops powers that a life form like yours never has to evolve. Now do you see why a world like this cannot be of more than passing interest to us ?"

Shand saw much more. At the back of his mind was a consciousness of infinite rebuff. There was such a thing, he

realised now, as pride of species—a pride in the struggle against all others for lordship of a world.

And now a few words, spoken by an alien something sitting across from him in the guise of a man in a mass-produced armchair, had casually ripped that pride to shreds. Funny—no, anything but that !—that the tearing away of something you never really realised you possessed could leave you feeling so naked.

And more was implicit in the creature's words. Not only that man was less, far less than he thought—*that* could be struggled against, made good— but that the struggle itself was of no avail. Man had been reared in too easy an environment.

But more—and most important of all—Shand was suddenly aware of how greatly he cared. A night and a day and a night ago it would have meant nothing. But now he was not just one man among millions, but Man, his representative, in contact with one of a vastly superior species. So far he had acted in a confusion of compulsion and wonder and that numbness which intervenes against fear. His motivations had been immediate, personal ones. Now, naked and inadequate, he had to use his limited powers to wrest whatever benefit from this contact that he could.

For there was no knowing how long it would last.

" You mentioned gratitude," he said to the creature.

The other smiled. " I did. How do you suggest that I show it ?"

The question thrown back at him, Shand faltered. " I—I don't know. I thought perhaps some discovery, some knowledge—"

The creature nodded. " But what ? It can be terribly dangerous, giving power to a being not qualified to use it. I shall see. Now that I am on this world, I will stay a day or two to survey it. I will decide what I can do—if anything. I will stay here, if that will cause no inconvenience."

" We have a spare room," Shand said. " I can—"

He broke off at the sound of a car. It pulled up at the front gate. He heard voices, then the sound of the car driving away and of footsteps coming up the drive. He went to the door, and opened it.

"Oh—*Jean*," he said, his voice a ragged mixture of nervousness and relief. He was glad that no outsider had come to intrude on the scene. On the other hand, his wife coming back unexpectedly raised other problems.

" Mother recovered." His wife smiled. " I think she felt guilty. When I was a kid she used to—" She was in now. " Oh, you've got company"

" Ah, why, ye—yes. He's staying a few days. Chap I knew years ago at university. He's—er—doing a survey."

Jean gave him a queer look and held out her hand to the visitor. With only a fractional hesitation he took it in his own hand and shook it.

" I'm Jean," Jean said brightly.

" Er—yes, this is Pete . . . . Pete Smith," Shand said. " Well, that's that settled. I think, after all the rushing about I've done the last three days, I could do with a drink."

" Yes, dear," Shand said, then checked. " Ah, I'm afraid we're right out. You see—" He broke off helplessly.

His wife glared at him meaningfully. For the benefit of her guest she smiled. " I meant tea, of course." As she passed her husband on her way to the kitchen she muttered, " I'll see you later."

Later was when they were undressing for bed.

" There's something fishy going on here. Just *who* is this charming friend of yours ? And what—" she crossed to the wardrobe and looked inside— " is he doing with your suit on ? I've never heard you mention a Pete Smith. And what's this survey he's making ? For Alcoholics Anonymous ?"

The tension of Shand's past thirty-six hours broke—in laughter. The incongruity of their alien visitor and his wife's archetypally wifely questions was too comic.

" I can't see anything to laugh at."

" You will when I tell you," he said. " But that won't be for a day or two. Just contain your curiosity, my chick."

And he stopped laughing. Just *what* would their visitor do for the world ?

The next day their visitor ducked out of breakfast and didn't show up again until near midnight.

" I'd like to speak with you," the visitor said to Shand, and beckoned toward the door. Shand followed him, conscious of his wife's suspicious look boring into his back.

The night was clear and starry, the moon nearly full.

" Your world," said the visitor, " is of a familiar pattern. I see minds awakening to the forces of the universe—here and there in unsteady command of them, at other points dangerously near losing that command. I see thousands of millions of creatures locked in a chaotic network of forces and motives.

I should place your whole culture as in a state of impending explosion. To give gifts, any gift at all, would be impossible. The balance is unstable enough."

The creature sighed. "One man would use it against another, as individual men or groups of men have always used their gifts. The only possible gift I could give would be a cure —or an attempt at one. A cure for the instability of your culture." He shook his head slowly. "*Power*—that is the focal point of it. Taking you as typical of your kind—having known you for a little time now—I can see that one man on his own is not destructive. But in the mass, with the powers your species has discovered, you become dangerous to each other."

The pair of them, human and alien, walked along under the stars in silence. There was nothing Shand could find to say. While the creature was obviously grappling with the problem it had set itself.

Suddenly the alien said, as if talking to himself, "Yes, I think it can be done. A force line in sub-space could touch all points. Momentary contact with a matrix, then—" He stopped. "Forgive me. Just a question of engineering. Yes, I think it can be done."

"But—*what*?"

"That I must leave until I am sure. In any case, you will find out."

The next morning their visitor again left early.

Shand knew that his wife's curiosity was approaching boiling point. So was his own need to tell another person of the alien forces that had found a focus under the normality of their roof. He told her.

"You're crazy," she said when he had finished.

"Do madmen usually concoct a story like that?"

"Then *he* is," she said with feminine illogic.

"But I *saw* it. It happened to *me*. He may look like a normal human being, but he didn't when I opened the door to him—to it. I didn't dream it. It happened. As to just how far his powers stretch, that's another thing."

Shand could see that it was too much for his wife to bring into her compass. It was within a much narrower orbit that she made her choice. She knew her husbsnd. If he wasn't speaking the cold truth, he would be acting in a way that to her would have been more alien than any visitor from another world could have been. Her husband didn't take in tramps, give them a suit,

feed them every drop of liquor in the house and—on top of everything—concoct a ridiculous story to explain his doing it. *And* expect her to believe it.

Her mind leapt to the instinctive corollary. " Say he's lying ? Say he's come to destroy us ?"

Shand smiled. " If he had, do you think he'd have told me so much ? He needed me once only, on as primitive and basic a level as a sick animal needing salt. After that he didn't need to tell me a thing. As it was, he let me have a look into his mind. And I'd swear there's no hostility there."

" All the same . . . I'm frightened. Shouldn't we get in touch with the police or something ?"

Shand smiled again, patiently. " My dear, I don't think a whole army would be much use against *him.*" His brow furrowed. " But I'd give my right arm to know just what he's going to do."

Their visitor returned that evening.

" Thank you," he said simply. " I shall be leaving now."

Shand stared at him. " But I thought you . . . I mean, how about—"

The visitor smiled slightly. " It has been done."

" But what ?"

" I told you you would find out. It will doubtless cause some upheaval. Certain functions will be cancelled because of lack of extra capacity, but that will settle out. And it will be infinitely preferable to the alternative that faced your species—self-destruction."

Shand felt suddenly angry, like a child faced with the incomprehensibilities of grownups. " What's all that gobbledygook ? What have you done ? If you—"

But Shand, and his wife, were gaping at nothingness.

The creature had gone—back to whatever continua it normally inhabited. No shining ship, thought Shand almost disappointedly, no crackling of blue lights to impress the natives.

" It was true then," his wife breathed.

" The radio," Shand said and turned it on feverishly. The home station was giving music. He twirled the knob. Every station, home and abroad, seemed to be giving music. No voices jabbered of sudden change.

Had the creature only been joking, for some cosmic and unguessable reasons of its own ? The evening before, it had

talked of power, and Shand had thought since then that it might have been referring to somehow nullifying electrical and atomic power. Hadn't it spoken of men's misuse of power? Well, electricity was working. Perhaps it had only meant atomic power. If so, perhaps that wouldn't be a bad thing. Anyway, it wouldn't be immediately noticeable, would it? A matter of a few power stations failing. There wouldn't be a public emergency.

His hand had returned the radio dial to the home station. Suddenly the music stopped. Shand held his breath. The announcer said calmly, " We are playing a programme of gramophone records in place of the advertised play, *The Importance of Being Earnest*, which cannot be performed owing to circumstances beyond our control. Next we have Debussy's *Clair de Lune*, played by—"

Shand switched off and turned to his wife. " Something *is* up. But how not being able to perform *The Importance of Being Earnest* fits in I don't know."

" That announcer's voice seemed familiar," was all his wife said.

Shand didn't hear her. " Wait here. I'm going to the Wilkinses. They've got TV. Perhaps there's something about it on that."

" I'm coming too," his wife said and grabbed a coat.

The Wilkinses, Mr. and Mrs. and a son and daughter, were their nearest neighbours, half a mile down the lane. The Shands reached the door of their cottage, breathless.

Shand raised his hand to knock. But their coming had evidently been seen. The door opened.

And there, standing in the doorway, were the occupants of the Wilkins house. Only—

They stood the four of them, gaping at Shand and his wife. And Shand and his wife gaped back, their mouths open even wider.

" Who—who are you?" Shand stuttered at last.

" I'm still Bert Wilkins," the man said, his voice horribly flat. " At least, I think I am. We were just coming over to see you. We only found out ten minutes ago."

" We were watching the telly," his wife said dully.

" Then there was something on TV about it?"

" About what? *This*?" Her hand made ineffectual gestures. " How could there be? No, just a play."

" Live ?" The implications of what had happened were just beginning to filter into Shand's numbed brain.

" Eh ?" said the woman.

" Recorded," said her husband. " We switched off when it finished and turned the lights on, and—"

So that was why the play had been dropped from the radio, Shand thought. On short notice there was nothing they could have done about that. And it showed that this wasn't just a local phenomenon.

Now Shand understood what their visitor had meant about power. He hadn't meant the kind you could throw along wires or across space. Heaven only knew how he had accomplished it. What had he said about a line in space touching all points ? And a matrix ? Now Shand knew what the matrix had been. And why.

He started to laugh at the enormity of it. The creature had wanted to show his gratitude. He had seen the root trouble of the world—the misuse of power—and he had corrected it. Logically and with the best of intentions. But for all its tremendous intelligence and powers, for all its being able to assume a man's form and language and habits, it couldn't identify with a life-form that by its own statement was wholly different from it in evolution.

Oh yes, it had said blandly that there would be upheaval. Some functions would be cancelled because of lack of capacity . . . wasn't that what it had said only a short time before it had departed ? Did that mean there would be a cut-off in all men, whatever their training or knowledge or special skills, at the limits of the one chosen for matrix ? Evidently.

But whatever technical difficulties there would be were minor compared to the shock everyone was going to have when they realised just what had happened. Their visitor had certainly removed the root cause of man's inhumanity to man. Just about as quietly and ruthlessly as a flatiron ironing out the wrinkles in a piece of cloth. And just as blindly.

This Shand thought, and knew there would be much more to think about, as he stood there on the Wilkins' porch, looking at a Mr. Wilkins who was a replica of himself, a Mrs. Wilkins who looked just like Jean, a daughter who looked just like a younger version of Jean, and a boy who looked exactly like a photograph of himself at the age of twelve.

Arthur Sellings

WHO'S THERE?

Although Arthur Clarke is now most noted for his science fiction novels, technical articles on astronautics, and non-fiction works on skin-diving, we should not lose sight of the fact that it was in the short story that he originally made his name as a writer. Refreshingly he returns to this medium with a brand new story for your reading pleasure.

By ARTHUR C. CLARKE

When Satellite Control called me, I was writing up the day's progress report in the Observation Bubble—the glass-domed office that juts out from the axis of the Space Station like the hub-cap of a wheel. It was not really a good place to work, for the view was too overwhelming. Only a few yards away I could see the construction teams performing their slow-motion ballet as they put the Station together like a giant jig-saw puzzle. And beyond them, twenty thousand miles below, was the blue-green glory of the Full Earth, floating against the ravelled star-clouds of the Milky Way.

" Station Supervisor here." I answered. " What's the trouble ?"

" Our radar's showing a small echo two miles away, almost stationary, about five degrees west of Sirius. Can you give us a visual report on it ?"

Anything matching our orbit so precisely could hardly be a meteor ; it would have to be something we'd dropped—perhaps an inadequately-secured piece of equipment that had drifted away from the Station. So I assumed ; but when I pulled out my binoculars and searched the sky around Orion, I soon

found my mistake. Though this space-traveller was man-made, it had nothing to do with us.

"I've found it," I told Control. "It's someone's test satellite—cone-shaped, four antennas, and what looks like a lens system in its base. Probably U.S. Air Force, early 1960's, judging by the design. I know they lost track of several when their transmitters failed. There were quite a few attempts to hit this orbit before they finally made it."

After a brief search through the files, Control was able to confirm my guess. It took a little longer to find that Washington wasn't in the least bit interested in our discovery of a twenty-year old stray satellite, and would be just as happy if we lost it again.

"Well, we can't do *that*," said Control. "Even if nobody wants it, the thing's a menace to navigation. Some one had better go out and haul it aboard."

That someone, I realized, would have to be me. I dared not detach a man from the closely-knit construction teams, for we were already behind schedule—and a single day's delay on this job cost a million dollars. All the radio and TV networks on Earth were waiting impatiently for the moment when they could route their programmes through us, and thus provide the first truly global service, spanning the world from Pole to Pole.

"I'll go out and get it," I answered, snapping an elastic band over my papers so that the air-currents from the ventilators wouldn't set them wandering around the room. Though I tried to sound as if I was doing everyone a great favour, I was secretly not at all displeased. It had been at least two weeks since I'd been outside; I was getting a little tired of stores schedules, maintenance reports, and all the glamorous ingredients of a Space Station Supervisor's life.

The only member of the staff I passed on my way to the air-lock was Tommy, our recently acquired cat. Pets mean a great deal to men thousands of miles from Earth, but there are not many animals that can adapt themselves to a weightless environment. Tommy mewed plaintively at me as I clambered into my spacesuit, but I was in too much of a hurry to play with him.

At this point, perhaps I should remind you that the suits we use on the Station are completely different from the flexible affairs men wear when they want to walk around on the Moon. Ours are really baby spaceships, just big enough to hold one

man. They are stubby cylinders, about seven feet long, fitted with low-powered propulsion jets, and have a pair of accordion-like sleeves at the upper end for the operators arms. Normally, however, you keep your hands drawn inside the suit, working the manual controls in front of your chest.

As soon as I'd settled down inside my very exclusive space-craft, I switched on power and checked the gauges on the tiny instrument panel. There's a magic word FORB that you'll often hear space-men mutter as they climb into their suits ; it reminds them to test Fuel, Oxygen, Radio, Batteries. All my needles were well in the safety zone, so I lowered the transparent hemisphere over my head and sealed myself in. For a short trip like this, I did not bother to check the suit's internal lockers, which were used to carry food and special equipment for extended missions.

As the conveyor belt decanted me into the airlock, I felt like an Indian papoose being carried along on its mother's back. Then the pumps brought the pressure down to zero, the outer door opened, and the last traces of air swept me out into the stars, turning very slowly head over heels.

The Station was only a dozen feet away, yet I was now an independent planet—a little world of my own. I was sealed up in a tiny, mobile cylinder, with a superb view of the entire Universe, but I had practically no freedom of movement inside the suit. The padded seat and safety belts prevented me from turning around, though I could reach all the controls and lockers with my hands or feet.

In space, the great enemy is the Sun, which can blast you to blindness in seconds. Very cautiously, I opened up the dark filters on the "night" side of my suit, and turned my head to look out at the stars. At the same time I switched the helmet's external sunshade to automatic, so that whichever way the suit gyrated my eyes would be shielded from the intolerable glare.

Presently, I found my target—a bright fleck of silver whose metallic glint distinguished it clearly from the surrounding stars. I stamped on the jet control pedal, and felt the mild surge of acceleration as the low-powered rockets set me moving away from the station. After ten seconds of steady thrust, I estimated that my speed was great enough, and cut off the drive. It would take me five minutes to coast the rest of the way, and not much longer to return with my salvage.

And it was at that moment, as I launched myself out into the abyss, that I knew that something was horribly wrong.

It is never completely silent inside a spacesuit ; you can always hear the gentle hiss of oxygen, the faint whirr of fans and motors, the sussuration of your own breathing—even, if you listen carefully enough, the rhythmic thump that is the pounding of your heart. These sounds reverberate through the suit, unable to escape into the surrounding void ; they are the unnoticed background of life in space, for you are aware of them only when they change.

They had changed now ; to them had been added a sound which I could not identify. It was an intermittent, muffled thudding, sometimes accompanied by a scraping noise as of metal upon metal.

I froze instantly, holding my breath and trying to locate the alien sound with my ears. The meters on the control board gave no clues ; all the needles were rock-steady on their scales, and there were none of the flickering red lights that would warn impending disaster. That was some comfort, but not much. I had long ago learned to trust my instincts in such matters ; it was their alarm signals that were flashing now, telling me to return to the Station before it was too late . . .

Even now, I do not like to recall those next few minutes, as panic slowly flooded into my mind like a rising tide, overwhelming the dykes of reason and logic which every man must erect against the mystery of the universe. I knew then what it was like to face insanity ; no other explanation fitted the facts.

For it was no longer possible to pretend that the noise disturbing me was that of some faulty mechanism. Though I was in utter isolation, far from any other human being or indeed any material object, I was not alone. The soundless void was bringing to my ears the faint but unmistakeable stirrings of life.

In that first, heart-freezing moment it seemed that something was trying to get into my suit—something invisible, seeking shelter from the cruel and pitiless vacuum of space. I whirled madly in my harness, scanning the entire sphere of vision around me except for the blazing, forbidden cone towards the Sun. There was nothing there, of course. There could not be —yet that purposeful scrabbling was clearer than ever.

Despite the nonsense that has been written about us, it is not true that spacemen are superstitious. But can you blame me if, as I came to the end of logic's resources, I suddenly remem-

bered how Bernie Summers had died, no further from the Station than I was at this very moment?

It was one of those "impossible" accidents; it always is. Three things had gone wrong at once. Bernie's oxygen regulator had run wild and sent the pressure soaring, the safety-valve had failed to blow—and a faulty joint had given way instead. In a fraction of a second, his suit was open to space.

I had never known Bernie, but suddenly his fate became of overwhelming importance to me—for a horrible idea had come into my mind. One does not talk about these things, but a damaged spacesuit is too valuable to be thrown away, even if it has killed its wearer. It is repaired, renumbered—and issued to some one else . . .

What happens to the soul of a man who dies between the stars, far from his native World? Were you still here, Bernie, clinging to the last object linked to your lost and distant home?

As I fought the nightmares that were swirling around me—for now it seemed that the scratchings and soft fumblings were coming from all directions—there was one last hope to which I clung. For the sake of my sanity, I had to prove that this wasn't Bernie's suit—that the metal walls so closely wrapped around me had never been another man's coffin.

It took me several tries before I could press the right button and switch my transmitter to the emergency wavelength. "Station!" I gasped, "I'm in trouble! Get records to check my suit history and—"

I never finished; they say my yell wrecked the microphone. But what man, alone in the absolute isolation of a spacesuit, would *not* have yelled when something patted him softly on the back of the neck?

I must have lunged forward, despite the safety harness, and smashed against the upper edge of the control panel. When the rescue squad reached me a few minutes later, I was still unconscious, with an angry bruise across my forehead.

And so I was the last person in the whole satellite relay system to know what had happened. When I came to my senses an hour later, all our medical staff was gathered around my bed, but it was quite a while before the doctors bothered to look at me. They were much too busy playing with the three cute little kittens our badly misnamed Tommy had been rearing in the seclusion of my spacesuit's Number Three Storage Locker.

Arthur C. Clarke.

New writers, new ideas—and this month we introduce both in brilliant juxtaposition. Mr. Kapp's approach to the Superman theme is novel and rewarding and carries a deep underlying current of philosophy, as indeed it should—his central character happens to be a philosopher

LIFE PLAN

By COLIN KAPP

I

Each of the trio regarded the situation in a different light. The scientist thought it an unwarranted waste of time at a period when his services were required elsewhere. The doctor was frankly sceptical but had agreed to come rather in the manner of a drowning man clutching at a straw. The military man, author of the unorthodox expedition, sensed a perverse humour in the situation. Only his reputation and superior standing in the Security Service had influenced the others to accompany him. Now, as he flung the car mile after mile between dark country hedgerows, his companions grew convinced that their assent was perhaps a little ill considered.

" Look here, Jan," said Professor Barr, " how much farther is this wretched place ?"

Colonel Jan Stormhaven chuckled. " About seven miles as the crow flies."

" Then if you don't mind I'd prefer to get out and continue by crow. That bird's contempt for English roads must certainly

equal your own, but he has more comfortable methods of negotiating corners."

Stormhaven chuckled again.

"I don't see," continued Barr, "why we couldn't have arranged to meet this Passover fellow in London."

"My dear fellow," said the colonel, "nobody ever arranges for Seroia Passover to go anywhere. The Government has decided that we take our business to him."

"I still fail to see how the services of Mr. Passover have any bearing on security control."

"You will see," said the Colonel. "One of the lesser known functions of BurSec is the provision of a specialised advisory service which holds no risk of security leakage. To this end we have assembled a number of top-line consultants in various fields who act as advisers and arbiters. This gives us a mechanism whereby highly specialised knowledge and guidance is made available to classified projects without entailing a security risk. The more peculiar and obscure problems invariably go to Seroia Passover. He had a positive genius for dealing with the improbable."

"It strikes me as being damned irregular," said Barr.

"A little, perhaps, but very effective. I think you'll like Passover. He's quite a character."

The house, if such it was, lay fully a mile from the road down a narrow private drive. Stormhaven swung the car to a halt, and the party descended into the sweet smell of dank pine. The light from the ancient lamp illuminating the porch glinted dully on the polished brass plate.

SEROIA PASSOVER
CONSULTANT PHILOSOPHER

"Heaven preserve us!" said Professor Barr with some feeling.

Passover himself opened the door to them. At first sight he was not a man to create a lasting impression. Slightly built and of indeterminate age, one might have met with him a dozen times before—and not remembered. It was only when one had talked with him for a while that the quiet smile and the knowledgeable eyes began to portray the legend that was Seroia Passover; for Passover was one of a kind and self-advertisement was no part of his ambition.

A meal was awaiting them in the refectory hall, a shade of the days when monastic scholars had blessed bread around the

self-same table, and when they had dined Seroia led them to his book-lined study.

" Now to business, gentlemen. I understand that you have a problem which carries a Full Security rating. As Colonel Stormhaven will confirm, it is quite in order to discuss the matter fully whilst within these walls. It is only fair to warn you that a full recording of our conversation is being made for future reference. Colonel ?"

" This is an unusual case with frightening implications," said Stormhaven. " Have you ever heard of something called Life Plan ?"

Passover put his knuckles to his brow.

" An odd question. It was a type of mind training course originated by Steiberg-Williams. It had the reputation of being very effective but unusually difficult to apply. I gather it died a natural death about fifty years ago."

" Not quite," said Stormhaven, " it was resurrected by Dr. Napier here. It turned out to be a killer."

" So ? Then I think I'd better have the facts from the beginning."

Professor Barr looked up. " As you doubtless know the O.N.R. laboratories are concerned with research into fundamental physical principles. The spearhead of our movement is a foreward-thinking group which initiates the new lines of investigation. I think you will appreciate that the group essentially requires minds of the very highest order—near genius level, in fact."

Passover nodded.

" Well, in spite of the supreme national importance of the work, we are completely unable to find sufficient minds of the right type to bring our group up to strength. High intelligence, adequately trained, does not necessarily produce a person capable of thinking his way into the region of the yet unknown. Yet, the value of the type we are looking for is such that one intuitive spark may easily replace ten years slogging in the laboratory."

" I am familiar with the problem."

" When we heard that Dr. Napier was working on methods of increasing the effective ability of the mind we commissioned him to study the possibility of training good minds up to the level we required. His first reports were promising, then came three suicides, and now Dr. Napier refuses to continue the work at all."

Napier scowled. He had said little or nothing since entering the building, and had viewed everything and everyone with a taciturn disapproval which was largely an expression of his own inner discontent.

" Don't think I took that decision lightly," he said. " I have seen things which I had not believed possible and I have been the cause of the death of three very brave men. As a doctor I cannot continue to wilfully condition students to self-destruction. First I must think and investigate more carefully."

" How does Life Plan fit into this ?" asked Passover.

Napier looked up. " The O.N.R. problem resolved itself into two factors, intelligence and effectiveness. We had either to make a high intelligence more effective or else make a truly effective mind more intelligent. The former was obviously the more practical approach. Unfortunately it proved to be a singularly unpromising piece of research.

" Something more fundamental was required. We had studied for many years the paradox of genius but the full concept was still elusive. Under the impetus of having a practical application we began searching anew for information which would give us a lead. One man, a reputed near-genius, previously overlooked, was Steiberg-Williams. We obtained his treatise on Life Plan and gave the method a trial. To our astonishment it worked."

Passover sat up sharply. " You mean it actually increased the effective capacity of the mind ?"

" More, it showed a slight but definite increase in natural intelligence."

"I'll be damned !" said Passover unprofessionally.

Napier coughed discreetly. " We re-developed Life Plan into a workable tool. In its old form it was muddled and inconsistent. Using advanced laboratory techniques we extended and concentrated the essences of the method to give us a beautifully effective little process with a nasty and unsuspected sting in its tail."

" Such as ?"

" It drives people mad."

Passover was thoughtful. " As I recall," he said, " Life Plan is something to do with establishing associative chains of thought and then integrating each stage of every chain with each stage of the others."

" That is the basic idea, and an obviously impossible thing to do because of the multi-billions of combinations and permutations of sense concepts involved. Oddly enough, the obvious is incorrect. There is reason to believe that after a short period of directed association-integration practice the mind picks up the idea for itself and carries on the process at various levels in the subconscious.

" That is the sting. The re-organisation of sense concepts is a potent factor in the clearing of mental blocks. As the blocks start to clear, the effective capacity of the mind increases and the subconscious becomes more active. Increased activity promotes the effectiveness of Life Plan and contrariwise. The sum total is a mental chain-reaction which completely blasts to pieces the normal pattern of organised thinking."

" Is that fact or supposition." asked Passover.

" That is supposition. The facts are even more alarming. After an initial period of Life Plan there appears to be a genuine trend towards the development of an optimum human character-pattern. However, after reaching an arbitrary point which we call *Mx*, there is a complete reversal of the character trend. The subject becomes progressively more sullen, secretive and anti-social ; moral values deteriorate and wanton cruelty and power-seeking become predominant. It is as if there were some strange twist in Life Plan which ultimately warped the character backward into bestiality and finally self-destruction."

Passover was making rapid hieroglyphic notes on a scratch pad.

" Go on."

" I had three students started on our own version of Life Plan. At first they all progressed favourably in intelligence, effectiveness and character development."

Napier reached for his case and withdrew some papers.

" This graph records the I.Q. of one of the students. It is similar to those of the other two. As you can see we started with an I.Q. of one-hundred-and-twenty-three. By the third month we recorded an I.Q. of one-hundred-and-sixty-seven, and by the sixth month it was two-hundred-and-twelve."

Passover sharpened his pencil.

" You will note," said Napier, " that the increase is approximately linear up to the maximum point and then flattens abruptly. That appears to be the individual saturation point, the ceiling of development. One detail is lacking—it just isn't true."

" No," said Passover, " I didn't think it would be."

Napier ignored the interruption. "We had expected to reach a natural saturation point, but this was lower than I had anticipated. On a wild hunch I threw a full scale psychological test at them, forcing the pace to an impossible extent. They covered admirably but the result was inescapable. We had bred ourselves three very malignant super-geniuses. By our standards they were no longer quite human."

" What sort of I.Q. measurements did you obtain ?"

" Not measurable, but certainly in excess of three-hundred."

" What happened then ?" asked Passover.

" The worst. They grew progressively more vicious, cunning and inhumane. They became paranoic animals with ranges of emotion alternating between explosive violence and apathy bordering on coma. One of them, Hussey by name, attacked and injured three of the staff and then threw himself from a window. The other two committed suicide by methods indicative of extreme despair. As I said before, Life Plan drives people mad."

" I see," said Passover. " I take it that O.N.R. still requires the work to continue."

" Desperately," said Barr. " We face extreme competition from nations who have a far larger population from which to choose their top researchers. Either we find our men or we become a fifth class industrial power in a matter of years."

" Colonel Stormhaven, you carry the directive from the General Staff, what sort of powers are accorded to me in this matter ?"

Stormhaven shrugged. " We are completely in your hands, Seroia. As usual we only turned to you as a last resort. The situation is indeed as desperate as Professor Barr has said and as dangerous as that indicated by Doctor Napier. The plain truth is that we cannot wait ten years for the evolution of harmless Life Plan. You may write your own ticket."

" Very well," said Passover, " I accept the case, but on one condition only. Events may force me to uphold Dr. Napier's decision. If that happens I can permit no appeal against my verdict. To that end I must have complete control over all Life Plan formula and processing data from this moment onward."

Stormhaven's eyes narrowed. " You're on to something, Seroia !"

" Something bigger than hell and twice as ugly !"

" Very well," said Stormhaven, " I won't ask for more at the moment. Have you any idea of what services you might require ?"

" Initially I shall need only the co-operation of Dr. Napier. Perhaps later I shall be calling on you, Jan, for a little further assistance. In the meantime I hope that Dr. Napier will consent to remain here as my guest for a few days. There is much I need to know."

" I was not prepared for a long visit," said Napier dubiously.

" No," said Passover, " but I was. Come let us show these gentlemen to the car."

II

The next morning, having had time to take stock of his surroundings, Napier was beginning to acquire a new respect for his unorthodox host. He found himself accomodated in a well-appointed suite of rooms in a wing of a high and rambling building which once had been part of a monastery. The old structure of the building remained, painstakingly restored to preserve the atmosphere of quietude and dignity, and yet with subtle skill had been added features of contemporary comfort which revealed a marked awareness of the times. The sense of balance was perfect, he reflected, and withdrew his mental reservation that Passover was a faddist or a crank.

He found his host at work in the library.

" Good-morning !" said Passover. " I hoped we might continue our little discussion."

" If you wish," said Napier, " but I have very little to add. I must make it plain, however, that I strongly disapprove of the way this matter is being handled."

" Just so," said Passover. " You consider it a clinical matter and would prefer a medic to a philosopher."

" Precisely ! You must excuse my directness, but I cannot see how you are in any way qualified to take charge of this investigation. I do not believe there can be any such thing as a consultant philosopher."

" Why not ? You have consultants in most other fields of human endeavour.

" True, but they are men with specialist knowledge for practical application. I can see I might consult you if I were

doing some research on Kant or Diogenes, but I fail to see the practical application of philosophy in this day and age."

" Then," said Passover, " you make the mistake of confusing philosophy with the history of philosophy. Our humble art is now an exact science, and we are a specialist organisation dispensing services of an extremely practical nature."

" I stand rebuked but unconvinced," said Napier with courteous humour.

" We shall convince you, never fear. We are well qualified to ply our trade. It is our function to doubt the obvious and to re-examine the impossible."

Napier smiled. " Let me rephrase my dilemma. As a business organisation what exactly do you sell ?"

" We sell advice and philosophies, Dr. Napier, personal philosophies. The stoics had a saying : ' men are tormented by the opinions they have of things, rather than by the things themselves.' We undertake to provide a philosophy tailored with minute precision according to the needs and character of the individual, so to correct his opinion of the world that he may live in harmony both with himself and with his environment. What could be more practical than that ?"

" As a psychiatrist," said Napier, " I beg leave to doubt the effectiveness of your methods."

" Since you have canalized your understanding into so small a compartment I am not surprised we disagree," said Passover. " I suspect that you will also be in opposition to my approach to the Life Plan investigation. I want you to know that, failing your co-operation, we are perfectly able to go ahead without you."

" Just how do you intend to approach the investigation ?"

" Simply," said Passover, " I want you to put another student through Life Plan processing."

Napier frowned. " Of course I refuse. You are at liberty to do as you wish, since it is no longer my problem. I will give you what help I can, and my complete documents are at your disposal. Further than that I will not go. You cannot ask me to drive another man insane."

" I don't think your documents can tell me anything I do not already know. What I need is what you have not written—the nature of *Mx*."

" So help me, Seroia, I have nothing more to tell !"

" Indeed !" said Passover. " Then I fear I shall have to discover it for myself."

Two days later Passover was ready to make a move.

" Trainee Honeywell to see you, Seroia. You sent for him."

Passover switched the communicator. " Send him in, please."

Peter Honeywell, third-year trainee philosopher, stood with deference by his superior's desk until the latter had completed some complex notations on a pad.

" Sit down, Peter," said Passover at last. " I want to talk about Napier and the O.N.R. dispute."

" As you wish," said Honeywell. " I've just been through the tape transcriptions of the interview. There's more in this than appears at the surface."

" How so ?" asked Passover gently.

" Napier is a top line researcher. He knows his subject inside-out and had enough courage and imagination to attempt the obviously impossible. Yet now, because of an admittedly serious setback, he abandons direct research in favour of consideration and meditation. I submit that this is not a typical action pattern for the man. I think he's hiding something."

" Such as ?"

" I don't know. I checked back on Steiberg-Williams' work, and the fundamental principles appear sound and stable. I'd be willing to swear that no extension of Life Plan could possibly produce the character distortions obtained by Napier."

" From which you deduce ?"

" I deduce that Life Plan triggers off some other factor, as yet unknown, which weighs in and completely foxes the results. If this is so then Napier could not possibly have missed it. The question is why is he unwilling to tackle the problem."

" I think we may have a clue there," said Passover. " I've just received a voice-analysis report on Napier from the laboratory. Something sticks out like a sore thumb. Our Dr. Napier is a very frightened man."

" But why ?" asked Honeywell in puzzlement.

" At a guess I would say that he's had a very severe shock in the not too distant past. The analysis trace goes deeper than anything I've ever seen before. It would take rather more than three suicides to produce a psychic disturbance extending so far below the conscious threshold. Whatever produced that shock was so big that it struck not only at the intellect but penetrated right down into the primitive fundamentals of the mind."

Honeywell winced.

" Napier isn't trained to handle experiences like that," said Passover. " They're completely out of his class. Fortunately he withstood the shock by repression of all but the most innocuous part. Somewhere in Napier's mind is the secret of the mysterious *Mx*. The pity of it is it would probably kill him if we tried to stage a recall. But even so he knows more than he's ready to admit."

" But what a question !" said Honeywell. " If a man is bold enough to attempt to liberate the entire latent potential of the mind what else is there left in the cosmos which could turn him so deftly from his task ?"

" That," said Passover, " is exactly what I propose to find out. I want you to take on the job."

" Me ?"

" Yes, I want you to take the Life Plan training."

Honeywell sat silently for a moment, weighing the prospects.

" I can't refuse, of course, but in the light of existing evidence is it a safe risk to take ? Research I am trained for, but martyrdom is a little out of my line."

Passover smiled a sad, tired smile. " You may refuse if you wish but I shall only send someone in your place. In this problem the difference between success and failure is purely a conscious choice. Therein lies the danger. Some people prefer martyrdom."

" I'll go," said Honeywell.

" Good ! Now consider this. The key to the whole problem lies in what went on inside the minds of the Life Plan students. We have to find what the *Mx* factor is and how it operates. The speed with which you can analyse and define *Mx* is very critical, indeed your life may depend on it. We cannot combat *Mx* until we know what it is."

" What is the estimate of personal risk ?"

" Very high, I'm afraid. You have a high stability factor but Life Plan has a unique attraction of its own."

" I don't think I understand."

" I think you do," said Passover, and his voice was scarcely audible. " Life Plan is the birth of Superman."

" You're a curious bird !" said Napier to his visitor. " You never take no for an answer."

" Life," said his guest, " is too complex to be answered in monosyllables. I still want you to conduct this experiment."

" If I agree to take Honeywell," said Napier, " how can you be sure that he won't follow Hussey and the other two ?"

" I cannot answer a problem before I know it's nature. You will have to trust me. Honeywell knows all the facts on record and he is well suited to survive the ordeal if anyone can."

" And if nobody can survive it ?"

Passover shrugged. " We shall see. You and I are both adept at fishing in dark waters, but I more so than you. Thus I have a better idea of what monsters may rise up from places out of sight. That's why I know you are not being quite honest with me."

" You speak in riddles," said Napier abruptly. " What are you trying to say ?"

" I'm saying that you have a very good idea what the *Mx* factor is."

" I've told you all I know."

" I think not. We have been doing some checking. Hussey was your assistant for nearly two years. I find it hard to believe that he could drive himself to the pitch of self-destruction without you learning something of the nature of the conflict. Remember, Dr. Napier, you are a specialist and a highly trained observer."

" I have nothing to say."

" But you have a suspicion ?"

" Blast you ! Yes, I have a suspicion, a suspicion so wild and terrifying that I am unable to explore it. Can't you see I'm afraid, Seroia. I don't want to know what *Mx* is ! I warn you that once you start you cannot hope to save the boy. There is no turning back. You do not realise the nature of this thing you contemplate."

" Let us say I am suitably forewarned," said Passover. " When does *Mx* begin to take effect ?"

" Not before the third month, I think. The exact timing will vary according to the receptivity of the student."

" How does it show itself ?"

" It is difficult to detect because it is the essence of deception. It is quite obvious at the sixth month with symptoms of paranoia, viciousness and depression which may deepen into coma. Psychologically the student is completely responsible for his actions. This is no abnormality, but a complete change of nature."

" One further question," said Passover. " Are you really willing to let us fight this thing alone ?"

Napier paused for a long period in an obvious agony of indecision. " No," he said at last, " I will conduct the Life Plan processing as far as the onset of *Mx*. That is as far as my conscience will allow. The rest is up to you. Make no mistake, Seroia, a man in such mental agony is no easy sight. I hope you do not regret this crime you contemplate."

The decision seemed to ease his mind. He poured drinks from the shaker and, having drunk, he relaxed with a wan smile.

" I had a dream," he said, " that I could liberate the other four-fifths of man's abilities, sharpened and tuned to the finest pitch, perhaps to establish the beginning of an age of reason. It is a high irony that having released the power that is inherent in the mind we find that man himself is unable to contain his own potentialities. Where did I go wrong, Seroia ?"

" I don't know yet," said Passover, " but I wish you had come to me in the beginning."

" Why so ? The problem was psychological not philosophical."

" So ?" Passover smiled. " Let me point out that you were trying to liberate not Homo Sapiens but Homo Superior. Did you ever stop to ask yourself what a few superman could do to a world like ours ? It is purely wishful thinking to expect that Homo Superior need exhibit all or any of the virtues so cherished by mankind. There is nothing in any logic which decrees that he shall not be a brilliant sadist or an intellectual mass-murderer. Intellect is power, the ability to shape destiny to the whim of whatever desires predominate It would be only too easy to establish a superior hierarchy exercising a tyranny blacker and more irrevocable than anything in the history of the world."

" Yet with that knowledge in mind you still intend to continue ?" asked Napier.

" Certainly. One cannot point to a page in human progress and say : ' We will stop there.' We must continue because it is the nature of our kind. However that does not preclude our making certain safeguards in the name of self-preservation."

" Seroia, you are either a fool or a very clever man. Why can't you take my word for it that this thing is better left alone."

" When a philosopher becomes afraid to follow knowledge then, by that very act, he ceases to be a philosopher ; not only does he betray his calling but he also betrays all those who have faith in him. What manner of man shall lead in paths a philosopher dare not tread ?"

III

Five months had tempered the year's first winds into May mildness and the promise of an early summer. To Frog the endless change of the seasons was a constant source of delight and amazement. With an observer's trained and practised eye he had noted every living change from twig to bud to leaf and flower.

At this minute, however, the whims of nature were a caprice without moment. The object of his attention was a tall and awkward youth with curiously dark and haunted eyes. The youth was prodding something with a stick, and looked round in guilty confusion as Frog came crashing up the woodland track.

" What did you have to hit him for ?" asked Frog. " He was doing no harm."

He dropped to his knees and examined the small dead creature on the path.

" I don't like things which move too quickly," said the youth, his dark eyes full of some deeper agony. " It has no right to move so quickly."

He gestured as if to imply a world of thought which common words had no power to convey. " I was afraid," he added as an afterthought.

Frog said nothing, but scraped a rough grave in the light leaf-mould and buried the creature with the toe of his boot. " This is it, Peter," he said finally. " Now we know what we're in for."

The youth looked back at him as if from another world, at first uncomprehending and then with resignation.

" This is it," he said, and followed Frog slowly back down the path and into the dell beyond.

Passover arrived within the hour. He listened patiently to Frog, cross examined Napier with merciless speed and precision and then directed his attention to Honeywell.

" I hope you appreciate what you are doing," he said.

Honeywell watched him through dark, sad eyes. " I think I do, Seroia."

" You realise you have already passed the point of no return ?"

" Yes."

" Up to this stage we might have saved you. You knew what was coming, you realised it's nature, yet you told us nothing. Tell me, Peter, why did you choose to betray me ?"

" Most of my life," said Honeywell, " I have lived in the shadow of your influence. I don't complain. You were understanding, inspiring, magnificent ; thus you were the most successful and terrible of tyrants. There is no bondage so irrevocable as that which provides in full measure for body, mind and spirit. But I am not a serf, Seroia. I am a rebel and can only suffer so much kindness. There was only one way to escape and that was to rise above you and everything you stood for. I had to rise like an eagle high up where even you could not reach."

" Or down," said Passover, " where even I dare not tread."

Honeywell contemplated some inner misery of his own devising. " Or down," he said.

" Have you nothing else to say to me, Peter ?"

" Nothing. This is the first time in my life that I have made a significant action which is not what Passover wants but what Honeywell chooses."

" I'm glad you feel that way," said Passover very softly indeed, " because it makes it easier to say this. You see, Peter, I betrayed you. From the moment you started Life Plan the onset of *Mx* was inevitable. You never had a choice."

If Honeywell heard at all he made no sign, seemingly preoccupied with private conflicts. Passover rose and left the room silently. Frog met him outside.

" How did he take it, Seroia ?"

" Difficult to say. So far everything as planned, but from now on the going gets rough. As Honeywell gets into the trough we are liable to find ourselves with one very large handful of emotional and intellectual dynamite. Make no mistake, Frog, when he realises what I've done to him there will be let loose a close approximation of hell on earth. At that point we stand to win or lose all."

" I wish I could understand what all this is about, Seroia."

" At the moment," said Passover, " you will sleep more easily knowing less. Strange as it may seem there is a purpose behind all this.

In the course of their long association Colonel Stormhaven had long ceased to be surprised at anything concerning Seroia Passover. Nobody had ever been able to follow the abstract

and apparently inconsequential working of Passover's mind, yet it was self-evident that he always produced results. Stormhaven himself adopted an air of fascinated tolerance towards the work of the able philosopher. If Passover wanted the moon he undoubtedly had a good use for it and, since it was axiomatic that Passover always had his own way, he would most certainly obtain the moon by hook or by crook. There was some suggestion that the crooks figured more largely than the hooks in some of Passover's transactions, but that was never likely to be proven.

It was Stormhaven's own very private and very considered opinion that Passover was probably the one man alive who knew exactly what he was doing. This comforting thought was only marred by the fact that what Passover knew he very seldom bothered to communicate to anybody else. This made Stormhaven's liaison duties somewhat difficult especially where Dr. Napier was concerned. It was not so much as liaison as a bald-headed row.

" I demand to know what Seroia is up to," said Napier. " He's playing a very strange game. Far from solving *Mx* he seems to be intent on pushing Honeywell further into it."

" Why tell me ?" asked Stormhaven warily. " There is nothing I can do about it. If Seroia is happy then so am I."

" Are you certain that Passover is happy ? I'm not at all sure that this thing isn't out of hand already. Of one thing I am certain—if we can't stop Honeywell soon we are going to break him even more viciously than we broke the others."

" Why so ?"

" Honeywell is more advanced. He is still absorbing Life Plan nearly two months after the stage at which the others succumbed."

' Is that not in itself an achievement ?"

" Yes, but it's not Seroia's achievement. Only the strength of Honeywell's own mental make-up enables him to absorb the strain. Unfortunately, he's beginning to crack. I give him not more than two weeks before he goes to pieces entirely."

" What does Seroia say ?"

" He says nothing. He hasn't been near the place since May. My own feeling is that he's climbed a high horse and can't climb down without losing face. Meanwhile, I am faced with the task of placating a super genius who is liable to go berserk at any moment."

Stormhaven frowned. " That doesn't sound like Seroia. I know him better than that.

" I'm sorry that I don't share your faith in Passover. I want action before we meet disaster. If you can't bring him out of his hole then I must find somebody who can."

" Aren't you forgetting that Passover is still in charge ?"

" No, I'm not forgetting, but that doesn't relieve him of his responsibility. He started this epic against all advice. I intend to see that he stays to finish it."

" Are you through ?" asked Stormhaven sternly. " My advice to you is to continue as Passover has advised. If you find this impossible then I suggest you resign as originally intended. We have the fullest confidence in Passover else we should never have dealt with him in the first place. I would personally like to add, Dr. Napier, that the day I find a problem on which Passover runs out will be synonymous with the end of the world."

" That may be truer than you think," said Napier bitterly. " And perhaps a little sooner than you expect."

Peter Honeywell woke in the gloom of the night. Lately there was seldom any complete darkness to be found. His rapidly strengthening power of nocturnal vision enabled him to see quite distinctly in the incident light from the night sky. Every night he would wake like this and stare at the speckled blankness of the ceiling, examining his new-found faculties, testing them in preparation.

He listened. Voices from a dozen doors away were clearly audible. A week ago six doors only was his limit. A month ago had brought only the silence of the night. Softer still, scarcely louder than a cat on a carpet, came the sound of clever footsteps in the hall. Frog moved like an elephant when watched, yet quieter than a shadow when alone.

Frog was always there at night, waiting patiently. It was somehow symbolic of Passover that so futile an act should receive such loving constancy. Passover thrived on futility !

Honeywell looked at the heavy lampshade and set it swinging on its cord by a simple mental effort. There was still much he didn't understand. The rhythmic cycles of *Mx* depression came more frequently now and struck more deeply at his mind. Like the waves of the sea they would break above his startled head, submerging the senses, gradually drowning the Honeywell that was and receding to leave something different,

deeper and farther from humanity. Then the waves would lift him from his lethargy and charge his mind with soaring exultation. For a moment he was God—then doubting—then clawing and fighting as he toppled headlong again into the dismal pit of fear and self-examination.

The shadowy troughs of depression were the worst. Every time he sank he went in a little deeper and came out a little less surely. They told him that he was delirious sometimes in the latter phases of a depression. Peter Honeywell didn't know. Those fringe areas of trauma only slowly filtered through to conscious recognition.

He knew only that when he came out of the lethargy Frog would be standing by watchfully, a button microphone in his lapel and a notebook in his hands. At such times he hated Frog with all the passionate intensity his anguished mind could muster. Only Frog's uncanny awareness and speed of reaction prevented bloodshed.

With a sudden surge of emotion Peter caused the swinging lamp to fly in a violent arc which terminated at the ceiling. The crash of falling glass made Frog's footsteps falter in the hall. One day, Honeywell promised himself, the world was going to learn a lesson, and that day was not far removed. If only Passover . . .

IV

Colonel Stormhaven, as usual, gained admission to Passover's sanctuary without effort. The Philosopher treated him to a tired smile.

" What's on your mind, Jan ?"

" Trouble," said Stormhaven. " Your little pal Napier got cold feet over the way Honeywell is shaping. He went and poured his heart out to the Minister, who has ordered a full guard around Psycho-Centre."

" Then take them away again," said Passover with just a hint of impatience. " I am in charge and I ordered no guards therefore there should be none."

" Believe me, Seroia, I'm sorry ! I argued that till I was blue in the face, but the Minister was adamant. The guard is an extra precaution lest the project should become beyond your control."

" Philistines !" said Passover. " They lose their faith so easily. Has it not occurred to them that I know what I am

doing. If I am wrong it will take more than a dozen rifles to set the matter to rights."

" Napier says . . ."

" I know very well what Napier says. He doesn't approve of my methods. He thinks I am running out on the problem. I assure you, Jan, it's all part of the scheme. We're not asleep here. Frog is a better observer than I should be if I lived to be a million. Our data on Honeywell is more detailed and complete than Napier's could ever hope to be. But think, Jan, how long would it take for Honeywell to go over the edge if I showed up too often ? I did this to him, remember ?"

" I see," said Stormhaven, "but I'm still worried. Honeywell is in a pretty bad way and he gets uglier by the hour. You're a genius, Seroia, but you're not immortal. Is it not possible that for once you are out of your depth ?"

Passover settled back with a wry smile.

" So you lose faith ?"

" That's the trouble," said Stormhaven. " It's unlike you to demand faith from your disciples. I sense that for the first time you are not being completely honest with me. I'm afraid, Seroia."

" Jan, I too am afraid. We're playing a desperate game and I'm having to learn the rules as I go along. So far we're doing rather well, but one false move could mean disaster."

" Can't you be more specific ?"

" Not yet. The issue is too abstract and the result too difficult to predict. We have all been sitting on a time bomb which has now become active. There is no knowing when it will explode nor what will happen when it does."

" Is there no control at all ?"

" Nothing ethical. Life Plan is not what it seems. It is not a tool for psychologists nor is it a means by which ambitious governments can increase their scientific cannon-fodder. Life Plan tampers with the fundamental structure of human nature itself."

" I don't quite get that," said Stormhaven.

" Consider, Jan, we were moulded by nature through the pressure of environment on the organism. Through natural selection and hereditary links the mould was turned and recast, always under pressure, until we reached our present form. We might have been anything. We just happen to be man because that was the pattern which offered the least resistance."

" I follow you so far," said Stormhaven.

" Good ! Now consider a process which can release the mind from the rigidity of the pattern imposed by millions of years of evolutional pressure."

" I can't, Seroia. Is that what Life Plan does ?"

" That is a simplification almost to the point of idiocy but the general idea is there. Human thought is patterned in the same way as a human body is patterned and for the same reason. Evolution decrees that only the successful pattern shall survive. All that Life Plan can do is break the limiting confines of the mould. This alters the survival factor for the individual but not necessarily for the worst. The gain in mental span is considerable. If one also remembers all those suspected faculties which nature has allowed to decline it may well be that our Life Planner can gain a mental advantage that none of us can match."

Stormhaven winced. " Unless I have been grossly misled, Seroia, Homo Sapiens is a comparatively recent innovation in evolution. If so, what type of creature have we in our midst ?"

" That remains to be seen. Our fears may well prove groundless. I entered this project on the assumption that it would produce certain results. If my theory is correct we have nothing to fear providing we move fast and at the right time."

Stormhaven was not convinced. " One theory in the face of a conflict that reaches back to creation—what an optimist you are, Seroia ! How did we get into this fix anyway ?"

" It was inevitable," said Passover evenly. " Once Life Plan was discovered it was only a matter of time before someone somewhere pushed it to its logical conclusion. It could have been Steiberg-Williams but he died young and with a tumour on the brain. It might have been Napier had he not failed so early and been so afraid of what he could not understand. Napier was out of his depth. I at least am forewarned if not forearmed."

" Thank you," said Stormhaven rising. " I believe in you, Seroia. Now if you'll excuse me I'll go and get drunk. Won't you join me ?"

" Not this time," said Passover. "I have a lot of work to do. You see, I have to create a philosophy for a Superman."

One isolated building of the group comprising Psycho-Centre housed the department of experimental psychology wherin Napier had established his Life Plan unit. The surrounding green-sward, usually neat and deserted, was now

scarred and littered with army vehicles and the miscellanea of hastily organised military operations. Sentries stood guard at the main doors of the building and also along an outer perimeter fence. Passover's car was halted at the road block. His name meant nothing to the sentry and he had to wait for an officer to be summoned before the car was finally waved through the barrier.

Frog met him at the door. " Glad to see you, Seroia. You've just missed a devil of a rumpus."

" Honeywell ?"

" Yes, he's set on giving us a bit of a rough time. He keeps escaping from his room. There are three good locks on the door but they don't deter him a bit. He suddenly pops up behind you in some unsuspected corner and frightens the daylights out of you."

" Curious sense of humour," commented Passover drily.

" Not so funny, Seroia. He broke into the nurses' dormitory last night and scared them so thoroughly that they've had to be transferred out. There's an all male staff here now."

" Is he actively dangerous in any way ?"

" Yes and no. His habit of playing vicious pranks becomes more vicious and less funny every time. A few bruises we can stand but one day he's going to go just that little bit too far. The most frightening part is that you know his viciousness is deliberately restrained. There's murder in his eyes. We shall all be in the psychotic ward if this goes on much longer."

" Very probably," said Passover absently. " Has he tried to leave the building ?"

" Not so far, but I think it's only a matter of time. Frankly I don't like it. I get the impression that he's merely using us to test his strength. He exploits our weaknesses very cunningly and he's learning all the time. He wants to see how far he can push us before we are forced to hit back. One day he's going to wake up to the fact that there's precisely nothing we can hit back with. I'd prefer not to be around on that day, Seroia."

" Where is he now ? I'd like to see him."

" He's upstairs. The boys just ganged up on him and locked him in his room again, so I guess he's pretty mad right now."

" So am I," said Passover. " So am I."

Honeywell was sitting in the middle of the floor playing abstractedly with two large volumes. He did not turn as Passover entered but called over his shoulder with a mocking sing-song tone.

" Tell me, Zarathustra, have you come to learn or to preach? Either way you will be disappointed. I have not yet beggared my reasoning by creating platitudes and all your platitudes I already know. I deem all other conversation beyond you."

" You will oblige me," said Passover sternly, " by facing me when you speak."

Honeywell dropped a book and rolled lazily on to one elbow, turning his head to look over his shoulder.

" Do I hear aright ?" he asked insolently. " Is the popinjay of Passover's Potted Philosophies not speaking a little above himself ? Take care, Seroia ! I have special reasons for having no love for you."

" Child !" said Passover. " Idiot, cretin and arrogant fool ! It is you who forget yourself."

Honeywell swung round with the speed of a cobra.

" Why do you tempt me, Seroia ? I keep your suffering as a promise for the future."

" Tempt you ?" Passover raised his voice in anger. " It is I who am tempted. It was your mission to examine *Mx* not to emulate satan. Are you so irresponsible that you cannot perform so simple a task ?"

Honeywell regarded his antagonist with something akin to wonder.

" Seroia," he said dangerously, " I did examine *Mx*—quite dispassionately. Do you know what I found, Seroia ? I found I didn't care anymore. I didn't even care enough to tell you what I'd found."

" And what is *Mx* ?" asked Passover coldly.

" Ah, that's an interesting point ! You want to know that badly don't you, Seroia ? Well I know, and I can't be bothered to tell you. You and your fumbling abstractions aren't important any more. Do you hear that, Seroia ? I'm not going to tell you. Let this be the start of your torment—that you risked so much and have gained nothing at all."

" Don't bother yourself," said Passover. " You have already told me all I wish to know."

Honeywell rose to his feet, his dark eyes shining with some awful comprehension.

" You dared to trick me ?" he asked with disbelief and anger.

" Watch him, Seroia," warned Frog quietly from behind, slipping the safety catch from the gun in his pocket. " I think we'd better leave. This may be ugly."

Passover stood his ground for a moment or two as if expecting a blow. Honeywell choked his anger into a quieter hatred.

" One day, Seroia, you will grovel at my feet for this."

" I think not," said Passover calmly. " There is much for you yet to learn. I leave you with one last thought : no matter how you play your hand you can never win in the end."

Frog joined him in the car. He remained pensive until they had cleared the road-block, then he turned to Passover.

" That was a near thing in there, Seroia. What made you bait him like that ?"

" I had to. It was the only way to gain a quick answer. If he'd guessed what I was after he would have foxed the issue and we'd have lost hands down."

" Gain a quick answer to what ?"

" The nature of *Mx*, of course. Honeywell didn't care anymore, and in my books that's a pretty significant factor. From my calculations *Mx* could be one of three things only. But which ? Fortunately, experience of *Mx* must modify the action-pattern of the individual. The problem was not to make him tell but to make him react to a precise stimulus. It's a crude technique with only simplicity and effectiveness to commend it. You simply kick a man in the ego and see what type of beast you arouse."

" One day, Seroia, you're going to miscalculate a fourth decimal place and wind up very dead. When does the fun begin ?"

" Soon. Honeywell is entering the last phase of Life Plan. For about two weeks I expect his tantrums to become worse but intermixed with even deeper depressions. Then comes the coma, which should last about five days."

" And after that ?"

" It is a pitched battle between my knowledge and Honeywell's intellect. That's cutting our chances pretty slim."

V

The storm broke three weeks later. Passover was roused from his bed and called to the office.

" Frog on the radio, Seroia. Emergency !"

" Put him through and monitor for recording. Also watch the BurSec network. Come in, Frog !"

" This is it, Seroia ! Honeywell broke camp about ten minutes ago. He escaped the guards and made off in Napier's car. We had a radio squealer hidden in the car but it's only short range and we can't locate it at the moment."

"Pity!" said Passover ruefully. "I take it that Stormhaven's on the trail."

" I contacted BurSec first and the orders went out to locate but not to attempt to apprehend unless one of our agents was on hand."

"Any idea which way he was heading."

" He took the London road and appeared to turn north before the squealer went out of range. All field-observers have been alerted and we are awaiting reports."

" That's the best we can do for now," said Passover. "Contact me as soon as you have definite news."

" Check and out !" said Frog.

" An interesting problem, Mr. Sandwick," said Passover turning. "Into the night a man has escaped whose genius and capabilities have never been at large on this earth. Honeywell transcends even Napier's early failures in sheer intelligence, in stealth and in spite. We have to find him before he becomes a danger both to himself and to others. If we find him we have no legal right to detain him because he's not insane and his danger is only potential."

" So we're outside the law again," said Sandwick sourly.

" Unfortunately yes. It's one of the penalties of being too well informed. I cannot prove that Honeywell is a menace until it becomes a fact. Then it is too late. No dark-age tyrant nor atom-age dictator ever held one tenth of the terrible potential of this one individual."

" Then I don't understand, Seroia. What can you do to him now that you could not do whilst he was still at Psycho-Centre ?"

" It so happens that the only weapon in my pitiful armoury can only be effective once Life Plan has run to its limit. His leaving Psycho-Centre was symbolic of his achieving that point. At last we have a fighting chance if only we can meet him quickly enough."

" Suppose he doesn't play ? Suppose he merely walks into the nearest police station and tells them the truth ? Even Stormhaven can't hold the civil police."

" Then we are lost. There will be no holding him. But his logic is not as ours. He is an outcast, another sort of animal and it's a wild hope that he will scorn all normal retreats."

" Seroia," said Sandwick sharply, " as his tutor, Peter Honeywell was my responsibility. I nursed him through nearly three years of his training here. He all but worshipped you, and this is how you repay his loyalty. You have turned the boy into a hunted monster fleeing through the night like a stag that is running from the hounds. Why have you done this to him ? Are you so enamoured to the great god O.N.R. that you have to make so barbarous a sacrifice ?"

" I am not much concerned with O.N.R.," said Passover evenly. " What they ask for is barely possible and if it were possible it would not be necessary. No truly sane genius would even consider the limiting confines of O.N.R. No, there is a larger issue at stake here."

" You have always maintained, Seroia, that the life of an individual was far above the worth of any ideal. What price your principles now ?"

" Suppose we forget ideals and think in terms of instincts. Self-preservation is a prime law of nature. Later I will answer your charges on that basis. For the present I have no answer to give."

Sandwick shook his head sadly. " I still don't understand you."

" Alas !" said Passover. " If you did I should be working for you."

Alone again Passover switched on the communications set and contacted Colonel Stormhaven on the BurSec network.

" How's progress, Jan ?"

" Grim !" said Stormhaven with heavy humour. " We were quick but he was quicker. We located him once but he crashed a road block and we lost him. There's a wider net out now, but there must be a million loopholes in the dark. I don't hold much hope of finding him before daybreak."

" Daybreak is too late. We will never find him then. Can't you call on X reserve ?"

" No," said Stormhaven flatly. " Even as it stands I have exceeded my authority by several times. I shall very likely swing for tonight's work."

" Let that be the least of your worries," said Passover. " You know which way the cards are stacked."

" Certainly," said Stormhaven. " I know and you know, but the Minister doesn't know, and if he did he wouldn't believe it. Let's face it, Seroia, this is one of your crazy schemes that's blown its top. Officially I can act only in the interests of public

safety and security. So far I have only your word for it that any danger exists. I believe you, but it will take more than that to convince the General Staff. I'll support you all I can, but there's a limit."

" Aye," said Passover, " and in this affair the limitations are all on our side !"

Passover cut the connection and sat silently for a moment. He had foreseen this situation but been able to make better provision for it. Then on a sudden impulse he left a few messages and went to pick up Frog in his car.

" You look worried, Seroia."

" I am worried. Honeywell has played his master card. We've no defence against him because we can't find him. He's out there somewhere like a cancer multiplying in malignancy. Whilst he plays the giddy idiot and stays out of sight he's perfectly safe—and he knows it. That means I must wait until he comes to find me. You know, Frog, I've no stomach to wake in the night to find Satan at my elbow. I must meet him on my own ground, else I fear it may go ill with us."

" But what about Stormhaven's men ?"

" Mere bluff, a sop for the ministry. They are armed but they dare not fire. Stormhaven's expecting Honeywell to go berserk and kill somebody. Only then can he act."

" And won't Honeywell kill ?"

" No, he has too much to lose. His power is in the influence he can gain over others. This age of suggestion and psychological warfare was never more suited for conquest by Superman. It will be conquest by subtlety."

" But what makes you so certain that he seeks power ?"

" Because he hates us, and power alone can give effect to his hatred."

" I may be wrong," said Frog, " but I should have thought that such maliciousness denoted a high degree of mental imbalance."

Passover caught his breath. " Not," he said slowly, "when the hatred is perfectly logical and completely justified."

" But what justification can there be for such hate of humanity ?"

" That would depend on how much you knew of human nature. If you probe too deeply you come across some rather ugly things. Honeywell knows a great deal about human nature now."

" More than you, Seroia ?"

" Perhaps, perhaps not ! Understanding is a function of time and sympathy as well as insight. Confidentially, Frog, our only weapon against Honeywell is the fact that I may know a few answers that he doesn't."

" Can you be certain he won't commit suicide like the others ?"

Passover frowned. " Quite certain. Honeywell was chosen because of his fundamental stability. Also his case is not a strict parallel. Life Plan necessitates a complete re-valuation of life. The old patterns of thought are hopelessly inadequate and there is nothing available to take their place. The others had nowhere to turn for orientation so they quite logically destroyed themselves before the conflict caused them greater anguish.

" For Honeywell I altered the factors in the case by introducing a paradox : the certainty that I knew what I was doing when I introduced him to Life Plan and the uncertainty as to why I was rash enough to try it. To make sense of his predicament he has to resolve that paradox. My personal concern is with the method by which he seeks to obtain the answer from me. I must meet him on my own terms, and that is where you can be of most value to me."

" Whatever you wish," said Frog.

IV

Four days lapsed without a trace of Honeywell, and a cold blanket of fear and frustration settled over Passover's empire. The sense of a plan miscarried was intensified by Napier's classified report on the fabulous last-measured potentialities of Peter Honeywell. Colonel Stormhaven infected some higher bureaucracy with his own sense of urgency and resumed the hunt with a fervour more directly related to the public danger.

Passover said nothing, and only Frog knew what he was thinking.

On the seventh night Passover's phone shrilled loudly. Passover lifted the receiver automatically and listened without reply. He spent a few moments with a hypodermic syringe, then adjusted the communications set to the BurSec network. Stormhaven's voice greeted him with a smothered oath.

" Don't say it, Jan," said Passover. " I know what you're thinking."

" I wonder," said Stormhaven heavily. " I don't have enough cuss words left to describe this abysmal mess of yours."

" Then I can save you some worry. The search is over."

" How do you mean over ?"

" I know where Honeywell is."

" Where, Seroia ? I'll get there right away."

" It's not that easy," said Passover. " I haven't told you how we found him. Frog is a natural telepath. It was a long chance but a man of Honeywell's mental activity must radiate something. Frog has been listening for days."

" Well ?"

" Not so well ! Frog found him, but the contact was only over very short range."

" For pity's sake !" yelled Stormhaven. " How short ?"

" A few hundred yards, maybe."

" You mean . . ."

" I mean he's here at this moment. Right behind me."

The set exploded almost in Passover's face, with a crash of breaking glass and the rasp of shorted circuits. In the same instant the lights went out, leaving him helpless in the sudden darkness.

" Very pretty, Seroia ! " said Honeywell. " Dramatic to the last."

Passover stared at the blackness from whence came the mocking voice."

" Freeze, Seroia, freeze as though you were dead ten thousand years ! You can't see me but I can see you very well. I prefer it that way, Seroia. It's a situation you are going to have to get used to. I have a special form of hell reserved for you."

" Why are you here ?"

" A few answers and a little revenge." Honeywell's voice cut the darkness with an exquisite clarity.

" Don't fret," said Passover. " I've not finished with you yet."

" Bravado is a little out of place," said Honeywell. " Let us talk first and come to theatricals later."

Passover permitted himself a slight smile. Instantly something solid crashed against the table at his side with sickening force, splintering the wood a fraction of an inch from his fingers.

" Don't underestimate me, Seroia. Don't ever underestimate this force which you have unleased. There is more potential in a single human mind than even your philosophy could dream of. Life Plan is the key to more power for good and evil than humanity unaided could uncover for itself in half a million years. Yet do you know the origin of this hideous power, the mainspring behind the life force ?"

" Yes," said Passover quietly. " It is guilt."

" You're a clever devil, Seroia !"

" I have need to be. Am I not right ?"

" You are indeed ! The mainspring of humanity is guilt; the death wish and the attempted expiation of hereditary sin. The sadist, the masochist, the tyrant and the saint all have that much in common. Homo Sapiens is fundamentally psychotic."

" And Homo Superior ?"

" Sane but suffering. He has no comforting cloak of delusion to draw over his hideous soul. At last man stands alone, stripped of the semantic intrigue of his education and nurture. There could be nothing more terrifying in any conception of hell. ' Know thyself ' is not an exhortation, it's an eternal damnation !"

" I know," said Passover quietly in the darkness. " What else did you expect ?"

" Serenity. Life Plan theory assumes that basic man is fundamentally gregarious, monogamous and gentle. That is a dangerous and fallacious assumption. Man is an animal and a carnivore at that. He has the most powerful instinctive drives of any known animal. He is basically aggressive, selfish, lustful and brutish. Basic man, Seroia, is a real mean cuss !"

" Can you prove that ?"

" I have proved it. You can scratch the surface of the problem, root out a few repressions, and turn up a milk and water saint ; but that's only scratching through the dirt down to the veneer. Life Plan goes much further, sheer down to the awful depths of human nature. There are things in those depths, buried beneath a million years of hereditary sludge, which were better never brought to light. There are crimes in prehistory which man in all his modern bestiality can never hope to rival. Here is the origin of the guilt. It is the hereditary self-abomination of the most terrible creatures that ever lived. Don't you see, Seroia, the concept of original sin is not only factual, it is the most profound understatement in all history."

" I know," said Passover.

" Do you ? Consider, Seroia, those deep repressions had a definite function. They were of fundamental importance in the natural selection which tended the evolution of social man. Remove them and what have you got ? Unsocial man, Seroia! Very unsocial man ! The structure of civilisation could never survive such self-realisation."

" Does that justify your hate ?"

" It is more than hate. We are the spawn of hell, Seroia. If there had been any justice in the universe we should have been crucified before we drew our first breath."

" Then if you have it all sewn up what do you want from me ?" asked Passover.

" Information. I know you, Seroia. You are the veritable prince of foxes. You knew what Life Plan might do to me, yet still you took the risk. What did you hope to gain ?"

" You begin to doubt your own omnipotence," chided Passover softly. " I merely took a calculated risk."

" And lost ?"

" No, I won."

Honeywell was incredulous. " Is it possible that you too harbour such contempt ?"

" Just the reverse. I am the complete humanist. You are immature, Peter, and I will tell you why. You have been granted a deep and complete insight into human nature. Your data is valid and correct, but you have come up with the wrong answer."

" What cunning is this ? Have a care, Seroia ! For once you are speaking to your master."

" Pup!" said Passover. " Intelligence you may have but wisdom you have yet to acquire. Now listen to me. I do not doubt the psychotic nature of man ; I refuse to believe that nothing can be done about it."

" Save your platitudes for children and old women. Dare you to think you can create sanity where none has ever existed ?"

" You jump to conclusions," rebuked Passover. " Has it not occurred to you that the past is irrelevant ? Collectively, mankind is immature. It is a child ; and as a child it fights and runs, torments and bullies, laughs, and is afraid. And do you know, Peter, what adulthood is ? It is the state of running

away from the pains and fears of childhood. No more than that. Maturity is the state of looking back and wondering why you are running."

" Do you know what you are saying, Seroia ?"

" Yes ! Children are beasts almost by definition. Ontogeny reflects philogeny ; the development of the child reflects the development of the species. The development of the species follows some larger pattern of no less anguished childhood. So we children have played for eons with fire and flame and steel, practising our childish inhumanities on man. But as we, as a species, grow older we try to shut out the fears and quell the anger."

" Don't say it, Seroia."

" I must ! These are the grand repressions you have unravelled ; simply the terrible deeds of terrible children. You have experienced the adolescent turmoil of a very young race. Do you kill children, Peter, because they lack the wisdom to know themselves ?"

" Is that what Life Plan is, Seroia, accelerated maturity ?"

" It is accelerated evolution. You are the child of another age, Peter. I alone can give you the knowledge to survive. Without me you have no chance at all."

" You're in no position to offer terms, Seroia."

" Am I not ? Suppose I tell you to go your own way. How many months do you think you could live ?"

" I am more suited for survival than most."

" In a material sense only. Psychologically you are your own worst enemy. Remember, Life Plan already has three victims to its credit. You will be no exception."

" I can make you teach me survival, Seroia. Before I am through you will grovel at my feet and beg to listen to your precious secret."

" You have no power over me, Peter. Accept what I have to offer, or go your own way."

The breath hissed through Honeywell's lips.

" Do you know how many nerves in your body can cause you mortal pain ? I could play your nervous-system like a harp."

" Not true " said Passover. " I am reeling with drugs. You could not cause a whimper without killing me."

Honeywell considered this in silence. " Very well," he said, " then we must do it the hard way. I can probe you mind, Seroia, but I don't think you'll be sane when I've taken what I want."

Beads of cold perspiration stood out on Passover's brow and began to trickle down his face.

" I don't advise you to try," he said, his voice under iron control.

" I'm going to break you, Seroia. You've had this coming to you for a long time. Prepare !"

Passover swayed and clutched his head as the probe of mental energy stabbed through his brain. For an instant the two minds locked in conflict, then as suddenly the contact was broken. But it was Honeywell who was most staggered by the union. He switched on the lights and stood shaken and aghast, his dark eyes full of pitiful comprehension.

" Seroia !"

" Surprised, Peter ?"

" I had not feared to find such anguish in any man."

" Did you dare to think that you had the monopoly on trial by thought ?"

" Who are you, Seroia ? How can your mind contain such things ?"

" I am no fumbling Superman. Only Life Plan can bestow such gifts. No, but I share the other half of your affliction—the experience of *Mx*."

" What are you, Passover ?"

" I am a mutant, normal in all respects save one. By some quirk of nature the Freudian censor mechanism was not included in my psychological make-up. I was born with the inability to run away from life. That is *Mx*—the inability to run away."

The misery hung deep in Honeywell's eyes.

" It should have broken you, Seroia."

" Perhaps it would have been easier if it had."

For a second a shadow of pain crept over his face, and through his eyes an anguished idiot peered. It was there for an instant, no more, fading as the iron hand of tranquility overlaid the agony beneath.

" Listen, Peter ! Our precious infant race is growing up. Evolution moves toward maturity, but between the ages of doubting and knowing there lies an age of self examination."

" *Mx* ?"

" Just so. You yourself have said that the structure of civilisation could never survive such realisation. You spoke more truly than you knew. Collective mankind has to face up

to all those tormented states of mind which you, as an individual, faced in contact with the *Mx* factor. You know how easily you would have destroyed the world had the means been within your grasp."

" It was an ambition to end all ambitions, Seroia."

" Then now you know why I gave you Life Plan. *Mx* is the stumbling block that lies between mankind and its maturity. A week ago only I had passed *Mx* and lived. Today there are two of us. In Life Plan there exists the means to alter the status quo and short circuit half a million years of evolution."

" It's too big, Seroia. Not even you can do that."

" No," said Passover, " but you can. Indeed, you have no option. Only a task of such magnitude can absorb the potential of a superman. It is your salvation also."

Honeywell considered this in silence.

" How long have we got, Seroia ?"

" Not long. Do you think it any accident that in the last two hundred years man has started scrabbling at the tenets of nature and produced this staggering growth of physical science ? Do you think it any coincidence that we have coined the word ' genocide ?' Do you think that any society could produce a nucleonic bomb if it were not itself in torment ? We are in the midst of an exploding, neurotic, culture ; a culture feeling the first pangs of self-evaluation. If it is to survive somebody must be there to help it over the bridge. Is there a task more fitted for the first of Homo Superior ?"

Colin Kapp

Dear Mr. Carnell,

I have particularly noticed, with regret and some annoyance, that most science fiction authors have an apparent reluctance to state a specific date in the future relating to the events in their story. We, the readers, are compelled to deduce a period of time best suited to our individual imaginations to carry the story through. I get rather irritated by this and tend to accuse the author of shrinking his responsibility.

If a story is intended to suggest events in about two to three thousand years from now, then why not head Paragraph 1 with the date 4958 to help set the scene. I would hasten to acknowledge that the author of the Troon Family series has done just that, a most satisfactory beginning to a commendable story.

Richard J. Anderson.
Hayes, Middlesex.

Dear John,

I see some chap in the letter column panning Brian Lewis, my own feeling is that he is right in saying that the covers aren't abstract in the way that term is used by anyone in artistic circles. Nor are they strictly surrealist, though many of them remind me of Tanguy. You should invent a new term for them ; how about ' cosmic ghismics ' ? later to be known more simply as ' ghosmics ' or ' chismix.' Where your correspondent goes wrong is to suggest they aren't good covers. I don't think they're always good art, but by crikey they're always good *covers* ! They give the whole thing style. You're no longer too scared to pick one off the bookstall—as for instance is the case with one of the current American reprints. I say good on Brian Lewis and John Carnell !

Brian W. Aldiss,
Oxford.

The New Nova Magazine

Action Packed Adventure Stories

in the current issue of

SCIENCE FICTION ADVENTURES

2/-

Bi-Monthly

No. 5 NOW ON SALE

Containing :

3 Complete Novels by leading writers

This World Must Die

by IVAR JORGENSON

The Starcombers

by EDMOND HAMILTON

Vengeance of the Space Armadas

by CALVIN M. KNOX

★ ★ ★

DON'T MISS YOUR COPY—ORDER NOW

NOW ON SALE

NOVA PUBLICATIONS LTD

Maclaren House, 131 Gt. Suffolk Street, London, S.E.1.