NEW WORLDS SCIENCE FICTION

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REFUGE

Earth culture on an alien world

JOSEPH GREEN

- MICHAEL MOORCOCK
- R. W. MACKELWORTH
- PHILIP E. HIGH
- JOHN RACKHAM
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Guest Editor: E. C. TUBB

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TWO SHILLINGS AND SIXPENCE

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Guest Editorial

At most science fiction conventions he has attended, author Ted Tubb has been forthright in his criticisms on many aspects of science fiction writing. This month he puts some of those thoughts into words in his Guest Editorial.

Let's Build A Bridge by E. C. TUBB

We shall never know who was the first story-teller but it is reasonable to assume that it was some aged, skin-clad primitive who crouched beside a fire and told the youngsters just how good a hunter and warrior he had been back in the old days. Social customs being what they were in those times, he risked a stone axe in the head if he bored his audience, and so, to remain safe and to justify his existence, he had to exaggerate a little.

In short that first story-teller invented the unabashed,

downright lie for the sole purpose of entertainment.

Since then all story-tellers have lied and have done so with a bare-faced impudence which is only justifiable in terms of received listener-entertainment. The greater the entertainment the more pardonable the lie but the converse, as many writers have learned to their cost, is not always true. It doesn't mean that the greater the lie the greater the entertainment. This is particularly noticeable in children's stories which contain a staggering amount of lie to a minute amount of truth. This does not worry children who are long on imagination and short on critical faculty but it does worry adults who rarely find such stories entertaining.

Aside from science fiction, of course, which, together with

fantasy, is the adult equivalent of fairy stories.

There is nothing wrong or shameful in this, because, if we admit that all fiction is 'escapist literature,' then those with the most active imaginations are those who demand the greatest escape when they read for relaxation. And I have yet to meet anyone who can justify calling fiction anything else than 'escape literature.' After all, that is what fiction is for, to entertain us with a lie. It is only when the lies are claimed to be true that fiction becomes that ugly thing called propaganda.

But children, like adults, have one great thing in common—

they both demand that they be entertained.

I feel that much of the criticism aimed at science fiction is because authors have tended to forget the prime reason for their craft. They can lie, and do it with various degrees of success—bearing in mind that to be successful, a lie must not be so outrageous as to prevent temporary belief. They know how to moralise and they know how to fashion characters but, to the outsider, most science action simply does not entertain.

It is really very simple to find out why and anyone can conduct an experiment, the results of which are predictable to a high degree of accuracy. Take a science fiction magazine, preferably one aimed at the hardened reader, such as *Analog*. Hand it to a non-science fiction reader and ask him to read it. Sit back and wait for the reaction. Almost invariably—if he is honest, it will be something like:—

"Well . . . I suppose it's all right but I just couldn't

understand it."

His fault?

No. Ours!

Like it or not most science fiction, and I am using the term in the same sense as used by the readers of this magazine, has become very esoteric in that we use what amounts to a technical shorthand. We have our own jargon. As an example:—

"Sealing the port he flung a thought at the psi-pilot, just managing to reach the chair as the antigravs kicked into life. Five seconds later the stars blurred on the screen as the ship

slipped into FTL drive."

You know what it means. I know what it means. How can an outsider? How can he know that a port must be sealed because space is airless and the man would die if it wasn't? How can he guess what a psi-pilot is? And why should the

In the past it has been the white man who has impressed his culture upon the rest of the world. In the future it will undoubtedly be mankind as an integrated unit which will impress its culture on other planets—but whether this will be a good or bad thing, only history will be able to decide.

R E F U G E by Joseph Green

one

Timmy slowed his steps as he reached the outer edges of the village, struck by a low but intense argument in a nearby waquilpod house. The air was charged with tension, so acutely his long eyebrows stirred and quivered from involuntary reception of emotion. A Loafer elder was attempting to force his declining authority on an erring grandson, and was having a hard time of it.

It was growing dark and Doreen was waiting, but Timmy stopped and stood in the growing shadow of a huge pod, his sensitive face troubled. The old man was Himkera, a wise and respected leader, a member of the tribal council; the disobedient grandson was young Similik, a boy who had shown great promise in his pre-initiate Controller training. Similik's father had died when the boy was very young and his mother, Himkera's daughter, had not remarried, as was customary among the Loafers. The old man had been the only father the boy had known and it was very rare among the obedient Loafer children for a youngster to argue with his father.

"But I do not wish to go to the pre-initiate's school tonight!" Similik was insisting. "I go to the Hairless Ones' school during the day. Is that not enough? And my friends are waiting at the Crossroads. I would not have them wait in vain."

"Yes, your friends the Earthchildren wait," said Himkera angrily, his old voice thin now but still strong. "But what of your friends here in Loafertown? They, too, will be waiting, waiting for you to appear in class and study the mysteries of Life with them. And where will you be? Out riding one of the animals Earthpeople control through fear and violence, chasing each other over our beautiful countryside, for no purpose other than seeing which is the faster horse! You learn nothing and in addition expose yourself needlessly to danger. Is Life no longer sacred to you? Do you wish the knowledge your ancestors have painstakingly accumulated over untold generations to die unused? Is—"

Timmy turned and walked away without waiting to hear the end of the argument. It was similar to many which were raging in normally peaceful Loafertown these days, and almost invariably it was the old set against the young. A group of near-adults among the Earthpeople were holding horseraces almost every night, and these were very popular with both Loafers and Earthmen. The younger Loafers were greatly prized as riders, their affinity with animals, gained through their pre-initiate training in Controlling, enabling them to get the last ounce of speed out of horses not bred to be runners. Lately, Timmy had heard, the farmers who could afford it had started betting credit notes on the races, and were paying the best of the young Loafers to ride their horses.

Carey Sheldon had told him there were Central Government employees in the town of Refuge who had established lucrative moonlighter jobs for themselves by going into professional bookmaking. It had taken time and many words before Carey had managed to explain bookmaking to an unsophisticated mind like Timmy's, but when he finally understood he felt sickened. What had started as a harmless sport for bored young boys had grown into an adults' playground, from which

the play was being swiftly withdrawn.

Timmy walked the three miles to the Sheldon farm in frowning thought, his usually fast stride slowed to a measured pace. None among the Loafers could have anticipated, when the Earthmen landed less than two generations ago, that so many of them lived on their home world, or that so many would emigrate to Refuge. For many years this movement of Earthpeople to Refuge had been slow and ordered, the great skyships landing twice-yearly with their few hundred families, but this had changed when Doreen Sheldon, with the help of an intelligent breshwahr tree, had solved the problem of transmitting people without harming them. Earthpeople had been pouring into Refuge in huge swarms for the past four years, averaging over twenty-five hundred a day and the formerly spacious planet was feeling the effect. True, there were still vast forests scattered over the face of the planet where no Earthpeople and few Loafers lived, but the great coastal plains, where large tracts of grassy land and abundant rainfall made farming easy, were already crowded.

It was full dark when he mounted the wooden steps to the big, comfortable frame house and tapped on the door. It was opened after a moment by Maud Sheldon, matriarch of the clan, and her gaunt face broke into a smile of welcome when she saw Timmy. At one time she had opposed his friendship with Carey Sheldon and it was sometimes apparent she was still not reconciled to the idea of having her youngest daughter marry a Loafer, but she had long since ceased actively fighting the idea.

Doreen met him halfway across the big living room and kissed him warmly in welcome, her slim, freckled hands ruffling the thicker hair on the back of his neck and head. Out of deference for Maud's feelings he had donned a wirtleaf cloak instead of coming nude. Except in extreme bad weather the Loafers needed no protection from the elements other than the thick blanket of hair that covered them from the tops of their heads to the soles of their feet. The modesty requirements of Earthpeople were another matter. The habit of donning a cloak any time you expected to associate with Earthpeople was now almost universally accepted among the Loafers, another of the many changes these people from another star had caused in the Loafer communities.

Doreen pulled back in his light embrace and looked up into his face. Her own thin features grew serious and she asked, "What's troubling you, dear?"

He turned toward the door, guiding her gently with an arm around her waist. "Let's sit on the porch and I'll tell you."

Carey Sheldon's broad shoulders filled the door to the kitchen and he smiled and lifted one muscular arm in a mock salute to

his future brother-in-law, but did not speak.

When they were seated in the worn, comfortable swing, rocking gently on the chains that suspended it from the porch ceiling, Doreen took his hand and held it tightly between both her own. They rocked in silence for a moment, Doreen waiting patiently while Timmy composed his thoughts.

Oddly, Timmy realized, he had not actually made up his mind until he held Doreen in his arms, but then it had become inevitable. He had to go.

"Doreen, do you know the meaning of havasid?" he asked

abruptly.

The red-haired girl leaned forward until she could look into his face, turned partially away from her. "Yes, it means 'longjourney,' or 'year's walking." Oh wait, it's also the word used for those trips young Controllers take sometimes, to visit other

tribes and see what's new in Controlling."

Timmy smiled in the shadows. "That's correct, but not quite all the story. These havasids are what have held the Loafer people together for more years than we now can number and explain how a race of less than a million people, scattered over an entire planet, still have a common tongue and roughly comparable social orders. They are usually undertaken by young men not ready to choose a mate and start a family and they are very important in our culture." He paused a moment, then said clearly and slowly, "Doreen, I am going on a havasid, a great journey and I will not be back until the plants start to bloom again next year. I am going to visit every Loafer tribe on our world which lives in nearness to Earthpeople and I hope, when I return, that my mind will be at peace. But go I must."

Doreen sat in frozen silence for a long moment, and her voice was low and tightly controlled when she finally asked, "Why, Timmy? Why are you leaving less than a week before our

wedding?"

Timmy turned and looked her full in the face. The smaller and faster of Refuge's two moons appeared over the edge of the forest-clad mountains to the East, casting a pale luminance on her brown, freckled features, outlining the large eyes, the troubled expression on the thin-lipped mouth. "It is a hard thing to explain, yet I must try, for I would not have you unhappy. I fear for my people! Each day that passes I see more of the old ways falling into disuse, more of the old and good customs flouted by the young. Our children go to Earthly schools and learn much and this is good. But when they come home again they are not willing to learn the Loafer ways, scoff at the wisdom of their forefathers, show no interest in the secrets of nature. This is not a common thing, but it happens more and more often and in my own mind I am not certain if this is bad or good. You are a great people, you Hairless Ones, and your works are mighty. But we are so close to reaching those goals toward which we have worked for so many years, so very close—" he stopped, biting his lip and Doreen nodded in mute acknowledgement.

The integration of the Loafer people into the more populous Earth communities was proceeding smoothly and swiftly, all schools on Refuge now being bi-racial and the incidents of violence which had plagued the programme at first were now rare. She and Timmy would be the first inter-racial marriage of which they knew, but it was bound to happen more and more

often as the races mixed freely.

And it was equally true that the Loafers had at last seemed to be on the verge of solving their age-old problem, the control of physical objects through mental power. Timmy's niece, Micka, had broken through the barrier some three years ago and after her her younger brother. But the two children had been unable to lead any others along the path they had found, remaining unique in the abilities they possessed.

"What do you hope to learn, Timmy?"

The rangy Loafer rose and paced the porch, his hair-covered soles silent on the seasoned boards. "I want to know how contact with Earthpeople is affecting other communities. I want to know if it is possible to live near you without being swallowed by you. I want to know if we can continue developing our hard-earned abilities, or if our way of life must disappear."

"And would it be a bad thing if it did disappear, if in its place you received a life such as ours?" asked Doreen

searchingly.

Timmy walked to the edge of the porch and stood staring into the early night. "Who can answer that question? Is it better to Control the world you live in, or change it to suit your

own needs. We started down different paths, your people and mine, and after many years of travel those paths have met on this planet. You change nature wherever you go, moulding and shaping the land about you and the creatures on that land, to suit your own purposes. We live on the land without change, compelling it and the creatures on it, to furnish us with our needs. You work with physical tools, we with mental. And you seem to have grown faster than we, for you are a mighty people, to whom we are as but a handful of sand lying on a deserted shore. It may be we have followed the wrong path, taken a long journey down a way to nothingness. And

"Little Micka," said Doreen softly.

" Micka, then Sanda. We still do not know all they can do. Only time and growth will bring forth their full powers."

"That's a long time to wait, Timmy. Even a year is a long time, I can't promise I'll be here when you return." There was a ragged edge in her voice, with tears lurking close behind.

"I would not bind you to me for so long a time. Our engagement is ended. If you are still unwed when I return . . .

then we shall see."

She rose and flew across the porch and into his arms, the tears spilling over and running down the thin face, while racking sobs shook the slim body. The crying spell lasted only a moment; she regained her self-control, stiffened her shoulders, lifted her face to be kissed. Timmy obliged her, but it was a brief and tasteless caress; then he was gone.

She staggered to the swing and sat down again. The front door opened and Carey Sheldon came hurrying to the swing and took his sister in his arms. She buried her head against his thick chest and let the full bitterness of grief wash out of her

eves.

Timmy heard her weeping as he passed through the gate, steeled himself, forced his suddenly leaden feet to move; they

carried him down the path and into the night.

t wo

When purple Antares rose majestically over the Whitecap Range next morning it found Timmy already on his way. He carried nothing but his cloak and a small pack strapped on his shoulders, nor needed more. Even the food in the pack was for emergencies. Under normal conditions he would live off the land. He moved at a steady, mile-eating trot, the pack swinging slightly on his shoulders, enjoying the feel of his own young strength, the play and movement of muscles under the hairy skin. There were joys in being a 'primitive' which the soft Earthpeople would never know.

The sun cleared the tops of the mountains and shed its purple light on the ochre-green trees around him. He was passing through a long arm of the forest that clothed the slopes of the Whitecaps, this particular arm running all the way to the sea. A half-hour's run brought him out of the thick woods and on to the rich grass which covered most of this fertile seaside plain the

Earthpeople has chosen as their first settlement.

Timmy was heading North-northeast, toward The Valley of the Sweetwater; at the head of that beautiful valley lived the People of the Trees, the nearest Loafer village to his own. On his left lay fifteen miles of plain, watered by an offshoot of the Sweetwater River, and then the grey and stormy sea. On his right the forest gradually faded back toward the mountains, becoming at last a thin line of trees marching upward into the

Sweetwater Valley.

The Whitecaps were a low range of mountains, over fifty miles long, which ran North and South twenty miles inland from the sea; at the head of the Sweetwater Valley they took a sharp turn to the West and ran down almost to the sea, making the valley a narrow neck of land a few miles wide, surrounded on three sides by mountains. Within this one protected spot lived the last remnants of what had once been a mighty race covering a great portion of Refuge, the intelligent breshwahr trees. Caring for these trees was the prime function of the Loafer village at the head of the valley and they had done so since recorded time began.

It was thirty miles to the Loafer village and noon found Timmy passing the farm of Sam Harper, Northernmost in the valley. Sam was a good friend of his and of the Sheldon family and had been instrumental in solving the deficient diet

problem which had plagued the breshwahr. In return the breshwahr, through their students and interpreters, the People of the Trees, had passed on to Sam their great knowledge of horticulture. Sam's first book, Farming on Refuge, was now issued to every new colonist along with several less advanced textbooks. His second, Principles of Plant Growth, a more general study of agricultural basics, was a run-away bestseller on other colonial worlds, despite its unorthodox approach to extensive cultivation.

He saw Sam working in the fields and waved, but did not go by the house. Cassie, Sam's wife, was a new mother. She had a daughter by a previous husband on Earth and now two more by Sam, both girls. Sam had informed all of Refuge who cared to listen that they were going to continue having children until Cassie gave birth to a boy and it was a local joke that they would have a girl for every fencepost in his frontyard before a boy came along. There were twenty-two such fenceposts.

A few minutes later Timmy entered the narrow upper neck of the Sweetwater Valley, where the People of the Trees had their homes. These Loafers built houses by planting leafy vines in a circle around a tree and forming the growing plants into large arbours. Circle after circle was planted and grown, until they had living green walls several feet thick. The vines chosen were the evergreen type and the houses were snug and warm during the winter, refreshingly cool during the summer. It was a great deal more work than hollowing out a waquilpod with grogroc labour, as did his own people, but it provided a better home.

He headed straight for the house of Brixta, Head Councillor since the death of the old patriarch, a distant relative of Timmy's, a year ago. Brixta came out of his door to meet him, a short, black-haired man with broad shoulders and a powerful body.

"I give greetings to Timmy, friend of The People of the Trees," murmured Brixta, crossing his arms above his chest in

the traditional friendly greeting.

"Hail, Brixta," returned Timmy, with equal formality. "I come as a man on havasid, homeless, friendless, wifeless, childless. I ask food and shelter for the news I bring."

Brixta's dark eyes opened wide, but he took the news that a neighbour only a half-day's run away was visiting him on havasid in good stride. "The doors of my house are open. All

that is within is yours. I speak for all my people. And now let me summon them, that you may tell us," his face broke into a broad smile, "all the news you have gathered in your long travels."

Timmy did not respond in kind. "Yes, I bring news," he said gravely and let it go at that. Brixta's face sobered and he

called to his wife to prepare food for their visitor.

The meal was totally vegetarian in nature, as was to be expected, and delicious. After he had eaten and rested a bit, Timmy talked quietly with Brixta while the tribe gathered outside. When at last he stepped through the door to confront his first audience, his thoughts had clarified and he was ready to speak.

There was a large cleared area in the approximate centre of the huge grove where no trees had been allowed to grow and the tribe of the Tree People had gathered there in all their numbers. A soft breeze whispered through the giant evergreens around them, murmuring over the thousands of foodplants growing in clusters and groups over every limb of the huge trees, climbing the great trunks in sinuous ripples, branching out from one tree to reach its nearest neighbour in aerial highways of primitive and disturbing beauty. Many of the trees themselves were fruit-bearers, such as the heavily-laden kitzl and others produced soft roots which could be dug and eaten without harm to the tree.

Scattered among the trees were many small patches of various plants which formed underground tubers and these too were cared for and harvested, but they ran a bad second to the plants which produced year after year without having to be replanted. The Loafers did not like destructive methods of farming, and lowered themselves to caring for seasonal plants only because the plants must die when their seed was made anyway. The bulk of their food came from plants which reflowered and reseeded themselves each year.

Timmy walked forward, on to a slight rise at the edge of the clearing which formed a natural podium and stood waiting. Brixta walked in front of him and held up his hand for silence. When the folk had quieted Brixta said, "People of the Trees! Our friend Timmy, of the People of the Seashore, is off on a great havasid, the first among his people to venture forth for many and many a season and we are his first contact. I ask that

we tell him all he does not know which might help the other peoples of our world and in turn listen to the words of wisdom he has to speak."

Loafers never applauded, nor did these people acknowledge the introduction in any other way. Timmy moved forward as Brixta stepped back, stood staring out at approximately onehundred adult Loafers and numerous progeny quietly waiting to hear his words and was suddenly and terribly afflicted with stagefright. He wished for nothing more than to retreat to the edge of the little rise and make his way through the heavy growth to the open grassland, let his flying feet take him far away from here. But it was impossible. He took a deep breath

and opened his mouth. The words must be said.

"People of the Trees! I bring you no news, no knowledge, and my head is filled with questions, not answers. My heart is fearful, my sleep broken and poor. Dreams come and they are evil dreams, which torment me without rest. I see my people divided and torn asunder, father against son, brother against sister. This has not come to pass, but I fear the future! My People of the Seashore are adopting the ways of the Hairless Ones. They seek the great knowledge of these people and neglect the cultivation of their own. In my tribe are two children, my niece and nephew, with the greatest powers known to any Loafer and yet their playmates ignore them and would seek to run with the Hairless Ones instead. I like not the path our young are taking, but have no power to deny it to them, nor certainty that I should try. The Hairless Ones are a people as uncountable as the drops of water in the oceans and their powers are strange but mighty. We would do well to learn from them.

"And yet . . . we, too, have been learning and slow and torturous though it has been we have progressed, we have increased, we have controlled the forces of nature and forced them to serve our needs. We create without destroying, a method of living the Hairless Ones neither know nor care about. I stand before you now, and I ask: Is your contact with the Hairless Ones wholly good?"

There was swift and angry reaction among the seated Loafers and several men rose to speak. Each glanced about him, and finally all but the obviously oldest man sat down again.

These people, at least, had not lost their manners.

The patriarch who stood must have been at least two-hundred years old, though his strong voice and youthful manner belied the grey in his body hair. "I give you greeting, young havasid traveller," he began courteously. "It is long since we have looked upon your face and it is welcome here. But I do not understand your errand, nor do I believe in it. Our friendship with the Hairless Ones, particularly the big men Sam Harper and Brian Jacobs, has brought us nothing but prosperity and profit. You were here when we confronted our Hairless neighbours in anger and you know well the happy ending. And now our charge, the breshwahr trees, grow strong and tall in the sunlight, and daily their wisdom, and ours, increases. None of this would have come to pass were it not for the aid of the Hairless Ones.

"Now Sam Harper's farm is the showplace of this planet and his tales-you-look-at are heard by all his fellow farmers and their crops, too, grow and prosper. Nor are our neighbouring tribesmen neglected, for we send the knowledge we acquire from the breshwahr freely to all peoples and each day we learn more on how to grow and care for plants. Nothing troublesome has happened in our village, our youngsters obey their elders and the Hairless Ones faithfully supply that wonderful food called borax which the breshwahr must have. We see no need for your mission."

He sat down again and Timmy rose to give a brief answer. "I thank the wise elder for his words and I am glad the People of the Trees are happy and prosperous. I am proud to have had a part, however small, in bringing this about. But you are only one tribe and there are many more. Your contact with Hairless Ones has been limited to a few people and I fear that as time goes on and more and more Earthpeople move into your pleasant valley and the beautiful plain below us, your relationships with them will change. And now I leave you, to continue my quest for knowledge."

He saluted the people and walked away. When he reached the edge of the trees he began to trot and by the time he passed the last of the beautiful arbours he had settled down to the steady pace that would cover many miles each day. The journey would be long.

He turned Northeast as he left the inhabited area, aiming for the only pass through the Whitecaps in this vicinity. It was only a few minutes run out of the wooded area and as Timmy

emerged into the open, not a mile from a steep scarp which formed the sudden end of the Sweetwater Valley on the North, he felt a presence near him had turned. A young girl emerged from the trees behind him, running a trifle faster than he and was soon beside him. She was obviously a pre-initiate and though her features were pleasant and her rangy body gave promise of beauty lurking in the future, for now she was a scrawny child. The only distinguishing mark about her was a series of odd golden markings scattered through an unusually thick coating of standard brown hair. These were neither bright nor prominent, but were so rare among the Loafers they were something of an anomaly.

The girl was panting slightly when she reached him and he slowed his pace till she recovered her breath. When her breathing eased she said, "I come to show you the easier path."

Timmy raised his eyebrows in mild surprise, but said nothing. He had not been aware there were two paths through the mountains.

The girl led him slightly past the rocky path to the open pass he could see in the distance, and along a trail that climbed precipitously upward until it debouched on to a small flat cup cut into the side of the mountain. A deep fissure led directly into the heart of the rocks. It was obviously an old streambed of the Sweetwater River and the spot where he stood had once formed the lip of a high waterfall. It must have been a wonderful sight before remorseless nature had changed the course of the stream somewhere higher in the mountains, bringing it out at its present spot.

"The streambed runs straight and narrow for many miles and the bottom is sand and easy on the feet," said the girl, halting. "When you reach the end —as all good things must end, which my people in time will learn — you must go forward over the rough rocks for only a little way, keeping the rising sun always in your eyes and you will find the beginning of another old streambed which will take you down to the plain again. I wish you good fortune."

She turned and would have run away, but Timmy called her back. "I thank you for your help, and would ask your name,"

he said gravely.

"My help is nothing and I give it gladly. My name is Bilejah, daughter of Brixta and the name I will not give so freely and, I feel, not without much suffering and pain. And now good-bye."

The strange child turned and was gone.

The little cup was swiftly filling with darkness, great Antares sinking rapidly in the West and the great shadows of the Whitecaps running across the narrow valley toward him. Timmy turned into the narrow opening, already gloomy in the dim light and set off down it at a trot. It was cool at this height and he ran for only a short time. When true darkness came he stopped and ate from his pack, doing without water because there was none easily available. A hole scooped into the sand made him a bed and the whirtleloak provided adequate warmth.

Timmy was awake and had eaten before daylight and within an hour found some water, a small stream trickling down the side of the precipitous slope, to become lost in the sand. He ate again just before dark, still on the move and kept on till the last rays of light faded away. He spent that second night at the foot of the rocky wall that separated the two streambeds of

which Belijah had spoken.

He found the second streambed at daybreak without any trouble and in climbing over the high shoulder separating the two discovered he was almost out of the mountains. When the sun reached the zenith he was at the base of the chain and by dark he was walking again on heavy grass and around him were the familiar shapes of ochre-green trees.

three

Timmy knew, both from his own folklore and geography lessons in nightschool, that this forest East of the Whitecaps extended for over two hundred miles before gradually thinning out into scattered woods and grassy areas similar to the territory around Refuge. For this reason it had not been chosen as an Earth colony and its only inhabitants were a few Loafer colonies. In time, Timmy knew, the mighty forest would yield to the encroachments of the farmers, but for now there was so much grassy land available in the high-rain areas it was not economically feasible to clear land.

He ran through the forest at a steady lope, seeing the usual multitude of life that frequented these forest glades and ignoring it. He stopped when the light became too poor for running and easily located the cache of a small nut-gathering mammal in the gathering dark. With his lean fingers he cracked the nuts, one against the other and ate all he needed, supplementing his

diet with some early-ripening fruits from nearby bushes. He went to bed full-stomached and without having touched his

shoulder pack.

Timmy covered the two-hundred miles of forest in three days, his lean body and hard muscles easily adapting to the demands of a constant trot. He was beginning to feel the affects of prolonged exertion—a certain residual tiredness in the leg muscles, lack of reserve energy for sudden efforts—when the woods began to thin. He had seen three separate traces of Loafer cultures in the forest, but had not encountered a living soul in all its vast expanse.

This new country of grassy, rolling hills, marked by clumps of trees scattered seemingly at random over the landscape, reminded him very much of home, but the altitude was at least two-thousand feet above sea level and the climate far more dry. He slowed to a walk and began to eat more heavily, munching nuts and easily available fruits picked as he passed. He also dipped into his pack and ate some dried fish.

He became aware he had passed into Loafer country again

when he saw the breshwahr tree.

The short, heavy trunk and rounded bushy top were unmistakable, but the strong sense of presence which the intelligent breshwahr emitted was strangely absent. Timmy stopped, lay down on the heavy grass and closed his eyes, opening his mind fully to reception. There was nothing, not a trace of consciousness except the dim minds of nearby animals. He tried projecting to the tree and again there was nothing. He tried again, harder and suddenly there was an answer and a sense of presence that was overwhelming in its intensity. But it was not the tree.

Greeting to you, stranger. Who are you, that pass our way and

attempt to talk to the breshwahr in the olden way?

The sense impressions were clear and loud, as much so as if they had been spoken into his ear. They were accompanied by a vague image of a woman, an old one, and of wisdom such as is seldom known. Behind the total impression, lurking dimly but omnipresent in the background, was the sense of approaching death.

Of all his tribe, only the two infant prodigies, his cousins Micka and Sanda, could project clear speech that way, though anyone trained to be a Controller could receive and understand.

There was little point in trying to project an answer. Instead Timmy opened his perception, tracing his consciousness of impinging thought until he had a specific and certain direction from which the message came. Though most of his own people could neither send nor receive such clear impressions they were all capable of projecting emotions-senses-sensations and equally capable of locating a person so projecting from many miles away.

There was a small chuckle in his mind and a sense of understanding. But the only words received were, Come to me.

Timmy set off through the woods at a brisk trot, and his unwavering feet led him off at an angle from his original path. In less than an hour he was in a small grove of trees, surrounded on all sides by unusually large expanses of grass. On a smaller scale the grove was a duplicate of that fecund farm at the head of the Sweetwater, but the foodplants showed less care and the grove had none of the parklike appearance of the larger village. Nor was there an arbour for a house. In the centre of the grove was an immense breshwahr, an old giant that would have measured twenty feet through its dead trunk. It was hollow near its base, partly through natural causes and partly through the efforts of thousands of wood-eating insects some long-dead Controller had set to eating the pulp for reasons their dim instinctual minds would never know or understand. A small crack, barely large enough to admit him, opened from eight feet above the ground to its base.

Timmy stepped to the door, hesitated, and was met with a strong surge of welcome-enter-warmth-joy-to-see-you. He stepped inside and saw the dying woman.

She might have been two-hundred, but hardly more, and it was not age that brought death stealing upon her. Her body-hair was silver-tipped but still thick, the worn old body still

strong.

"Greetings to you, young stranger named Timmy. Know that you look upon Shuhallah the Barren, wife of many men but mother of none. Aye, and had it not been for the latter perhaps there would have been but one of the former. And do not look so worried or heart-broken. Death will not jump from me to you today, though it comes to all in time. And you guess rightly, I carry my own death inside me, bound up in some cursed way I do not understand with the sickness that would let

me conceive time and again, but bring nothing to fruition. Such has been my life and gladly do I leave it behind me now. What brings you forth upon havasid?"

Her words were brave ones, but beneath them, so strongly present not even her magnificent Control could entirely hide it,

was a lurking fear.

"I go on havasid because my mind is worried and I fear for my people. And already it is worthwhile, for I have found you. Tell me, how comes it that you possess such marvellous power

of speech-through-thought?"

She chuckled slightly and grimaced when the laughter brought her pain. "It has been so since I passed my initiation rites as a young woman, ten generations before you were born. All the people of my village rejoiced, for from my seed and the seed of the best Controller in the Village, would come children of marvellous and mighty powers. Aye, Naboli was a mighty Controller and he took me as a mate though he yearned for the silky-haired Evishah and in the end, when for the fourth time the child appeared before it should and was dead as had been the rest, he went back to her. Yes, the silky-haired one waited and in the end they found happiness and I went on to my next husband. When that baby, too, came early and dead the Head Councillor decreed that I must have as many babies by as many men as possible, in hopes that the gift I possessed might not die with me. Aye, over a span of many years, eight separate women watched with anguish in their eyes while their husbands came to my hut and kept coming, until I conceived The babes came forth, and dead ! dead ! all from each one. dead, all dead.

"And then we knew beyond doubt that the fault was mine alone and the people gave me peace. But no man would have the woman used by so many men and I became a ward of the chief. I resided in his house and was as a second wife to him save that he would not touch me. But over the years the juices of life stirred in me again, my womb ached to be filled beyond all bearing and one night when the chief's wife was sitting with a daughter giving birth, I crept into his bed. He repulsed me, though with many kind words and I walked forth into the night

and never returned."

She stopped, and Timmy, who had sank into a crouch on the dirt floor, slowly straightened his legs and made himself more comfortable. The old woman's tale was the most amazing he

had ever heard and he hardly knew whether to believe her or credit her ravings to the disorder of a mind approaching death. Infidelity was completely unknown to the Loafers, in fact impossible, since the emotions of the guilty parties could not be hidden from affected mates. But still, if the Head Councillor had been intent on preserving the precious gifts that belonged to this woman alone, perhaps he had been of such stern stuff that he had overruled the natural inclinations of his people and their moral code as well, to ensure that she was fertilized by as many men as possible. And all of it, apparently, to no avail.

"Strange are the ways of life," the old woman resumed, in a more gentle voice. "I came to these woods, many miles from my people, wanting nothing more than that my death should be quick and kind. But living in this old tree was a young man, an outcast like myself. He had failed the initiation rites, failed them three times in three different tribes and after the third failure had gone forth into the wilderness to die. But life was strong and though he was welcome nowhere he found the food that keeps life in the body and the water that quenches great thirst. And when I came I provided the last great meaning of life, a woman of his own.

"True, I was old enough to be his mother, my firstborn would have been older than he had the babe lived, but what did it matter? We had only each other and I treated him like a man and husband, not a boy, and he behaved toward me as a man to a wife young and virginal. I conceived again and the baby came to full-term and was born alive, but died within minutes, of causes we could not understand. We buried it with great grief and conceived another and yet another, and still one more, before my worn body ceased to bloom and seed lay

fallow in my womb.

"My young man grew old burying his babies, for all came forth full and whole, to die in his arms. Still, he did not leave me, for it was me he loved and not for babes alone. No, a grogroc killed him one day when the great beast came upon him picking fruit from a tree the monster felt was his own. If only he had been even a little of a Controller—but then, if he had had any ability he would not have been lurking in this hollow tree when I came."

Timmy felt the burn of tears in his eyes and angrily brushed them away. There were many tragedies on a world peopled by a primitive race who had the beginnings of a power they neither understood nor fully utilized. Why should he cry over this one?

The silence was broken by a gasp of pain from the old woman and she reared half-upright on her bed of branches. Her body convulsed, grew rigid with pain and her loud breathing was sharp and ragged. Timmy jumped to his feet and crossed the small room to her, but she motioned him back.

"No use, young man. I was born with this curse and in the end it is killing me, as it should. I have wished for a death quick and kind, but such is not my fate." She was silent for a moment and her breathing eased, but as Timmy started to sit down again another attack started and her lean old body shook

with spasms of pain.

Timmy stepped to the edge of the bed, knelt, took the old head into his arms and projected peace-calm-ease-ease with all the power at his command. From somewhere he drew extra strength, so much so that he penetrated her defences and reached the deeper areas of her consciousness. The pain went away, her breathing fell into a long shallow pattern and the tired old heart eased to a slow, faltering beat.

She raised one thin, tired arm. "You are a very kind young man," she whispered tautly, and caressed his cheek with fingers

of bone.

He held her so, without moving, for another hour and wept unashamedly, the tears running down his hairy cheeks in broken streams, when the old woman died.

Timmy buried her beneath the dirt floor of the tree that had

been the scene of her only happiness and went on his way.

Two days hard walking brought him to her village.

four

These people lived in wooden houses and Timmy saw with dismay that the wood had been cut and fashioned with woodworking tools. And those tools would have come from Earthmen.

The village was prosperous and well-kept, the streets clean, the houses laid out in neat and ordered rows, very much unlike the natural disorder so evident in a waquilpod grove. In fact, it looked like a small and primitive town such as he had seen in history books on far-away Earth, not a Loafer village at all.

He arrived just as the sun was hiding its face beyond the edge of the forest and was in time to see a large group of women coming into the village from a broad dirt road that started on the other side of the town and vanished in the distance. Behind them walked a smaller band of men, laughing and joking with the women. Timmy saw with dismay that all were dressed in Earthly clothes.

"May I help you, strange one?" said a pleasant voice and Timmy slowly turned from staring at the returning band of villagers to confront a man only a little older than himself who

stood quietly watching him.

"Yes, I am Timmy, son of Nyyub, Head Councillor of The People of the Seashore. I am on havasid, seeking knowledge and passing out what poor news or knowledge I possess. For now, I would ask what is the meaning of this large group of women and the smaller group of men I see, coming toward the village at the end of the day, dressed in clothes made by the

people of Earth."

A look of marked respect came into the young adult's eyes and he stepped forward and offered his hand in friendship. "I am Karul, Head Councillor of these people since the death of my father two years ago. You are the first Controller on havasid that we have seen in more years than I can remember and I bid you welcome. To answer your first question—those women you see are the women of my tribe who work in the homes of the people from Earth and the men work on the farms or in the stores in the town. It is the money they bring home which enabled us to buy the lumber from which we built these fine homes and the tools with which to assemble that lumber."

Timmy heard the words but they failed to register. It was as if they numbed him with their impact, leaving him free of emotion or pain. He looked again over the small village and saw, everywhere, the unmistakable hand of the Earthmen.

"And what is this building and the shiny tree that towers above it?" Timmy asked, pointing to a long, low building in the approximate centre of the little town, where the silvery

tracery of a tri-di antenna jutted into the sky.

"That is our council house, where we meet when matters that affect us all must come before the attention of the people," said the young chief earnestly. "The silvery thing is part of a gift from the Earthpeople to our village. The other part is inside and connects to this one through a thin vine. The one inside is called a tri-di and has a clear face upon which pictures appear and has a voice with which the pictures can speak and

tell us many things. It is a wonderful gift and we gather almost every night to watch the clear face and see the people in it do

those funny things the Earthpeople do."

They had been walking as they talked and now the young chief opened a door and ushered Timmy into his home. An old woman rose from a chair by a long low table, where she had been munching fruit from a bowl in its centre and smiled at the stranger. "My mother, Nancil, widow of Jo'ran. She is the mistress of the house of the Head Councillor, for I have not taken a wife."

Timmy muttered a greeting to Nancil and then continued his questions. "In my tribe, O chief, we have no tri-di, but the story-tellers have the children gather round and they tell those tales of our people which have been passed from father to son back to the beginning and while they talk they project the emotions of the people of whom they speak. This seems to us a more satisfying and complete story than those told on the tri-di. Do you still have projectors in this tribe?"

"No, that is a practice our people discontinued over a year back, when we stopped holding the Controller's school for children," said Karul, speaking the fateful words without a

trace of emotion.

There was a moment of silence, which began to stretch out interminably. Karul waited impatiently for the next question, then finally asked, "And what else would my visitor on havasid know?"

"I have already heard more than my heart can easily stand," said Timmy wearily, rising to his feet. "I thank you for your hospitality, but now I will bid you farewell, for you are dead as Loafers and I would not linger in the presence of death."

He walked to the door, but paused a moment before stepping out and said sombrely, "I can only say there was once greatness in this tribe and now the Earthmen's machines have drained it away. Two day's hard walking to the West is a foodgrove and in the centre of this grove is a great hollow breshwahr tree and in this tree I held in my arms Shuhallah the Barren, while the spark of life in her wavered, flickered and died. She was the greatest Controller I have ever known and your father Jo'ran the greatest councillor of whom I have ever heard. Only a great man could have compelled eight Controllers to each father a child by Shuhallah, in hope that her wonderful gifts might be preserved. And now I find the tribe that produced

these two great ones no longer teaches Controlling to its youngsters and the son of the greatest chief in history leads his people to their own destruction."

There was a shocked and stricken silence in the hut and Timmy turned away and headed for the outskirts at a fast walk. A Loafer's sensitivity to other people's feelings kept them the most polite people in the universe and Timmy had just committed the cardinal sin of deliberately hurting other people's feelings and insulting a host.

"Wait!" came a hard, taut voice behind him.

Timmy stopped, turned and waited, in stony silence. Karul marched down the street toward him and in the young man's face was a controlled anger and great grief.

"I think you go upon havasid not to gather knowledge but to confirm that which you already believe," said Karul when once

more he faced Timmy.

A small crowd of curious people quickly gathered around the two tense young men, and watched the verbal duel attentively. "I think, furthermore, that you know not too much of that subject on which you presume to speak. It is true Shuhallah was the greatest of Controllers and it is true my father fought hard to perpetuate her gift. Yet you see the result of it all. She is dead and not one child lives. She is dead after giving birth more times than a dozen normal women, and all, all was in vain. Yet it need not have been! I have talked about this with the medicine men in the nearby town of Hairless Ones and he tells me he could easily have cured the woman, so that childbirth would have been as nothing to her and the babies would have lived. Is it so bad, then, that we seek to learn the knowledge of these Hairless Ones?"

"You seek to learn at the cost of sacrificing your own knowledge," said Timmy, keeping his voice calm by a visible effort. "You grasp at strange fruit on the higher branches and let those fruits of our own making rot and fall in decay from the branches just before your eyes."

"Is this so evil a thing? The Earthmen trace back their origins only a few thousands of their years, a time much shorter than the history of our own people, which any child can recite by the hour. And yet today? They are a great people, billions strong, spread out over a hundred stars and they live lives of magnificence and splendour such as savages like our-

selves can scarcely conceive. And we, in all our long years of striving, have produced a few like Shuhallah the Barren, and Micka of your tribe, of whom I have heard. They have taken the right path, the path to true greatness and ourselves the hard and stony trail to nowhere. Now we have changed our direction and we care not what any upstart such as yourself thinks of this, or of us."

There was anger in Karul's voice and, Timmy finally saw, iron in his backbone. This young man was a worthy successor to Jo'ran his father and the greatness had not died with the older man.

"I confess myself in error," said Timmy slowly, gathering his thoughts as he spoke. There was a visible sigh of relief from the people gathered around the duelists. "I thought, in my ignorance, that you had unwittingly abandoned the ancient ways of your fathers, were being led like runners to the claws of the flying cats, to be devoured by the Earthmen's great stomach. I see it is not so. You have thought out this problem and deliberately set your feet on the course you think best and are pursuing your way with vigour and determination. And yet, have you taken a wise step? Should the people who produced one like Shuhallah abandon the teachings that led to her greatness, when in starting to act like Earthmen you must begin at the bottom of a tall tall tree, never knowing if someday your children's children may reach the higher branches?

"Have you asked yourselves what a whole tribe of people such as Shuhallah and little Micka might be able to do? As for the Hairless Ones, it is true that as a people they are great, mighty indeed—and yet, have you ever known a single Hairless One who was happy, or content with his lot? I say that the individuals among the Earthmen's race lead lives of individual unhappiness, while the dissatisfied among our own people are a small number and of no account. These things should be thought through before you abandon an old way of

life for one new and strange."

"We have thought it through," said Karul calmly. His voice was less emotional than before, but just as determined. "There will be no more Shuhallahs among our people, to give birth to dead babies in travail and great pain. There will be no more forcing of honest men into painful acts which are against their conscience and their desires. We go our way in peace. In peace, go you yours."

Timmy gravely inclined his head, in mute respect, and turned

away.

He followed the broad road toward the near-by matter transmitter and the town that had grown around it, the nearest Hairless Ones' town to Refuge. He had run and walked for many days to reach this town and yet he knew that the Earthmen, in their flying ships, could speed from one town to the other in a matter of a few hours. Better yet, the towering transmitters could send goods back and forth instantly and not just from one town to another but from one star to one unthinkable distances away. Still, the problem of sending people themselves had not been solved until the Loafers and breshwahr lent the Earthpeople their wisdom. And was the transmitter really needed? Would Micka, when she was a little older, be able to move from one spot to another instantly and without the machine? Could this ability be taught to everyone? Already Micka could fly and she was a child only ten years old. What might she do as an adult?

There was no sure answer save to wait and see and train and nurse her child's strength as well as their weaker powers allowed. Time and hard work would supply the final answer.

The town was extremely unprepossessing when he finally reached it, the houses dingy and not very well kept up. The familiar rounded bulk of the transmitter house towered into the air, obscuring some of the stars that filled the clear night sky. There was very little difference between this town and Refuge, save that Refuge was a trifle larger and older, and these people had a luxury not possessed by the older community. They had hairy servants.

Timmy finally reached the familiar circular road that surrounded the transmitter building. He walked a quarter way around the circle and took the dirt road North. The two small moons of Refuge were high in the sky when he finally crawled off the road in some heavy brush and wrapped his wirtleloak

around himself.

Eight days later, days of hard and weary travelling, he walked into the next Earthmen's town.

five

The way had been slightly East and hard North for most of the distance and the land had changed from lush ochre-green forests to a rolling, hilly country of wide valleys and small streams, where only a few white mountaintops loomed dimly in the distance. The elevation had been rising steadily since he started North and was now at least a thousand feet higher than at the village of the young chief Karul. Most of the hills and gentle slopes were covered with a thick and luxuriant grass, while heavy groves of trees outlined the many small clear streams crawling down the length of the fecund valleys. This was not good farming land but was almost ideal for cattle raising and the rounded hills were covered with their heavy Too large for the small predators to attack, of no interest to the giant but herbivorous grogrocs, the cattle gorged themselves on the heavy grass and grew fat on the supplemental grains grown for them in the cultivated areas. And except during the rugged winters they required little care or attention. Pound for pound, Timmy knew, they could not be raised as quickly and cheaply as the native fatbirds, the specialty of Carey and the farmers of the Refuge region, but they were an excellent substitute.

This town was new and small and Timmy found that he and his wirtl-leaf cloak, obviously something new in these surroundings, attracted many curious glances. No one said anything to him, however, and he went his way in peace. He saw two other Loafers, both women, buying goods in the wooden stores, but no Loafer men or children. The women were dressed in Earthly fashion, short skirts and split-neck blouses over their luxuriant body hair and Timmy thought they looked ridiculous. They seemed quite sure of themselves, however, and were paying for their purchases with Earth Central credit notes.

He turned East at the transmitter circle and headed back into the open countryside. This particular village was a good distance from the town and it was approaching dark. He had a night to spend on the road. Which aroused a question. Did the women he had seen spend their nights in town? If so this

village was in even worse shape than Karul's.

Several of the small streams which flowed South combined just East of the town to become a small river, one which wandered through valley after valley in a crooked course that

led it two miles sideways for each mile of progress. Timmy stopped on its bank just before dark and withdrew a small dipnet from his pack, waded into the shallow water and projected the image of a large, deadly riverfish with which he was He focused the image a hundred yards upstream and waited.

The dim minds of all the creatures in the river suddenly were aware that a hungry enemy lurked a short distance away and those who feared it or were its natural prey began a blind rush downstream. The water boiled with the dark forms of fleeing fish, some of whom unavoidably passed close by Timmy. The dipnet flashed and missed and flashed again and a small specimen was in Timmy's hand. He held the quivering form a moment, reluctant to do what he must, then broke its neck with a swift twist.

No others came by him and after a moment he shifted the image, moving it a hundred yards downstream. The panicked rush of the river life stalled, hesitated, dim memories of danger at the point they had just left troubling instinctive minds and then they yielded to the stirring of instincts too strong to be fought and went flashing upstream again. This time Timmy netted a large one, and his main dish was complete.

There was a cornfield only a short distance away and that farmer unknowingly surrendered several of the ripe ears to Timmy. He liked the tender corn raw, but since he had to cook the fish anyway he had roasted corn that night. It was a much larger and better meal than he had grown accustomed to and Timmy found himself sleepy soon afterwards. He tossed the small debris from his meal into the purling river water and laid down by its soothing murmur to sleep.

He slept heavily for the first two hours, shifting position once or twice to ease cramped muscles and then the first dream came.

She had long brown hair, spread in lavish disarray on the white pillow and a white sheet was pulled up to her hairy chin, hiding the ripe and opulent form beneath. Her lips were painted a carmine red and her eyes, brown and large, peered from a face which had been cleverly touched with makeup. She was smiling, a rich and promising smile of welcome for him alone and one slim hand came from beneath the sheet and slowly, lingeringly, pushed the white cover downward. Timmy found himself moving forward, bending down into warm arms and a fervid caress.

He began to awaken as the warm lips touched his own, forcing his way upward and out of the cloying sweetness of the dream. He came awake to find himself trembling, sweat on his forehead and a slight nausea in his stomach. Like all Loafers he was familiar with sex, since they regarded it as a natural function and made little effort to conceal it, but promiscuity was completely unknown and like all unmarried males Timmy was a virgin.

He lay awake for a moment, wondering what mental unrest had brought on such an unusual experience and then slowly some oddities in the dream began to stand forth and he grew even more disturbed. Why had he dreamed of such a lush woman in an Earthman's bed and himself approaching it, when he had never slept in such a bed in his life? And why was the woman wearing paint on her face? For that matter, the provocative way she had handled the bedsheet was completely unlike the Loafer women, who slept in nudity save for wirtl-cloaks or some other woven covering. And certainly women who walked about completely nude in the daytime would hardly try to tempt a man at night by covering up the same body they had seen all day. Or would they? Earthwomen, on a lesser scale, did just that.

Timmy lay back down, relaxed his body and opened his mind

to reception.

The sensations came flooding in, strong and vigorous. The Loafer ability to project sensations-feelings-impulses was there, but their weakness at projecting images made the picture less clear than it had been to his sleeping mind. The time sequence had changed so that Timmy found himself engaged in copulation with the women.

He withdrew before the full strength of the projection reached him and sat up again. Someone nearby was projecting a series of controlled and calculated stories and projecting them in such a fashion that the recipient seemed to be participating in the actions and sensations of the central character. That projectionist had to be a Loafer . . . and the recipients were Earthmen.

He returned to the dream and hovered on its fringes until it was over, permitting himself to absorb enough of the projection to follow the story without feeling the sensations. It lasted only a moment more and ended with the central character leaving the way he had come, with the hairy woman lying uncovered on the bed behind him.

Timmy focused his attention on the direction of the projection and saw with a sensation of sickness, when he opened his eyes, that it came straight from the direction of the

village he was seeking.

Troubled and badly disturbed, he set up a mental barricade against receiving any projection for the rest of the night and went to sleep. Two more projections came and battered against his consciousness and his sleeping mind duly recorded their attempted entry, but would not let them pass.

Timmy slept slightly past sunrise the next morning, and hurriedly breakfasted on water and a little fruit he found nearby. He was on his way before the sun had been up an

hour and by noon was walking into the village.

Like Karul's village, this one was made of wooden homes, built with Earthmen's tools. Unlike the young chief's, though, was the disorder, filth, and run-down condition rampant throughout this town. The buildings were unpainted and the naked wood warped and curled under the purple sun, oozing the green juices of all Refuge trees. Garbage lay piled just outside the doors of many houses and dogs from Earth nosed through their smelly contents in search of food. Loafer children played in the wide street, a screaming, running game very much unlike those played by the children in his own community. And the final, shattering blow was dealt when he passed by the first house and saw, in the tiny alley between it and its neighbour, the sleeping form of a young Loafer. He had vomited in his sleep and the rank, sour smell hung over him in a trenchant cloud, almost dispelling the lingering odour of alcohol.

Timmy felt his own stomach heave at the sight and rigorously controlled himself. He walked on down the street to the largest house he saw and inquiry of a child lingering nearby indicated it was indeed the house of the chief.

"Greetings to the Head Councillor of this village. A stranger on havasid desires to enter the house of the chief, that knowledge may be exchanged and wisdom gained by all," Timmy said loudly outside the door, in the age-old ritual.

There was blank, aching silence for a long and unendurable moment and then a hoarse voice called an invitation to enter.

Timmy stepped inside the open door and found himself in the presence of the largest woman he had ever seen.

She was the sole occupant of the hut and seemed to almost fill it, her vast girth comfortably ensconced in a specially-made chair. Rolls of fat hung from a chin of vast size, the huge dewlaps hanging down until they almost touched her heavy shoulders. The great body swelled out from the shoulders in an enormous circle, seeming to expand in every direction at once. She wore no clothes and her enormous body was sweating slightly in the noon warmth. She was easily the most repulsive Loafer Timmy had ever seen and he had known some of striking ugliness. Sometimes control over a grogroc slipped and the ugly beasts needed only one swipe with their great horns to mar a Controller for life.

"A young man on havasid. It has been many years," said the hoarse voice and now Timmy realized the voice was unmistakably a woman's. Women Head Councillors were

very rare and this was the first one Timmy had met.

"Do not stare at me as though you had never seen a fat woman before," said the hoarse voice, not unkindly. She was, as a matter of fact, the first fat Loafer Timmy had ever seen, of either sex. "Our village is prosperous and happy and food is plentiful. Sit you down and I will have one of my girls bring

you food."

She gestured regally to a normal-sized chair in front of a small table and Timmy obediently sat in it, though it was very uncomfortable. The female chief called a name in a loud voice and a young girl, just past puberty, entered the hut. At her mother's direction she produced food from cabinets in the walls, most of it Earth-grown or packaged, but some fresh vegetables and fruits as well and placed them in front of Timmy. From somewhere she produced a clay pot of cool water and a drinking gourd and left Timmy to his meal.

He was ravenously hungry and ate with vigour, even partaking of the foreign food, some of which he had eaten at the Sheldon house. When his appetite was satisfied he pushed back from the table and formally thanked his hostess, who dismissed his words with a wave of her pulpy hand. She had bright, clear, intelligent-appearing eyes buried in the fat of her face and they regarded him with open curiosity as he turned to face her.

"And now, young traveller, ask what you will and I will try

to answer."

"I have one question and perhaps after it there need be no others," said Timmy slowly. "Last night I slept an hour's walk from the town of the Earthpeople and I dreamed a strange and disturbing dream. It was very similar to the stories our wise old ones used to tell to the young children, the teller projecting as he spoke, so that the listener received the words, sensations, feelings and emotions of the taleteller. It was very like this and yet different in a way that is hard to describe. And the dream was of a nature strange to me and one I could not understand. There was a stout Loafer woman, in an Earthman's bed—"

"You have said enough," said the hoarse voice softly. The bright eyes regarded him in a manner no longer friendly and her great bulk heaved uneasily in the huge chair. "I think there is little you have not guessed. Yes, our best projectors work each night, sending dreams to those Earthmen who wish to pay us for the pleasurable sensations they experience and it is this money which enables us to buy these fine houses and our abundant food. We no longer attempt to control animals, or grow our own food. My people live in comfort and ease and at no cost in work to ourselves."

"And where will the young Controllers come from, when the projectors you have working for you now die?" asked Timmy grimly. The fat woman did not answer. "One other question," Timmy went on. His voice was devoid of emotion. "I saw some Loafer women in town as I came through and I spent the night on the road because I could not reach here by dark. Where did those women spend the night?"

"In the beds of former customers who are no longer satisfied with dreams," said the fat woman angrily. There was a strained silence and then she added, a defensive note in her voice, "They pay our young women well, those Earthmen who have no women of their own, and it does harm to no one. An Earthman and a Loafer woman cannot make a child."

Timmy rose to his feet, shuddering as though struck by a sudden chill and turned toward the door. "I have no more questions and no knowledge I can give to you," he said in a choking voice and stepped quickly outside the small building.

"Wait!" said the hoarse voice and there was menace in the tone.

Timmy broke into a hard run and behind him there was a sudden scream of rage. No one attempted to stop him and he deftly avoided running down a small group of children playing

at the edge of the village. He glanced back as he passed the last house and saw the huge form of the woman standing outside the door of her hut, still screaming in anger. She saw him looking back and raised a fist in impotent fury and then he turned his face forward and ran as though fleeing from a plague.

In the next two towns he found Loafers and Earthmen working together in peace and harmony, with obvious gains to both. Here, too, he found the seeds of change firmly planted and growing, but the Loafers were developing in the direction Karul had taken and seemed happy with the gradual changes in their way of life. The questions that burned deep in his mind were still unanswered when he walked wearily eastward out of that fifth town. Strong and sharp before his tired eyes hovered the image of a thin brown face, framed by russet-red hair and on that face were embedded the twin sorrows of grief and pain. In his ears was the mocking echo of a remembered voice, but the voice was that of a man and it said, "I think you go on havasid not to gather knowledge but to confirm that which you already believe."

six

The trial was drawing huge crowds, so big that the small office of the Security Section Head, where such infrequent occurrences as trials were normally held, could not pretend to hold them and after the first day it had been moved to the larger Colony Centre. On colony worlds, where Earth Central established the laws and penalties, trials were rare anyway. Any major offence automatically meant the offender would be returned to Earth. And a "return to Earth" sentence did not require the concurrence of the court, but merely a signed statement from the planet's Security Section Head that the person in question was not suited to colony life. Until the advent of live transmission of people the ten colonies on Refuge had had but a single jurist.

The reason for the extreme interest was the fact the person on trial could *not* be returned to Earth. He was a Loafer.

This trial is going to establish a lot of precedents, thought Carey Sheldon as he sat on the hard bench at the front of the crowded impromptu courtroom. The first trial of an alien by an Earthman's court, the implied acknowledgement that a Loafer was human and responsible for his actions and the tacit acceptance by the law of the Loafer's mental powers as a force which existed in physical fact and for which they could be held accountable. This trial would become an important part of the recorded history of human law and the presiding jurist, Justice Hannah Cavanaugh seemed well aware of it. She was a quiet, controlled woman whose dark-brown hair was just turning grey and she ruled the sometimes turbulent courtroom with a fist of iron. Several indignant farmers had already been expelled for loudness and disorder and more would go if necessary. Justice Cavanaugh was an appointed, not elected, official.

Doreen stirred restlessly by his side. The Security Section chief in charge of the Refuge area, whose duties included acting as prosecutor, was winding up his summation and charge to the There remained only the defence by young Similik's attorney before the jury would file out and return in very short order, Carey was sure, with a verdict of innocent. It could hardly be any other way. Similik was accused of manslaughter in the death of a local farm boy, Harvey Phillips, the youngest son of the prosperous Phillips' clan. The two boys had been approaching the finish line after a hotly contested race, with young Phillips slightly in the lead, when Phillips' horse unaccountably stumbled, throwing its rider. Similik went on to win the race and the large reward promised him by the horse's backers, but Harvey Phillips did not cross the line at all. He landed on his head and flipped over on his back, then rolled for twenty feet more. When he stopped his neck was broken, the spinal cord completely severed and he was dead.

Similik had been twenty feet away and slightly behind Harvey Phillips when the accident occurred. There was no possibility that he had somehow contrived to trip the horse, for the accident happened in full view of the crowd waiting at the finish line. Nothing would have come from the event had not another young Loafer, disgruntled at losing both race and prize money, accused Similik in public of having used his power as a pre-initiate trainee in Controlling to force the horse to stumble. This had been one of the most heavily bet races of the year and the large sums riding on the two horses made Harvey Phillip's backers decide to accuse Similik of cheating, in the hope of

having the race decision set aside.

REFUGE 35

Surprisingly, the unhappy young Loafer who had lost the race had testified, without the slightest indication that he was lying, that he had felt a surge of mental projection as the horse stumbled and went down. He had not been able to place the specific spot where the power appeared, or identify the projecter and Similik had vigorously denied that he had cheated in any form. Examination of the area where the horse stumbled disclosed no possible reason for the fall, however, and the Security Section felt there was enough evidence to justify bringing Similik to trial.

The trial had lasted three days and it was very obvious that Security's case was weak indeed. The only witness who appeared on their side and carried any weight at all was the accusing young Loafer and he had admitted to not being positive the force he felt was being used in the immediate area.

There was no possible verdict but acquittal.

The fact that Nyyub, Head Councillor of the People of the Sea, had died of a sudden and severe illness two months ago had not helped matters. Timmy, heir to the succession, was still gone on havasid and while awaiting his return or news of his death the tribe had chosen Himkera, Similik's grandfather, as temporary Head Councillor. The old man had vigorously defended his daughter's child, including threatening to forcibly remove him from confinement and flee into the deep woods with the whole tribe if the Earth courts found him guilty. But there was very little chance of that. He had been accused of a crime

virtually impossible to prove.

There was a stirring in the packed room as the prosecutor sat down and the defence lawyer rose to present his final arguments. Like most professional people, lawyer Alex Wilson was a farmer first and lawyer second; the only full-time professional men in the community were the two doctors and they would have farmed also if time allowed. But Wilson had been an excellent lawyer on Earth and his services were much sought on Refuge. He paced the narrow walk in front of the bench where the jury sat, eyes on the floor, hands behind his back, for perhaps a full minute, while the room waited breathlessly. And then he straightened, turned, faced the jury—and a strong, clear voice said from the back of the room, "A defence will not be necessary."

The hush was broken by the sudden turn of hundreds of necks, the sudden whispers torn from many throats. Carey heard a deep, sharp intake of breath by Doreen and then he located the tall thin figure striding down the aisle at the rear of the room, walking with the long even steps of a Loafer. He was thin almost to the point of emaciation and his wirtlcloak was stained and torn, discoloured with the dirt of many lands. Even so, the figure would have been easily recognizable as Timmy except for the change in bearing and manner, the imperious way he held his head, the proud and dignified carriage, the sense of power and strength that seemed to emanate from him. And yet it was Timmy, though so changed that even Doreen had taken a second to recognize him.

Timmy had been one of the better-known Loafers in the Earth community and was recognized by almost all the old-timers in the room. With his recognition came the realization that he was automatically the new Council Head, and ruler of the tribe. This was proven on the instant by old Himkera, who got hastily to his feet and offered the ancient, traditional salute by which this particular tribe greeted a new leader, a salute he received only once in his lifetime. It meant nothing to most of the Earthpeople gathered there, but Carey and Doreen and the sprinkling of Loafers in the crowd, recognized its significance.

Timmy strode to the front of the room in a heavy, weighted silence, passed through the open space separating the audience from the officials and marched to the bench where Similik sat. The young Loafer watched him come with eyes growing wider each instant and when Timmy stood before him he bounded to his feet and repeated the salute his grandfather had already proffered, the acknowledgment of fealty and love.

Speaking more to herself than Carey, her eyes fixed on Timmy's sombre face, Doreen said softly, "So—so changed! So dignified, and grown, and hard and strong! He—he almost

frightens me !"

Carey nodded in mute acknowledgment. Timmy had left a gentle, retiring young man, of modest attitude and reticent habits. Before them stood a king. A sense of purpose and power radiated from a face grown thin and hard and his voice was harsh and strong when he said, "Similik, I offer you greetings and acknowledge the salute of leadership. I charge you now to answer me one question and let that one answer be from all the truth that lives within you. Did you cause Harvey Phillips' horse to stumble in that race?"

REFUGE 37

There was a sudden stricken silence. The Security Section man in charge of order in the court had started forward, to expel Timmy from the area reserved for officials, but now he too stopped and stood motionless, gripped by the living drama before him. Similik squirmed uncomfortably, lowered his eyes, dragged them up again as though compelled by a power outside himself and stared his chief in the face. Timmy waited patiently, his dark, expressionless eyes never leaving the younger man's countenance. And then Similik's face twisted, bright tears glimmering behind the long lashes and in a low and anguished voice he answered, "Yes."

The taut, electric silence was broken on the instant by a babble of talk and Justice Cavanaugh pounded vainly for order. The local trial correspondent left the room on the run and a few others followed to be first with the news outside. Then the irate judge ordered the entire room to be cleared and the security men started herding people out the door. Carey, looking anxiously about, finally caught the eye of Varinov English, the planet's security chief and a good friend of his and motioned that he wanted to stay. Varrie nodded to the guard at the end of the line and the man let Carey and Doreen pass through.

The judge had called the two lawyers to the bench and they were engaged in a hurried debate. Carey heard the words 'plea to guilty' and knew what the result would be. Young Similik was headed for many years of involuntary government

labour.

Timmy had been surrounded by an anxious, questioning crowd of Loafers, but they parted to let Carey and Doreen through. For the first time in a year Doreen looked in the face of the man she loved and found, strangely, that she had nothing to say.

Timmy's thin face twisted into a wry and bitter smile. He reached with one slender hand, laid it on her shoulder. "My people will welcome me home tonight with a feast. Will you

and Carey come?"

She could only nod, in a mute agony of feeling that was combined of pain and joy, sorrow and surpassing happiness and then the tears flooded her eyes and the first wrenching sob came tearing out of her chest. She collapsed in a weeping, sobbing heap in Carey's arms and he led her gently back to her seat.

When she looked up, some moments later, smiling through

the still trickling tears, Timmy and the Loafers were gone.

There was laughter and singing and food in plenty, spread on shell platters lying around the big fire in the central clearing of the village of the People of the Sea. A small group of young boys vied in a game of hide-and-seek, where the seeker walked always with his eyes closed and the sought ones could not move, but could project images of themselves as trees, waquilpods, or anything they chose in an effort to fool the lad who was 'it.' The people were celebrating the return of their hereditary leader and what was more important to most of them, the return of a friend.

Doreen sat comfortably between two big men, Sam Harper and Jacobs. Brian Jacobs was a Controller and was slowly teaching his wife, the former Michele Kaymar, the art of Cassie Harper, surrounded by a small crowd of Controlling. her own daughters, was breast-feeding her new son, the natural act going completely unnoticed among the nude Loafers. and Doreen were the best of friends and she laid no romantic significance to the fact her husband had one heavy arm around Doreen's slim shoulders. Cassie had no desire to learn the art of Controlling, but was helping Sam with his slow progress in every way she could. Carey Sheldon was engaged in an animated discussion with two of the elders of the tribe, standing slightly out of the mainstream of activity and talking earnestly. This was a congenial crowd and they were enjoying themselves in a way people sitting hypnotized in front of their tri-di sets would never understand.

There was no organized programme, but the main event occurred when Timmy appeared unnoticed at the edge of the crowd and gave a low-voice greeting to those of the people who saw him. The many activities of the people gradually quieted as Timmy walked softly to the centre of the clearing and by the time he stopped and turned to face his people there was virtual silence.

Timmy let the silence grow, standing tall and erect in the flickering firelight. His thin face was more peaceful than it had seemed earlier in the courtroom, but withdrawn and sad. He was not wearing his cloak and beneath the rich covering of hair his body was bone-thin and tendon-hard, all spare flesh eroded away by weeks and months of constant effort. Still, the loss of flesh seemed to have strengthened, not weakened him. What was left was all muscle, sinew and bone, all hard and strong.

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"I give greetings to my people and my friends, and my heart is glad to be once more among you," said Timmy in his clear, carrying voice. He slowly bent his gaze around the assemblage, lingering for a moment on the faces of Carey and Doreen. "And yet it grieves me to report that my havasid has brought nothing but pain and with the pain, grief. For the knowledge of our people is dying and with its dying, so ends the Control of nature as a way of life. And I say this must not be!"

Doreen felt her heart pushing its way up into the back of her throat choking her and she seized the arm of Sam/Harper and clung hard, seeking comfort. Timmy went on relentlessly, the words clarion-clear and unendurable. "I have found that wherever the Earthpeople have touched the Loafer way of life, wherever the two races meet and mingle, inevitably the Loafer loses his identity, his reason for being, his pride in his race. Without intent, without purpose, the mighty Earthman destroys touching with fingers of steel a method of living as fragile as spider-silk and as easily torn. Our people are being absorbed into the life of the Earthmen and to him it is no more than a passing wonder, a small thing of no significance. Yet it is our death!"

There was a brief but appreciable silence. Timmy resumed, "I am not willing to be eaten alive. We are too close to discovering the hidden powers of our own minds, to reaching those depths within ourselves toward which we have long striven. Two children of our tribe have remarkable powers now and their children's children may be greater still. I would live to see those children grow up and develop to the fullest, learning all we lesser ones can teach them. Within the past year I have greatly increased my own powers, so much so that I can now easily talk-without-sound with my niece from a great distance. I feel that many more of our tribe can learn to do this, that we may yet grow greater than the Earth people, in a way they can only dimly see and could not possibly understand.

"Yet I will not compel anyone to do that which he would not do and so will lay no rule of law upon my people. I choose to leave this old home of ours, go into the thickest and loneliest part of the forest, to learn anew how to live without benefit of steel tool or weapon of death. I ask for the company of all those who believe in our way of life. When the Earthmen finally reach us—as they will penetrate the last hidden heart of this planet, in due time—we will know our answer and can then

perhaps plot our own course, free of their influence."

"I ask that this Earthwoman be allowed to go with you," said a proud, happy voice and to her own amazement Doreen found herself walking forward, to stand, suddenly abashed at her own temerity, in front of Timmy.

He reached with two long arms, placed hairy hands on her slim shoulders, stared into her suddenly downcast face. "I wish that it might be," Timmy said softly and Doreen felt her

world crashing around her ears.

Timmy released her and turned and beckoned. From the edge of the crowd a young girl came slowly and hesitantly forward, She was very pretty in the Loafer fashion, her long brown hair framing a face of delicate lines and precisely sculptured ovals. Her most distinguishing feature, though, was a series of odd golden markings scattered in profusion through her thick brown body hair.

She took her stand beside Timmy and smiled with shy friendliness at Doreen. Doreen stared back, numbly. Timmy placed a protective arm around the young girl's shoulders and said, "Doreen, this is Bilejah, daughter of Brixta and my

intended wife."

Doreen took a deep, quivering breath, made the greatest effort of her life and controlled the sudden, raw hate that shuddered and stormed within her, controlled and held it inside, squeezed and folded and tucked it away deep within herself and her voice was taut but restrained when she asked, "Why, Timmy? I said I couldn't promise to wait, but wait I did. Why?"

Doreen felt the comforting presence of Carey at her side, his bulk looming large in the firelight. She also sensed that both Sam and Brian had come forward and stood confronting Timmy as though in menace and anger. And yet she knew full well they could only confront him with pain and sorrow and the knowledge he had caused another an unhappiness not to be

borne.

"Why, Doreen, girl-whom-I-have-loved? Why do I cause you this pain? Why do I alienate my friends, dissolve with acid words the bonds of friendship that have tied your brother and I together since childhood? Because I must. Because I am of the same bloodline that produced Micka and Sanda and my children conceivably could be as great as they. Because I know now what I already felt might be true, that Loafer and Earth human can never make a child and our marriage would have been barren."

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Timmy found his thoughts straying back to the distasteful way in which he had learned that Earthman-Loafer unions could never result in children and quickly brought his mind back to the present. His voice was steady and quiet when he said, "It grieves me to have caused you pain."

Doreen nodded numbly, fought with herself for a brief moment, then drew hard on her nerve and forced her leaden feet forward. With arms that shook despite herself she pulled the small Loafer girl into a quick but warm embrace and then

whirled and ran out of the firelight.

Carey started after her, hesitated, and found Cassie Harper at his side. "I'll go after her. She doesn't need you at a time like this."

Sam Harper suddenly found himself holding his small son and Cassie vanished after Doreen.

Timmy raised his voice and addressed the assembled people. "In my travels I have talked to many people who feel as I do and some hundreds of them have left their old homes and are on the march into the deep woods. I ask that all who would go with me to join them come forward and take my hand. Search well your hearts and do as your spirit bids you."

There was a sudden mass rush forward and leading the line and the first to clasp Timmy's hand in fervent submission, was old Himkera. Every Loafer in the crowd, man, woman and

child, came forward and shook Timmy's hand.

The last in the line was Carey Sheldon. The two friends clasped hands, hard white fingers in hairy hand of leather. "When the first child is grown I will come seeking you," said Carey. "Until then all Earthmen in this area who wish to learn Controlling can study and work with the People of the Trees."

"That is good, for they and the breshwahr too, have much still to teach and it will be many years before your people influence their lives too strongly. Develop your powers to the fullest and know that I will look forward through the long years to the time of our next meeting."

"Till then," said Carey and turned and walked into the

darkness.

In another time and place (as opposed to the world of fiction writing) and under another name, John Rackham works in one of our great power stations. We wonder if the following story has any basis in truth—however remote . . .

THE LAST SALAMANDER by John Rackham

Walter Cockburn had learned the trick, early in life, of splitting himself into two parts, one of which could appear to listen and nod and even comment, while the other was busy about its own interests. The trick served him well as he stood patiently by, while his immediate superior chattered. For at that moment, they were a deeply engrossed group. Tommy Jordan, charge-engineer; Wally Bowles, shift-foreman; leadingstoker Clarke, regulator, all had in passionate common the fate of a certain football team and what better time to argue about it than the Saturday night of the big match? The boilerhouse clock stood at eleven and all the washed-and-dressed personnel of the previous shift had safely departed. Plant operators were completing their eleven o'clock readings and transferring carry-forward data to new log sheets. Auxiliary personnel were drifting on to the floor in ones and twos. In another place, control-engineers were carefully pinching-off the load, megawatt by megawatt.

The telephone buzzed and Clarke took himself out of the wrangle to answer it. After a moment, he nodded, grunted an acknowledgement, put back the hand-set and picked up the

public-address microphone.

"Nine—eleven—thirteen, stop your stokers, please," he said and waited until three answering pips came back over the loudspeaker. Then he went to his board, where he wiped out figures with a spit-wet finger, made chalk marks and hastened back to the argument. Away at the far end of the haze-filled boiler-house a water-alarm screamed for attention and the responsible operator dropped his evening paper and went to deal with it.

Cockburn watched, with seeming bland indifference, but he missed none of it. In an hour, almost all of this groaning machinery would be still, the fires would be allowed to dwindle to red masses of glowing coke for a breathing space, until the demand came on again in the morning. Another night-shift, just like thousands that had gone ahead of it into the nothingness of yesterday. A time to read, to chat, to search out odd jobs, to drink tea until it palled. To try to keep awake and attentive, just in case. That was the major problem—how to keep alert and attentive for something which, in the normal course of events, should never happen, just in case it did? The best of machinery, the most ingenious automatics, can fail. That's why you need men, not to work, but to know exactly what to do if something should go wrong.

A little milling group of auxiliary-plant operatives began to gather in the middle of the boiler-house. Bowles excused himself to go and deal with them. The little chatter-group

broke apart. Jordan turned away, sighing.

"We'd better go and take a look at the ash-plant, Cocky," he said. Walter hated the nickname that had been fastened on him despite the fact that his name was pronounced 'Co'burn,' but there was nothing he could do about it. "They've reported some trouble down there, on Number One side.

Better see what it's all about, I suppose."

Walter nodded and followed as Jordan led the way to the central lift, but his thoughts were still his own. For two years now, at the request of a Very High Authority, he had been trying to get the general feel of this giant, sprawling industry, and the task was still engrossing him. Six months ago, he had come here, to Bell Road Generating Station, straight from an oil-fired installation. Months before that, he had been one of those present at the 'going critical' of yet another nuclear station. A few months into the future, according to the rough general plan he had been given, he was due to be trans-

ferred to a hydro-electric plant. All by way of experience, to gain impressions. There were so many varied ways of making electricity—and that was another of the problems.

How do you achieve uniformity of organisation, coordination, in an industry in which the archaic rubs shoulders with the ultra-modern and the whole range of in-betweens is still functional? How do you span the time-technology gap between shovel and slice and the deep-screened rupturing of enriched atoms? When you can move, in a matter of hours, from an old station that labours mightily to generate five megawatts, to a newer station where each boiler-turbine is a complete unit, purringly producing thirty times that muchwhen you have semi-skilled people performing routine motions, in one place and highly-trained technicians, scientists almost, to nurse the complex controls in another—how do you lump them all together? All are producing that life-energy of the modern world-electricity. All of them are people, human beings doing a job. And, when the breakers go home, the switches move, the buttons are pushed and the world out there wants power, more power, and wants it right now, all these people are equally indispensable.

Walter was secretly glad that it was not for him to find answers to these problems. All he was asked to do was observe and report on a factual level, without bias. That much he was singularly competent to do.

"Bet you never had any ash-basement trouble in your last place," Jordan grumbled, as they waited for the lift to settle.

That's one thing about oil-fuel—no ash !"

"That's right," Walter agreed, knowing full well that Jordan was merely making conversation. For this was his gift, the ability to know what the other person was feeling. Not so much in verbal terms, or on a conscious level, but in an over-all sense of reactions and emotions. That was why, as one of the rare and precious 'X' people, he had been approached by the Very High Authority and asked to render service, if possible.

Very High Authority and asked to render service, if possible. "Sooner or later," the V.H.A. had said, "we shall be compelled to close down the older stations. All of them are either obsolete, or obsolescent—and they are inefficient. Their cost-per-unit generated is six, seven, sometimes eight times as much as the more modern plant. The only reason we have to keep them in operation is simply because we just cannot do without them at the moment. The demand for power

increases faster than we can build plant to meet it. But there are signs that the two curves are converging. We shall catch up. We are modernising all the time. And there is the other factor, that we are rapidly coming to the end of our resources

of fossil fuel. When that is gone, it's gone!"

Walter had seen the broad picture even then. With no more coal, or oil, the old and traditional ways of generating power were at an end, like it or not. New ways, complicated and technical methods, would have to assume the whole burden. That inescapable fact merely underlined the basic problem. What do you do with your man-power? You have thousands of trained men, good men, willing workers, when it is a matter of dealing with fires, and boilers, and ash—things they can see and appreciate. But when all this is gone and there is nothing to see but the jump of a needle on a gauge? Some men, a few, can find interest and understanding in visualising something that is going on out of sight, but the great majority need concrete problems to handle, objectivity to occupy their minds. Walter had already sensed that boredom was a major hazard, relieved only slightly by intermittent bursts of activity. would be infinitely worse when there was nothing at all to do except watch a meter, push a button and wait.

The lift-gates clashed behind them and they sank rapidly down to the gloom and uproar of the basement. Walter made the effort to push away his personal pre-occupations. The problem was plain enough and he would so report it, but, after that, it was none of his business. He had done his share, outlived his usefulness and was looking forward to the moment when he could get out and find something more congenial for his unusual talents.

'I'm wasting my time here,' he thought, as he picked his way through the scattered bulks of pumps, switchboxes and ash-races, where water hissed under pressure and great roiling lumps of ash fled to the central pit, there to be grabbed and hoisted out to the waiting bunker. Jordan leading the way, they moved into Number One side, where the races were silent and the great grab hung crippled and askew over the pit. Davie Miller, ash-plant charge-hand, caught sight of them and came stalking across. Long and lean, wearing a set expression of perpetual gloom, he shook his head at the grab.

"Same trouble as we had three months ago," he grunted. "It's always this one. We had some decent fitters in this place,

the thing wouldn't keep on breaking down. Now we'll have to chuck all the ash out on the floor."

"There's no need for that," Jordan retorted amiably. "All these boilers will be off by midnight, so there won't be much more ash to come down. You get Number Two side ashed out and then you can re-route this stuff over there."

"Nothing much?" Miller protested. "What d'you fancy they've been doing all the afternoon, then?" Walter shut his ears to the rest of it. This was as much a routine as a stage-comedian's patter and just as insignificant. Miller was making a gesture. It would be easier to undog the side-doors and let all the ash roll out on the floor, to be barrowed away some other time. It would be a little more trouble, but the efficient thing, to re-route the ash over to the other side of the basement and grab it out in the normal way. But, as the charge-hand, Miller couldn't volunteer that suggestion. It was his role to resist anything that sounded like extra work, just as it was Jordan's role as 'authority,' to give the unwelcome instruction. All part of an unwritten code.

Walter turned away, casting his eyes round the dark, shadowy scene, listening to the moan of machinery and the intermittent explosive crunch as unseen rollers bit on the huge lumps of fused ash, crushing them into pieces small enough to fall through the gaps and into the collecting hoppers. Dante, he thought, had never dreamed of an inferno like this. All this massive complex of men and machinery, merely to burn coal, to make heat, to push steam through sets of whirling blades, to make electricity. Which was gone, used up, dissipated forever, in the very same split second that it was made. It was irreversible destruction on a scale to stagger the mind. Thousand upon thousands of tons of pre-history, laid down after millennia of care, countless generations of living things of all kinds had given to this-and it was being destroyed at a fantastic rate—two thousand tons a day in this one station and nothing to show for it but dead, lifeless, sterile ash.

A stray flash of imagination carried him back millions of years, to the time when the Earth was a steaming sultry jungle of giant ferns, alive with the click and grunt of life and belching volcanoes—and he caught at the odd thought. Volcanoes? He shivered, wondering whether his imagination was playing tricks. Why should he think of the yawning fire-mouth of a

volcano as a pleasant place? Associations perhaps.

His wandering eye fell on something that snapped him right out of his reverie and into the urgent present. Away over to his far right, a sweating man had just heaved back on a long iron bar, pulling it out of a port-hole in the side of the ashhopper—and that bar was spitting white hot for six inches of

its final length! Jordan saw it, too, and turned.

"Hey!" he said, in momentary amusement. "That's a bit of hot stuff, in there !" His grin persisted as the man stepped back, laying the bar down and staring at it, but Walter sensed something utterly impossible, something that should not be and he went forward quickly. He recognised the man and felt the mental twist of his bewilderment. And something else that he couldn't indentify.

"What have you got there, Dick?" he asked, and the man

looked up.

"Blest if I know. That bloody rod was seven foot long just now, when I poked it in there. Now look at it!" From the rapidly cooling end to where Dick Small had held it in a heavy-gloved hand, it was barely five feet. A lump of ash so hot that it could melt an iron bar? Walter took a swab from his overall pocket and used it to cautiously lift the port-hole cover. There was no need to look in, even if he had been able The vivid glow that streamed out told its own story.

"They might at least burn the damn stuff before they chuck it down," Davie Miller grumbled at his elbow. Then Jordan put an incautious palm in the glow, and snatched it away

again hurriedly. His grin vanished.

"That's hot!" he said, unnecessarily. "Davie, busted grab or not, that will have to be flushed out before it wrecks the hopper. Who the hell . . .?" he shook his head and stepped back as Miller hurried away, taking Dick Small with him. A glance from side to side and Jordan nodded, checking land-marks.

"This is Boiler Six. There must be a hell of a fire in there, or there's a defect on the grate. Or something. We'd better go look. We don't want any more trouble, not on this side, not

tonight."

As they hurried away, they were saved the journey. From the direction of the lift, hurriedly making his way through the huddled machinery, came a squat-built man clutching an aluminium shield.

"Ben Cook," Jordan muttered. "This is one of his boilers.

There must be something up, here !"

Walter appreciated the thinking. Ben Cook was much the senior operator on this shift and not given to hurrying himself as a rule, yet here he was, almost trotting.

"Did you see it?" he demanded breathlessly.

"See what?" Jordan wondered and Cook shrugged

helplessly.

"I dunno, exactly. I was just inspecting my fire. The stoker's been out for half an hour now and she's about ready to bank. I was having a look, to make sure. And there was this funny-looking lump of clinker, right on the back end. I didn't make anything of it until it moved!"

"It moved?" Jordan gasped. "What the hell d'you mean

-it moved?"

"Well, it fell over into the ash-pit, just like any lump of clinker does, but you usually get a shower of sparks and dust, you know, and a lump. But this didn't. It sort of slid, like a red-hot jelly-fish. Looked as if it was trying to hold on. And when it landed in the pit, it didn't make a lump at all. It seemed to slip right through. So I came down, just to have a look and satisfy myself. I've never seen anything like it, not in all the twenty-five years I've been running these fires."

"Been smelling the barmaid's apron on the way in, too, I expect." Jordan strove to keep up his jollying-along pose.

Cook stiffened.

"I don't drink," he said, flatly, "and I know what I saw." He went to the port-hole, twitched the cover aside with a swabbed hand, hefted his shield with a practised swing and peered through the purple-glassed slit into the ash-hopper. After a moment he turned away and drew a deep breath, holding out the shield to Jordan.

"Here," he said, quietly. "You see for yourself. I didn't believe it the first time and I can't hardly believe it now, but that thing, whatever it is, is alive. Like a red-hot jelly fish!"

Long before Walter could take a turn with the shield he knew that Cook had spoken the literal truth, although he could not have explained how he knew. This was where that vivid flashback from the past had come from. This was what had thought of a volcano as a pleasant place. He sensed that it was newly born and bewildered, but strong, with a firm grasp on life. Concepts shuttled swiftly in his mind, leaping the gaps in his knowledge. Something like this could have lived on Earth, eons ago, in the time of great heat; spouting fires from

the Earth's bowels and creeping masses of molten lava would have been its proper environment suiting its fantastic chemistry.

But such a life-form must have withered and perished when the fires died down, when the crust settled and became more suited for complex, low-temperature forms, based on carbonoxygen-water compounds. So long ago that the mind ached at the effort to measure it, things like this had ceased to exist. So how . . .? Then it was his turn with the shield and the tinted glass and he saw a blob without shape, of white-hot slow movement, maybe the size of a football. It nestled among a pile of jagged fragments of ash, on the sloping floor of the hopper and it pulsed. Slowly, as if gasping for breath, it pulsed and wire-veins of orange squirmed across its surface with each heave. Walter was at once reminded of a chicken, newly hatched and a wet, bedraggled mess, struggling for breath, gaining strength. That must be it. This thing had been an egg, or a spore, waiting all these unthinkable ages for the right conditions to trigger off its burst into life. Looking at it, he felt a greater, powerful sense of identity with it, knew that it was momentarily exhausted, hungry, but had reached a self-sufficient stage. It didn't need outside heat any longer. Given the right food, it could, and would, generate its own and grow.

Food! What did it, what could it feed on? Delicacies such as carbon and oxygen, in no matter what combinations, would be as the lightest of cream-puff to this kind of metabolism. Judging by the iron bar it had a taste for metals and at that temperature metals would probably serve it as body-fluids serve us. Jordan grabbed his arm, drew him aside. In the distance Miller shouted a warning and a pump screamed into life, its wail ascending rapidly into inaudibility.

"You mind your eye," Jordan warned. "When the water hits that, there'll be a blow-back like an explosion. But we'll soon have it out, whatever it is. Odd bit of coal, I reckon. You get all kinds of queer things in the coal they send us these days. Fancy old Ben thinking it was alive! Next thing you know, he'll be telling us it was one of the Devil's kids!"

Jordan's chuckle was suddenly lost as Miller swung off on a wheel-valve and a hard jet of river-water speared into the ash-hopper. There was a hiss and a cracking explosion a split-second after it. The gloom became thick and clammy with steam, rich with the acrid pungency of sulphur fumes and hot

metal. Walter, eyes tight shut and holding his breath, could feel that alien 'life' just as clearly as ever. The water hadn't killed it, hadn't even diminished it. If anything, it was stronger. In all likelihood it could strip water into its component atoms and consume them if it wanted to. In the confusion of shouting all around, he opened his eyes in time to see, through the eddying steam, that Miller had spun the valve shut again and was scrambling down from the edge of the race.

There, in the hollow camber of the ash-race itself, the thing squatted, bright enough to sear the eyes—and it stared at them. At least, Walter thought, screwing up his eyes and trying to peer, it was just as if it was staring at them and probably wondering what they were going to do next. And what were they going to do? Switching his mental attitude suddenly, Walter saw this, now, as a problem calling for urgent solution. So far, he had been intrigued by the novelty of it, without bothering to think any further. But somebody had to think ahead and do it quickly.

He realised that he was still holding Ben Cook's shield. Lifting it up in front of his face he studied the strange mass as it squatted there, still pulsing. It had grown. The chances were that it would keep on growing until it reached whatever was its optimum size. And then it would spawn, or divide,

or whatever it was that it had to do to propagate.

Into his mind came uneasy thoughts, unreal and unfamiliar, that he was at first at a loss to translate. Then it came to him, obscurely, that this thing would give birth in its own way. A dizzying flash of an aching process, separating out the necessary cells, encysting them, hatching them, inside the parent body and then delivering them—and he pulled a stern curtain down over his mind. Harsh logic dictated to him, regardless of feelings. The thing would have to be destroyed—killed!

On the instant that the idea formed itself in his mind, the shining thing in the race gave a fluid heave and put out

searing-hot pseudo-pods questingly.

"My God!" Jordan gasped, squinting fearfully, "it is alive! Shove the water on it, Davie, put the bloody thing out,

before it gets loose !"

"No!" Walter forbade it, taking charge without thinking about it. Now that the problem was reduced to bare essentials, all his personal feelings had been put into the background and

he was as intent as a chess-player working out the next move. "You won't achieve anything, putting water on it. That's feeding it, helping it to grow."

" Feeding it?"

"Yes. If it is alive—and I think we had better assume that—then it must feed, it must eat, to manufacture and replace energy, just as we do. And that last lot of water didn't harm it at all."

"But how else?" Jordan demanded, thickly. "If it gets loose, at that temperature, we'll never be able to stop it. You

saw what it did to that iron bar !"

"Yes . . ." Walter mused. "Metal. That's one thing. But it's not affecting the liners of the race, you'll notice." He dug down into his memory for details of the composition of the liners. Basalt! Volcanic material of course. The thing wouldn't eat that. It must feel almost at home. Safe, for the moment, at any rate. But only for the moment. A question crossed his mind and he turned to Dick Small, who had come back and was staring, open-mouthed and slit-eyed, at this 'queer lump of ash.'

"Where's that iron bar you were using?"

Small got it. Walter took and juggled it awkwardly in one hand, holding the shield in the other and again offered the end of the bar to the creature. He watched as closely as he could, feeling his overalls singe and smoulder, because he wanted to be really sure whether the thing actually ate the metal or just melted it away. As he watched, the incandescent thing absorbed a foot of the bar without effort, the wire-veins of orange scattering crazily over its surface as it did so.

"I'm as crazy as you are," Jordan said, unsteadily, "but

now you're feeding it, aren't you?"

"That's right," Walter withdrew the bar. "Just making sure. It likes metal. If we can offer it a few tasty pieces, we might be able to entice it out of there."

"What for? Man, it's harmless, just where it is!"

"For the moment, yes. But its consumption must be enormous at that heat and when it can't stand it any longer, it will go looking for food." Without meaning to, Walter used the same tone to his superior that an adult might use to a child. "If we can lure it, we can control it by that much, which is better than having it running around on its own."

"What about a fire-extinguisher?" Ben Cook asked, following a train of thought all his own. Walter frowned, then shook his head.

"It would probably take the CO₂ apart just as easily as it did the water and feed on it. We must kill it, somehow. We can't beat it to death. We might poison it, if we knew enough, but we don't . . ."

"Suppose I put the water in and wash it down into the pit?" Miller suggested and Jordan sneered at him instantly, quite forgetting that he himself had suggested just that, only a minute or two earlier.

"You saw what happened when you put the jet on it. Dump that damned thing in the pit with all that water and there'll be an explosion big enough to wreck half the blasted boiler-house Talk sense, man!"

The ever-shifting patterns of colour that ran in fine lines over the surface intrigued Walter. It was as if the thing was thinking and this was the shape and pattern of its thought. He started from reverie to feel Ben Cook touch his arm.

"My shield . . ." the old man said. "I've got to get back to my units. I hope you work out some way of killing it. It is alive, isn't it?" He was only seeking reassurance but the question sent Walter off on a different line of thought. How does one define living? Among all the other attributes, a living, sentient thing, must have communication between its various parts. It must have awareness of some kind, messages, sensations, nerves, a nervous system. The ghost of a solution began to appear and he groped anxiously for it.

A host of ambient noises clamoured for attention. The public-address speaker boomed hollowly as the regulator called boiler after boiler to bank. Other men of the ash-gang, seeing the glow and scenting excitement, began to come close and Jordan waved them furiously away. Walter drew the curtain of his mind tight against all these distractions and pursued the thin thread of thought he had stumbled on. Nervous system. Could a thing live, any kind of thing, without communication? This thing seemed to communicate, anyway, else where did he get that overpowering certainty that it was alive?

"We'll have to electrocute it," he said, suddenly. Jordan heard that.

"Electrocute it? How the hell are we going to do that?" Walter made as if to answer, but the ideas were so formless, so undecided in his mind, that it would have been a waste of time to try to explain them in detail. Turning his shoulder to the bright glow, he sent his gaze searching round for something he had subconsciously seen in the shadows on the way here. There—there it was. A couple of feet of heavy copper wiring, thickly covered in bright red plastic insulation. Discarded from some recent repair, no doubt. He went to pick it up, came back with quick steps.

If only it 'liked' copper as much as it did iron. Fishing a knife from his pocket, he whittled hurriedly at the plastic, to bare about six inches of bright metal in a tight cluster of silver-plated strands. Then, wrenching the piece roughly straight, he approached the thing again and gasped as the heat bit at his face and hand. Lacking some kind of protection he couldn't see what he was doing. If only Ben Cook hadn't gone away with his shield.

"Damn it, I can't see !" he fumed and Jordan groped in his

breast-pocket to produce a wood-framed glass.

"This any good?" he asked. "What the hell are you going to do?"

"Find out if it likes copper." Walter held the glass, peering through it and went forward reaching out with the wire. The heat scorched his fingers. He retreated hurriedly as an incandescent 'arm' grew out of the thing to reach for and take the end of the wire. He and Jordan retreated still more in a scrambling rush as the thing heaved itself up and over the side of the race and flopped on to the tiled floor, absorbing the rest of the cable. Gagging at the foul stink of burning plastic, Jordan clutched Walter by the arm.

"Did you see that? It can shift when it likes—and it ate

that chunk of wire, too !"

"I saw. That's what I was hoping for."

"What?"

"You'll notice it didn't grab hold and pull. It followed the wire. My guess is that a thing like that wouldn't 'take' things—it would go wherever they were. And that's a help."

"God knows how it's a help!"

"Of course it is. What I want now is a lot more cable. All the old bits there are lying about. Especially heavy armoured stuff, and quick . . ."

"What for?" Jordan insisted, shaking the sweat out of his

eyes. "What the hell are you trying to do?"

"I'm going to entice it along to the nearest high-power cable there is. And it will help if it can get used to the 'taste' of armoured stuff."

"Power cable?" Jordan parroted, staring around. "There isn't any here, not on the ground. All this machinery is fed in through overhead channel-plates, except-my God, you don't mean the tunnel?"

"That's right. The six-point-six . . ."

Walter couldn't have said when the idea really came into his mind. It had been just part of a total rationalisation of the whole, done in a split-second of inspiration. Get it moving. Get it accustomed to attacking armoured cable. Get it to attack something powerful enough to be absolutely certain of killing it outright and altogether. And the cable tunnel was quite near. About nine or ten yards away, across an unobstructed tiled floor. Six thousand six hundred volts, with all the amperage anyone could ever want, should be enough to take care of even this incredible thing. But Jordan, very properly, was thinking of other things.

"You can't do that !" he shouted, in rank disbelief. "You'll black out the whole bloody station! There'll be Hell to pay!"

"That's better than having this thing out on the loose, isn't it? It's growing, you know, all the time . . ." and it was growing, visibly. "Just look at the tiles!" Walter stood back and pointed. Around the flattened bottom of the creature, the red tiles could be seen cracking and puddling.

"If it melts through those, there's only concrete, which won't stop it and then the structural girders. And it likes

metal . . .

Jordan stood, irresolute, caught in a desperate moment of decision. Walter felt acutely sorry for him. This kind of thing was completely outside his terms of reference. Then, commit-

ting himself, he whirled into action.

"Davie!" he shouted, waving furiously. "Round up your lads, help Mr. Cockburn, here. I'm going up to warn Control," he said to Walter. "I daren't try to tell them over the phone. They'd never believe it. I don't believe it, myself. God knows what the Super will say, when he finds out about it. And on a Saturday night, too . . ." and he was gone, at a run, into the gloom, heading for the lift.

"All the old bits of heavy copper wire you can find," Walter said, not taking his eyes off the thing through the glass. "Bits of heavy armoured stuff especially. All you can find. Bring it here as quick as you can."

It was bigger now, the size of a good fat pig, and it looked not unlike such an animal, as it surged forward in heavy lunges at each proffered tit-bit. Behind it lay a trail of molten tiles, a groove gouged out of the surface, edged with a fine sprinkle of greenish dust. Flickering arms grew out of the mass and were engulfed again as Walter fed it tasty morsels of copper cable, dropped carefully close, yet distant enough so that it had to reach for them. Keep it moving, he thought. Keep it moving. At the back of his mind was the niggling fear that it might develop to the point where it would be able to sense other metal for itself and reject his enticement.

It had taken on a distinctly greenish glow now, as far as he could judge through the tinted glass. It must be practically pure copper, he thought. He had lost all track of time and felt as if he had been doing this for hours. The skin of his face and hands was scorched and angrily tender. His white overalls smouldered in a dozen places. And the back of his mind was a shifting mosaic of utterly unrelated thoughts, busy thinking themselves while his attention was elsewhere.

Team-work. The ash-plant gang were helping out magnificently and without question. Jordan had been stumped, but only for a moment. Then he had made his decision and carried through with it. Prompt action. Any action. Problems, visible and concrete difficulties, something to occupy the mind —challenges—was that the answer? Can a man be happy in a

job which makes him feel largely unnecessary?

He swept the sweat from his eyes, moved back and felt the hard concrete of the tunnel wall at the back of his knees. This was the moment he had been trying not to think too much about. Turning quickly, he took up three pieces of the heavy armoured cable and pitched them down the three shallow steps into the darkness of the tunnel. He would have to go first down there, into that cramped space and then lure the thing in after him. And then, should his theory be mistaken—he would be trapped in that rat-run, with this seething molten monster. Jordan came back, a white figure out there on the other side of the glare, adding one more staring face to the ring.

"You all right, Cocky?" he called, anxiously. "Every-

body's standing by. How's it going, all right?"

Reassuring noises, Walter thought, as he readied a longer piece of cable, trying to place it so that it would lead directly to the access-door. The cable twisted in his slippery hand and the thing reached for it with deceptive speed. He threw himself bodily backwards down the steps, grazing his knees painfully. Now, all at once, he was cold, sweat-clammy and in the dark. Then the demon-glow spilled over the edge and grew swiftly brighter as the thing gobbled its greedy way along the bait. He backed away, crouching awkwardly, using the arm-thick cable as a guide and support. Six-point-six kilovolts-would it be enough, or not? He would soon know.

The white eye of the glare came suddenly, almost painfully, and he hurriedly backed away still more, banging his head against the hard roof. The thing slithered over the edge and flowed, semi-liquid, down the stone steps. His face and hands cringed from the blast of its heat. Little pockets of dust burst into showers of sparking fire and the hot breath of Hell swept over Walter, catching his breath. Blinking his eyes, he saw that the creature was now pooled in a heap under the cable and feasting on the morsels he had thrown down for it. It was big,

now. Evil green from all the copper it had consumed.

He wondered, in a few seconds he had left, what sort of life the progenitors of this thing could have known. Could there be such things as intelligence, emotion, even affection, at this temperature? Perhaps they, too, had once ruled the world and thought themselves the acme of creation. It might have been from racial memories of creatures such as this that the old legends had arisen, of the Phoenix and fiery serpents and salamanders and all the demons of the old-time Hell.

It was still now, except for that characteristic pulsing. Could it be sensing the rich hoard of tasty metal just above it? For a daring moment he relaxed the curtain of his mind and allowed himself to share the feelings of this thing. He sensed its everlasting hunger, its growing power and strength-and something more, something he could not define—an urgency. Stifling his feeling of treason in attempting to encompass the destruction of a fellow living thing, he concentrated on the thought of 'reaching upwards'—and it slowly put up a fiery arm, gropingly—and touched the heavy cable. In a moment, other glowing arms followed, wrapping themselves around the armour. Then he hurriedly withdrew his contact and backed away, heedless of the rough scrape of the concrete.

There came a sudden blue-white glare, blinding in its intensity and the hissing spit-crack thunder of discharge, the choking stink of ozone and a sudden darkness and stillness. His head ringing, eyes stunned into blood-red glare, Walter heard the dismal, heart-stopping wail of dying machinery and far-off shouting. Ahead of him there was a dull red mound of dying fire, dwindling to a skeleton mass of running, winking sparks, struggling to make networks-and then nothing. He knew it was dead, because he had 'heard' its death-scream and felt it. That feeling of treason, of betrayal, came back stronger than ever. Its only crime had been to be born several million years too late and alone. And he had killed it.

Then, incredibly distant, lights came on, noises gathered themselves and grew loud, a beam showed in the access-door. Walter stirred himself, went towards the light, carefully. Where the thing had been, there was now nothing more than a shapeless heap of glittering powder, still warm. He stirred it with a toe, to reveal a clump of small, brittle grey things, like eggs. They crumbled as he upset them and became dust, like the rest of it. By his shoulder, the power-cable had lost a three-inch length of armoured insulation. Bright copper

gleamed there.

"Don't touch that !" Jordan warned, waving his torch.

"All right, I won't."

" Is it dead?"

"Oh yes, it's dead all right." Walter climbed out of the tunnel, limp and weary. All at once he was aware of a dozen small distractions, the pain of blisters and burns, the sogginess of sweaty clothes and a quite uncontrollable unsteadiness in his knees. He felt empty, too, and apprehensive. How were they going to explain all this, how to report it in cold, matterof-fact words? As they plodded wearily towards the lift, Jordan brushed the whole question aside lightly.
"Not to worry, Cocky," he said. "I'll work something out

that will read all right in the log-book. It will be something

to pass away the time."

And there is your answer, Walter told himself. That is what a man, any man, needs from a job; that it shall offer him some sort of challenge that he has a chance of beating; that it shall occupy his mind and help him to pass the time away. That was what he would report back to the Very High Authority when the time came and if that suggestion achieved any kind of result, then the last of the Salamanders would not, after all, have lived and died completely in vain.

John Rackham

The zerotron was a new method of travel—to somewhere—but whether it bridged Time and Space or whether it found some "inner space" of the mind, nobody was quite sure. Delgado was to be the first to find out.

THE NOTHING

by BILL SPENCER

Delgado was so close to the President he could have touched him. He was standing right beside him, on the platform. It made Delgado feel good, just to be so near the President. A score of microphones thrust themselves up in front of the two men, and half a dozen TV cameras poked beady lenses at their faces. Lights shone in their eyes.

Half the world is watching me, Delgado was thinking, watching the way I moisten my lips with my tongue and the way

my adams apple moves up and down.

The President, of course, was used to this sort of thing. He was superb, Delgado thought. Absolutely superb. The strength and thrust of his words. The way he made you feel every inflection.

Now he was half-turning to Delgado as he said:

"And everyone in this nation will be going along with you into the Capsule . . ."

The President paused to let it sink in.

Delgado felt himself wanting to blink. It was a strain, staring into the TV cameras.

"Their hearts will be with you in this great mission, this magnificent adventure . . ."

This is the worst part, Delgado thought, gazing stonily into the beady cameras. He was coming as close to embarrassment as was possible for a hardened zeronaut, a man with three probing missions already under his belt.

"... this final stride forward in man's restless quest to

reach beyond the confines of time and space . . ."

A good phrase that, thought Delgado. Beyond the confines of Time and Space. He could see that some of the TV cameras were turning away, now and then, from the two of them on the platform and panning across to the other end of the big hangar.

Delgado permitted his gaze to flick, momentarily, to what they were looking at: the humped egg-shape of the capsule, its polished surface glistening in the spotlights. Around it, the tangled rig with its maze of feed-pipes and cables. Poised above the open maw of the giant zerotron, a massive cube of lead-shielded concrete. There was an impression of enormous power, waiting, ticking over, ready to surge into overwhelming life.

Involuntarily, a wave of repugnance rippled like icy water down Delgado's spine as he looked at the machine of annihilation. Quickly he dismissed it, and concentrated all his attention on what the President was saying.

". . . demonstrating once again the superiority of free men over the ant-like hordes of the mass state, with their regimented

minds."

The President paused and gazed emphatically into the eye of the nearest TV camera, before breaking off and sipping from a glass of water. Then he raised a forefinger in admonitory

emphasis.

"And I want to dismiss once and for all the absurd rumour that our scientists are lagging in the race to reach Zero—this last and finest adventure of homo sapiens. Nothing could be further from the truth. Maybe in terms of sheer megawatt input, our zerotrons appear lacking in boost."

Delgado looked down and contemplated his shiny black boots. The President was a great man. He faced the hard facts boldly: he grasped the nettle firmly. Two thousand megawatts of input was not all that much, you had to admit.

The President leaned forward.

"But what counts in this quest is not only power, but also precision. And guts."

The President paused and then went on emphatically:

"Our scientists have given us the precision. And Commander Delgado has what it takes in sheer old-fashioned grit and determination."

The President turned and nodded, smiling at Delgado.

Delgado was conscious of a sea of applause, rising wave on wave from the massed audience beyond the lights and cameras.

He inclined his head slightly in acknowledgement. The roar of applause went on. People were getting into an emotional

state. The tension was rising.

Delgado's thoughts kept on drifting away to Joy and the kids. They would be watching him on TV. It was worse, in a way, for Joy than for him. She made a terrific effort not to let him see she was scared. And the kids were wonderful . . .

Now the President raised his hand in a free and easy farewell gesture and got down from the platform. More applause. Then a technician thrust a TV screen in front of Delgado. The interviewer stepped on to the platform beside him, trailing his mike cable.

"This is A.Z.T.V. bringing you history in the making. Commander Delgado, we thought you'd like a word with the folks back home, before you go in," he said.

The screen flickered and the image of Joy appeared on it.

"Hello, there, Mike," she said with a brave attempt at a smile. "Good to see you."

Delgado grinned at the camera. This was a pleasant surprise. "Good to see you too, honey. And how are Debbie and Jackie?"

Joy Delgado held up the two children, their eyes wide with the magic of it all. With a certain amount of encouragement from her, they blew kisses. They thought it was all a marvellous adventure, seeing their daddy on TV.

"Ten minutes," a deep, resonant voice intoned on the hangar loudspeaker system. The sound echoed round the vast enclosure like a rolling clap of thunder. The countdown

couldn't be delayed.

Delgado glanced round and saw a couple of technical men, standing just beyond the glare of lights, looking uneasily at him. They didn't beckon or anything. But they managed to exude a sense of urgency, of irreplaceable minutes ticking away. He swiftly waved to Joy and blew a kiss back to the children. Then he waved to the audience out front and said, "Sorry folks, but I've got to go!"

It brought a big laugh, for no very good reason. Laughter in which the emotional uneasiness which was building up could

find momentary release.

Then Delgado turned on his heel decisively, like a man who has a job he must get on with. His long stride took him off the platform and with the two technical men he walked quickly across the fifty yards or so that separated the platform from the zerotron.

The voice of an announcer was saying somewhere: "Count-down at ten minutes with no holds and there is a sense of urgency here. We all know that this is not the only attempt being made, about now, on the Zero. Certain other people have got their man lined up, ready to go."

Yes, thought Delgado. They are putting in their top man—a grim, humourless, dedicated zeronaut who would stick at nothing. This was no game. The other side meant business.

And they had the megawatts.

What was the saying?—God is on the side of the big battalions. Was He also on the side of the big megawatts? It was a damn silly thing to be thinking as you walked towards the capsule, with half the world watching your every step.

It was a pity the whole attempt had to be made in the style of a contest, with medals and glory for the first man there. But that was the way it had to be. That was the kind of thing that roused public interest and loosened the government's purse strings. That was what kept things moving.

And, by golly, if the other side wanted a race, he was ready to give them a run for their money—and their megawatts.

In the shadow of the zerotron rig, the technicians pulled him into the metallic suit, a shining flexible armour. Then it was checking, checking, checking. Suit. Oxygen mask. Transponders. Monitors. Zerometers. They'd been through it a million times in exercises. Only this was for real, now.

"Three minutes," boomed the voice.

Delgado, armoured, climbed the narrow metal stairway, his

boots chinking on the rungs.

He stood for a moment looking at the beautiful skin of the capsule, its shell scooped from a single huge crystal of sapphire. He patted its glossy flanks. Then he was inside.

A moment later, he saw the anxious faces of the technicians looking in through the round doorway at the top. He gave them the thumbs up sign and the white moon faces withdrew.

There was the whine of a servomechanism and the massive lead-lined door swung across. It had an awful finality about it. Two tons of finality, to be exact. He heard the creaking as they tightened the hold-down bolts.

The inside of the capsule was cramped and shadowy, in spite of the lights. It arched over him like a crypt. He was crowded against the instruments, which stared at him blankly.

He felt a sense of oppression grip him.

A metallic voice rasped suddenly from a small speaker, its

sound rippling in the domed metal round his head.

"We have a seal. We have a near-perfect seal. Now it's over to you, Commander. Good luck! And out."

Out it was!

There was a click, and then silence. Total silence, in which he could not even hear his own heavy breathing or the thumping of his heart.

He fought with a wave of panic, of claustrophobia. Fought it like a live thing. This was it . . . Don't give yourself time

to think, Delgado.

Two buttons presented themselves under his hand, for his decision. There was the green GO button or the black ABORT button. The choice was his, now, to set the mission going, or get back to the warm lights of the hangar, to people, to flesh and blood.

Firmly, he pressed the GO button.

A sinking sensation to his stomach told him that the capsule was descending into the cavity of the zerotron. There was a jolt, felt rather than heard, and then no more movement. Delgado tensed, waiting for what he knew was coming.

Then, half a heartbeat later, all the lights in the capsule

dimmed and Delgado sucked air into his lungs.

In the blackness, he could feel the surge of cold energy gripping him, sucking him down, as the huge zerotron broke into deep, potent oscillations at a sub-sensory frequency. The cold was seeping through his blood and bones, freezing his brain.

Delgado fought back the shudders that were shaking his big chest, churning up his whole body. His spine was a helpless dielectric jelly, pulsing in shock after shock of

subliminal energy.

The abstract coldness grew fiercer, draining life-warmth and life-feeling out of him. Already he was losing control over his fingers and toes and the ends of his limbs. The zero-field was searching slowly towards him, throwing out advancing waves of nothingness.

This was more than simply physical cold that gripped Delgado. It went far deeper than that. Deeper than the freezing of the bones. Deeper than the drying up of the pulsing blood, or the subsiding rhythm of the life-breath.

This was a more-than-physical frigor that gripped the mind in monstrous black coils and slowly dragged it towards an unthinkable edge. Beyond that there was only a bottomless

chasm. The Nothing.

It was a dead march that led by slow, remorseless steps beyond the pattern of known things and recognisable thoughts. Beyond the brightly-lit circle you knew as "here and now." Beyond the comfy familiarity of what you called "you."

Part of Delgado's mind, fragmented off from the rest, fought a blind rearguard action against the whole loathesome process. Struggled to retain a semblance of identity, to scream out against the enormous black serpent whose icy coils were crushing what had once been Commander Delgado.

But the scream was soundless. And there was no one to

hear.

Now the zero-field was beginning to corrode the outer walls of the capsule. Like boiling black acid it was eating away the smooth crust. It was like boiling water poured over ice.

Monstrous thoughts kept forming themselves like huge question marks in what was left of his mind. The first man they'd put into a zerotron had lost the ends of his arms and legs and some of the rest of him. The second had come back in one piece, but mentally deranged . . .

He would have given most of the solar system now, to be back on the firm floor of the hangar, shaking a technician by

the warm, friendly hand.

The crust of the capsule was getting thinner. He sensed its terrifying, hopeless frailty more and more each moment. It

was as vulnerable as an eggshell.

And the surging black flux was threshing around, continually eroding more and more of this flimsy protection. A minute more, and it would be gone. And then . . .

Why, Delgado asked himself savagely, had he lined himself up for this job? Why hadn't he been a technician himself, helping some other poor boob, some glory-hunter, into a metal suit—waving him on from the sidelines? Safe inside a technician's white overalls, instead of vulnerable inside the foil-thin armour of the zerosuit?

By slow stages, the enormous oscillations built up to a lashing frenzy in the coils of the zerotron. The zero-field inside the capsule was surging continuously stronger. Wave on wave of subliminal energy hit Delgado as he crouched, in a soundless scream, inside the capsule.

An enormous spiral formed itself in what was left of Space. Slowly it rotated so as to turn in on itself, drawing the wreck of Delgado inwards. Spiralling inwards, and downwards.

The pitiful flotsam that had been Delgado no longer had a name. No longer knew why it was trapped in this morass of nothingness. Like a sectioned worm in an experimenter's maze, whichever way it turned it received shock after numbing shock, without knowing why.

There was no rational way out, no pattern, no hope, for what was left. It fought against the senselessness. It struggled with the monstrous inhuman unreason, with the loathesome purposelessness. It wrestled with the Zero mind. It lashed frenziedly against the cosmic pointlessness, the universal no-think.

Then, quite suddenly something gave and it struggled no longer.

Now there was something whimpering soundlessly in the

It did not question why it was there.

Because there was nothing left to ask questions.

There was simply a quivering transparent jelly that trembled in the midst of an enormous blackness, an unseen universe of fearful nothingness.

Indefinite things with no specific shape or purpose moved round it. There was no answer. The terror was inescapable because it was inexplicit. And there was no way of moving, no way of escaping, because it was simply a palpitating amoeba plunged in an immensity of fluid terror.

The zerotron gave out a last wave of pure energy, engulfing the capsule, rippling through its black walls. Inside, the thing was like a globule of plasm in which all is fluid, all dissolves back into its primal substance. Or like a fragile pupal case, in which metamorphosis takes place.

Then the pupal creature disappeared. And with it, the terror also ceased.

There was only a quantum of awareness, which had no name.

Without description, absolved from any reckoning.

What was there, whatever it was, resembled clear fluid in a transparent container. It had no colour of its own, no character, no image.

Yet, as though its own double, there was another.

The drop of clear fluid shimmered with its own translucency. And moving towards it was another like itself. The shining spheres moved together. Slowly at first. Then as they neared each other, more quickly. The two things met and coalesced.

For a long moment the resulting orb trembled within itself, shining, shedding its own radiance. Then it collapsed and vanished, as a bubble appearing on the enormous storm-tossed

sea may vanish.

And there was nothing left, any more.

Only the infinite ocean of nothingness was left . . .

Surfacing.

Upwards from the soundless.

Waking from dreamless sleep.

Out of the blackness comes . . .

Is aware, something.

Yes there is, there is, here and now.

What is?

Who?

Is anybody?

Am?

One observes, outwardly, the swimming discs.

A universe of white moons.

Who observes?

Someone observes, has hands.

These moons are close clock faces. Instruments.

You are in a cabin.

But why?

The man sitting in the capsule fumbled with his mind, like

a man drugged with too much sleep.

The pattern of instruments was familiar yet unfamiliar. The words on them had a strange look to his eyes. He strove to clarify, in his mind, how he came to be where he was.

Then, seeping back, came the warmth of emotion, of fondness, of comradeship. There had been two of them, there,

at the point of intersection.

Like twin brothers, they had met, and shared the moment of terror and release. Now, in some subliminal way, they were linked. Like mental siamese twins they were joined at a psychic navel.

He became aware, in the vast gulf of space-time, of a somewhat similar cabin in which another man was sitting. That person also was struggling with unfamiliar thoughts and impressions, with words that did not quite jell into meaning.

My brother, my inseparable companion.

The other man, he knew, was also aware of his presence across dividing space-time. Wordlessly, they were in communication, supporting and strengthening each other.

It was good to feel the warmth of the other's feeling for him, and to send out strong impulses of hope and confidence in his

direction.

Together they were going to be all right, they were going to master whatever ill-sport of fate was confining them in these narrow cabins.

Together, as brothers, they would share whatever experiences came in the future.

Outside the capsule he now sensed the immediate presence of other human beings approaching very close.

There was a clanking on the outer skin of the capsule, a clanking that was renewed and replaced by an odd grating and squeaking noise. The sequence of noises was repeated three times.

Then with a whine, a circular section of the ceiling slowly swung back. They were opening the hatch.

Three heads poked into the circular space. Three faces looked down at him.

The man in the capsule studied the three faces. He read their anxiety about whether he was all right. Why they had confined him in this narrow cabin he did not know.

But he had seen, lurking behind the anxiety on the three faces, a secret feeling of almost pleasurable anticipation at the horror they might find in the capsule. Momentarily, they were really disappointed that he had come through all right. They had been robbed of a grisly pleasurable moment of shock and horror.

Quickly the fleeting impression had changed. Now they

were expressing relief that he was safe and sound.

But behind the relief also was a sour impression of envy. They resented it because he would be lionized, feted, made into a hero. Now each of them was wishing he had been the man in the capsule.

One of the men now grinned and spoke to him. The words were unfamiliar, unrecognisable, but he recognised the meaning

behind them.

"It is good to see that you have come back safely."

The man in the capsule replied warmly: "Thank you. It's good to be back. But please tell me where it is I've been."

A look of incomprehension came over the three men's faces. They glanced at each other with a significant expression, seeming to signal to each other that something was wrong. Then they turned back to the man in the capsule and he noticed now a look of pity, of concern, on their faces. But behind it, there was a smug tinge of satisfaction. After all, he is damaged in some way.

They don't understand the language I am speaking, the zeronaut thought. And they are speaking a different language from me. Perhaps the language that is on these instruments.

Now the men reached down to him and helped him to climb

out of the capsule.

One by one they descended the steel ladder to a platform on the rig. As soon as he was outside the capsule, he took the opportunity to glance rapidly around him. The massively engineered rig, the huge concrete cube and the enormous roofed enclosure—all these seemed strangely familiar. Then why was the language foreign to him?

While he was pondering this question, one of the men signalled him to go with them down a ramp which led back to the floor of the building. The four of them marched down together. Although he felt well able to walk under his own steam, they insisted on supporting his shoulders, either side of

him as he walked.

At the foot of the ramp was a table with six men in uniform sitting along one side of it. Behind them were more men, some in uniform and some in civilian clothes. On the other side of the table was a single empty chair. The man at the centre of the table, who seemed to be the most important person present, gestured him into it.

He sat down, easing himself into the padded seat. It made a welcome change from the cramped interior of the capsule.

"Just tell us what you experienced," said one of the men, in

the language the zeronaut did not understand.

He started to reply. The same look he'd seen on the faces of the technicians who had opened the capsule—a look first of incomprehension then of pity—came over the faces of these men too.

They consulted among themselves. Then they all turned

back to have another searching look at him.

At this point, one of the group standing behind the table said: "This is incredible. He's speaking the . . ." He broke off.

The six men at the table all turned round and stared at the speaker, who looked as if he now wished he'd kept quiet.

"Well, out with it!" said one of them brusquely.

"It's the language of the other side."

There was a rustle of quick movements of surprise and disbelief.

"He speaks the language as if he was born to it. I am an official interpreter. I will interpret for you if you wish."

The men at the table went into a huddle again.

"Say that we're going to show him his wife and children on TV."

The interpreter relayed this information, speaking the language the zeronaut understood. It was enjoyable to hear the language he knew, with its powerful resonances and subtle inflections, spoken by someone else.

A screen came alive, and as it sprang into focus he saw a

young woman and two children.

Quite pleasant people. Searching his memories he seemed to recall the association, but it was unimportant, a localised emotion, an episode in the past.

"It is good to meet you again," he said, using the language

he understood.

The woman's face, quite a pretty face, registered surprise, shock. Then she collapsed in tears. The children gripped her hand, put their arms round her neck, tried to comfort her.

Abruptly the screen dimmed and went blank. The men at the table were consulting again.

"We'd better show him to the public right away."

" Prove he's all right."

"Establish our prior claim to success."

"Apparently they're in some kind of trouble with their man. We haven't quite fathomed what it is."

They led him now down a long corridor and in a room at

the end there were many cameras, lights, microphones.

An announcer was saying: "And here, to welcome Commander Delgado back from his perilous mission, is the President himself."

The zeronaut looked up at the big man who stepped forward to shake him by the hand. He felt the genial warmth of greeting, the big heart. Here was a man . . .

"It's good to have you back," the President was saying.

"And now you must tell us all about it."

The cameras probed towards him with their long snouts, and the zeronaut began to speak. He started to form the sentence, "My brother . . ."

The interpreter, next to him, nudged him violently in the ribs and hissed in his ear. "Don't talk. Don't say anything.

They won't understand anyway. Just smile and wave."

Delgado turned and looked at the interpreter. He saw the squalid mass of emotions churning inside him. The embarrassment. The queasy hypocrisy. The, what was it ?—patriotism.

He wanted to release the man from this absurd, limiting emotion. To free him from his mental straight jacket. To show him that everything that surrounded him—the world, the people in it, the entire solar system—was part of the same huge pattern, the same living organism. Was linked in one identity. But it would take too long. Perhaps later—now there was so much to do.

Delgado looked for a long moment at the interpreter, and then slowly turned away, and spoke with great emphasis into the microphones:

" My brother, too, is safe . . ." Bill Spencer

Gone Away-No known address'

Subscribers are reminded to keep us informed of any change of address to ensure the safe delivery of their copies as far too many issues are returned by the Post Office marked as above. Overseas subscribers are particularly requested to let us known in good time.

According to author Mackelworth, insuring a spaceship will be a lot safer than for most normal risks handled by assessors. When a pattern begins to show otherwise, there is something wrong somewhere.

PATTERN OF RISK

by R. W. MACKELWORTH

The call bell rang and John Wells flicked over the switch on his desk. The blank wall opposite disappeared and he was looking into a sparsely furnished office with the executive look. Its emptiness exasperated Wells. He felt a niggling suspicion that he was being taken and that someone was laughing at him. He had never forgotten the hours of waiting outside other men's offices for interviews. He shuddered as he remembered the drafty corridors and hard-faced secretaries.

"Come on, whoever you are."

As if in response a man walked into the centre of the room and faced him. He was tall, well dressed and radiated calm self-confidence.

"Salesman!" The word exploded like a curse from Wells' lips. He jabbed his finger at the buzzer which sounded in the

outer office. "Miss Crane, who the hell is this?"

A vague twittering echoed in the amplifier as Miss Crane tried to hold on to her composure. She was frightened of the Director at the best of times, but when there was anger in his voice she was reduced to terror.

Wells spoke to her with mock patience. "Miss Crane, who put this man on the line and who is he?"

"If you will allow me, Mr. Wells." The mellow tone in the man's voice was as seductive as a crooner's delivery. "I am Paul Smith of Outer Space Insurers Ltd."

Wells glared at him. "I don't need insurance, both the Company and myself are adequately catered for, so will you

please get off my line."

"We are your insurers, Mr. Wells."

His anger was deflated like a pricked balloon. He felt as if he had been caught on the wrong foot and in the back of his mind he realised that was what Smith had wanted. "You had

no appointment."

Smith smiled as if he hadn't expected an apology anyway. "I was depending on your well-known patience, Mr. Wells. The call was urgent and very confidential so I took the liberty of using our special pass to come straight through to you."

Wells made a mental note to cancel the pass and then prepared himself for a short lecture on the value of a new insurance scheme. "Go ahead, Smith. I haven't much time and your company won't want to pay for wasted communication time either, but whatever you're selling, let's hear about and get it over."

"I'm not selling, sir, and my company has paid for an hour on the communicator." There was no lack of confidence about Smith, even the dampener of indifference couldn't put him off.

Wells laughed. "Don't tell me you're not a salesman. I was one myself and I recognise all the symptoms. In any case the first thing a salesman does is deny he is one." He glanced at the meter below the communicator and confirmed that an hour had indeed been booked. He whistled. "At fifty credits an hour you must have something big to put over."

"I have but it's not a sale." Smith walked over to his desk and punched a number of buttons. "I've just set up your company's claim record. I had better explain that I'm the

Chief Assessor."

Wells leaned forward, keenly interested now. "I don't get

your drift, to my knowledge we have no claim record."

"You're thinking about your spaceships, Mr. Wells." He folded his arms across his chest and propped his body on his desk. "I'm talking about your general claim record; buildings, cars, etcetera. That has been exceptional, as these recorder pictures will confirm."

"Look, Smith, I'm responsible for Inter-World's ships, not its other assets. You want Grade or Wilson, my co-directors.

It's their province, not mine."

Smith's face was relaxed and unperturbed. "It's precisely because you aren't directly concerned that I've come to you. In addition, you're the senior director and we know we can trust you."

"Do you mean that you don't trust my colleagues? If that's the case, your company has just lost our account." Wells was

quietly angry now.

"You're a fair man, Mr. Wells. See the record and give me

a chance to explain it and I think you will understand."

Wells drummed his fingers on the desk. He was shrewd enough to appreciate the value of information, even unfortunate information, which might be painful. "All right, I'll see it, but if you're barking up the wrong tree I promise that I'll have your hide."

The first few pictures were of trivial accidents. A car swerved into another and both were damaged. It appeared to Wells' experienced eye to be an error of judgment on the part of the driver. Three fires appeared, one after the other and in every case he recognised the place where the fires occurred as one of his company's buildings. The scenes appeared more rapidly and each accident or fire was worse than the last. He noticed that the major events had taken place in buildings or at space stations abroad.

The last picture shot into his view and he saw that it was a building nearer home, in fact it was the new office block they had just erected in the City. Flames were bursting from the windows like insane flowers and the much speeded film told a story of complete destruction. He shouted at Smith. "That's the Cargo Control building! That film's a fake! I would have been told about it."

The picture vanished and Smith reappeared. His face was set into hard lines and the illusion of the good salesman's charm had gone. "It happened two hours ago, Mr. Wells, and it's

still burning."

"Someone's head will fall for this." He pushed the buzzer for Miss Crane. "Get hold of Grade and Wilson at once. I want them here in my office in person." He returned his attention to Smith. "How did you get these pictures? It seems odd that you always have a photographer on the spot."

"We have a recorder device placed at the site of each major risk we insure. It saves dispute. Fire or a major accident sets the recorder into motion, rather like a sprinkler system."

"That doesn't explain the picture of the motor accident."

Smith nodded his head as if he had taken the point. "That was a lucky coincidence. There is a recorder on each car which will give us a picture from the driver's seat in case of accident, but in this case it was the recorder on a car he had already hit, which showed us the rest of the accident."

Wells left his chair and stood in front of the wall-sized screen with its glowing vision. His face was absorbed. He spoke to the suave insurance man with a deceptive air of detachment. "I must apologise, Mr. Smith. This business is apparently more serious than I thought. If you would be good enough to excuse me now, I must confer with my colleagues. I will pay for the wasted communicator time and set up a full investigation."

"I'm afraid that won't do."

Wells' fat cheeks turned red and his hands trembled a little

with suppressed anger. "What do you mean, Smith?"

"It would be better to keep your other directors out of it for the time being, sir." Smith picked up some notes from his desk. "All risk can be exactly calculated. Insurance is based on this fact. Over the years, hundreds of years in fact, the companies have obtained very complete records of accidents. The records have been pooled and form a pattern. This pattern was true for the past, but more important, it's true for the future too." He hesitated as if he was picking his words. "We can predict the incident of risk to a very high degree of efficiency."

"What has this to do with me?"

"It means that, in general, we know to a digit just how much we expect to lose on a first class risk over a period. In the old days we had a multitude of small risks and perhaps we had a better selection. Now we have bigger risks but as the concerns are more efficient and their safety factors higher, we can still hold our own. At least that's true normally." Smith dropped his notes on the table. "To be frank, Mr. Wells, sometimes our experience doesn't conform to pattern."

Wells began to see a point to the discussion. "I would like

to understand your implication."

"Despite your high degree of efficiency, Mr. Wells, I'm afraid that your company hasn't a record that follows the

normal claim's history. However, it does have a definite system of motivation. It's not haphazard. There is a basis, a prime mover to your record."

Wells almost sneered. "Cut the gab, Smith. What have you

dug up ?"
" Fraud."

The Director was suddenly calm and watchful. He was too good a businessman to allow a sudden shock to throw him.

"What's your evidence?"
"You believe in machines?"

"I do. My Company owns and operates some of the most complicated machinery in existence. I started with machines, then I sold them and now I administer them." There was a bite to Wells' voice. It was the bite that an engineer reserves for a man who doesn't know the smell of working machinery. His eyes said, "They spin not neither do they toil," but his lips were a thin line of restraint.

Smith didn't miss the look. "Once I could introduce you to a blood and flesh underwriter. Now we use this." The vision swung to a huge bank of lights and dials set in a grey metal consul. "If I feed the relevant facts into this computer, it can call on an era of experience and produce an accurate reflection

of the future in a premium rate."

Wells was interested. The idea was familiar to him. His spaceships carried computers with navigational experience which could predict the best course to make from one star to another. "I find it strange that your machine has been so wrong about us. It seems you should feed it with the data on poor maintenance so that it can compensate its rates for your

negligence."

The assessor laughed gently, appreciating the joke. "When our underwriter here gives us a rate, we know that it's right. If the first few accidents don't comply, we feed the facts into the machine again. Apart from underwriting in the normal sense it also has a first class knowledge of the incidence of moral risk. It can take a few 'accidents' with a fraudulent cause, an intentional motive and make sense of them in terms of the future."

"It understands the old police definition of 'method of

operation' that stamps all criminals you mean?"

"Exactly. Given the records, it can build up a picture, from the way in which the accidents occurred, of the man who caused

them, the skills he used and the way he will go about further swindles. Also with luck it can tell why he arranged them and how he intends to pick up the proceeds."

"Is that all it can do?"

" Are you serious?" Smith asked him softly.

Wells shook his head and waved his chubby hand. "Carry on."

"In the case of your first five accidents, commencing with the car smash, it appeared that each was caused by human error. Yet when we fed the facts into the machine we discovered something else. The accidents could have been staged by a first class engineer who knew how to make mechanical failure look like human error."

"There are a dozen first class engineers in every one of our stations, home and abroad. Even I could contrive such accidents. Every spaceman is an expert in both mechanical and

human failure points. Where does that lead us?"

"Wait, Mr. Wells, that isn't the end of our deduction. The accidents had another common denominator. They occurred nearer home eyery time. The first was at Mars base and the next at Lunar base. Then came a fire in your Australian building and so on. The instigator of the accidents was moving nearer home and at the same time the claims were growing in magnitude."

"This information came from the first five accidents only?"

The Director's question was a little incredulous.

"We could have done it with less."

"Then the remaining incidents merely confirmed the first five?"

Smith laughed again. "If your logic is reasonable that

would be the case, wouldn't it, Mr. Wells?"

Wells showed some impatience. "Don't double talk me, Smith. I'm still dubious about you and your confounded

underwriting machine."

"Let's press on then, Mr. Wells, and perhaps I can convince you. You may have hundreds of first class engineers but you haven't many with the freedom to move about from station to station. According to your Employer's Liability cover, there are half a dozen touring Inspectors on your pay roll."

"Yes. They are our best men. They are very well paid as well, so I find it hard to think any of them would try things like this. In any case how could they benefit? All claim cheques

are paid into the Company accounts."

" Precisely and that is why we think that the instigator must be very senior indeed. Someone in fact with the power to start up a subsidiary company into which the proceeds from the claims can be paid."

Wells snapped his fingers angrily. "You're on dangerous ground again, Mr. Smith. Only a director could authorise the setting up of a subsidiary company and then only with my agreement."

"How many companies have you set up?"

The fat man spread his hands and shrugged eloquently. see your point. We make many applications for new registra-

tions every week."

"All a Director need do is set up a new company especially to receive claims money. He couldn't have complete control perhaps, as share holdings are of paramount interest in registration. He could, however, authorise trade between other companies and the new one. He could buy a couple of nails and a screwdriver from a company outside the group for say a million credits."

"Put a little crudely, Mr. Smith, but illegal transfer of funds is possible, especially in a big organisation. I will check on that if you haven't already discovered the company's name and so forth." Wells had raised his eyebrows inquisitively but Smith wasn't prepared to reveal the name of the company, if in

fact he knew it.

"There we have a motive, Mr. Wells, and a picture of the man. A skilled engineer with a knowledge of people and the authority to travel anywhere on the Company's business. Also he has the power to set up new companies. He must be a senior director."

"The name, what's his name?"

"Let's leave that for a moment and look at the remaining deduction the machine has made." Smith punched another set of buttons on his desk. "If we feed in the accidents already recorded, the machine can tell us in graphic pictorial form, the possible site of the next incident and the way it will happen. Let's make a shot ourselves though, shall we?"

"Such as?"

"What's the quickest way to turn over a quick million and all due to human error?"

Wells face was hard and set with intense interest. "You could only pull a stunt as big as that with a spaceship."

"Good." Smith smiled at the Director as if he was a promising schoolboy with the right answer. "Up to now all the accidents have been to the other property of the concern. Now I can understand that a good engineer, a genuine space engineer, would hate to destroy a ship when there was other material. In any case he has to build up a convincing flow of money into, and out of, his subsidiary company so that eventually no one would question the size of the figures involved. If he was still driven to finding money, in the end he would have to destroy something as big as a ship, but he would pick the least important of the fleet. A ship perhaps which offended his idea of perfection, a ship old and nearly past it."

"Such as the Nebo?"

Smith smiled and nodded. "Again he would try to duplicate human error because that is his method of operation. You can only destroy a ship in one way. All systems are automatic. In fact it's a little realised fact that spaceships are safer than any other kind of transport. The only way a ship can be destroyed through human error is by accidental power surge in the pile. If the atomic engines get out of control there is, of course, a safety mechanism which shuts down the pile. Now, if for some reason this jams, then there is an explosion that would scatter the ship and evidence in fine dust."

"That would be terrible and without precedent. The crew wouldn't stand a chance." Wells betrayed real concern, for the

first time.

"The thought of the crew worries you, Mr. Wells?"

" Of course it does."

Smith side-stepped to the edge of the picture and another area of vision bloomed into life. It was a spaceship cabin. "We have a recorder camera aboard." Smith commentated as coolly as a T.V. announcer. "I hardly need say that this is the

Nebo taking off from Home Base for the Mars run."

There were three men in the cabin. Wells could see the grey-haired old Scot, Grant, at the controls, his face concentrating intensely on the myriad of dials and lights on the pilot's consul. As if fascinated by the inevitability of the process of some predestined fate, Wells' eyes lingered on the pile control buttons and their safety levers. The levers had to be pulled before the buttons could be operated. He heard the navigator

calling over the ascent numbers in a bored voice and the low hum of the electronics.

Suddenly a bell shrilled fiercely. Grant swung round to shout at the rest of the crew. It was like a T.V. show but in deadly earnest. Grant's fingers flickered along the row of safety levers and each of them snapped back satisfactorily. Wells knew that Grant had made a mistake, he should have checked visually that the rods were responding to automatic control. If he had, he would have seen that they were bent and causing a power surge. Given luck the crew could have been out in time by escape capsule. Instead he depended on the automatic control buttons and pressed each firmly. Still the bell shrilled. Too late he ran over to the pile observation window. His face was grotesquely astonished when he saw the rods were bent and the safety mechanism jammed. Desperately he tried to withdraw the rods manually. An instant later the blaze of light wiped everything into blackness.
"The end of the Nebo." The assessor's voice was full of cold

finality and dead to sympathy.

"What the hell did Grant think he was doing? It's laid down that the Captain checks the condition of the rods before he tries to withdraw them with the safety mechanism. If they are bent he knows the automatic safety mechanisms will jam." Wells was genuinely distressed, as if the accident was real and not merely a prediction. Beads of sweat were forming on his brow.

"Does it matter what Grant did?" The insurance man's voice was cold, almost indifferent. "You know that most Captains, except perhaps a few, young rulebook types, would try the safety controls first. The last thing they would expect would be bent rods. Just human error."

"How could the rods get bent?"

"A loose panel left by a careless engineer after inspection, then vibration in takeoff causing the rods to bend. Two bits of negligence and finale."

Wells frowned at the assessor angrily. "This is impossible.

It's never happened before."

"Ten years ago this identical accident occurred on the Albach. The verdict was one of accidental warping of the rods, compounded by the negligence of the Captain. They never pinned down the engineer who checked the pile on ground maintenance. He covered up to well."

"You must have iced water in your veins! You chat on about the Albach when your damned machine predicts we will lose a ship and its crew. Grant has been with me for years and the others too, all fine men."

"You're worried about the crew, Mr. Wells?"

"Smith, you've asked that already and I said I was. What do you want, blood?" Wells was shaking his fist at the screen

as if he would like to strike the assessor.

"Calm down, Mr. Wells. It needn't happen like that if you don't want it to. We have free will you know." Smith's sympathetic mood seemed to have returned and he was consoling.

"The film's a fake then?"

"It isn't a fake. I said we had free will in the matter but if these accidents continue at their present pace that is the inevitable end." The cold finality was back in Smith's voice with

clear conviction in every word.

Wells came to life with sudden interest. "That remark doesn't add up. You originally stated that the accident to the Nebo was next on the list. What you've just said makes me think that the claim's record you showed me is part fact and part prediction—or fiction."

Smith looked impatient. "Let's leave that, Mr. Wells. Fact or prediction, you know that I'm not bluffing. Firstly, we must make up our mind why the erring Director wants money so badly that he will destroy to get it."

Wells made no reply.

"I'll tell you. He wants money because he's being black-mailed. Perhaps at this stage he doesn't realise that the black-mailer will push him and bleed him until he cracks or gets caught." Smith looked directly into Wells' eyes. "He had to get caught, you see, because of his mistake."

" Mistake ?"

"Despite his intelligence he overlooked one thing. However perfect the incidents were made to appear, however apparently genuine individually, when taken together they all bore the same thumbprint. Accidents with the same basic cause in the same concern are immediately suspect to the underwriter. It was easier to read a motive into your company's accidents than a pattern that followed the accepted trend for similar organisations."

They stared at one another like two animals unexpectedly meeting in a jungle clearing, waiting for the first sign of weakness.

Suddenly the Director sat down in his well-cushioned chair and half closed his eyes. "I repeat, Mr. Smith. How many of the incidents you showed me in your claim's record have actually happened?"

Smith smiled, relaxed and confident. "Look at your

calendar? What date does it show?"

Wells eyes glanced down to the expensive calendar on his desk. "1315 hours 10th May, 2206," his voice was weary and

it was as if he didn't care any more.

Smith nodded in agreement and his slim hand smoothed the lapel of his coat. He pointed to a calendar clock set in the face of the underwriting machine. It read: "1500 hours 12th June 2207."

Wells looked intently at the assessor. "You seem to be a year and a month ahead of me, Smith. It is all a bluff, isn't it? What is it, a gimmick to sell some fancy cover or an excuse to

raise our premiums?"

"Well bluffed yourself, Mr. Director. I didn't think you would break. You know that it's not faked. We took the first five accidents which had occurred up to the date on your calendar, today's date, and allowed the machine to run on with its predictions until the time shown on its calendar. It knew more about the criminal than he knew about himself. He had planned, perhaps, for 'accidents' over the next three or four months but he couldn't possibly appreciate where they were leading him, under the pressure of increasing blackmail." Smith spoke his words slowly and with condemnation. "He could not know that eventually he would destroy a ship and its crew."

"Why tell him at all about the ship?" Wells was calmer now. "Why not warn him off with a showing of the next accident or

just withdraw cover?"

"First we knew that he would be affected by the sudden knowledge of the terrible accident to the ship, whereas he might not care a jot about the other accidents. Secondly we want the account. To be frank, in these days of big risks we can't afford to lose it." Smith rubbed his lapel again a little more urgently this time. "You see, the predictions of our machine aren't accepted in court and although we know that it's

absolutely accurate, if we allowed the incidents to continue we

would have to prove fraud in each case."

Wells sneered. "I see, afraid of the risks but unable to let them go. This interview would be a warning only then. Suppose that the victim is more frightened of the blackmail than the predictions of your contraption, what then?"

Smith stared at him as if he had asked a silly question. "We gave the machine a hypothetical case based on yours and

suggested this interview."

"And its answer?"

"The final solution was certain. If we undertook this interview the whole record would be changed. The accidents would not occur." The assessor walked over slowly, nearer the front of the picture, his eyes on Wells all the time. "The criminal would find himself in an impossible position but being a very intelligent man he would find the perfect solution, a first class compromise. It would cost us a bit but we would save our funds and some lives."

Wells crumbled visibly. "Get away from here, Smith. I must think."

The assessor's face softened. "I'm sorry, but if this business had gone on the *Nebo* would have been destroyed, you know. Whatever he felt, the man would have hardened his mind and his heart under constant pressure of blackmail."

" Please go now."

The screen picture faded and again a blank wall faced Wells. The communicator meter showed that the hour was up to the second. He pressed the call button to the outer office. "Miss Crane!"

"Yes, sir."

"When Wilson arrives tell him he may as well destroy his file on the *Albach* disaster. Then send him in here alone. As politely as you can, tell his little ferret Grade to find another job or go to hell, whichever he prefers."

Miss Crane gasped. "Mr. Wells, you can't mean that."

"Quiet, Miss Crane. Next ask the General Services Branch to set up an inquiry into the efficiency of pile control devices on all ships. Then send my Personal Accident policies to the solicitor's office."

He paused, smiling to himself and lit up a cigarette.

Miss Crane, always over-attentive, spoke again. "Is that all, sir?"

"No. Cancel the further trips I had arranged to our bases abroad."

Her reply was anxious now. "Is there anything I can get

you ?"

"Don't worry, Miss Crane. All I want is some peace and quiet." He laughed softly. "I notice that the heater in here is potentially dangerous. It could cause an explosion. I'm going to have a go at fixing it. Just buzz me when Wilson is about to come in."

He walked over to the heater and looked at the frayed wire he had spotted earlier. With the careful movements of a highly trained engineer he set about mending it.

R. W. Mackelworth

THE LITERARY LINE-UP

Commencing next month is the first part of a new John Brunner serial, "To Conquer Chaos," which bids fair to being one of the most interesting and unusual stories we have published in a long time. In effect it is an exploration adventure in an unusual but Earthly setting—the investigation by a small group of soldiers of a legendary forbidden place from which all kinds of peculiar and unearthly creatures appear from time to time. The setting is rural and not of today, but whatever guesses you may form from the initial two parts, will be entirely confounded upon reading the last part. Written, too, with all John Brunner's exceptional talent for word-picturisation.

Short stories on hand, any of which may well be in the same issue, are by Lee Harding, Michael Moorcock, P. F. Woods, James Inglis, R. W. Mackelworth, John Rackham and many

others.

Story ratings for No. 127 were:

- 1. Dawn's Left Hand, Part 2 - Lan Wright
- 2. Twice Bitten - Donald Malcolm
- 3. Pet Name For A World - Gordon Walters
- 4. Till Life Do Us Part - Robert Presslie
- 5. Live Test - - Peter Vaughan

For several years Philip High has been producing innumerable fascinating and entertaining plots—and we now come to expect this of him. Certainly, in this story, he lives up to his reputation, which can be catalogued simply as a symbiote one—but, be prepared to be surprised!

POINT OF NO RETURN by PHILIP E. HIGH

Tamossin was neither smooth nor subtle. He was a troubleshooter, brusque, pointed, harsh and often brutal. He had not been chosen for his diplomacy but for the force of his personality—the kind of personality to cut upstart ministers down to size.

Council Representative Tamossin was also an investigator of a kind, knew the Agreement by heart and was frighteningly astute.

He began the interview—for him—mildly enough and, rather irritatingly, in the plural: "We are not happy, not happy at all. We feel, with some justification, that this colony has been a trouble spot since interstellar migration began. We feel—"he intertwined sausage-like fingers and blinked slowly "—that you have over-stepped the licence permitted to independent colonies. Six civil wars in two hundred years and now a planet-wide conflagration in which, we of the Council, perceive grave dangers to the Empire as a whole. It's got to stop, Minister Congreve, the Council insists that you do something about it."

Minister Congreve, a tall greying, acidulated man in an out-dated but exquisitely tailored suit, paled slightly but maintained his composure. "My dear Representative, we are not responsible for aggression, we are not responsible for

insurgent attack. Surely the Council appreciates that we could not permit ourselves to be overwhelmed by this rabble without

lifting a finger-"

Tamossin cut him short rudely. "I've heard the justifications, yours and theirs, and I'm not impressed. Good God, man, don't you know about the Foundation Thesis? Don't you know that the formation of an autocratic government leads inevitably to insurrection at our present cultural level? What the hell do you think the Foundation Thesis was prepared for -amusement?"

"It was a purely temporary measure in the face of the

gravest-"

Tamossin cut him short again. "Two hundred and eight other colonies were also faced with the gravest difficulties. They, however, followed the precepts of the Thesis and live in peace."

The minister's face set in coldly stubborn lines. "I would remind you, Representative, that we are still an independent

planetary colony, out internal affairs are our own."

"Not when they threaten the safety and structure of the Empire, my friend. Study the Agreement, you'll find this particular matter in the section dealing with Colonisation Rights and Freedoms, chapter four, pages six to twelve."

The minister lifted the left side of his upper lip in a grimace which was close enough to a sneer to be insulting. "Infringement of the clauses in that section of the Agreement will take more that a little proving."

"True." Tamossin heaved his bulk out of the comfortable chair with surprising agility for a man who looked grossly fat. "Very true, that's why I'm here. I want complete facilities for

a thorough investigation."
The minister hesitated. "I am doubtful of the Council's

authority in respect-"

Tamossin sighed. "Minister Congreve," his voice was almost gentle, "have you something to conceal? You are winning your little war hands down, are you using weapons banned under the Agreement?"

"No!" Congreve's denial was violent.

"By inference, perhaps, a new application of a forbidden weapon."

"Definitely not."

"We still think there might be-what about these new air squadrons?"

The minister blinked and lifted thin, greying eyebrows. "Oh, those—is that all?"

"It's not all, but it will do for a start—do I get these investi-

gation facilities."

"On an assumption?" The Minister's voice was verging on

insolence. "Without proof? Really, Representative-"

Tamossin smiled. It was not a pleasant grimace. "My friend, the Council does not send a symbol. I am here as a force and unless I get the co-operation I ask, you're in for big trouble."

"Such as?" The insolence was naked now.

Tamossin shrugged. "Very well, you asked for it. There's an Imperial cruiser still in orbit with a P.W. in the bomb bay. Just a little bit more from you and they'll drop it right down your chimney—is that quite plain?"

Colour drained from Congreve's face and he swayed slightly. "A planet-wrecker." He was speaking almost to himself. "They must be mad, the Council must be mad." He did not ask if the threat was true. The Representative would not dare make such a threat unless he had the force to back it. God, the political repercussions! A mere hint to the people and the whole government would crash in ruins, it would.

"Well?" said Tamossin.

The minister pulled himself together and bowed stiffly. "I will see that you are granted every facility, Representative. Let me assure you, however, that the Council have this business quite out of proportion. You will find nothing infringing the

Agreement."

"Perhaps, perhaps not. You have hammered a numerically superior into the ground with an eight foot pilotless flyer which tests show is not radio-controlled. This, as far as we are concerned, leaves two obvious conclusions. One, you have manufactured a successful but highly dangerous warrior robot contrary to the Agreement or, two, you are doing the job organically with sections of the human brain and that, Minister, infringes the section on social homicide."

Congreve's face was suddenly hard and cold but when he spoke there was an undercurrent of triumph in his voice. "You make dangerous accusations, Representative. When this business is concluded it will give me the utmost satisfaction to report you to the Council. My government will demand a full public apology." He pressed a coloured section of his desk.

" An expert will be here within a few seconds to facilitate your investigations."

Tamossin looked at him quickly and with a vague unease. The man did not seem to be bluffing, on the contrary he looked

both vicious and assured. As if, now sure of his ground, he intended to hit back with all the violence at his command.

The Representative shrugged inwardly. No use worrying yet, even if the flyer did not infringe the Agreement, the real problem—and it was a problem—just how did this third rate little colony run an all-conquering air fleet without radio, without robotics or without part of the human brain for its pilotless aircraft.

The technical expert arrived within two minutes. Congreve introduced him as Martin Halver and dismissed them both with a stiff bow.

"Welcome, Representative." Halver was a little bird-like man with bright black eyes and a nervous tick at the corner of his mouth. He looked as if he had been terrorised into hysterical geniality and seemed uncertain whether to bow or salute.

Tamossin put him out of his misery by shaking his hand. He was an astute judge of men and with Halver he knew exactly where he stood. The little man was not only terrorised into obedience but had a guilt complex which stood out like a sore thumb.

Before they left the room, he said: "I am indicting you as a principle witness for the Council, from hereon you and your family are responsibilities of the Council."

Tamossin did not ask the scientist if he understood, the expression on his face was answer enough. Halver looked as if he had been reprieved bare minutes before his formal execution.

The minister looked sour but it was quite clear that he also understood. If anything happened to Halver, even the most convincing accident, the government would be held fully responsible for not guarding him against it. Indicted witnesses were V.I.P's.

Once in the corridor and now relieved of the possibility of personal reprisals, Halver couldn't unburden himself quickly enough. "I warned them, Representative, you must believe me, I warned them. The danger wasn't visible you see, only exhaustive tests-"

Tamossin cut him short, gently. "Do you think this device

infringes the Agreement?"

- " I—I'm not sure—" The bright little eyes flickered furtively at Tamossin and away. "The legal experts went into the matter very carefully first and the government seems very confident."
 - "But the device is dangerous?"

"Very dangerous."

"I take it that you perfected the instrument."

"Not as a weapon of war, sir. I first introduced the control method for delicate manipulations in micro-surgery, it was their idea to develop it for war, they made me—"

Tamossin said: "Of course," soothingly. "Tell me all

about it-about the flyer I mean, particularly the dangerous

side."

"It would be better if I demonstrated, sir, showed you how the whole business works. Then you'd see for yourself, then you'd understand."

Tamossin shrugged. "Lead on."

As he spoke the building shook as if from a distant explosion and the floor slapped at the soles of their feet.

"What the devil was that?"

"It's the rebels, sir, long range missiles. We haven't found all their launching sites yet. A missile falls somewhere in our territory about every thirty minutes."

He led the way to a sliding door, where two armed and sullen guards checked their credentials carefully before standing

grudgingly to one side.

"What the hell is this?" Tamossin glowered uncomprehendingly and suspiciously down the seemingly endless wards with their hundreds of neat, occupied beds.

"You permitted me to explain this my way, Representative." Halver's voice was pleading. "You have to see—these are war

casualties, all these men were once pilots—flyer pilots."

"But we're dealing with pilotless—" Tamossin stopped, for once in his life completely out of his depth. No report had reached the Council of the government using manned aircraft in their war against the insurgents. "You'd better carry on."

"Yes, sir."

They left the hospital and travelled down a long tunnel with a swiftly moving floor. At the end was a massive door flanked by two more guards who double-checked their identity and finally admitted them with obvious reluctance—they glowered at Tamossin. His identity had evidently preceded him.

Beyond the door he was even more surprised than by the hospital. The room, literally a constructed cavern, stretched away into the distance and was filled with curious wrack-like contraptions resembling unmade sprung beds. Attached to the beds were terminals and curious round helmets resembling those worn by deep sea divers in a long gone age.

"This is the control room, training section." Halver lit a cigarette with a hand which looked chronically unsteady. "Tell me, Representative, would you care to fly a pilotless aircraft?"

"Fly-?" Tamossin dropped heavily on the edge of the

nearest 'bed.' "I think you'd better explain."

"It's difficult to simplify in non-technical terms, sir, but I'll try." Halver exhaled blue smoke hissingly and flicked ash nervously from his cigarette with the tip of his finger. "We have learned how to project a mental impulse by electrical amplification. This mental impulse is received by a device in the aircraft which, in turn, responds. The aircraft, therefore, is not flown by radio but by the direct mental control of the pilot."

Tamossin sucked in a deep audible breath. "This is a kind

of psych-link, some sort of semi-telepathic projection?"

Halver sighed, tiredly. "That's close enough to serve. Inside the ship is what we call a Menta-brain, an exact—although blank—duplicate of the human mind composed, however, of energy-powered metallic substances as opposed to the normal human organic brain."

"I see." Tamossin rose abruptly. "And how does the

pilot see where to direct the aircraft?"

"There's a televiewer hooked to Menta-brain in the nose of the vehicle."

Tamossin frowned, pulling at his heavy chin. "This all sounds fairly simple but there's still something missing—just

what is frightening you sick about this business?"

Halver shook his head jerkily. "It's something which cannot be explained in words, it's something you have to feel. Would you care for a demonstration flight, Representative? There's

no danger, I assure you, in the early stages."

He lay face down on one of the bed-like contraptions, arms outstretched, hands gripping a short metal bar. A bulky, claustrophobic helmet encased his head completely and cold surfaces, presumably terminal devices, pressed behind each ear and at the back of his neck.

At the moment he was not uncomfortable, the 'bed' adapted itself both to his position and weight perfectly but Tamossin was filling the helmet with a whispered flood of profanity. How had he got himself into this, if not vulnerable, undignified position? It was true he had to know but did he have to take the matter this damn far. Fear? That was more likely, the vague, deep-in-the-stomach unease when Halver had suggested he try things for himself. Of course, he wasn't trying to prove to himself he was unafraid—he was—but he couldn't let an emotion dominate him.

"Can you hear me?" Halver's voice through the helmet

intercom made him jump.

"I can hear you." Was his voice always so rasping?
"Good—hold on." There was pressure against the soles of his feet. "Now listen carefully, control is simple. Raise the body slightly for rise, lean left or right for turn either way and press the feet against the pedals for acceleration—got that?"

" Got it."

"Repeat for verification."

Tamossin repeated it, swearing mentally.

"Fine—now listen. I am now going to switch you to control. After change-over, count up to forty for re-orientation as there may be some nausea—ready?"

" Ready."

'Some nausea' Tamossin found was a mild description. He felt as if he described an erratic outside loop at high speed and came down on his head. Blood pressed painfully against the back of his eyes and his mouth was filled with bile. He swallowed, wretching, and was struck with a curious sense of immobility.

He remembered his instructions and began to count. His vision began to clear and he saw that he was in a long narrow valley between high black mountains. This must be the training

area but how—?

Ahead of him were long rows of cradles, launching cradles, containing silver, eight foot, wingless flyers.

"Can you hear me, Representative?"

Tamossin supposed he answered "Yes," but he could not hear, feel, or recognise the muscular reactions of speech—he had no mouth.

He was no longer a solidly built man lying face down on a sort of bed, he was an eight foot silver missile in a launching cradle. He was not controlling the flyer, he was the flyer.

"Raise your body slightly."

He supposed he obeyed but there were no muscular responses. Instead his pseudo-body—the flyer—began to drift upwards vertically from the cradle.

"Press gently with the soles of the feet."

He did so and he—the flyer—began to move forward.

"Turn left—lean—good—now turn right."

He was flying, God, he was flying. Tamossin was filled with an overwhelming sensation of power and freedom.

"Pull on the hand grip to raise the nose, push to put the nose

down-watch it-not so hard."

Within twenty minutes he was a bird, in thirty he could loop and dive with incredible skill and accuracy. It was exhilerating,

it was wonderful, it was . . .

"The studs on the hand-grip are firing studs. All a pilot has to do is to point himself at the target and squeeze. Accuracy and the skills of deflection take a good deal of practice for actual combat but fire-power is devastating. The weapons are projectors, drawing their power, like the motors, from cosmic energy and are, therefore, inexhaustible."

Tamossin barely heard him. He was flying, he was free, he

was almost a god.

"Time to come in now."

The return was even more nauseating and the reorientation of both mind and limbs took almost three minutes.

When he finally raised himself and stood up, his legs felt

rubbery and he was not wholly in command of his knees.

"I think I begin to see."

"No, Representative, you don't. You see only a part, this way--'

There was another long ward and Halver lead the way to one

of the beds.

"Well, Lombard, how do you feel today?"

The man in the bed had a gaunt tortured face and was all too obviously held from an overwhelming hysteria by continual sedation.

"Not too bad, sir. It's still my legs—I can't feel my legs." Halver patted him on the shoulder distractedly. "We'll get

you right in time, old chap."

Well away from the bed, he said, in a low voice: "Lombard's flyer was hit by concentrated ground fire. The tail was blown off, he was pulled out of control as soon as the hit registered on the instruments, but it was too late."

Halver paused and blinked, suddenly an old man. "All these beds, all these men, everyone suffering from the same psychosomatic disorder for which we can find no cure—God, I warned them!"

"Of course, of course." Tamossin's voice was soothing but vague. He did understand now and his stomach seemed to be filled with an icy something which permeated his whole body.

After too long in a flyer, the pilot was the flyer and what happened to his vehicle happened to him. Although control could be cut in an emergency, what he believed had happened to him affected his mental processes permanently. No doubt, when his flyer was hit, he felt, albeit subjectively, actual agony as if in his own body.

Tamossin felt suddenly sick and, for the first time in his life,

shakingly afraid.

"Is there more to this business?"

"More?" Halver's eyes were suddenly liquid and terrified. "N—nothing I—I can prove, Representative."

"But you suspect, eh?"

"Yes—yes, I do, sir. I can't prove it but, somewhere along the line, I think there's a point of no return." He turned, abruptly and almost ran from the room before Tamossin could ask him what he meant.

Tamossin spent several hours in his room before calling on the minister. He had put through four interstellar calls and now sat scowling at the wall knowing he was beaten. There was no loophole, the matter had been under intense scrutiny by leading experts and even submitted to a robotic lawyer but there was no infringement. Legally, the colony had got away with what, to Tamossin was abomination, far worse than warrior robots or control by parts of the human brain.

It would be banned, of course, but legislation and the subsequent amendment of the Agreement would take months. In the meantime—in the meantime he had to eat humble pie before a minister ready and waiting to push it down his throat, dish

and all.

God, even the weapon's projectors conformed to the restrictions imposed by the Articles of the Agreement and, while the Council laboriously amended the Agreement, men were being turned into mental cripples. If there was only something he could do. Wearily he pressed a button and called for Halver, perhaps there was something he had over-looked—perhaps a kind of miracle.

Tamossin did not know it but, nine hundred miles away, there was an answer to his problem. The answer was burnished, six feet in length and almost as slender as an arrow, but it packed a warhead capable of blowing a city block into fragments.

The insurgents knew they were beaten but they fought with the courage of despair, they knew exactly what would happen

to them if they surrendered.

The forty-third missile, launching site 7, shrieked upwards from the cover of some fluffy Velve trees and curved into space. The missile was directed by a pre-determined target-seeking device and was, therefore, difficult to detect—at least in time. Its surfaces were such that they would resist the brief but appalling heat generated by its return into the atmosphere at approximately three miles a second. At that speed it would go deep, very deep indeed and perhaps strike one of those vital underground strong points.

"Hello, Halver, I was just wondering-"

Tamossin never finished the sentence.

At that moment, missile forty-three struck the ground at three miles a second and penetrated a hundred and eighteen feet

before exploding.

It was two miles away but the apartment floor slapped at their feet and made them stagger. The lights blurred, a door rattled half open and slammed shut and a vase of artificial flowers perched on a high shelf leapt upwards and crashed into the opposite wall.

"That was close." Halver wore a frozen look. "I hope—Oh, God!" He clutched at the visophone receiver. "Halver

here, priority call—where did that fall?"

It was a long time before there was an answer. Halver listened colour slowly draining from his face. "I see—all

right."

Slowly he replaced the receiver and looked at the Representative with blind uncomprehending eyes. "It hit number three control centre—two thousand and fifty-six men. There were no survivors."

"Two thou—" Tamossin did not finish the sentence. He was visualising the long room with its bed-like control devices, the prone pilots. It was then he thought of, and asked the question, which had perhaps been in the back of his mind for several hours.

"Well, Representative?" The Minister's voice was smooth and not a little smug. "Have you found your big stick?"

The other looked at him and through him. "Clever lot of bastards, aren't you?" Tamossin was at his brutal best but there was no triumph in his voice. He dropped heavily into the nearest chair and scowled at the floor. "I have been in touch with the Council—they have given me an authorised directive for disbandment, compulsory disbandment."

"Disbandment!"

"You heard me. The directive is authorised by three sections of the Agreement. One, Section Nine, article four, dealing with Empire Safety. Two, Section twelve, article seven, unlawful creation and, three, under safety precautions, dealing with colonial conditions. It begins thus: "When local conditions are such as to threaten the safety of the population, said colony must be evacuated compulsorily and with all possible dispatch, etc., etc."

Tamossin drew a deep breath and looked at the Minister directly. "Evacuation orders have been confirmed and put into effect. The Council wants this planet cleared within two weeks, if not sooner, transports from the Imperial fleet and freighters from every planet possessing them are already on their

way."

The minister moved his lips several times before he was able

to speak. "Why-why? I don't understand."

Tamossin ignored the question. "I must, hereby, in the authority of the Council, formally indict you, the legal government, and all persons directly concerned with the prosecution of the present conflict. You will be charged under five sections of the agreement—all these charges are capital and carry the death penalty."

Congreve's face turned white then slowly to an angry red.

"Are you mad? What possible grounds—?"

Tamossin cut him short violently. "Shut up, for God's sake." He drew a deep breath. "Listen, you have lost just over two thousand control pilots, a loss which, I have noted, appears to have caused you no distress whatever. As this tragedy occurred over six hours ago you must have heard about it."

Tamossin paused and made an impatient gesture with his hand. "This, however, is unimportant compared with the major issue. The major issue is this—two thousand and fifty-

six pilots have been blasted out of existence but the air vehicles they controlled are still flying."

"No!" The minister swayed and clutched at the nearest

chair for support.

Tamossin ignored him. "You were warned, I have found numerous witnesses but warnings were over-ruled. You created a blank but receptive electro-metallic brain which, due to the absorbent qualities of its construction, retained after constant use, the impulses, thoughts, memories and finally the personalities of the control pilots. Somewhere along the line, as you were warned, there was a point of no return, a time when the union between pilot and vehicle became indivisible. The numerous psychosomatic casualties should have been warning enough but you had to go on and win at all costs."

"I'm not responsible, I only obeyed—"

"Sure, you only obeyed orders." Tamossin sighed tiredly and contemptuously and lit a cigarette. "Tell you something, Congreve. I tried those flyers for myself, I flew and looped and dived and, for a time, felt I was God. Time was meaningless, I didn't know if I had been soaring and swooping for an hour or a day. Those two thousand and fifty-six flyers must feel like that now but, sooner or later, they're going to start asking themselves questions. 'Isn't it time we went home? Isn't it time they pulled us out?' There are no controls left to pull them out, Congreve, and nothing to which they could return if there were. That's why we've got to evacuate this planet fast. Time will come when their thinking goes a little further, when they begin to realise their plight and their thoughts turn to revenge. Those two thousand and fifty-six flyers have, between them, enough fire-power to blast this planet to a cinder if they really get down to it. We've got to pull everyone off before it happens."

"Why should it be laid at my door?" Congreve's mind was all too obviously concerned with his own safety. He had expressed no sign of regret and the death of several thousand men and the mental maining of several thousand more seemed

to cause him no remorse whatever.

Tamossin ground out his cigarette and rose. "Think about your roof," he advised. "Think about what's above it, flying things, a kind of pseudo-life." He laughed briefly and harshly. "As I said, you're a clever lot, what does it feel like to know you've created an alien race."

Philip E. High

To solve the pressing problem of humanity's exploding population, science came up with a time machine in which the observer could check the best probability lines for the future. It worked perfectly—almost . . .

F L U X by michael moorcock

Max File leaned forward, addressing an impatient question towards the driving compartment. "How long now before we get there?"

Then he remembered that this car had no driver. Usually, as Marshall-in-Chief of the European Defensive Nuclear Striking Force, he allowed himself the luxury of a chaffeur; but today his destination was secret and known not even to himself.

The plan of his route lay safely locked away in the computer of the car's automatic controller.

He settled back in his seat, deciding that it was useless to fret.

The car left the Main Way about half a mile before it met up with the central traffic circuit which flung vehicles and goods into the surrounding urban system like a gigantic whirling wheel. The car was making for the older parts of the city, nearer the ground. For this, File was grateful, though he did not overtly admit it to himself. Above him, the horizon-wide drone and vibrating murmur of this engineer's paradise still went on, but at least it was more diffuse. The noise was just as great, but more chaotic, and therefore more pleasing to

File's ear. Twice the car was forced to pause before dense streams of pedestrians issuing from public pressure-train stations, faces set and sweating as they battled their way to work.

File sat impassively through the delay, though already he was late for the meeting. What did it mean, he wondered, this Gargantua which sat perpetually bellowing athwart the whole continent? It never slept; it never ceased proudly to roar out its own power. And however benevolent it was towards its hundreds of millions of inhabitants, there was no denying that they were, every one, its slaves.

How had it arisen, what would become of it? It was already so overgrown internally that only with difficulty human beings found themselves room to live in it. If it were seen from out in space, he thought, no human beings would be visible: it would seem to be only a fast-moving machine of

marvellous power but no purpose.

Max File did not have much faith in the European Economic Community's ability to prolong its life infinitely. It had grown swiftly, but it had grown by itself, without the benefit of proper human design. Already, he thought, he could detect the seeds of inevitable collapse.

Patiently, the car eased forward through the crowd, found an unobstructed lane and then continued on its complicated route. Eventually it made its way through a tangle of signs, directions and cross-overs, before stopping in front of a small ten storey

building bearing a grim but solid stamp of authority.

There were guards at the entrance, betokening the gravity of the emergency. File was escorted to a suite on the fifth floor. Here, he was ushered into a windowless chamber with panelled wood walls and a steady, quiet illumination. At the oval table, the Government of the European Economic Community had already convened and was waiting silently for his arrival. The

ministers looked up as he entered.

They made an oddly serene and formal group, with their uniformly dark conservative dress and the white note-paper lying unmarked in neat squares before them. An air of careful constraint prevailed in the room. Most of the ministers gave File only distant nods as he entered and then cast their eyes primly downward as before. File returned the nods. He was acquainted with them all, but not closely. For some reason they always tended to keep their distance from him, in

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spite of the high position he held—and for which he seemed to have been destined since childhood.

Only Prime Minister Strasser rose to welcome him.

"Please be seated, File," he said. File shook the old man's proferred hand, then made his way to his place. Strasser began to speak at once, clearly intending to make the meeting brief

and to the point.

"As we all know," he began, "the situation in Europe has reached the verge of civil war. However, most of us also know that we are not here today to discuss a course of action-I speak now for your benefit, File. We are here to understand our position, and to propose a mission."

Strasser sat down and nodded perfunctorily to the man on his left. Standon, pale and bony, inclined his head towards

File and spoke.

"When we first sat down to deal with this problem, we thought it differed from no other crisis in history—that we would first consider the aims and intentions of the quarrelling economic and political factions, decide which to back and which to fight. It was not long before we discovered our error.

"First, we realised that Europe is only a political entity and not a national entity, obviating the most obvious basis for action. Then we tried to comprehend the entire system which we think of as Europe—and failed. As an industrial economy, Europe passes comprehension!"

He paused, and a strange emotion seemed to well just beneath the surface of his face. He moved his body uneasily,

then continued in a stronger tone.

"We are the first government in history which is aware, and will admit, that it does not know how to control events. The continent in our charge has become the most massive, complex, high-pressured phenomenon ever to appear on the face of this planet. We no more know how to control it than we know how to control the mechanism governing the growth of an actual living organism. Some of us are of the opinion that European industry has in fact become a living organism—but one without the sanity and certainty of proper development that a natural organism has. It began haphazardly, and then followed its own laws. There is one of us-" he indicated stern Brown-Gothe across the table—" who equates it with a cancer."

File mused on the similarity of the ministers' conclusions to

his own thoughts of only a few minutes before.

"Europe suffers from compression," Standon continued. "Everything is so pressurised, energies and processes abut so solidly on one another, that the whole system has massed together in a solid plenum. Politically speaking, there just isn't room to move around. Consequently, we are unable to apprehend the course of events either by computation or by common sense, and we are unable to say what will result from any given action. In short, we are in complete ignorance of the future, whether we participate in it or not."

File looked up and down the table. Most of the ministers still gazed passively at their notepads. One or two, with

Strasser and Standon, were looking at him expectantly.

"I had been coming to the same conclusion myself," he

said. "But you must have decided upon something."

"No," said Standon forcefully. "This is the essence of the matter. If things were that clear-cut there would not be this problem—we should simply choose a side. But there are not two factions—there are three or four, with others in the background. The very idea of what is best loses meaning when we do not know what is going to happen. Logically, destruction of the community is the only criterion of what is undesirable, but even then, who knows? Perhaps we have grown so monstrous that there is no possibility of our further existence. There are no ideals to guide us. And in any case, there is no longer deliberate direction as far as Europe is concerned."

Standon took his eyes off File and seemed to withdraw for a moment. "I might add," he said, "that after having had several weeks to think about it, we are of the opinion that this has always been the case in political affairs: only the fact that there was space to move around in gave the statesmen of the past the illusion that they were free to determine events. Now there is no empty space, the illusion has vanished and we are aware of our helplessness. At the same time, everything is much more frightening."

He shrugged. "For instance, Europe, because of its massiveness, could absorb a large number of nuclear fusion explosions and still keep functioning. I need hardly add that at the present time such weapons are available to any large-scale corporation. We even think there are some small-yield

bombs in the hands of minority groups."

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File reflected as calmly as he could. Suddenly the crisis had slid over the edge of practical considerations into the realm of philosophy. It sounded absurd, but there was no denying the fact.

He appreciated the caution of these very self-composed men. Like them, he had a fear of tyranny, but history provided many warnings against hasty preventive measures. It was to avert tyranny that the conspirators murdered Caesar, yet within hours the consequences of their foolish deed had plunged the state into a reign of terror even worse than anything they had imagined. The ministers were right: there was no such thing as free will, and a state was manageable only if it was uncomplicated enough not to go off the rails in any case.

He said: "I presume everything has been done to try to

analyse events? Cybernetics . . .?"

Standon gave him a tolerant smile. "Everything has been done."

As if this were a cue, a third man spoke. Appeltoft, whose special province was science and technology, was younger than the others and somewhat more emotional. He looked up to address File.

"Our only hope lies in discovering how events are organised in time—this might sound highly speculative for such a serious and practical matter, but this is what things have come to. In order to take effective action in the present, we must first know the future. This is the mission we have in mind for you. The Research Complex at Geneva has found a way to deposit a man some years in the future and bring him back. You will be sent ten years forward to find out what will happen and how it will come about. You will then return, report your findings to us, and we will use this information to guide our actions, and also—scientifically—to analyse the laws governing the sequence of time. This is how we hope to formulate a method of human government for use by future ages, and, perhaps, remove the random element from human affairs."

File was impressed by the striking, unconventional method

the Cabinet had adopted to resolve its dilemma.

"You leave immediately," Appeltoft told him, breaking in on his thoughts. "After this conference, you and I will fly to Geneva where the technicians have the apparatus in readiness." A hint of bitterness came into his voice. "I had wished to go myself, but . . ." he shrugged and made a vague, disgusted gesture which took in the rest of the Cabinet.

"That's a point," File said. "Why have you chosen me?" The ministers looked at one another shiftily. Strasser

spoke up.

"The reason lies in your education, Max," he said diffidently. "The difficulties facing us now were beginning to show themselves over a generation ago. The government of the time decided to bring up a small number of children according to a new system of education. The idea was to develop people capable of comprehending in detail the massiveness of modern civilisation, by means of forced learning in every subject. The experiment failed. All your schoolfellows lost their sanity. You survived, but did not turn into the product we had hoped for. To prevent any later derangement of your mind, a large part of the information which had been pressured into it was removed by hypnotic means. The result is yourself as you are—a super-dilettante, with an intense curiosity and a gift for management. We gave you the post you now hold, and forgot about you. Now you are ideal for our purpose."

Inwardly, File underwent a jolt: even more so because the account agreed well with his own suspicions concerning his origins. He pulled himself together before he could become

introspective.

"I was the only one to make it, eh? I wonder why."

Standon regarded File steadily in the dim light. Once again that strange layer of emotion seemed to stir in him, lying somewhere below his features, but not affecting the muscles or skin.

"Because of your determination, Mr. File. Because whatever happens, somehow, you have the capacity to find a

way out.'

File left the building even more aware of his speculations than before. Appeltoft came with him, and the car whined

smoothly towards the nearest air centre.

He had a peg to hang his thoughts on now. The sequence of time . . . Yes, there was no doubt that the explanation of the titanic phenomena through which he was being driven, lay in the sequence of time.

Looking around him, he saw how literally true were the

statements just given him by the ministers.

After the formation of the Economic Community, into which all the European countries were finally joined, the continent's capacity had accelerated fantastically. Economic development had soared so high that eventually it became

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necessary to buttress up the whole structure from underneath. Stage by stage, the buttresses had become more massive, until the community was tied to the ground, a rigid unchangeable monster, humming and roaring with energy.

Even the airy architectural promise of the previous century had not materialised. The constructions wheeling past the car had an appearance of Wagnerian heaviness, blocking out

the sunlight.

He turned to Appeltoft. "So in an hour I'll be ten years in the future. Ridiculous statement!"

Appeltoft laughed, as though to show he appreciated the paradox.

"But tell me," File continued, "are you really so ignorant

about time's nature, and yet you can effect travel in it?"

"We are not so ignorant about its nature, as about its structure and organisation," Appeltoft told him. "The equations which enable us to transmit through time give no clue to that—in fact they say that time has no sequence at all, which can hardly be possible."

Appeltoft paused. His manner towards File gave the latter cause to think that the scientist still resented not being allowed to be the first time traveller, though he was trying to hide it. File didn't blame him. When a man has worked fanatically for something, it must be a blow to see a complete stranger take

over the fruits of it.

"There are two theories extant," Appeltoft eventually went on. "The first, and the one I favour, is the common-sense view—past, present, future, proceeding in an unending line and each even having a definite position on the line. Unfortunately the idea has not lent itself to any mathematical formulation.

"The other idea, which some of my co-workers hold, goes like this: that time isn't really a forward-moving flow at all. It exists as a constant: all things are actually happening at once, but human beings haven't got the built-in perceptions to see it as such. Imagine a circular stage with a sequence of events going on round it, representing, say, periods in one man's life. In that case they would be played by different actors, but in the actuality of time the same man plays all parts. According to this, an alteration in one scene has an effect on all subsequent scenes all the way round back to the beginning."

"So that time is cyclic-what you do in the future may

influence your future past, as it were?"

"If the theory is correct. Some formulations have been derived, but they don't work very well. All we really know, is that we can deposit you into the future and probably bring you back."

"Probably! You've had failures?"

"Thirty-three per cent of our test animals don't return," Appeltoft said blithely.

Once they were at the air centre, it took them less than an hour to reach the Geneva Research Complex. From the air receptor on the roof, Appeltoft conducted him nearly half a mile down to the underground laboratories. Finally, he pulled an old-fashioned key-chain from his pocket, attached to which was a little radio-key. As he pressed the stud a door swung open a few yards ahead.

They entered a blue-painted chamber whose walls were lined with what looked like computer programme inlets. A number

of white-robed technicians sat about, waiting.

Occupying the centre of the room was a chair, mounted on a pedestal. A swivel arm held a small box with instrument dials on the external surfaces; but the most notable feature was the three translucent rods which seemed to ray out from just behind the chair, one going straight up, and the other two at

right angles one on either side.

The floor was covered with trestles supporting a network of helices and semi-conductor electron channels, radiating out from the chair like a spider's web. File found himself trying to interpret the set-up in the pseudo scientific jargon which was his way of understanding contemporary technology. Electrons . . indeterminacy . . . what would the three rods be for?

"This is the time transmission apparatus," Appeltoft told

him without preamble.

"The actual apparatus itself will remain here in the present time: only that chair, with you sitting in it, will make the time transference itself."

"So you will control every thing from here?"
"Not exactly. It will be a 'powered flight,' so to speak, and you will carry the controls. But the power unit will remain here. We might be able to do something if the mission goes wrong, perhaps not. We probably won't even know.

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"The three rods accompanying the chair represent the three spatial dimensions. As these rotate out of true space, time-

motion will begin."

Stepping carefully across the trestles, they walked nearer to the chair. Appeltoft explained the controls and instruments. "This is your speed gauge—you've no way of controlling that, it's all automatic. This switch here is 'stop' and 'start'—it's marked, you'll notice. And this one gives the point in time you occupy, in years, days, hours, and seconds. Everything else is programmed for you. As you see, it reads Nil now. When you arrive it will read ten years."

"Point in time, eh?" File mused. "That could have two

meanings according to what you've just told me."

Appeltoft nodded. "You're astute. Pragmatically, my own view of straight line time is closest to the operation of the time transmitter. It's the easiest to grasp, anyway."

File studied the apparatus for nearly a minute without speaking. The silence dragged on. Though he wasn't aware of it, strain was growing.

"Well, don't just stand there," Appeltoft snapped with sudden ferocity. "Get on the damned thing! We haven't

got all day !"

File gave him a look of surprised reproof.

Appeltoft sagged. "Sorry. If you knew—how jealous I am of you. To be the first man with a chance to discover the

secret of time! It's the secret to the universe itself!"

Well, File thought to himself, as he watched the young minister's lean, intense face, "If I had his determination I might have been a scientist and made discoveries for myself. Instead of being a jacked-up dilettante. "A dilettante," he muttered aloud.

"Eh?" Appeltoft said. "Well, come on, let's get it done." File climbed into the seat built into the back of the chair, camera lenses peered over his shoulders. "You know what to look for?" Appeltoft asked finally.

"As much as anybody. Besides—I want to go as much as

you do."

"All right then. Capacity's built up. Press the switch to 'start.' It will automatically revert to 'stop' at the end of the journey."

File obeyed. At first, nothing happened. Then he got the impression that the translucent rods, which he could see out

of the corners of his eyes, were rotating clockwise, though they didn't seem to change their positions. At the same time, the room appeared to spin in the opposite direction—again, it was movement without change of position.

The effect was entirely like having drunk too much, and File felt dizzy. He pulled his eyes to the speed gauge. One minute

per minute—marking time! One and a half, two . . .

With a weird flickering effect the laboratory vanished. He

was in a neutral grey fog, left only with sensation.

The first sensation was that he was taking part in the rotating movement—being steadily canted to the left. As his angle to the vertical increased, the second sensation increased: a rushing momentum, a gathering speed towards a nameless destination.

000001.146.15.0073—the numbers slipped into place, swiftly towards the right hand side, slowly towards the left. 000002—3—4—5—6—7—

Then the nausea returned, the feeling of being spun round—the other way, now. Light dazzled his eyes.

000010.000.00.00000.

When he grew used to it, the light was really dim. He was still in the laboratory, but it was deserted, illuminated by emergency lights glowing weakly in the ceiling. It was not in ruins, and there was no sign of violence, but the place had obviously been empty for some time.

Climbing down from the chair, he went to the door, used the radio key which Appeltoft had given him, went through and closed it behind him. He walked along the corridor and through the other departments.

The whole complex shouldn't be deserted after only ten

years . . . something drastic must have happened.

He frowned, annoyed at himself. Of course it had. That

was why he was here.

The high-level streets of Geneva were equally deserted. He could see the tops of mountains in the distance, poking between metallic roadways. The drone of the city was missing. There was some noise to be heard, but it was muted and irregular.

As he mounted an inter-level ramp he saw one or two figures, mostly alone. He had never seen so few people. Perhaps the quickest way to find out what was going on would be to locate the library and read up some recent history. It might give a clue, anyway.

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He reached the building which pushed up through several layers of deserted street. A huge black sign hung over the main entrance. It said:

MEN ONLY

Puzzlèd, File entered the cool half-light and approached the wary young man at the Enquiry Desk.

"Excuse me," he said and jumped as the man produced a

squat gun from under the counter and levelled it at him.

"What do you want?"

"I've come to consult recent texts dealing with the development of Europe in the last ten years," File said.

The young man grinned with his thin lips. The gun held

steady, he said: "Development?"

"I'm a serious student—all I want to do is look up some information."

The young man put away the gun and with one hand pressed the buttons of an index system. He took two cards out and handed them to File.

"Fifth floor, room 543. Here's the key. Lock the door behind you. Last week a gang of women broke through the barricades and tried to burn us down. They like their meat

pre-cooked, eh?"

File frowned at him, but said nothing. He went to the elevator. The young man called: "For a student you don't know much about this library. That elevator hasn't worked for four years. The women control all the main power sources these days."

Still in a quandary, File walked up to the fifth floor, found the room he wanted, unlocked the door, entered and locked it

behind him.

Seating himself before the viewer, he pressed the appropriate buttons on the panel before him and the pages started to appear on the screen.

Hmmm . . . Let's see . . . Investigations of Dalmeny Foundation members. Paper VII: PARTIAL RESULTS OF THE BAVARIAN EXPERIMENT . . .

-Civil war imminent, the Council temporarily averted it by promising that thorough research would be made into every claim for a solution to the problems of over-compression. This, as we know now, was a stonewalling action since they later admitted they had been incapable of predicting the outcome of any trend. The faction, one of the most powerful, headed by the late Stefan Untermeyer, demanded that they be

allowed to conduct a controlled experiment.

—Unable to stall any longer, the Council reluctantly agreed, and a large part of Bavaria was set aside so that the plans of the Untermeyer faction could be implemented. This plan necessitated sexual segregation. Men and women were separated and each given an intensive psycho conditioning to hate the opposite sex. Next, acts were passed making contact with the opposite sex punishable by death. This act had to be enforced frequently, although not as frequently as originally had been thought. Ironically, Untermeyer was one of the first to be punished under the act.

-It is difficult these days, to make a clear assessment of the results of this experiment (which so quickly got out of hand and resulted in the literal war between the sexes, which now exists with cannibalism so prevelant, each sex regarding it as lawful to eat a member of the other) but it is obvious that measures for re-assimilation have so far met with little success and that, since this creed has now spread through Germany, Scandinavia and elsewhere, an incredible depletion of life in Northern Europe is likely. In the long run, of course, repopulation will result as the roving hordes from France and and Spain press northwards. Europe, having collapsed, is ready for conquest and when the squabblings of America and the United East are ended, either by bloodshed or peaceful negotiation, Europe's only salvation may be in coming under the sway of one of these powers. However, as we know, both these powers have similar problems to those of Europe in its last days of sanity.

File pursed his lips, consulted the other card and pressed a fresh series of buttons.

—Nobody could have predicted this. But by the look of it there's more to come. Let's see what this is: FINDINGS OF THE VINER COMMITTEE FOR THE INVESTIGATION OF SOCIAL DISINTEGRATION IN SOUTHERN EUROPE...

—The terms of reference of the Committee were as follows: To investigate the disintegration of the pre-experimental European society in southern Europe and to suggest measures for re-organising the society into an operating whole.

—Briefly, as is generally known, the European Council gave permission for the Population Phasing Group to conduct an experiment in Greece. This Group, using the principles of suspended animation discovered a few years earlier by Batchovski, instituted total birth-control and placed three-quarters of the population of Greece into suspended animation, the other quarter being thought sufficient to run public and social services and so on, reasoning, quite rationally it seemed, that in this way further population explosion would be averted, less overcrowding would result and the pace of our society could be relaxed. After a given time, the first quarter would go into suspended animation and be replaced by the next quarter and so on. This phasing process did seem to be the most reasonable solution to the Problem of Europe, as it was called.

—However, in ridding the population of claustrophobia, the system produced an effect of extreme agoraphobia. The people, being used to living close together, became restless, and the tension which had preceded the introduction of the PPG Experiment, was turned into new channels. Mobs, exhibiting signs of extreme neurosis, completely insensate and deaf to all reason, attacked what were called the S.A. Vaults and demanded the release of their relatives and friends. The authorities attempted to argue with them but, in the turmoil which followed, were either killed or forced to flee. Unable to operate the machines keeping the rest of the population in suspended animation, the mobs destroyed them, killing the

people they had intended to re-awaken.

—When the Committee reached Southern Europe, they found a declining society. Little attempt had been made to retrieve the situation, people were living in the vast depopulated conurbations in little groups, fighting off the influx of roaming bands from France, Spain and Italy, where earlier a religious fanatic had, quite unexpectedly, started a jehad against the automated, but workable, society. This 'back to nature' movement snowballed. Power installations were destroyed and millions of tons of earth were imported from Africa to spread over the ruins. In the chaos which ensued, people fought and squabbled over what little food could be grown in the unproductive earth where it had been imported and in the Holiday Spaces. Britain, already suffering from the effects of this breakdown and unable to obtain sufficient supplies to feed its own population properly, had begun sending aid

but had been forced to give up this measure and look to its own problems—the sudden spread of an unknown disease, similar to typhus, which was found to have come from Yugoslav refugees who had themselves suffered badly from the introduction of a synthetic food product which contained the germs. By the time we reached Southern Europe, the social services all over the continent had disintegrated and only the Dalmeny Foundation (which had commissioned us) and half-a-dozen less well-organised groups were managing to maintain any kind of academic activity . . .

As File read on through the depressing texts, he felt the blood leave his face. At length he had checked and re-checked

the documents; he sat back and contemplated.

The blundering nature of the experiments appalled him. Nothing could be a better confirmation of what he had been told at the Cabinet Meeting, and it made him doubt, now, that anything at all could be done to avert the calamity. If men were so blind and foolish, could even Appeltoft's incisive mind save them? Even supposing he succeeded in making a clear, workable analysis of the science of events from the information File had obtained . . .

That part of it was out of his hands, he realised, and perhaps Appeltoft's confidence stood for something. Impatiently he rushed back to the laboratory mounted the chair of the time machine and pressed the switch to 'start.' 000009.000.00. 0003...

Soon there was a grey mist surrounding him as before. Rotation and momentum began to impress themselves on his senses.

Then his gauges jigged and danced, clicked and tumbled insanely. 009000.100.02.0000—000175.000.03.0800—630946. 020.44.1125.

Something had gone wrong. Desperately he tried to stop the machine and inspected the controls. Every dial registered noughts now.

But the laboratory was gone. He was surrounded by dark-

ness.

He was in limbo.

--000000.000.00.0000.

File did not know how long he sped through the emptiness. Gradually, the mistiness began to return, then, after what

seemed an interminable time, a flurry of impressions spun round his eyes.

At last, the time machine came to a halt, but he did not pause to see what was around him. He pressed the 'start'

switch again.

Nothing happened. File inspected all the dials in turn, casting a long look at one which, as Appeltoft had told him, registered the machines' 'time-potential,' that is, its capacity to travel through time.

The hand was at zero. He was stranded.

Thirty-three per cent of our test animals don't return. Appeltoft's remark slipped sardonically into his memory.

The cameras behind his shoulders were humming almost imperceptibly as they recorded the scene on micro-tape. Bleakly, File lifted his head and took stock of his surroundings.

The sight was beautiful but alien. The landscape consisted of sullen orange dust, over which roamed what looked like clouds—purple masses rolling and drifting over the surface of the desert. On the horizon of this barren scene, the outlines of grotesque architecture were visible—or were they just natural formations?

He glanced upwards. There were no clouds in the sky: evidently they were too dense to float in free air. A small sun hung low, red in a deep blue sky where stars were faintly visible.

His heart was beating rapidly; as he noticed this, he realised that he was breathing more deeply than usual, every third breath almost a gasp. Was he so far removed from his own time that even the atmosphere was different?

Skrrak! The sound came with a brittle, frail quality over

the thin air. File turned his head, startled.

A group of bipeds was advancing, straggling on bony, delicate limbs through knee-deep strata of purple clouds which rolled in masses a few hundred yards away. They were humanoid, but skeletal, ugly, and clearly not human. The leader, who was over seven feet tall, was shouting and pointing at File and the machine.

Another waved his hands: "Sa Skrrak-dek svala yaal!"

The group, about ten in number, carried long slim spears and their torsos and legs were covered with scrubby hair. Their triangular heads had huge ridges of bone over and under the eyes so that they seemed to be wearing helmets. Thin hair swirled around their heads as they came closer, proceeding cautiously as if in slow motion.

As they approached, File saw that some of them carried curious rifle-like weapons, and the leader bore a box-shaped instrument with a lens-structure on one side, which he was pointing in his direction.

File felt the warmth of a pale green beam, and tried to dodge it. But the alien creature skilfully kept it trained on him.

After a second or two, a buzzing set up in his brain; fantastic colours engulfed his mind, separating out into waves of white and gold. Then geometric patterns flared behind his eyes. Then words—at first in his brain, and then with his ears.

"Strange one, what is your tribe?"

He was hearing the gutteral language of the alien—and understanding it. The creature touched a switch on the top of the box, and the beam flicked off.

"I am from another time," File said without emphasis.

The warriors shifted their weapons uneasily. The leader nodded, a stiff gesture, as if his bone structure did not permit easy movement. "That would be an explanation."

"Explanation?"

"I am conversant with all the tribes, and you do not correspond to any of them." The warrior shifted his great head to give the horizon a quick scrutiny. "We are the Yulk. Unless you intend to depart immediately, you had best come with us."

"But my machine . . ."

"That also we will take. You will not wish it to be destroyed by the Raxa, who do not permit the existence of any creature or artifact save themselves."

File debated for some moments. The chair and its three rods were easily portable, but was it wise to move them?

Idly, he moved the useless 'start' switch again. Damn! Since the machine no longer worked, what difference did it make if he moved it to the Moon? And yet to go off with these alien creatures when his only objective was to return to the Geneva Complex seemed the most obvious absurdity.

A sick feeling of failure came over him. He was beginning to realise that he was never going to get back to Geneva. The scientists had known that there was some fault in their time transmission methods; now, he knew, the chair with its three rods had lost all touch with the equipment in the laboratory. It was, in fact, no longer a time machine, and that meant he was doomed to stay here for the rest of his life.

Helplessly he gave his consent. A quartette of warriors picked up the chair and the party set off across the ochre

desert, glancing warily about it as they travelled.

They skirted round the moving clouds wherever they could, but sometimes the banks of purple vapour swept over them, borne by the wide movements of the travelling breeze, and they stumbled through a vermilion fog. File noticed that the alien beings kept a tight hold on their weapons when this happened. What was it they feared? Even in this desolated and near-

empty world, strife and dramas played themselves out.

An hour's journey brought them to a settlement of tents clustered on a low hillside. A carefully cultivated plot of some wretched vegetation grew over about half the hill, as though only just managing to maintain itself in the sterile desert. Tethered over the camp were five floating vessels, each about a hundred feet long, graceful machines with stubby, oblate sterns and tapered bows. A short open deck projected aft atop each vessel and the forward parts were laced with windows.

File's gaze lingered on these craft. They contrasted oddly with the plainly nomadic living quarters below, cured animal hides with weak fires flickering among them.

A meal had just been prepared. File's time machine was taken to an empty tent and he was invited to eat with the chief. As he entered the largest tent of the settlement and saw the nobility of this small tribe gathered round a vegetable stew-pot with their weapons beside them, he knew what it was they reminded him of.

Lizards.

They began to eat from glass bowls. It seemed these people knew how to work the silicates of the desert as well as build flying ships—if they had not stolen them from some more

advanced people.

In the course of the meal, File also discovered that the machine the warrior had trained on him in the desert was one hundred per cent efficient. He had been completely re-educated to talk and think in another language, even though he could, if he chose detach himself slightly, hear the strangeness of the sounds which came from both his mouth and those of the Yulk.

The chief's name was Gzerhtcak, an almost impossible sound to European ears. As they ate, he answered File's

questions in unemotional tones.

From what he was told, he imagined that this was an Earth in old age, an Earth millions, perhaps billions of years ahead of his own time, and it was nearly all desert. There were about eight tribes living within a radius of a few hundred miles, and when they were not squabbling among themselves they were fighting a never-ending struggle for existence both with the ailing conditions of a dying world, and with the Raxa, creatures who were not organic life at all but consisted of mineral crystals conglomerated into geometrical forms, and, in some mysterious way, endowed both with sentience and the property of mobility.

"Fifty generations ago," the Yulk chief told him, "the Raxa had no existence in the world; then they began to grow. They thrive in the dead desert, which is all food for them, while we steadily die. There is nothing we can do, but fight."

Furthermore, the atmosphere of the Earth was becoming unbreathable. Little fresh oxygen was being produced, since there was no vegetation except at the plantations. Beside this, noxious vapours were being manufactured by a chemical-geological action in the ground, and by slow volcanic processes which drifted through the sand from far below. Only in a few places, such as this region where the tribes lived, was the atmosphere still suitable for respiration, and that only because of the relative stillness of the atmosphere, which discouraged the separate gases from mixing.

It was a despairing picture of courage and hopelessness which gradually unfolded to File. Was this the final result of man's inability to control events, or was the collapse of the European Economic Community an insignificant happening which had been swallowed up by a vaster history? He tended to think that this was so; for he felt sure that the creatures who sat and ate with him were not even descended from human stock.

Lizards. The old order of the world of life had died away. Men had gone. Only these fragments remained, lizards elevated to a manlike state, attempting to retain a foothold in a world which had changed its mind. Probably the other tribes the Yulk spoke of were also humanoids who had evolved from various lower animals.

"Tomorrow is the great battle," the Yulk chief said. "We throw all our resources against the Raxa, who advance steadily

to destroy the last plantations on which we depend. After tomorrow, we shall know in our hearts how long we have to live."

Max File clenched his hands impotently. His fate was sealed. Eventually he too would take his place alongside the Yulk warriors in the last stand against humanity's enemy.

Appeltoft spread his hands impassively and looked at Strasser. What could he do? He had done all he could.

"What happened?" said the Prime Minister.

"We tracked him ten years into the future. We got him on the start of his journey back, and then quite suddenly—gone. Nothing. I told you we lost thirty-three per cent of our experimental animals in the same way. I warned you of the risk."

"I know-but have you tried everything? You know what

it will mean if he doesn't return . . ."

"We have been trying, of course. We are searching now, trying to pick him up, but outside the Earth's time-track all is chaotic to our instruments—some defect in our understanding of time. We can probe out—but really, a needle in a haystack is nothing compared . . ."

"Well, keep trying. Because if you don't get him back soon we shall be forced to allow the Untermeyer people to go ahead in Bavaria and we have no means of predicting the result."

Appeltoft sighed wearily and returned to his laboratory. When he had left the chamber, Standon said: "Poor devil."

"There's a time and a place for sentimentality, Standon," Strasser said guiltily.

The Earth still rotated in the same period, and after a sleep of about eight hours File left his tent and stretched his limbs in the thin air, aroused by the sound of clinking metal. It was just after dawn, and the fighting males of the tribe were setting out to battle. The females and children, shivering, watched as their menfolk went off in procession into the desert. A few rode reptile-like horses, precious cossetted animals all of whom had been harnessed for the battle. Twenty feet above their heads the five aircraft floated patiently following the direction given by the chief below.

File hung around the camp, apprehensive and edgy. About

an hour after sunset, the remnants of the forces returned.

It was defeat. A third of the men had survived. None of the aircraft returned, and File had learned the night before that although the tribe retained the knowledge and skill to build more, it was an undertaking that strained their resources to the utmost and the construction of another would almost certainly never begin.

Humanity's strength was depleted beyond revival point. The mineral intelligences called the Raxa would continue their

implacable advance with little to stop them.

The Yulk chief was the last man in. Bruised, bleeding and scorched by near-misses from energy beams, he submitted to the medications of the women, and then called the nobles together as usual for their evening meal.

One by one, the wearied warriors took their leave and made their ways to their tents, until File was left alone with Gzerhtcak.

He looked directly into the old man's eyes. "There is no hope," he said bluntly.

"I know. But there is no need for you to remain."

"I have no choice." He sighed. "My machine has broken down. I must throw in my lot with you."

"Perhaps we can repair your machine. But you will be

plunging into the unknown . . ."

File made a gesture with his hands. "What could you possibly do to repair my machine!"

The chief rose and led the way to the tent where the machine lay. A brief command into the night produced a boy with a box of tools. The chief studied File's machine, lifting a panel to see behind the instruments. Finally, he made adjustments, adding a device which took him about twenty minutes to make with glowing bits of wire. The time-potential meter began to lift above zero.

File stared in surprise.

"Our science is very ancient and very wise," the chief said, "though these days we know it only by rote. Still, I, as father of the tribe, know enough so that when a man like yourself tells me that he has stranded himself in time, I know what the reason is."

File was astounded by the turn of events. "When I get

home—" he began.

"You will never get home. Neither will your scientists ever analyse time. Our ancient science has a maxim: No man understands time. Your machine travels under its own power

now. If you leave here, you simply escape this place and take your chance elsewhere."

"I must make the attempt," File said. "I cannot remain

here while there is a hope of getting back."

But still he lingered.

The chief seemed to guess his thoughts. "Do not fear that you desert us," he said. "Your position is clear—as is ours.

There is no help for either of us."

File nodded and stepped up to the chair of the machine. As he cleaned off the grime and dust with his shirt sleeves, it occurred to him to look at the date-register—he had not bothered to read the figures on his arrival. He did not expect it to make sense, for it had too few digits to account for the present antiquity of the Earth.

But when he read the dial he received a shock. 000008.324. 01.7954. Less than nine years after his departure from the

Geneva Complex!

He seated himself on the time machine and pressed the switch.

Internal rotation clockwise . . . external rotation anticlockwise . . . then the forward rushing. He plunged into the continuum of Time.

Minutes passed, and no sign came that he would emerge automatically from his journey. Taking a chance, he pressed

the switch to 'stop.'

With a residual turning of the translucent rods, the machine deposited itself into normal space-time orientation. About him, the landscape was more mind-shaking than anything he had ever dreamed.

Was it crystal? The final victory of the crystalline Raxa? For a moment the fantastic landscape, with its flashing, brilliant, mathematical overgrowth, deluded him into thinking it was so. But then he saw that it could not be—or if it was,

the Raxa had evolved beyond their mineral heritage.

It was a world of geometrical form, but it was also a world of constant movement—or rather, since the movement was all so sudden as to be instantaneous, of constant transformation. Flashing extensions and withdrawals, all on the vertical and horizontal planes, dazzled his eyes. When he looked closer, he saw that in fact three-dimensional form was nowhere present. Everything consisted of two-dimensional shapes, which came together transitorily to give the illusion of form.

The colours, too . . . they underwent transformations and graduations which bespoke the action of regular mathematical principles—like the prismatic separation into the ideal spectrum. But here the manifestations were infinitely more subtle and inventive, just as subtle, tenuous music, using fifty instruments, can be made out of the seven tones of the diatonic scale.

File looked at the date register. It told him he was now fifteen years away from Appeltoft, anxiously awaiting his return in the Geneva Complex.

He tried again.

A lush world of lustrous vegetation swayed and rustled in a hot breeze. A troup of armadillo-like animals, but the size of horses, paraded through the clearing where File's machine had come to rest. Without pausing, the leader swung its head to give him a docile, supercilious inspection, then turned to grunt something to the followers. They also gave him a cursory glance and then they had passed through a screen of wavy grass-trees. He heard their motions through the forest for some distance.

Again.

Barren rock. The sky hung with traceries of what were obviously dust-clouds. Here the ground was clean of even the slightest trace of dust, but a strong cold wind blew. Presumably it swept the dust into the atmosphere and prevented it from precipitating, scouring the rock to a sparkling, ragged surface. He could hardly believe that this scrubbed shining landscape was actually the surface of a planet. It was like an exhibit.

Again.

Now he was in space, protected by some field the time machine seemed to create around itself. Something huge as Jupiter hung where Earth should have been.

Again.

Space again. A scarlet sun pouring bloody light over him. On his left, a tiny, vivid star, like a burning magnesium flare, lanced at his eyes. An impossible three-planet triune rotated majestically above him, with no more distance between them than from the Earth to the Moon.

He looked at the date register again. Twenty-odd years

from departure.

Where was the sequence? Where was the progression he had come to find? How was Appeltoft to make sense out of this?

How was he going to find Appeltoft?

Desperately, he set the machine in motion again. His desperation seemed to have some effect: he picked up speed, rushing with insensate energy and now he was not just in limbo but could see something of the universe through which he was passing.

After a while he got the impression that he was still, that it was the machine that was static while time and space were not. The universe poured around him, a disordered tumult of forces

and energies, lacking direction lacking purpose . . .

On he sped, hour after hour, as if he were trying to flee from some fact he could not face. But at last, he could hide from it no longer. As he observed the chaos around him, he knew.

Time had no sequence! It was not a continuous flowing. It had no positive direction: it went neither forwards, backwards, nor in a circle; neither did it stay still. It was totally random.

The universe was bereft of logic. It was nothing but chaos. It had no purpose, no beginning, no end. It existed only as a random mass of gases, solids, liquids, fragmentary accidental patterns. Like a kaleidoscope, it occasionally formed itself into patterns, so that it seemed ordered, seemed to contain laws, seemed to have form and direction.

But, in fact, there was nothing but chaos, nothing but a constant state of flux—the only thing that was constant. There were no laws governing time! Appeltoft's ambition was

impossible!

The world from which he had come, or any other world for that matter, could dissipate into its component elements at any instant, or could have come into being at any previous instant, complete with everybody's memories! Who would be the wiser? The whole of the European Economic Community might have existed only for the half-second which it had taken him to press the starting switch of the time machine. No wonder he couldn't find it!

Chaos, flux, eternal death. All problems were without solution. As File realised these facts he howled with the horror of it. He could not bring himself to stop. In proportion to his despair and fear, his speed increased, faster and faster, until he was pouring madly through turmoil.

Faster, further-

The formless universe around him began to vanish as he went to an immense distance and beyond the limits of speed.

Matter was breaking up, disappearing. Still he rushed on in terror, until the time machine fell away beneath him, and the matter of his body disintegrated and vanished.

He was a bodiless intelligence, hurtling through the void. Then his emotions began to vanish. His thoughts. His identity. The sensation of movement dropped away. Max

File was gone. Nothing to see, hear, feel or know.

He hung there, nothing but consciousness. He did not think: he no longer had any apparatus to think with. He had no name. He had no memories. No qualities, attributes or feelings. He was just there. Pure ego.

The same as nothing.

There was no time. A split second was the same as a billion ages.

So it would not have been possible for File, later, to assign any period to his interlude in unqualified void. He only

became aware of anything when he began to emerge.

At first, there was only a vague feeling, like something misty. Then more qualities began to attach themselves to him. Motion began. Chaotic matter became distantly perceptible—disorganised particles, flowing energies and wavy lines.

A name impinged on his consciousness: Max File. Then the

thought: That's me.

Matter gradually congregated round him and soon he had a body again and a complete set of memories. He could accept the existence of an unorganised universe now. He sighed: at the same moment the time machine formed underneath him.

All he could do now was to try to return to Geneva, however remote the possibility. How strange, to think that the whole of Europe, with all its seriously-taken problems, was nothing more than a chance coming-together of random particles! But at least it was home—even if it only existed for a few seconds.

And if he could only rejoin those few seconds, he thought in agonised joyousness, he would be dissolved along with the rest of it and be released from this hideous extension of life he had escaped into.

And yet, he thought, how could he get back? Only by

searching, only by searching . . .

He reckoned (though of course his calculations were liable to considerable error) that he spent several centuries searching through mindless turmoil. He grew no older; he felt no hunger or thirst: he did not breathe—how his heart kept beating without breath was a mystery to him, but it was on this, the centre of his sense of time, that he based his belief about the duration of the search. Occasionally he came upon other brief manifestations, other transient conglomerations of chaos. But now he was not interested in them, and he did not find Earth at the time of the E.E.C.

It was hopeless. He could search forever.

In despair, he began to withdraw again, to become a bodiless entity and find oblivion, escape from his torments in the living death. It was while he was about to dispense with the last vestige of identity, that he discovered his unsuspected power.

He happened to direct his mind to a grouping of jostling particles some distance away. Under the impact of his will—

it moved!

Interested, he halted his withdrawal, but did not try to emerge back into his proper self—he had the feeling that as Max File he was impotent. As an almost unqualified ego—

perhaps . . .

He allowed an image to form in his mind—it happened to be that of a woman—and directed it at the formless chaos. Instantly, against dark flux, lit by random flashes of light, a woman was formed out of chaotic matter. She moved, looked at him and gave a languorous smile.

There was no doubt about it. She was not just an image.

She was alive, perfect and aware.

Amazed, he automatically let go of the mental image and transmitted a cancellation. The woman vanished, replaced by random particles and energies as before. The cloud lingered for a moment, then dispersed.

It was a new-found delight. He could make anything! For ages he experimented, creating everything he could think of. Once, a whole world formed beneath him, complete with

civilisations, a tiny sun, and rocket-ships probing out.

He cancelled it at once. It was enough to know that his every intention, even his vaguest and grandest thought, was translated into detail.

Now he had a means to return home—and now he could solve

the government's problem for good and all.

For if he could not find Europe, could he not create it over again? Would that not be just as good? In fact, it was a

point of philosophy whether it would not be in fact the same Europe. This was Nietzche's belief, he remembered—his hope of personal immortality. Since, in the boundless universe, he was bound to recur—File's discoveries had reinforced this view, anyhow—he would not die. Two identical objects shared the same existence.

And in this second Europe, why should he not solve the government's dilemma for them? Was there any reason why he should not create a community which did not contain the seeds of destruction? An economic community with stability, which the prototype had lacked?

He began to grow excited. It would defeat Flux, stand against the chaos of the rest of the universe, containing a structure which would last. Otherwise, it would be the same

in every detail . . .

He set to work, summoning up thoughts, memories and images, impinging them on the surrounding chaos. Matter began to form. He set the time machine in motion, travelling on to the world he was creating . . .

Suddenly he was in mistiness again. Rotating . . . rotation

without change of position . . . rushing forward . . .

The numbers clicked off his dial: 000008—7—6—5—4...

Then everything steadied around him as the machine came to a stop. He was in Appeltoft's laboratory in Geneva. Technicians prowled the outskirts of the room, beyond the barriers of trestles. The time machine, its translucent rods pointing dramatically in three directions, rested on a rough wooden pedestal.

File moved, stiff, aching and dusty, in the grimy seat. Appeltoft rushed forward, helping him down anxiously and

delightedly.

"You're back on the dot, old man! As a test flight it was perfect—from our end." He flicked his finger over his shoulder "Bring brandy for the man! You look done in, Max. Come and clean up; then you can tell us how it went . . ."

File nodded, smiling wordlessly. It was almost perfect . . . but he had not realised just how efficiently he had been taught

a new language.

Appeltoft had spoken to him in the voice-torturing tongue of the Yulk.

Guest Editorial continued

stars blur on a screen (what screen?) as the ship slips into FTL drive—whatever that is?

Can you blame them for not understanding it? And can you blame them if, because they didn't understand it and because no one likes to feel ignorant, they tend to condemn science fiction as unintelligible rubbish?

All right. I can hear a clamour of voices all yelling in protest. "To hell with them!" say those voices. "This is written for us and if they don't like it they can go and jump in a lake! We like it and that's enough!"

But, seriously, is it?

Aside from anything else there is a small but important economic factor involved which boils down to the unpleasant reality that, unless enough people can be persuaded to buy science fiction magazines, then there aren't going to be any magazines publishing science fiction.

There is another factor which is simply that, as old readers fall away—and they do—new ones must take their place or the circulation figures will drop and the end result will be the same

as above.

This, I hope, points out the fallacy of those who advocate stories without beginning, middle, or end, and demand that science fiction should be so avant guarde that it reaches a point beyond sense or reason. Stories—if they can be so called—that are nothing but a frothing jumble of words can be pleasant nonsense but that is really all they are . . . non-sense. They have their place but it is a minor one, as any particular type or style of science fiction story must be intelligent, for the simple reason that, by its very nature, there can be no constriction of the imagination if the medium is to be what it claims.

There will always, I hope, be stories written and published for the case-hardened follower of the genre who, armed with a knowledge of the jargon, can follow an author through the most involved maze he is able to fashion. But it would be just as wrong to claim that this is 'pure' science fiction as it would be for any other form of literature to point to a tiny portion of

itself and decry the rest.

New ideals, certainly, experiments in style and presentation, novel concepts and the shattering of taboos by all means, all this is within the realm of speculative writing. But I do not think that it is essential to remain esoteric in order to write good science fiction. I also feel that a wider reading audience can be reached without the loss of entertainment value to the addict. And, after all, let us not delude ourselves, science fiction readers are only a tiny minority of the reading public and, for the health of the field as a whole, this should not justify us burying our heads in the sand. Too many magazines have ceased publication as it is for us to feel complacent.

So, bearing this in mind, what can be done to make our favourite literature more appealing to a wider public? Well, let us see just what is the duty of anyone writing this type of

fiction and not only for the general public.

First, and above all, he must entertain. It doesn't matter how involved the plot, how violent the action, breathtaking the scope or human the characters. If he hasn't managed to persuade the reader to follow him through to the end of the story then he has failed in what he set out to do. A story that is thrown aside unfinished is not the fault of the reader but of the man who wrote it. He has, quite simply, failed in his task and done a bad job.

He must communicate. He must, to take our example, explain why the port has to be sealed, what a psi-pilot is, what antigravs are, where and what the screen is for and why stars blur when the ship slips into FTL. He must also explain what FTL is. He must remember that, once the reader feels 'lost' then that reader will get impatient and be no longer entertained

He must educate. I do not mean that he has to include wads of scientific data for the sake of it but if, in a story, he can tell the reader one fact he did not previously know, then he has educated that reader. He will also please the reader who knows it all anyway, because he will then be verifying knowledge and, just as important, he will tell such a reader that he knows his business and so the reader will be content that the author isn't taking him for a fool. And, of course, the author must get his facts right as far as they can be checked.

He must enchant. This, in science fiction, is essential. It was this same ability to enchant which now makes the older readers mourn the passing of the 'sense of wonder' they used to feel. By enchant, I mean that the author opens the doors of imagination so that, when the story is finished, a residue remains undying in the mind of the reader, so that the story becomes

memorable. To do this the author has to make the reader think for himself or, at least, make it hard for him not to. If he succeeds then, because it is impossible for any writer to fill in every scrap of his background, the reader will do it for him and be tempted to think along the lines of . . . " Nice. But what would have happened if . . .?"

That, after all, is the thing which makes science fiction

unique.

There should, I feel, be a way to bridge the gap between the outsider and the addict so that both can read and enjoy the same story even if they do it in different ways. The outsider will read and enjoy it at, perhaps, its face value. The addict will read and enjoy it because of the subtleties and nuances the outsider may have missed. One will be entertained. The other will be both entertained and intrigued. Both will be satisfied.

It has, of course, been done many times and such stories are usually published with painstaking care to make sure that the potential buyer is convinced that he is not buying science fiction at all. 1984 is a prime example, you can think of many others, but it is a sad reflection on the field that the very name should have such unworthy connotations.

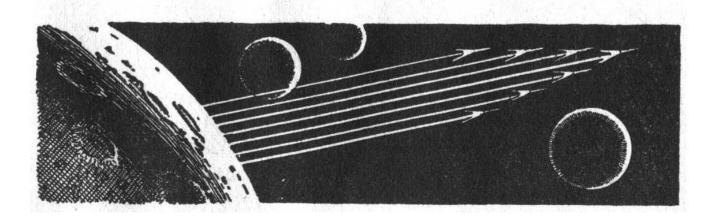
Perhaps that is why there has been such a spate of writers all busy trying to determine what is wrong with the medium and all arriving at their own conclusions. Each has something germaine to say and each is perfectly right but they all tend to

overlook one important factor.

You don't usually dissect a thing until it is dead.

And science fiction, I am certain, is a long way from being dead.

E. C. Tubb





Robert Sheckley takes a very cynical look at a possible 22nd Century where science has learned how to separate the mind from its host body, in Immortality Inc., (Victor Gollancz, 15/-) through the eyes of a man from 1958 whose mind is whipped at the moment of death into this future, to a commercial skull-duggery concerned with survival after death (for the rich) and the resultant fringe activities which include zombieism, ghosts, reincarnation, body snatching and mind stealing. Wisely avoiding all but a modicum of the philosophical complications involved, the author concentrates on the physical activity of this incredible society and the hectic adventures of its hero. Slickly written and brimming with stimulating new ideas. Recommended (but note, this was originally published as

"Immortality Delivered.")

In When The Whites Went (Dennis Dobson, 15/-) new author Robert Bateman presents the latest in the line of 'catastrophe' novels. The theme is ironically topical and highly original, although the plot's pivotal device is a bit shaky—an American pigmentation experiment in connection with manned space flight goes awry and the radiation spreads all over the world killing off everyone except full-blooded negroes! Mankind's futures lies with the new autonomous African states, but before Charles Massam, the central character (under notice from his BBC job because his West African broadcast is becoming redundant!) can reach there he suffers many adventures in the environs of London where the release of passions and opportunities among the ebony-coloured citizens forms the bulk of the story. Sad, savage, amusing, both banal and unexpected at intervals, their reactions are recorded with a shrewdness and lack of racialist hysteria that I would hesitate to guess at the author's nationality.

The Best From Fantasy and S.F.-10th Series (Victor Gollancz, 18/-) edited by Robert P. Mills, erstwhile editor of the magazine from whose 1959-61 pages these 16 stories are selected—is now likely to be an annual event and a good thing that will be too. For here the boundaries of pure science fiction (sic) are shattered for the inclusion of a superb assortment of fantasy and off beat s-f-often running to the extremities of its catholicity of taste but never lacking the quality of fine writing, by such name authors as Allen Drury and Richard McKenna in addition to professionals such as Ward Moore and John Collier (note to the blurb writer—he is not a newcomer!) and regular contributors like Poul Anderson, Jane Rice, Katharine Maclean, etc. It is a book to dip into on occasions when the mind is in need of a timeless pause to reflect on the utter strangeness of unfettered imagination. My first favourites were Collier's "Man Overboard" which I think is the seamonster story to end them all, Charles Henneberg's bizarre "The Blind Pilot," Anderson's "The Martyr," and Moore's "The Fellow Who Married the Maxill Girl." And the Irish humour of a "A Divvil with the Women" balanced the disturbing "Who Dreams of Ivy," by Will Worthington very nicely, but perhaps in another mood my choice would have come from the other equally entertaining and thoughtprovoking stories—it's that sort of a book.

The blurb on They Walked Like Men by Clifford Simak (Victor Gollancz, 16/-) quotes the Evening Standard's remark anent his earlier "Time Is The Simplest Thing" calling him "a most distinguished addition to Mr. Gollancz's string of SF thoroughbreds." True, but his second entry for them is an also-ran. Which is a great pity, because I am a great admirer of the author's 'homely suspense' style, and this one started out like the usual Simak cracker. But halfway along his tongue seems to fall out of his cheek and poke straight out derisively. And well he might, this one being about the extra-dimensional aliens, like ballbearings who can simulate men, who intend to buy up the earth, over the dead body if possible of a with-it reporter who knows and is aided by a loquacious canine . . .

The second of the Heinlein 'juvenile' reprints Red Planet by Robert A. Heinlein (Victor Gollancz, 12/6d.) originally appeared before Farmer in the Sky (in fact there were two others, Rocket Ship Galileo and Between Planets before them which have apparently been overlooked). Once again a capital adventure yarn for youthful spirits involving a couple of young colonialists on Mars thwarting the villain with the aid of a deliciously conceived local character named Willis, who can best be likened to an animated tape-recorder.

Space prevents me giving more than a cursory glance at The Dawn of Magic by Louis Pauwels and Jacques Bergier (Anthony Gibbs and Phillips, 30/-) which is an immense inquiry by two keen minds into the fringe regions of scientific unorthodoxy, extending the observation of people like Charles Fort into a fantastic interpretation of certain modern realities, which is particularly interesting when dealing with the mystico-political faction behind the Nazis. I personally know of M. Bergier's application and sincerity and feel that a study of this controversial work will be rewarding for the mental activity alone, even if disagreeing violently with the authors' postulations and conclusions.

Leslie Flood

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FIRST INTERNATIONAL SCIENCE FICTION FILM FESTIVAL—TRIESTE

by John Carnell

One of the most exciting and important events in the history of science fiction will take place place in Trieste, Italy, from July 6th to 14th this year, when the first International Science Fiction Film Festival will be presented by Azienda Autonoma Soggiorno e Turismo (the Trieste Tourist Organisation) on a scale comparable to the annual Venice Film Festival and in a

setting which will have to be seen to be believed.

In conjunction with the Film Festival there is also an International Exhibition of science fiction books and magazines submitted from many countries and an attempt is being made to show the history of s-f in publishing form, although this will not be completely possible in view of the lack of time at the organisers' disposal. Despite this, however, the immediate support of publishers in Britain, America, France, Germany, Italy and Russia was forthcoming and the book festival should be a tremendously interesting panorama of international s-f.

To house these two Festivals, the committee have obtained the magnificent Costello di S. Giusto, overlooking the city and bay of Trieste. Four days of the Festival will be devoted to a round table conference on international s-f, which will be covered by Italian radio and TV (as well as international newspaper reporters) at which the various Guests of Honour

will present 'papers' in the form of lectures.

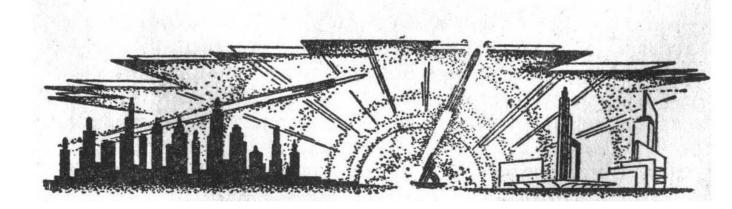
Guests from USA will be Ray Bradbury, L. Sprague de Camp, Frederik Pohl and Harry Harrison; from France, Jacques Bergier, noted s-f expert, whose recent non-fiction work Dawn of Magic was published in Britain and brought him to London to appear on TV to discuss the controversial subjects contained therein. Representing Germany will be Walter Ernsting, noted writer, translator and expert on German s-f; from Russia, Alexander Kazantsev, author of a novel entitled The Angry Planet from which a Russian s-f film was made and which will be one of the Festival entries. Representing Great Britain will be Kingsley Amis, Brian W. Aldiss and myself.

The conference speakers, including many well-known Italian authors of science fiction, will also comprise the Jury to select the best film shown at the Festival. Unfortunately, only films which have not, as yet, been shown in Italy, are eligible for the award and this automatically excludes many excellent movies including "The Day of the Triffids," which is at present showing in Rome. One film from a John Wyndham story, however, will be represented—"The Village of the Damned." Also listed so far is "The Forbidden Planet," but, at this writing, the complete list of films to be presented has not yet come to hand. There will be one brilliant puppet film, "The Cybernetic Grandmother," by Jiri Trnka—a Yugoslav film, I believe.

The book Festival itself will be in four sections, one dedicated to the early pioneers, another to the contemporary writers, a third to Italian writers and finally one showing specialised periodicals in all countries. Many of the books and magazines obtained for this year's Festival will form the basis of a permanent collection to be shown each year—for it is anticipated that this is only the first of what will be a yearly Film and Book Festival of science fiction.

A full report of the Festival will appear in the September dated issue of New Worlds Science Fiction, meanwhile our congratulations go out to the organisers of this spectacle—it is surprising that the allegedly enterprising Americans and British have not thought of it before now!

John Carnell



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