

PDC

THE MAGAZINE OF
Fantasy AND

Science Fiction



ISAAC ASIMOV
HARRY HARRISON
ROBERT SHECKLEY

JUNE 50¢

THE CONSCIOUSNESS MACHINE
by Josephine Saxton



Fantasy and Science Fiction

JUNE Including Venture-Science Fiction

SHORT NOVEL

The Consciousness Machine JOSEPHINE SAXTON 4

NOVELET

Sea Home WILLIAM M. LEE 107

SHORT STORIES

The People Trap ROBERT SHECKLEY 54

Settle ANN MACLEOD 70

Backtracked BURT FILER 76

At the Heart of It MICHAEL HARRISON 82

The Secret of Stonehenge HARRY HARRISON 103

FEATURES

Of Time and Us (*verse*) DAVID R. BUNCH 45

Cartoon GAHAN WILSON 46

Books JUDITH MERRIL 47

Science: Counting Chromosomes ISAAC ASIMOV 93

F&SF Marketplace 128

Index to Volume Thirty-four 130

Cover by Ronald Walotsky for "The Consciousness Machine"

Joseph W. Ferman, PUBLISHER

Judith Merrill, BOOK EDITOR

Andrew Porter, ASSISTANT EDITOR

Edward L. Ferman, EDITOR

Isaac Asimov, SCIENCE EDITOR

Dale Beardale, CIRCULATION MANAGER

The Magazine of Fantasy and Science Fiction, Volume 34, No. 6, Whole No. 205, June 1968. Published monthly by Mercury Press, Inc., at 50¢ a copy. Annual subscription \$5.00; \$5.50 in Canada and the Pan American Union, \$6.00 in all other countries. Publication office, 10 Ferry Street, Concord, N. H. 03301. Editorial and general mail should be sent to 347 East 53rd St., New York, N. Y. 10022. Second Class postage paid at Concord, N. H. Printed in U.S.A. © 1968 by Mercury Press, Inc. All rights, including translations into other languages, reserved. Submissions must be accompanied by stamped, self-addressed envelopes; the Publisher assumes no responsibility for return of unsolicited manuscripts.

Josephine Saxton's third story for F&SF concerns a machine that can thoroughly map the unconscious mind and translate it—in the form of a movie—to an analyst, Zona, and her patient, Thurston. Yet this is not primarily Zona's or Thurston's story; it is the story of those images that move from the fertile ground of the unconscious to the screen, and their remarkable journey and the journeys to follow.

THE CONSCIOUSNESS MACHINE

by Josephine Saxton

The boy was walking slowly for he was not going anywhere, and the clay over which he walked was sticky and impeded him. The summer was coming; there had been a lot of rain, and this day in particular was very warm, the air was still, and everything was very pleasant. This morning he had heard a bird singing and the sound had excited him until he had tears running down his face, and he had been very happy. It was a long time since he had heard anything at all, except the sounds that he himself made. The bird had stirred something in him, and he had enjoyed the experience, although he felt it to be dangerous.

It was foolish to set up longings for sounds, and other beings. They were not often to be obtained, so one must not become attached to the idea of them; it was the only way. The boy had learned that years ago; it was a conclusion that perhaps he had been taught or that he had come to himself. It was for this reason that if ever he saw another human being, he would avoid contact; in this way trouble was avoided. But it was not often that he saw anyone. Last summer he had seen an old man standing on a hill looking upwards at the sky, and also a girl near a tree, but he had run away, for the girls were more to be

avoided, he remembered being told it, long ago, as a very serious and definite thing.

He had been walking slowly uphill all morning, feeling with pleasure the warmth of the sun on his back through his smart new shirt. He liked to have his clothes and person smart and clean, and today he hoped to find a stream where he could wash his hair, for it felt rather greasy and lank, and in his pocket he had a bottle of shampoo that smelled of almonds. He brushed the offensive hair away from his eyes, lifting up a strand to look at it, admiring the color, fair and golden when clean, and the curl in it which sprang back to his shoulder off an extended finger.

"I think my body needs food," he said suddenly, feeling his inside hollow very empty. Perhaps there would be a fish in the stream, if he found a stream. Now that he was out and away from the towns there would be little ready-made food. Fruit perhaps, that would be nice.

He felt he would like to rest and turned round to face downhill and sat down on a stone that had a bit of grass growing round it. Everything was wonderful; the world stretched in front of him for miles: square upon square of earth, many colors, brown, red, gray, black, white, yellow. There were two trees far away, close together, and these he gazed upon for

a while, interested because they moved slightly in the gentle but definite wind. And a silver-gold stream. If he continued upwards for a while, he would come to the stream where it wound out of the back of the incline. It would be sometime after the zenith, which would be just right; by that time his appetite would make him more careful in his fishing.

He turned and began to walk again, slowly, more slowly, for there was no hurry and sitting down had made him tired. It was odd that whenever one rested one became more tired, and it was more effort for a while when one started to walk again. Among the rocks the boy noticed bits of rubbish: a polyethylene bag, a tin can, little bits of paper that had once wrapped sweets, a pair of shoes with narrow heels. He did not pick up any of these things; they repelled him, but they were interesting. The tin cans were not all rusty; this meant that someone had been there recently, and the boy hoped that the person was not now near the stream over the hill. It would be unpleasant to have to retrace his steps, and he wanted very much to wash his hair today; the shining sun would soon make it dry, and he would be able to lift it up across his eyes and see the yellow light. He took from his pocket a packet of paper tissues and blew his nose, throwing the dirty blue paper on the ground,

where it stirred in a slight breeze but did not blow away; he left it behind.

Then he stood rigid with attention, for he could hear a sound, thin and far away. This sound was entirely new to him; he had never heard anything like it before and it frightened him considerably. It was an animal noise, of that he was sure, and this made him very wary indeed, for a wild cat or dog could be formidable if one had no food to offer. He felt a prickle of sweat forming on his back, and he took a breath to steady his listening. He lifted his hair away from his ears, became calm, and listened.

The sound was like two animals fighting, and he hoped a larger animal was killing a smaller animal so he would be safe. But both parts of the sound were extremely distressed. There was one louder and stronger than the other, a bellying and sobbing, and the sound of the hopelessness in it moved him to pity. He began to wonder if it could be a man over the hill who had hurt himself. If that was the case, then he must go away directly; there was no hope of having the stream to himself if a man was there already. He listened carefully and could certainly hear two sounds. One was high and thin, not unlike the other sound altogether, and not so distressing to hear. He stood, uncertain what to do, and as he considered wheth-

er or not to wait a little while or to go back down the hill, the more distressed of the cries became fainter, and changed, until he could hear a continuous moan, softer and softer, and then it faded away altogether. The other sound continued.

He began to walk upwards again, and in a few minutes he had reached level ground and bent down cautiously to look around him. He could see no one and nothing, except the stream about a quarter of a mile away, glinting in and out of the rocks. The sound of the animal was coming from some distance away from the stream, and he thought that perhaps he would be able to reach the water without danger and wash his hair without being disturbed. He made his way across the ground, fingering the bottle of shampoo, looking forward to the smell of it, and the lather rising in his fingers. He reached the bank and was pleased to see that it was a clean stream with a stony and sandy bottom. He knelt down at the edge of the water and began to undo the knot in his tie. The sound of the animal continued.

He stood up again, and in the back of his mind was the idea that it might be a rabbit, although he knew this to be a remote possibility as he had only had one rabbit in his life. Perhaps this rabbit was caught somehow and was crying out. If that was so, then he would

be able to kill it with a rock, make a fire and cook it. That would be a great delight, and he was going to investigate the noise, but he must be cautious. He moved towards the sound, bent down, all his senses alert. He felt chilly with apprehension as he advanced, for he felt that there were no animals or men that sounded quite like that.

It was behind a pile of rocks, and he scrambled up, hesitating slightly at the top, knowing that with one movement he could now look over the top and see what was making the sound. He listened to himself, to hear what he told himself to do. Everything said, "Retreat now." He could feel all his instincts straining to make him turn and run, but his curiosity also was working, and he knew that it was going to win over the instincts. It was a dangerous situation to be in. He lifted his head and shoulders over the rock to look downwards and was paralyzed with horror at what he saw.

Everything in the hollow was red and white.

A figure without clothing lay spread-eagled against the sandy slope below the rocks, its face directly beneath his own, looking at him with wide open upside-down eyes, its mouth open also, and he could see the teeth and tongue. He saw the body of the figure all white and was horrified to see that the body was female, with huge

round breasts with purple veins, and the breasts had large brown nipples, with little black hairs. The belly of the woman was a soft mound of wrinkled skin, with a fan of black hair, all wet with red blood, and her legs lay wide, striped red, and between them lay a tiny baby, wet and streaked with blood and shining moisture, a silver cord of great elegance stretching from the center of its belly, right into the woman. The baby cried and cried, its arms stretching out and in, clutching air, and its legs convulsing.

The smallness of the baby and the loudness of the voice that came from its mouth could not be resolved as a sensible combination, but there it was, crying loudly, on and on, its sound running through and through the boy as he listened and watched and cast his eyes again and again across what he had found.

Death and the dead must at all costs be avoided, and here, not a foot from his face, was the face of a dead woman, her brown eyes staring up at him, and they seemed to express an appeal, and he knew what the appeal was. The baby was very much alive, and it appeared to be normal and healthy. It was like himself, with the right number of arms and legs, two eyes, a mouth, a nose. But it was not like himself, for he noticed that the baby was a female. There was no penis to be seen, only a crease in

the flesh, with two small pink lips emerging like flowers.

The boy, full of shock and distress, backed down the slope of the rocks away from the sight and sound. He should not have allowed his curiosity to overcome him; it had been a foolish thing to do. Now he had to go away again, leaving the baby to die, having seen it and had his pity excited. That was the awful thing. If he had only gone away as soon as he had heard the sounds, all would have been well, there would have been no disturbance. Now he would be upset. He loathed anything like this. He had once come across an old dying man, who had pleaded with him for water, and he had to go away and be uncomfortable for many days afterwards.

He supposed the baby to have come out of the woman, that she had given birth to it and had died in the act. The baby must have torn her, and she had bled to death. The woman had made the bellowing noise through pain. And perhaps from knowing that her baby would die, for were not babies helpless? The boy knew almost nothing about babies: he had never seen one before that he could remember; he only knew that he himself had been a baby once, all people had been babies that grew in women. The boy sat crouched, to soothe himself, and he felt that he could have wept again, making twice in one day,

for now he would not be able to wash his hair. He would have to tolerate its condition until another day. There was no question of staying here, with death in the air, but he felt too weak to get up and move; he must rest and collect his senses. All the time that he was trying to bring himself round from his shock, the baby went on crying, a rhythmic shout followed by a scream; it was using all its strength to scream, that baby, and the sound deafened the boy, so that he could not think or decide what to do. He hated having to retrace his steps; one might meet something or someone that had been following. The best way of walking was always ahead, on and on, and if one wanted to return to a place, say a town with particularly good things, then the best way to go was in a circle.

The boy was fourteen years old. He had been walking alone now for ten years, and in all that time had encountered nothing like this. There was no precedent for it; he could not even remember being told anything about it. He supposed it was the same as everything else really; it must be left.

He must walk on, and away.

But the sound of the crying baby went on and on; it was persistent, undeniable, continuous, and it pierced him, and he knew that it called him, and he knew that he wanted to go again to see the sight in the hollow. He got up

and climbed over the rocks down into the hollow, being careful to avoid touching anything that had blood on it. He knelt between the feet of the dead woman and looked down into the face of the infant. Even though he reacted strongly with disgust to its slimy condition, he reached out with his hands to pick it up and only just prevented himself from dropping it in horror, for it moved in his grasp, making him shudder. He realized that he could not hold it to him, which was what he was wanting to do, for it was still attached to the mother by the beautiful silver cord. He grasped the cord and pulled gently, feeling a little resistance, and looked away from the body of the woman as he pulled a little harder and was astonished when with a sudden splash a great wet red lump emerged from the woman, completely detached from her, but still attached to the baby.

He knelt there, dizzy and sick, and did not know quite what to do next. He looked again into the tiny face of the baby and making a determined effort to overcome his disgust, he picked up the small body with both hands. Its head leaned far backwards at what seemed an unnatural angle, so he put it down again, and this time he supported its head on his forearm by putting his hand under its back, picked up its attachment and placed it across the baby's body,

and then cradling the entire bundle in both his arms, he staggered to his feet, feeling a sense of triumph at what he had done.

Slowly he walked over to the stream, and crouching at the water's edge, he began wetting and rubbing the baby with the icy cold water to remove all the blood and curious slime. The baby seemed to produce twice as much noise as before. It seemed to hate water, it screamed such high notes and protested so much, its face turned purple. Gently and with great determination the boy continued to clean the little body. The feet of the baby were blue and very cold to touch now, and the boy began to take off his shirt with the idea of rubbing the baby with it to get it dry and warm. He scrubbed the tiny feet with his shirt, and turned it over onto its front to scrub its back, and it began to look a better color, more red than blue, although it still made a fearful din. He wondered if it ever stopped making this noise, if it ever slept.

What did babies do? Did they do anything besides cry? He carefully wrapped the baby in his shirt, tying the sleeves under its chin, and then picked up the bundle and held it against himself. The baby turned its head towards his naked chest began to search with its mouth and fastened on his small pink nipple, attempting to suck it into its mouth. This action of the baby filled the boy with wonder, and it thrilled

him physically, this curious small kissing of his chest. Why was the baby behaving like that? Was it trying to eat him? Surely not. But perhaps it was hungry—the breasts of the woman—of course! It was looking for those. Like a kitten sucking its cat, it was looking for milk. He had seen milk, white it was, and that was what the baby hoped to find. He had none. He cupped a little water in his hand from the running brook, and tipped some drop by drop into the mouth of the baby, which smacked its lips, but choked a little bit, coughing and spluttering.

Having taken some of the water however, it seemed less disposed to cry and nestled in his arms, seeming content to be held close to him, and soon it was asleep. The silence after the continual racket of the last few minutes—or was it hours—seemed huge and hollow. It was his own familiar silence; he lived in it all the time, but after the impact of the noise of the baby, it seemed to have changed. The world seemed quieter than it had ever been, and so he began to sing, a happy and consoling song about the bird he had seen that morning, and as he sang he rocked back and forth and looked into the small face; he could not seem to look away. He examined closely the softness of its skin, the little folds and wrinkles, the tiny nostrils, the minute pink lips, moist and shining, pursed into a tight round knot, the soft fine

hair that grew right down from its scalp onto its face, the softest downy covering on its skin, and the lashes round the eyelids, which were so fine he could see the veins in them, and as he lifted back the collar of his shirt slightly, he could see, beneath its hair on the top of its head, a throbbing pulsing drum.

The boy felt at the top of his own head, but it was solid. He hoped that all babies were like this in the tops of their heads. If it proved that this baby was abnormal, then he would have to kill it. The thought chilled him with horror. Just having the baby in his arms made him feel happy. It was a sensation superior to anything he could think of, even the washing of his hair. For today, that would have to be abandoned. It would do until tomorrow. But what about tonight? He would be cold without his shirt, there was nowhere sheltered to sleep, and it would be a long walk before he found a house or a shop, and he was still hungry. He began to feel slightly anxious. The baby would be wanting food soon, and he wondered what sort of nourishment would be suitable. It had no teeth for chewing, and indeed did not look as if it were likely to want to chew, only suck. What would it suck? If milk alone, then things would become difficult, for he had none and did not know where to get any. Maybe there would be milk in tins if he could get to a town soon enough and find some.

He got up with the baby in his arms, and then almost fell back down, kneeling to palm some water for himself. He realized that he was terribly thirsty; he had quite forgotten about himself since he had been holding the baby. Feeling better for his drink of water, the boy, holding the sleeping baby closely to his chest, began to walk, following the stream haltingly, for it was not nearly so easy to see where his feet were going with the bundle in his line of sight.

He had always been used to walking with his head down, looking at the ground he trod, and now he had to learn to feel his way with his feet.

* * *

Zona Gambier turned down the sound and light on the screen of the WAWWAR, and soft light automatically relit the small but comfortable room, so that she could see her patient, only eight years her junior, reclining in an attitude of total disinterest on the air-couch provided for him. Neither spoke. Thurston Maxwell was silent because he was an uncommunicative and antisocial type, apart from his habit of rape, which outlet he was denied here in this annex of the hospital; Zona because she had nothing to say, although at this point in the revelation on the screen of the unconscious mind-processes of Thurston Maxwell she should have been chatting infor-

mally with him about what they had just experienced. She had expected some slight difficulty, but not a total puzzlement. She lit a cigarette and smiled at Thurston.

"What do you think of your first glimpse into your unconscious mind then?" she asked, aware of a horrid note of condescension in her own voice.

Thurston uttered a single, obscene syllable. He was twenty-two years old, red-haired, tall and strong. But with some very nasty habits.

Two or three weeks of daily sessions in this room and he would be cured, a functioning free member of society, if the machine met with its present growing reputation and past achievements. Although even today, strongholds of psychiatric opinion held out against its uses; mainly those practitioners who feared their own redundancy did not like the intervention of a machine between the dreams and fantasies and inner life of their patients and their own long-drawn-out interpretations. Even with drugs, treatment still took as much as two years in severe cases; with the WAWWAR, a name coined by one of its pioneers and meaning the Who and What We Are Room, the worst formally abandoned schizophrenic and psychotic cases were cured in three weeks maximum. The machine, tuned in to messages from any sick mind placed in it, picked up, sorted out, interpreted

every misalliance in hormone, lymph, blood, vitamin, EEG, deep thought wave, magnetic body energy, memory taps, traumas from conception to the third year, took all into account and translated it into a story in the form of a movie, with the added advantage that such a story seen by the sick patients automatically gave cybernetic feedback to the mind from which it had come. Abreaction took place safely, rapidly, perfectly. But there were only three of these treatment rooms as yet; the cost of building was enormous, for they had to be sunk deep in virgin rock to cut out all interference from outside messages from other sick minds. They had tried building their prototypes in disused goldmines without success, but with the astonishing discovery that the machine could pick up the agonized state of mind of long-dead miners, digging for gold in the dark shafts. So there was a WAWWAR in Kazakstan; one in the heart of Ayers Rock; and this one, deep in the heart of Blasket Island, off the western coast of Eire.

Zona was privileged to be on probation as one of its users; this was an important step in her career, and Thurston her first real case.

What on earth was represented by a blond boy finding a baby in a wasteland? According to everything Zona knew about persons of Thurston's age and psycho-traits, she might expect to see an old witch-evil female entity, some fear-

ful child-eating dragon of a Terrible Mother, maybe the Goddess Kali. The machine worked on the material given it, and this was almost always in the form of symbols corresponding to the light and dark side of the Anima and Animus, figures from the Tarot cards, animals, birds, snakes, and sometimes, misshapen mandalas indicating a lack of wholeness in the being under interpretation. Jung had pioneered the use of these symbols; Eunice Gold had taken it even further in the nineteen-eighties once LSD had become fully understood. The WAWWAR had a long history of growth, right from the time Ezekiel had seen his wheel and Jacob his ladder to the time when, finally, sufficient computers had been granted to scientists by the Phenomenological Approach Society to go ahead and construct an infallible method of using hitherto unprovable facts. The "tide of occult mud" so feared by Freud was at last seen to be rich alluvium.

A little discreet help was needed from a trained psychoanalyst in getting the patient to accept his feedback from the machine; judgment was needed in replaying sections of a patient's "story", but the sight of his own being told in symbols plus the sorted-out material given back to him was enough to set a house in order. So why this totally wrong image for Thurston?

"Can I go back to the mainland now?" he asked.

"If you like, but we might just play a little more . . ."

"Okay, it's all the same to me. Rather have a Spacie or a Sexie though." He grinned lewdly at Zona.

"You get entertainment tonight with all the other patients."

"I can think of entertainments."

"Forget it. I'm married, you're under treatment. Recall what for?"

"Sure."

"Well then, how about a bit more of 'The Thurston Maxwell Story'?"

Thurston uttered the same obscene syllable he had offered previously, but turned towards the screen all the same, lighting a cigarette, feeling for an ashtray as the room lights dimmed and the screen and sound came into life once more.

Zona watched intently, her palms damp with apprehension. She was frightened. They could not afford to employ people who failed. Silently she told herself:

"Stop panicking. It's your first case, he's difficult. Don't expect miracles. Don't get overinvolved with the story, then you may see straight . . . But it's all wrong! A sick young man like Thurston Maxwell should see an evil female entity, not an effeminate blond youth."

Zona was aware of a desperate inadequacy and a profound disturbance in herself. Not in all her training had anything affected her so much. Some block in herself

against the material on the screen? Very unlikely; she had undergone all routine analysis every week, been pronounced clean of all sickness. She looked across at Thurston to see how he was behaving. He simply lay back gazing at the screen, idly smoking, one knee crossed over the other. It was perhaps again that he watched so calmly; sometimes patients were reluctant even to watch the screening of their own minds, hid their eyes or covered their ears. Zona strove for impartiality as she took rapid notes: the boy is having incredible difficulty and much misgiving over the care of the baby. One night the boy walks up and down in the dark, almost falling down an imaginary pit (*yes, go on down into the pit, Zona cheered him on, then we might see something . . .*) but only almost. In the morning the boy decides to search for a town, and as he turns around to look at the wall, he sees scrawled in huge letters the legend: GET IT IN LAD ITS YOUR BIRTHDAY.

In a town called Thingy, having found a pram, the boy has wheeled it to a supermarket. He is feeding his baby on canned milk and soda water, the baby repeatedly vomiting, he is very fussy about hygiene, everything is distressing, he keeps thinking he will abandon the baby. Next day in this deserted town a chemist's shop opens its electronic doors to him, but he has lots of trouble with diaper changing, feed-

ing. Lots of ordure, black, yellow, green, from the baby.

Later, baby asleep, he finds a bathhouse. He lays out several tools and little bottles for a thorough-going manicure, in the foot of the pram, and has a **very** satisfying shampoo and swim.

* * *

He went once more down the steps, and knelt on the floor, all the necessary articles around him, and concentrated fiercely on mixing the creamy-colored powder with the vichy water, measuring carefully with the hollow spatula provided, and the measuring jug, and then poured the frothy mixture into the feeding bottle and put a teat on top and shook it vigorously because he had already anticipated there being lumps in it which would block the small hole in the teat, and he wished to avoid that kind of trouble. He leapt to his feet in terror at a great splash from the pool.

The pram and the baby had run off and fallen into the water, which was ten feet deep. At the bottom of the water he could see the blur of the objects in the disturbed water, and he spread his arms out sideways in a gesture of helplessness and despondency. For a moment it was as before; he now had to go away and get more things for his manicure, they were all lost; but something impelled him towards the water, into which he jumped and dove expertly downwards for the baby,

which was floating upwards towards him. He held on to its cord and attachment and swam upwards with them, dragging the baby behind him.

When he reached the surface, his hand came up sharply, for there was little weight on it. He held only the cord and attachment; a thin trail of blood stained the water.

"Robert the Bruce," he said, and dived again and retrieved the little body, swam to the side of the bath, laid the baby on the roughened marble step and climbed out. The baby was very silent, and its arms and legs were folded up into the foetal position, and its eyes were shut. He picked it up and beat it furiously on the back and chest, pulling at its arms and legs, and for a minute nothing happened, and the boy felt a pain in the middle of his abdomen; a hard pain.

And then the baby opened its mouth and gushed forth water, let out a choked howl, coughed and vomited, and cried, flailing its arms and legs; the boy rejoiced, jumping up and down shaking the baby, and then held it to him, stroking its wet head, and kissed its face, and rocked it in his arms.

"You are alive," he said, and the words had great meaning.

But everything else was lost in the water, and he was soaked through, the new clothes were spoiled, the towels were wet. Only the feeding bottle remained, so he

retrieved it, and fed the baby, who took a little food without vomiting, and then, out he went into the middle of the day, to reconstruct his day's work. Everything had to be done again; new shoes must be found.

It was as he was crossing the town square in search of new territory, that he came upon a statue of a man on horseback, with an inscription beneath it. The inscription thus:

"To the memory of those brave men of the town of Thingy, who gave their lives in the First World War."

The boy knelt down, and, not knowing why howled with uncontrollable grief. Through his tears he could see the cobbled floor of the street, and naught else, for his head was bowed.

* * *

Thurston lay apparently dozing, his eyes almost shut. Zona got up and began switching off the machine; she could see no point in further therapy for that day, having seen no material relevant to what she already knew of her patient and having noticed no reaction of significance. Very depressing, a fruitless day. Spirits low, she simply turned to Thurston and suggested that they go back to the mainland.

He heaved himself up from the air-couch, and as they went out, Zona took a last look round to see

that all was in order—nothing left behind that might clog the automatic cleaner. They went up in the elevator, boarded a double seat in the transparent car-tube and glided out across the sea from the top of Blasket Island. Thurston's hand reached out for her thigh in a bored sort of way, but Zona just smiled at him, also bored.

"Don't. You know about the protection circuit?"

"Yeah. I figured maybe you didn't switch on."

"Always, when working. If you do anything I can't tolerate, you black out. Instantly."

"Your toleration level should rise."

"And yours?"

They were out in mid-channel, and behind them Great Blasket looked just too much like a sea monster for anyone to comment on the fact; almost a thousand feet at its highest point, about four miles in length and a half mile wide, decorated with strands of silver sand, high, organic-looking cliffs, purple teeth of rocks and the ruins of an ancient village, the last inhabitant having left back in the nineteen-forties sometime, when the "fishing went underfoot." Left for America, and now America was back, deep in the heart of the rock, led by Zona's superior, Seumas Owenvaun, a direct descendant of some of the peasants who had inhabited it long ago. It was rumored that some ancestor of Owenvaun's had

been king of the island, a position that entailed delivering the mail by curragh once a week, but nobody dared ask the man himself about this. He was certainly king of the island now; everyone respected and loved him, his knowledge of the job and his powers of administration were recognized by all.

"Look," said Zona, hoping to interest Thurston in the scenery below. The sea was a deep blue marked by dark red shoals of seaweed. As they approached Dunquin, still with part of its tiny harbor intact, the car-tube was covered with spray from the waves becoming angry at the cliffs for being in their path, exploding at the top. The blood-light of the setting sun caught the wet car-tube just before it entered Eagle Mountain after its two-and-a-half-mile journey. Thurston remained indifferent to it all. The car-tube halted in the softly lit entrance hall of the main building, and they parted company, he with a nurse, she alone.

As she was settling down for sleep, the feelings of unrest came back. There was something different about this Maxwell thing, and she did not know what it was. She must not allow it to get a grip on her, mustn't lose her objectivity. . . never get involved emotionally with what is shown on WAWWAR . . . never happened before . . . to anybody . . . overtired . . . nothing to worry about . . .

She had a very poor night's sleep.

The material was pouring out, but the next few sessions were even more puzzling, and Thurston Maxwell was getting rapidly worse. Zona had been interviewed about this, prevaricated, asked for more time, and got it.

Zona went alone to the WAWWAR at night. She had decided to work without Thurston present to try and discover something—any thing—about the story. She played around with the replay, for a time.

The boy had shown animosity towards the baby, accused it of dominating him with nonaggression. Zona smiled. Babies certainly did that! . . . She dialed back to the episode where according to her notes: He leaves the baby on the ground floor of the department store and goes in search of clothes for himself. Baby asleep. All quiet. He spends a long time choosing clothes, very vain.

* * *

In the moment when he realized that it was almost dark, he remembered the baby. He was so shocked at the memory that the remaining light made patterns in front of his eyes, stars of blue and green, and he flapped his arms up and down in distress.

"Eloi, Eloi, lama sabacethani?" said the boy, and then, less hysterically, knowing it was a lie: "This is because I left my watch in the supermarket." He spun round and round, not knowing what to do for

a moment. Of course, he must find the way downstairs again, and go back down to her; she must be hungry by now, and how was he going to manage to feed her in the darkness? Things were beginning to go amiss again, all the signs indicated it, he could feel it: all was not well. He must find the stairs, it was imperative; but he could hardly see his way about and could not remember which way he had come, for he had wandered about among the counters for a long time.

With care and as much speed as he could muster under the gloomy circumstances, he felt his way from one counter to another, occasionally knocking down piles of packets and bags, unavoidably, for he had never trained his senses to work properly in the darkness—in the dark one always slept; what need had there been hitherto for skill in moving in darkness? Now, in this predicament, he wished profoundly that he had all his senses at his command; they would have served him well, but he had only two senses that were operating at the moment, touch and hearing. With his hands and body he could feel that he was blundering about, and with his ears he could hear the baby crying downstairs, two or three floors away, and the sound was coming up to him like the thin call of an animal again, sounding much as it had the first time he had heard it, out in the countryside. In despair he fell to his knees, and in that position, with

the help of his hands he crawled about further, seeking the stairway that would take him down to his baby. He longed to hold her near him again, it had been several hours since he had done so. Had she been crying long, or had she been asleep all afternoon while he had been up here choosing garments? It was of no account, the fact which now faced him was that the child was crying, in need of him, of food, of comfort. He pictured her, wet through, more than likely in discomfort through her own dirt, hungry, unloved, cold, reaching out her little arms and legs, touching only the dark air. It pained his emotions keenly to think about it, and meanwhile he was getting no nearer to finding the stairs, it was as if they were nonexistent, had disappeared. He moved a few yards further, and suddenly, with his hand about eighteen inches from the floor in front of him, he touched a curling metal railing, which he remembered as being of a bronze color in daylight; it was one of the banisters of the stairway. He rejoiced and felt for the steps going downwards, but was dismayed to find that they went not down, but up, further up, perhaps to the carpets and household linen departments. He experienced a strong impulse to bang his head on the metal banisters, but his disgust at violation of the body of any kind prevented him from giving in to the feeling, and he tried to get his head

to work on the problem in hand.

"What is this I am feeling?" he asked himself out loud, and the sound had a great volume in the darkness. He had no suitable answer to the question, for he had no word for "inadequate." The nearest he came to an answer was "despair"—although he had not quite yet despaired, for he crawled on, against all of his reasoning faculties which were working in him like a hundred clock wheels, all warring one against the other with brilliant ideas that were no practical use in the present predicament. He had found, before, that in time of stress the reasoning faculty and the thinking process tended to be of little help; it was the instincts that were of more help in such times. At the moment, however, his instincts were all bent on his sleeping soundly, just where he was, and these he suppressed as hard as he could.

The sound of the baby was continuous and persistent, and for a moment he stayed quite still, listening to it, trying to work out from which direction its howls came, but it was too difficult, the darkness acted like a blanket, spreading the sound everywhere. Whichever way he held his head, the noise was the same; he was helpless. He moved on two or three yards more, and in the midst of his distressed state, it came to him that he was ruining the knees of his new trousers, and the thought caused him a pang, but of a different order to his feelings

about the baby and his own carelessness with regard to her welfare.

Extremely tired, one might say exhausted, he lay down facing the carpeted floor, his head slightly to one side, the cries of the baby ringing in his ears, and as he fell asleep, they were the last sounds or impressions that registered with him; they lulled him as a song might, and his sleep was deep, for about an hour.

Then he awoke quickly, for there were new sounds in the air. The persistent wail of the baby overlay a consistent hissing and pattering noise, which set his blood keening with an unsounded scream, for he thought that it might be rats. Rats were terrible creatures, eaters of one's blood and bone, crunching one up in the night before one had time to run; many rats at once would mean death. He thought, this time, not of himself, but of the baby, attacked by rats; hungry, hard-jawed rats, and in the morning nothing, nothing left but their stinking droppings. He knew this could happen, for he had once come upon the skeleton of a grown person in a food store, nothing left but the larger bones and the skull, and piles of rat droppings. He realized that he had buried that awful picture, out of sight, for many years, for it was too horrible to contemplate, and now it came rising to the surface as a reality might confront him during the day. Rats. No. It must not be. But how could he stop them, if they were there?

He listened carefully, sweating thickly all over, and the sweat smelled of fear, and he knew it and dreaded it, for could not wild animals smell fear? The sound he could hear, besides the baby crying, seemed softer than rats, however, and somehow familiar. He raised his head and felt relief flooding through and through his system like pure water, for the sound he could hear was only rain, heavy wet rain on the windows of the store, and it was a very welcome sound indeed. But the baby continued wailing. An unremitting distress. And then it stopped. He lay his head down, but sleep would not come. It was useless. The silence was much worse than the crying, for what if the silence meant that all was not well, that she was dead? Choked, smothered, starved?

"If only she would cry, then I would know she was not dead." But the silence persisted, marred only by the last sounds of the rain. His head hurt him, and this was something new to him, and he set to wondering why it ached so much. He eventually concluded that it was because he had fallen into the error of imagination, a thing one must not use if at all possible. He began to fall into a state between sleeping and waking, and in the middle of the blankness, the sound of the baby crying penetrated his semi-consciousness, and with a grunt of content that she was alive and a moan that she was crying desper-

ately, he slept for a little while. But he had no sooner fallen asleep, it seemed, than he was conscious again, aware that the night had passed. With a tremendous effort he rose to his feet, his eyes still closed, stuck together with some peculiar glue. When he had succeeded in opening his eyes, he looked at the floor in front of him, trying to focus his vision, and there was no floor to be seen.

He was on the very edge of an open elevator shaft that plunged downwards, apparently with no bottom to it, and he had slept on the edge of the abyss the entire night.

* * *

Zona switched off again, trembling. She could make nothing of the story, but somehow, in spite of all her self-calming, it succeeded in affecting her deeply. It upset her emotionally, and yet, inside herself, beneath everything else, she had a feeling of peace and quiet.

"I don't get it at all," she said aloud, and it sounded like a lie, but she ignored this, noticing that there was still something left to replay of material recorded that day.

"But that was all . . ."

She switched the last bit on, trying to recall what it had been, and then as it began to re-experience itself in the room, she almost staggered back to her seat to watch. She did not remember seeing this stuff before, this was new, and more, it

was what she had been expecting, hoping for from Maxwell all along. Stunned and elated, she watched, a very presence:

* * *

Eyes glowing with a painful fury in the corner of an ancient cave. A tail tip, barbed, covered in silky hair, lashes dangerously from time to time; a continuous growling music comes from a deep sounding-box in the chest, rising and falling, a dominant snarl, a pleading whine, artfully contrived pure pain, and hunger.

It is female, it is powerful—the shoulder muscles on both fore and hind legs superb, designed for dancing, leaping, dodging, and sometimes, running away. The claws are out; they appear to be made of some mineral substance, terribly hard and shiny, but not metallic, and they are extremely sharp, curved and attractive, making hands long to reach out and touch, as do some gems.

The teeth also are made of some obdurate substance, splendidly white with curved incisors designed for the tearing of flesh. The wings, leathery but palpably alive, flex themselves in and out to about a quarter their full span, rhythmically, all the time, like breathing, and the hooks on these wings seem to have a prehensile quality of their own. This is a being so fierce in appearance that when the hunter meets it face to face, the challenge

cannot but be taken up; befriend, conquer, tame.

Sometimes she deals with these hunters with a few deft snaps at vulnerable places, finishing off the meat at her leisure; sometimes she takes pleasure in paralyzing them with a small dose of sweet venom from the concealed fang beneath the tongue, and then taking as long as possible in divesting her prey of life, delighting mainly in the pain which she inflicts, although the venom she has used makes her victims incapable of expressing it; the lips frozen, only the eyes remain eloquent.

* * *

And there the recording ended. Zona sprang up, switched everything off, so excited that she hardly saw the beauty of the scenery from the car-tube, and was soon back at home. She was happily correlating Thurston Maxwell's proper anima image with the known material about his recent life, when she suddenly came to as from a daydream and sat head in hands, tears rising.

"I still can't correlate the boy-and-baby story. I must be slipping . . . must use the library, look up everything . . ."

Pulling herself up sharp, she made the decision to sleep on it and redouble her efforts next day. If Thurston Maxwell continued to slip into catatonic periods, broken only by feeble attempts to molest nurses, as at present, she would lose his case, and maybe her job.

The night was far from dreamless.

Two days later she asked for a personal interview with Owenvaun. She told him everything; how the machine seemed to be giving unrelated kinds of pictures, and also of Maxwell's regression.

"Mrs. Gambier, your patience seems to be at a very low ebb. We took you on here because you had a high patience rating, an almost complete mental recall of symbolism, and a sympathetic nature of the kind required in this therapy. Also, you seemed to have a great deal of faith in our machine, which as you know is not always a popular entity in the world of psychoanalysis; and finally, your training period went exceptionally well, and you were found to be as free from inner disturbance as it is possible and feasible to be."

The statement of her superior hung on the air, it was complete, and Zona did not know what to say.

"You have of course checked carefully the patient's history, his offenses, his trial, his pharmaceutical list, his diet, everything relevant? You have checked every symbol you could isolate as a symbol in itself, and every possible combination of meanings? You have sent notes to a Phenomenological Approach computer? All aspects of young blond boys? Foundling babies? Elevator shafts?"

Zona turned scarlet. Some of

these things she had done, some not. She had not been thorough, had stubbornly wanted things to sort themselves out, be easy, normal, usual.

She looked at Owenvaun, the descendant of the king of the island. His ancestors were never like him though; in those days people died young; Owenvaun, at ninety-three, was at the height of his career and could expect at least another thirty-five years before he would be forced to retire to wait out the year or two before his death. He was a brilliant man, extremely perceptive. Sometimes one felt transparent in his presence, almost as if he could sense things hidden to everyone else, including oneself. He leaned across to Zona, and in the middle of her misery there was a hidden smile (that perhaps Owenvaun sensed and ignored) at the thought of his being the postman bringing letters across the channel in a curragh, and at his appearance and demeanor just now, which was that of a saintly uncle.

"My advice is this, girlie. Give Thurston Maxwell another few days in my machine. If nothing comes up, check every possible factor in the case. If he regresses noticeably, take him off the treatment, let me know, and together we shall sort it. The machine will not fail—it is the human element that fails in interpretation. But dammit, woman, the patient should be improving even without

your help. Just seeing his own story and having it fed back to him should be enough to start things moving. As you well know."

Zona nodded, unable to speak, all thoughts of saintly uncles gone. Owenvaun was not angry, irritable, but there was something in his manner that awed her. He was kind of —trying to get her to see something for herself—to intimate something without actually saying it . . .

"And get a good night's sleep. No staying up replaying, losing energy." Owenvaun turned to reading a paper.

She was dismissed.

Next day she and Thurston Maxwell settled themselves in the WAWWAR, and she tuned for the new material. Her tension as she waited for the pictures was great; would it be the boy story or the anima creature in the cave, the one she wanted Thurston to see?

"Get yourself some coffee, if you like," she said, staring at the screen with its whirling shapes that were beginning to form a pattern. She looked at his rigidly hostile stance, with his back to her as Thurston got a cup from the drinks machine and took it silently back to the air-couch. Together they watched the revelations of the machine.

The scene had advanced during the last few recordings. The girl was now seven and the boy twenty-one, and they had named themselves Beryl and George. Zona had been pleased at this; sometimes

symbolic naming of characters in a story gave clues as to what was happening in a patient's psyche. But Beryl was merely a semi-precious stone, and George seemed to have little meaning, it was just a very ordinary name. The relationship between the two was now brother and sister (the incest myth?), but Thurston was still neither reacting nor abreacting and besides, it did not fit. Practically nothing did. The story that did fit Thurston had been recorded at the end of a session when she had turned off the playback, but left the machine recording. She had tried this again, but only got more of the boy-and-girl story. She wondered if Thurston was building up an emotional block to his own material even as it fed back to him—but no, it couldn't be. Otherwise the machine would produce confused shapes, not pictures.

Pictures like those, thought Zona, staring in uncomprehending despair at the boy and girl walking over a deserted sandy landscape.

* * *

Then in the distance they saw, not far from the shining shallow sea water, some hills, and of course these interested them immensely, and soon they were exploring the hills, which were sandhills about thirty feet in height, with coarse grass growing here and there, and in the sand much broken glass, pieces of coal, bits of cardboard,

cartons that had held ice cream or orangeade, and occasionally old shoes, car tires, used contraceptives, paper handkerchiefs, coat buttons, garters, old bits of wood and tin cans. Beryl was enjoying rooting about among these curious treasures, but George did not want to stay, for the presence of these objects made him fear that there were people near, although all the things were very old indeed, and indicated that no person had been there for many years.

In one of the small shallow valleys between the sandhills, Beryl had an idea.

"George, do something funny."

"Funny. What do you mean?"

"Amusing I mean. Here am I, seven years old, and yet you do nothing to amuse me; there is so little to laugh at."

"Well what shall I do?"

The idea of humor was rather foreign to George; he had previously not felt the need for such stuff, and here was his sister Beryl demanding humor from him.

"Acting. If you go over there on those hills, and I sit here in the lee of the hill, I shall be able to see everything you do in outline against the mauve sky. Mime something for me, please?"

"Such as what?" He was beginning to feel surly, although he knew that this was a poor beginning for an afternoon of humorous antics.

"Do 'dying of thirst' on the skyline. You have gone on and on and

on and there is no water, and you are dying of thirst."

"But that is not funny."

"Yes it is, because you see, it isn't real."

So George went up the sandhills, and Beryl settled herself comfortably to watch, tingling with anticipation and hope of a good laugh. She was not disappointed.

George staggered slowly across the skyline, one hand on his forehead, most dramatically portraying extreme exhaustion, and fell to his knees with his hands upraised as if in supplication. Beryl began to laugh. Then he fell flat in the sand, and kept on raising himself as if with great effort, but every time falling back into the sand, until at last he managed to stand up, and staggered, weak at the knees, ricocheting about from one small dune to the next. He lifted back his head and pointed to his tongue, and Beryl knew that this meant that it was swollen and dry, and she shrieked with laughter at it all, because it was not real, and George was acting well. Then he rolled over onto his back, flailing his arms wildly, and Beryl felt as if she would wet her knickers if she laughed any more than she already was doing, but was eager still to have laughter torn from her; it was a keen pleasure being racked by amusement.

George stood up once more, and it was plain that he was in his last phase of dying of thirst, and he fell

realistically forward, into the apparent steep cliff of sand, and rolled, head over heels, in slow motion, and eventually landed face downwards in the sand, and Beryl wiped the tears from her eyes, clapped her hands and shouted "Bravo" several times. She was very pleased and happy; to laugh, that was wonderful. Just as George was getting up from his tremendous performance, they both saw a figure disappearing behind a sandhill nearby, a figure in a bowler hat, carrying a rolled umbrella. Instantly they ran to each other and clung in terror.

"Who was that?" asked Beryl.

"I don't know, Beryl, but once one starts tampering with what is not real, anything might happen. I hope that that was not real, that's all."

"So do I," said Beryl, fearing that if anyone else came to join them, all would be spoiled. She would no longer have him to herself. But that was an unthinkable possibility, a third party. Now she could begin to understand why George was so horrified at the prospect of other persons in the world, and at the thought of new relationships; it was because he did not want anyone to come between them. While thinking this thought to console herself, Beryl at the same time knew that it was not an accurate picture of things as they really were, and because she knew this, and at the same time went on thinking her

consoling thought, she became aware of a sense of sin. This in itself was not pleasant, and she knew that all was not well with the place where they were. One ought to be able to face facts and truth although there seemed to be something in her, growing as she got older, that more and more made up untruths that were pleasanter to live with than reality. There seemed to be no way of preventing this, so for the present, acceptance of it was the only path to take; that in itself also being unpleasant and, she felt, a danger. It was as if she had always been wide awake, but as the years passed, she was going slowly to sleep.

There was no sign in the sand of the strange figure in the bowler hat. It was plain that they had both had the same hallucination; if there had been a man, then there would have been footprints. There were none; he had left no trace in their little world of sand, so he had never existed.

* * *

A few days later Zona disobeyed Owenvaun. She had to. It was well after midnight and she sat on alone, replaying sections of the story, noticing that she was chewing the ends of her long fair hair. *Just like an anxious child. Stop it. You'll have a breakdown if you go on like this . . .* She turned restlessly to the place where the pair were still in the strange flat place by the sea, all sand, wasteland. Just a row of old

fashioned public toilets. George, inside one of the primitive cubicles, alone, Beryl waiting outside.

* * *

... and when he turned round to flush the pan, he was horrified to notice that instead of flushing water, the handle simply worked a mechanism that tipped up the metal floor of the toilet, opening to him a bottomless void, a black pit that went down forever. He was terrified and stepped back, clutching his pockets, feeling as if things would be sucked into the pit and forever gone. But it was not just this that frightened him. It was a vision of himself, years ago, putting an infant down this pit and shutting the lid with a clang, thereby gaining his freedom. If fate had brought him to this place then, might he not have committed murder in this way? It was an aspect of things that he had hitherto not realized, and he felt sick.

He could hardly wait to get out of the building and did not stop to read a rhyme on the wall, but just as he got to the door, he found that the hand in his pocket was clutching nothing. He had lost his money.

There was a glass cabinet about seven feet in height and a yard square, with a velvet-covered pedestal inside. On the pedestal sat the figure of a mechanical man with an expression of great hilarity on his face, and the figure rocked back and forth with mirth, and out of

his mouth came the sound of robust laughter. Wave after wave of laughter came endlessly out, and the figure rocked with it, this way, then that, helpless with the humor of a joke that only he knew, but never quite falling over with the paroxysms that held him. On his knee sat a much smaller figure, looking up at the laughing man, and this figure also laughed in the same manner, endlessly amused. George and Beryl stood and looked at this tableau of the effects of humor for a while, and both became increasingly aware of a growing sensation in their stomachs, and it was not long before George heard Beryl giggle. This caused him to snigger, and this released yet more noises and sensations, which relieved Beryl's inhibitions about her own feelings, and together they began to laugh with the figure, more and more and louder and louder. It was very pleasant, and grew in pleasantness as the experience took hold of them. They soon found that they could strengthen the sensations of laughter simply by either a brief glance at each other's tear-marked faces, or at the figure, who did not seem to need stimulus, on and on he laughed, without any great change in the tempo of the gusts. In time, though, George and Beryl tired of the physical effect of laughing. It was becoming a strain, they had pains in their sides, they were out of breath, and yet they did not seem able to leave the place, they

clung to one another helplessly, locked into a pattern of laughter.

* * *

Zona speeded up the machine a little, moving on. She concentrated hard, feeling the experience of the story as fully as she could. Her nerves were taut. She felt ill. But something was becoming clear about the story. It referred fairly directly to a state of growing enlightenment, worked for, suffered over. The baby was a corresponding entity to something like conscience, essence or "soul." The boy could not represent homosexuality in Thurston. He was instead the immature animus, struggling against its own dark nature, an equivalent of the evil female anima figure with wings that had come through earlier. Maybe the machine could tell a story more than one way? Maybe Owenvaun did not know everything about it; was this a new development? Or was Thurston Maxwell literally two people in one, a schizoid of a rare type, one half so hidden that even the psychiatrists on the mainland had seen nothing of it? His story could not be from anyone else. Nobody had been treated in the machine but Thurston. And yet—

"The damn machine's crazy!" she muttered. "None of this has anything to do with Maxwell."

The story on the screen was full of a feeling of warning, subdued horror of the kind she had felt as a

child over the thought of her mother's mynah bird, dumb and silent in its darkened cage, and the sound of the automatic house-cleaner as it started itself up for its work. These things had filled her with the same kind of fear she felt when looking at this story. As if, if she did not *do* something (like jump three times on one leg or whistle a certain tune), something really dreadful would occur. But she had left childish superstition long behind her; there was always a reason behind irrational fear. She must find out what the reason was in this case.

* * *

From behind another sandhill came a huge and terrible dog. It was a deathly grey-white color, with a flattened skull and a long jaw full of terrible teeth. Its gums were pink, it slavered hideously, and its eyes were small and pink-rimmed; it seemed to be laughing in an evil manner. Its body was thickset and muscular, with strong short legs, and a tail like that of a rat, and its penis hung scarlet and loose. It stood and stared at them, and Beryl was paralyzed with fright. It was the first time she had ever seen a dog, and this one was particularly horrible, that she knew. It breathed evil, and had about it a prehistoric air not conducive to a name such as "Rover." George was stricken with terror also, but refused to show it. He stood still, then reached for a stick in the sand, and the dog

growled menacingly. He threw the stick at it, and the dog leaped into the air and turned and ran. They breathed with relief but were soon tensed with fear again, for the dog returned, the stick held in its jaws, and it came closer to them this time.

George picked up part of a broken bottle and hurled it at the animal, and this time it ran away whimpering and did not return. George put his arms round Beryl, feeling her childish frame tremble, and they sat quietly for a while wondering what to do next. Beryl then had an idea.

"I think we should make a garden here."

"That is not possible, Beryl. We have no seeds and bulbs, and the sand will not grow flowers; it is unsuitable."

"Still, we could make a sort of garden. It would protect us from dogs."

She got up and began collecting bits of wood and stone, for the first task in making a garden is to clear a patch free of rubbish. They cleared an area of sand about five yards square, and in the middle of this they began to make a regular pattern. They collected three hundred and forty-three shells all of the same kind, small yellow ones, and placed these at equal intervals around a square. Then they found forty-nine bottoms of bottles, all alike in green glass, and made a circle of these in the center of the

square. In the center of this George carefully placed, with the aid of two bits of cardboard, a five-rayed starfish, still alive but rather limp. Beryl was of the opinion that the garden needed some other thing, or things, to complete it, but George was determined that it was perfect as it was. Beryl went off in search of some other suitable objects for the garden and came face-to-face with the terrible dog.

The creature stood and regarded her with hidden meaning in its small eyes. Screaming in terror, she ran back to the garden and leaped into the middle and touched the starfish's orange body, feeling that this action would protect her from harm. Then two things happened at once. George, unlike his usual self, became rapidly inflamed with anger and charged off towards the dog, determined to destroy it for having menaced his sister, and, in the garden, Beryl now screamed with pain, for the starfish had stung her rather badly, and already the palm of her right hand was swollen and red. As she sat there, shocked and amazed, licking her hand, glaring with resentment at the innocent starfish, George returned with something in his hand and a look of perplexity on his face, which was as beautiful as it ever had been, although he had recently acquired a soft beard besides the golden hair that hung far down his back.

The object that he held in his hand was a cardboard cutout, white

bullterrier type of dog, with small evil eyes painted on it in red.

* * *

Zona stopped the machine and reflected that what she had just seen seemed to refer almost directly to her thoughts prior to the playing. Childish superstition. They were making a mandala in the sand to protect them from a dog which was, after all, only trying to be friendly.

Look up pattern of that mandala, numerology . . . Tibetan, Indian? Squared circle equals process of reconciliation between masculine and feminine . . . She wondered if Maxwell was responding at last. But why was he already giving such advanced signs of wholeness in his story, and none at all in his conscious actions?

She was not too impressed with herself. Here were masses of symbols she could study, but she knew that there was still something very wrong. She got herself a black coffee, lit a cigarette and dialed forward to the first maturation ceremonies.

* * *

On Beryl's fourteenth birthday, in the morning, they began to enact their parting scene. It was like this: George awoke feeling heavy-hearted and with the impression that he had not had enough sleep, and he rearranged his clothing to suit the climate, which was very hot, for they had traveled south-

wards now for a long time, and even in springtime the sun scorched them. He bundled up his shirt and vest, took off his socks, and rolled up his trousers. He looked the other way while Beryl fiddled around with innumerable petticoats and suspenders. This morning she seemed to be taking a considerably longer time in dressing than usual, and did not give him any word that she was dressed and ready to begin the day. But of course, today was different: it was her birthday, and she was to leave him and strike out on her own. No doubt she was bundling up her own things this year, ready to take them with her, and for a time George sat peacefully waiting for her to speak. But she did not speak, she did not even make any sound, and George had a moment's panic when he thought that perhaps she had gone without saying goodbye to him. He turned to look, and she was standing there, but without any clothes on at all, and with her hands folded across her eyes and her head quite held down as if from great shame. This was not all, for apart from the unusualness of her unclothed state, the clothes that she had dropped in front of her on the ground were stained with red blood, and Beryl herself was marked with blood, a considerable amount of it running down her legs, and when she saw through her fingers that George had seen her, she half turned from him and sank

to the ground curling up to hide herself, and took her dress and held it across her body to hide it. George contemplated the figure of his friend with wonder and horror and did not know what to say, nor what to do. Beryl spoke first, but kept her head turned away.

"I shall really have to leave to-day, George. This is a woman's condition I have reached. Every twenty-eight days now I shall be like this, unfit for your company for about five days, and that would be a great inconvenience to you. I must wash myself, and pack my clothes, and set off forever, into the distance where we shall never see one another again."

George forgot his natural revulsion for the sight of blood and became gripped with real terror that what Beryl was telling him was the truth, that never again would they be able to travel together. The appalling prospect of life without her quite overshadowed all the efforts of his reasoning faculties, which were straining to inform him that Beryl was now so different from him that even were they to stay together, they would not be able to communicate on a similar level, and that five days spent in the cleansing of Beryl's body would indeed be a great inconvenience. She was to all intents and purposes a woman now, and yet what was he? A man? He was not at all sure of it; perhaps Beryl was overtaking him and would soon be exchanging

places with him, as the leader of their team of two. This possibility began to fight with the possibility of never seeing Beryl again, for of course he did not relish taking second place to another person; he was number one, and anyone else with him was number two; that much was inevitable. However, there was hope yet. For a start, if he could fix things for Beryl so that she would not be totally inconvenienced by her condition, perhaps they would be able to continue as before, or better, things might improve. He began to wonder if there was any corresponding change of such a violent nature that might take place in himself in order that his manhood might be known, but could think of nothing that might possibly happen to him and could remember reading nothing in any handbook on the subject. He asked Beryl if she knew anything about this subject, but she shook her head.

"No George, nothing like this can happen to you. If you are to change and grow up, then you will have to make the changes yourself, it will be an inner change mainly, although for a start I think it would be a good idea if you got your hair cut."

George held his lengths of golden hair in his hands, quite horrified at the prospect of losing it. It was part of him, it was his most beautiful feature, he was proud of it. Beryl was obviously jealous, he

thought, looking at her inferior hank of brownish hair that reached hardly to her shoulders. She wished to diminish his presence so that she herself might appear better than she was; he thought it terrible of her to harbor such feelings and was about to tell her so, but Beryl spoke first.

"George, how can I be a woman if you are not a man?"

"But I thought this bleeding was your initiation ceremony, I thought you had arrived." There was a fine edge of sarcasm to George's voice, of which he himself was not aware.

"This condition only opens up possibilities for me, the rest of the process cannot advance until you grow up."

George had no idea what Beryl meant; it seemed the deepest of mysteries, and also at the back of his consciousness was the awareness of his instinctual dread, which he had now for so many years denied, of anything living other than himself, and especially anything female. It was something that had been inculcated into him when he was very small, that much was certain, and it was still there with him at times. However, whatever source it was that had given him those feelings and ideas about the female half of life, it was not there now to stand over him, threatening, and he could not deny that in spite of certain horrid adventures, and a lessening of his silent comfort, life was better with Beryl than with-

out her, and he could feel also that the time had come to declare himself free of doubt, to take up the position of master over his own destiny. From today onwards, he must start to make real decisions, although at that moment, he could think of none that needed making. There seemed no urgency about anything, no pattern to be fulfilled, except perhaps to find some town or shop that would have necessary objects for Beryl's convenience and comfort. Beryl soon put him on the right path to making a decision.

"George, your hair," she said quietly, putting on her dress and pretending that it was not stained.

George knew that this was right, he must take on a different appearance, it would be a right start. He felt too proud however to say there and then that he would do as she wished, but instead he suggested that they carry on walking and find a town where they could have baths, find food and clothing, and reorientate themselves. Beryl agreed, and together they set off, Beryl walking some distance behind George out of embarrassment of her unclean state.

* * *

Zona spun the dial forward until she reached the time, some years farther on in the archetypal drama, of the second great rite of initiation.

* * *

They went out into the hot sun,

ostensibly on the way to a store full of clothing, but Beryl's sharp eyes soon saw a barber's pole, and she led George towards this symbol of manhood and took him inside the shop and gently pressed his shoulders so that he sat in a chair, and before he knew what was happening, she had wrapped around his naked body a large white cape, and was fashioning miracles with a pair of scissors. George looked at himself in the mirror over the washbasin in front of him, horrified, pleased, frightened, amazed and incredulous at the sight that was changing in front of him. When she had finished, his hair was hardly onto his collar, combed back from his face, and cut moderately neatly in a soft bob around the nape of his neck. Beryl reached up for a photograph of a man that was pinned on the wall. She had been copying this hair style all the time she had been cutting. George read the title of the hair style.

"A Walker Brothers," he read, and felt no wiser, but was all the same bound to admire his reflection in the glass. His whole face seemed much stronger somehow, his neck longer, his chin larger and firmer, and his head felt lighter, and the oddest sensations accompanied what he now realized was a constant gesture of his—the brushing back of the locks of hair from his shoulders. Now there was nothing there when his hand made the action. It looked cool and smart. He

stood up and was just about to kiss Beryl in a spontaneous gesture of gratitude when two things happened simultaneously. In the same moment, Beryl put her hands to her lips, mumbling, "Not yet," and he saw a pile of his own fair hair on the floor. The combination of these two events threw his spirits into such confusion, that once more he hardly noticed what was happening to him as he was led away from the barber shop, to a men's clothing store in a nearby street. Fortunately the shop was open, and inside, Beryl began choosing underwear, shirts, suits, ties, socks for him, and he was almost dressed, suppressing tears for the golden locks, when he suddenly pulled himself up sharply and stood to face Beryl, a new determination on his face.

"Now then Beryl, I'll choose my own clothes thank you. You go off and see to your own dressing, please."

Beryl hung her head with shame for having been so bossy, but was triumphant in having at last produced a manifestation of manliness in George. She left him changing his suit and walked across the square of the spa town and into a large and elegant ladies' shop.

She spent a great deal of time trying out various styles on herself, but finally chose a simple dress of white linen, which was worn over underwear of white silk, without frills. She had also found for her-

self, with some interest and excitement, a white brassiere, which to her delight fitted her. The article amused and embarrassed her, but it was with a feeling of pride that she fastened the hook and eye at the back. She did not trouble to find a coat for herself; the weather was so hot that she was contented to have just the simple white linen frock, but with this she wore a rather large straw hat that displayed a red rose made from silk. Before putting on the hat she brushed her hair until it shone, and when she was dressed except for accessories, she left the shop and soon found a shoe shop, where she chose some little leather sandals, and a big straw handbag, which felt rather light to carry, and ought certainly to be filled with fascinating objects. She went to look for some fascinating objects and found many in a chemist's shop. Devices for cleanliness during menstruation, devices for improving the face, colors and textures in jars and sticks, perfume, jewelry, nail varnish, combs, brushes, creams, mouthsprays, toothpaste. She filled her bag, went back to the dress shop and began to complete the picture.

She was very careful in the application of her cosmetics, for she did not wish for the stuff to come off on the fabric; that would not have been very pleasant, but after a little practice she succeeded in almost completely transforming her

face into something that while still being recognizable as Beryl, was undeniably a more beautiful version of herself. Her eyes appeared rather larger and shone moistly, her skin was soft and smooth, her lips were pinker, she left a trail of scent wherever she walked. She walked back to the clothing store where she had left George. He was not there but was approaching her down the street, dressed in an immaculate summer suit of wild silk worsted in a natural cream color, with a white shirt. The total effect, together with his black socks and sandals, was most elegant and manly, but his face was unhappy.

"Where on earth have you been, Beryl? You've been gone hours and hours, I was getting worried."

Beryl did not answer, but looked up into his eyes and smiled gently.

George saw the transformation that had taken place in her. He gasped and stood back from her, taking in her outfit from head to foot and back again.

"How very charming you are, Beryl. Lets go and find something to eat."

"I should like that immensely," said Beryl, and together they went to a delicatessen where they dined off pumpernickel, garlic sausage, sauerkraut, liver pate, rye biscuits, gherkins and black olives. When they were replete, Beryl sprayed her mouth to take away the smell of the garlic, and together they drank a glass of white wine, using

the same glass, and arm in arm they left the delicatessen and stood in the middle of the square, the sun setting, making all the marble buildings red.

"Now it's time to find a bed," and shortly before the light failed, they found a perfectly splendid bed in a good quality store and stood one on either side of it.

"Now we must take off all these beautiful clothes, George."

"Yes, and tonight we will sleep together in this bed. But first, I think we should choose some new names for ourselves."

"Of course, absolutely right. New names are necessary, for already we are not as we were."

George and Beryl fell to discussion of which new names to choose for themselves, but of course this was a very difficult task for them, as they were unsure even now of their true natures, and so it was with much indecision that they tried first one name and then another.

Meanwhile, they began to undress, for the light was fading, and they wished to be in bed before dark. Now George and Beryl had before seen one another naked, but tonight things were rather different, for they watched one another take off their clothes, and to them it seemed as if with every garment they took off, something totally new was revealed. George saw the beauty of Beryl's shoulders and breasts as if for the first time, and

remarked to himself without words that she had a very well-formed waist, and smooth thighs, and that all her skin glowed in a clean and attractive way, and that she was of an excellent proportion.

Beryl saw the breadth of George's chest in a new light also, and found the fact of him having narrow hips a most attractive feature, and secretly, blushing a little, she observed his genitals, mysteriously soft like sleeping flowers, and pondered on what possible force could alter these organs of his, that they might enter her still closed body, for there was no mystery as to what ritual they were about to perform; it had become perfectly clear to them during the course of the day.

Just as she was climbing onto the large bed, Beryl was confronted with an image of a huge penis drawn on a lavatory wall, and became frightened, but she looked once more at George, naked by the bed, and felt reassured. If she was frightened of him, she felt that he might well hurt her, but if she was confident of his gentleness, then all would go well.

They lay together beneath the soft white sheets and cellular blanket and looked into each other's eyes. George was filled with a sudden urge to grip Beryl very hard, holding her down onto the bed, not looking at her face, and to force his way into her suddenly, crushing her until the juice ran, like a fruit,

and it was only with the greatest difficulty that he desisted from this approach. He knew that if he hurt her now, then she would be unable to forgive him ever afterwards, and it seemed that so much depended upon how he achieved this initiation into the married condition.

Beryl lay rigidly still, and there was a barrier of tension all around her. She was divided into two parts, one of which called out for George to act quickly, with no regard for her feelings, to plunge and break her rapidly, so that it was all done with, and this part of her had no idea that what was to come might entail pleasure for her; only sacrifice, giving, martyrdom. She felt noble enough to oblige George with her body. But the other half of her felt quite differently and knew that what was to take place depended not so much on George and his actions, but upon herself, and her reactions; that in fact she should be the guide on the journey, and that all must proceed in exactly the way she and her body wished it, or both George and herself would fail the ceremony. She put her hand out to George and began to caress him carefully and slowly, all over his body. At the same time she began to empty her mind of thoughts, allowing them to slide from her, so that all her attention was centered on sensation and emotion.

Before they united their bodies, they kissed very gently, submerging under waves of love, feeling a sense

of parting forever, for after tonight things would never be the same.

George, making love to Beryl, was immediately full of delightful sensations which he felt bound to counteract slightly with counting exercises done silently, for he felt that he might be in danger of completing the act without Beryl, and he knew that this must be avoided at all costs. But for a long while, Beryl experienced nothing at all; she lay patiently. It was like the sun rising when the inside of her vagina became alive. But she must make him wait a little longer, a little longer. Then, as if a clock had struck, she felt the word "NOW" rise up in her, and she disintegrated into rhythmic explosions beyond her control, electric shocks in waves, that took George with her into some land of annihilation and creation, that even with all their dreams they could not have imagined. When they arrived back together in a pair of still-united bodies, they held hands and slept, no word spoken, and knew two things.

The first thing they knew was that they were married now and that their first ceremony had been a success. The second thing they knew was that they had been as near to being something more than human as they could ever be, in their present state.

* * *

Zona had stopped trying to rationalize and interpret what she

saw, and to relate it to Thurston Maxwell. If this had come from his unconscious, then she knew so little of her job that she should give it up. She was running off again after the associations between what she had just seen on the screen and her own marriage and love. She had been like that when she was first married; it had been just like that. Not that there was anything wrong now, but somehow, maybe they were not as alive about love as they had been. But still, that was not *it*—there was something else, the something that Owenvaun wanted her to see. But today she could bear no more of this. She sighed . . . but there was still a bit of material left unplayed. She threw the switch.

* * *

She howls in agony, reaching out her paws, but her strength seems to have left her; she flops to the ground, folding her wings closely, and rolls onto her back, pawing the air in a grotesque parody of a kitten; she twists her head and directs a jewel-colored beam of light from her eyes; she closes and opens her eyes, flashing light on and off, to confuse and beckon. She curls and uncurls her tail.

Suddenly she leaps onto her feet, twisting in the air, landing lithely and lightly, and screams and snarls and lashes and howls, flexing her claws so that the ground is torn into clods, and dust rises . . .

* * *

Zona switched off again. Profoundly disturbed, she rode back to the mainland, staring down into the dark where the sea stormed below her, hardly noticing that a shred of new moon touched the haze of mist around Eagle Mountain.

Zona and Thurston settled themselves for a session in the WAWWAR, possibly the last. She would have to admit defeat, take him off the treatment and call for Owenvaun. She could not continue like this; he was getting much worse, and all her checking had come to nothing. His pharmaceutical list was innocuous: vitamins and a mild tranquilizer, and a mouth spray because he complained of a vile taste in his mouth. She reflected that schizophrenics often have vile tastes in their mouths—but then, so do people who sleep badly! With revulsion, she swallowed.

She looked across at him as he half lay on the air-couch and saw him take a sip of the drink that she had fetched for him, for he was now too un-cooperative to do anything for himself at all, and yet a look in his face had caught her sympathy.

So she was watching him rather than the screen as he took a small packet out of his pocket, tipped something into the palm of his

hand and lifted it to his mouth. It was done surreptitiously, the gesture of a pill-taker, although he had no reason to think he was observed. But—Zona rose—he should not be taking any medication except under supervision!

She had meant to shout "Stop!" or something like that. Instead, she leapt across the room to knock everything out of his hands, and the noise came out as a sort of negative howl. He put his hands over his ears and shut his eyes. Then, as Zona searched in the mess on the floor for what she hoped to find, he began to cry like a little boy who has done wrong, but who meant no harm. Zona found the small red ampule, like an egg-shaped ruby.

"So this is why, is it?" she said incoherently. She found she was weeping. Much was dawning in her besides relief at having found a reason for all the muddle of the last few weeks. Thurston nodded and covered his face again, shuddering inwardly that he would not have the red ampule; ashamed before her; frightened of what might happen next.

Zona tuned in to the mainland and demanded Owenvaun himself.

The serene face came on the screen.

"Mrs. Gambier. Trouble." He always seemed to be making statements, never to ask questions.

"No, no, we've solved it, Owenvaun. He's taking Somazoin Eight—don't know where he got it from

—just caught him taking one now." She waited for Owenvaun to congratulate her.

"High time," said Owenvaun. "Just wait there, will you?" He switched off. Now what? She handed Thurston a tissue, but he did not take it. He sat, weeping, letting the tears run off his face, staring. Zona checked the protection circuit switch of her working-suit, lest he become suddenly violent. Owenvaun and a nurse entered the WAWWAR.

"Take him back. Put him to bed," said Owenvaun. He and Zona were left together.

"The time has come, has it? Go on then, take your place." He indicated the patient's air-couch.

"I'm not sick!" she blurted out, hopefully, stupidly.

"But it's your story?"

"Er . . ."

"Do you think I had not seen it," Zona? That I had not been watching, and waiting my opportunity? That I too have not been doing a little checking? For instance, the subjective interpretations in your report of each session are those of the subject, not the technician, child! And if you had not noticed that he was taking Somazoin, I would have had to take him out of your care myself in a couple of days."

"How did you find out about it? I checked his pharmaceutical list."

"Blood test, of course. Had it done two days ago, having seen

that you didn't. He will be eased off the Somazoin and will respond thereafter like any ordinary patient. Never mind, my dear. Your efficiency had been impaired by the strain. Forget Thurston for now. Just lie down."

Zona was completely in his hands and felt about twelve years old. The humiliation of having failed on her first probational try as technician in the Who and What We Are Room had destroyed all her self-confidence.

"You have been looking for clues with the fixed idea in your head that this story could not possibly relate to you, and must therefore relate to him. Naturally, you would not find what you wanted, and anyway, in a case like this, without help, I doubt you would see the thing for yourself anyway."

"What thing?"

"The meaning of the story."

"My story. I don't see it at all. But if it wasn't for that beastly drug he was taking I wouldn't have . . ."

She stopped, head aching, thoughts muddled.

"That 'beastly drug', as you call it, can be very useful, as you know. In cases of frigidity and impotence it gets people back in touch with their bodies most rapidly and effectively. It's the side effect that's 'beastly', in a person such as Thurston Maxwell. Not only does he get massive sensual kicks that replace his urge for extreme sexual outlet in

a place like this, but it completely shuts off all contact with the sub-conscious and unconscious mind. No wonder my machine picked up little from him."

"But there was some . . ."

"Towards the end of sessions sometimes, yes. When the dose he had taken was wearing off."

"Of course." Zona felt terribly weary. It was all too clear how it had happened. What was not clear was what was happening in her that the machine should make such a story from her.

"How did he get hold of the drug?"

"Bribed a junior male nurse. Dismissed of course."

"Of course."

"Can't you say anything but 'of course'?"

She said nothing. Owenvaun suddenly broke into the silence.

"Tell me, what would you say if I told you that you were developing a Higher Consciousness?"

The question was so absurd that Zona started to laugh. It was unfair; it was too sudden a realization when, in the next split second, she thought *So I am!* Her only reply was to pass out cold on the air-couch. Owenvaun ignored her, adjusting the controls of the machine.

George and Beryl were now called Sam and An. Samson signifying "man of the sun" and Anastasia, "cherishing, nourishing". She was pregnant, and they were wandering over the freezing cold earth

together, she leading, Sam, father of the unborn child, following, not understanding the emotional change that had come over his wife.

* * *

In the seventh month of her pregnancy they stood together on a high plateau that was covered in ice, with chasms that split it deeply. An wept and spread her arms out in a gesture of pain that alarmed Sam so thoroughly that for a moment he was powerless to move towards her. As she fell, bending backwards at the waist, he caught her and held her gently, bearing her softly to the ground. She remained there for the rest of that day, moaning, but fate decided that the child should not yet be born, and An got to her feet. With a glance of hatred at Sam she led the way off the plateau to a spring of fresh water at the end of the valley beneath. There she stripped off all her clothing and splashed herself thoroughly in the water, which was almost ice.

"Why do you torture your body with the cold, An?"

"I will kill the child, I think," she said, holding out her body to the winds, and he saw tears on her face, and that her eyes were blank. He wished to have his An again, safe and normal, so there was no way out of it; he was once more a nursemaid.

* * *

Zona awoke, unable to raise her

head. She was watching and striving to experience her own story on the screen as Owenvaun chose suitable pieces from it for replaying. It seemed that he knew it perfectly; he was very sure of which excerpts Zona should see again, and what she should know and realize.

"Now girl, let's move on a bit to where An gives birth to her child."

"Owenvaun, that isn't recorded."

"It will be. It's taking it from you now."

"How do you know what comes next?" Her question remained unanswered. He only pointed at the screen.

"Owenvaun, you can read my mind." It was an accusation.

"Shutup, will you, and watch the screen and experience, this time, the rebirth of your own miserable soul."

For a moment Zona permitted herself to think that the old man had flipped. But she knew, and this time without fainting, that this was the crux of the matter.

It was true that she had a block against anything that had even remote connections with the religious aspects of her science, with LSD, or any of its derivatives, and although she acknowledged Jung and Eunice Gold as the ancestors of the WAWWAR and its results in sick people, she still held a strong Freudian view of anything less tangible than super-ego. Like Freud himself, she had fainted

rather than have anything to do with the paranormal, or hear the word "God" said seriously, in any way whatever. As she tried to focus her attention on the screen, her thoughts circled around certain puzzling symbols that she had made notes on, looked up, and failed to fit into the pattern she wanted. Because the true pattern behind the story was something which her conscious mind and her ordinary life did not want, had never wanted. All the symbols of longing for some kind of growth and unity were balanced in the story by symbols and happenings that indicated sleep, death or destruction. The boy's struggles were all against his normal life being disturbed, against any kind of change, and yet, as soon as he had started looking after the baby . . . everything began to grow and change and develop. He himself changed, in spite of difficulty and setback. And the marriage. Too obvious, she had refused to correlate it to herself in any other way than her real-life marriage. The terrible desire to stay on the surface had fought with the desire for something deeper.

* * *

An was in labor, and she had led Sam against his protests, to the place where the skeleton of her own mother lay. She felt that her child had to be born near this place, or "the birth would not be valid."

"Soon," said An clearly. Her

breathing changed yet again, and she began to stroke her own belly, one hand gently following the other upwards over the tautness of it, and she turned onto her back, and cast away all her garments until she lay naked on the ground, where the sparse blades of grass stood like needles, frozen stiffly. She held her knees to her and spoke to Sam.

"Come and see the child," and with a silent effort she expelled into his waiting hands an infant, whose wet head appeared through a stream of warm water that splashed him from head to foot, and the child immediately set up a bawling that caused Sam to laugh out loud with joy.

An sat up, covering herself with her garments which Sam handed to her, and spoke.

"Sam, look, a baby," and to her it seemed a most remarkable thing, that all her efforts and labors had produced a baby. A baby was the most astonishing thing she had ever seen, and she wanted Sam to share her astonishment. He did share it, and together they held the child, each holding a hand under its head, and then Sam noticed that they had a female child.

"But An, I thought it would be a boy."

"Next time, the boy," she said, and then a slight spasm crossed her face, and the afterbirth left her, and she wrapped the child first in her blouse and then in Sam's leather jacket, and they set off over the

darkening hills towards Thingy, and it seemed as if the sun shone redly, not on them, but from them, and An looked monumentally strong; she had tied her skirts between her legs to stop the blood, but it was not in excess.

* * *

Owenvaun helped Zona to sit up. She was feeling oddly joyful, but still mystified.

"There is so much I do not yet understand . . ."

"Or accept. For instance?"

"Well, if the golden-haired boy is my animus struggling against its own nature, towards the longing for union with the Self, the baby that is, that becomes his sister, and then she has another baby . . . what is that?"

"The birth of Higher Consciousness. What else?"

"Oh God," said Zona.

"Exactly."

"Owenvaun, I do not believe that human beings were meant to be anything more than just human." She was very firm, determined to speak for herself; or something in her was determined to speak for itself.

"I do not 'believe' it either. Belief is not a word I use very much. The question is, how highly developed can a human being become? Have we as yet gone any further in our inner evolution? We have evolved physically, lengthening people's lives, improving their

health, cutting out faulty mutations. It is a hundred and fifty years since a deformed baby was born on this planet. But what about our inner evolution? Does that mean nothing to you?"

"Some."

"How conversational you have become, my dear. Open your mind a little, relax. Let's talk about your screen-story."

"Well then, help me sort out some of the symbols. It still doesn't all fit into the dawn-of-higher-consciousness bracket."

"No. Strictly speaking, it doesn't. There are indeed at least two levels of interpretation for some of the happenings. For instance, when you so wished to rid yourself of responsibility in the shape of your patient, Thurston Maxwell, this was partly reflected as the boy wanting to get rid of the baby. This also showed your reluctance even to think about higher consciousness."

"What about the laughing man though? Surely that cannot represent anything real."

"No, that represents your fear of God, your excuses for your atheism, and also your fear of it, the terror of being merely an evolutionary accident, a joke on the part of some unthinking plan. None of us really likes that idea any more than we like the idea of worshipping gods. Man has left that behind him almost exclusively. And has still to find the truth behind the idea of God."

"The LSD religion . . . Owen-vaun, you can't mean . . . ?"

"I think they almost touch it at times, but it is a chemical truth, in the same way that a psychic energizer is not true happiness, it just relieves a patient's depression."

"I see that much, but still I can't relate it to myself. I don't feel any different, that's all."

"Just go home and sleep, will you? Tomorrow, we shall come here again to see some more of your Heiros Gamos."

"Heiros Gamos?"

"Heavenly marriage. Nobodaddy and Great Earth Mother. Brother and sister. Think of the Egyptian Kings and Queens. Union between oneself and one's soul. It's simple."

"Simple?" Zona was indignant. Her sudden transition to the status of *patient* had been thrust on her; she wanted nothing to do with it.

All the same, she slept better that night than she had for a long time.

Day-by-day the sessions with Owenvaun went on, and Zona began to accept the idea of what was happening to her. It seemed that Owenvaun was right, that she was on the verge of a different level of consciousness, brought about largely by the action of the WAWWAR on a healthy being, a kind of mind it rarely had access to. As the days and nights passed, she became aware of a deepening sense of peace, and simultaneously of an

annoying and dreadful oversensitivity. Sounds were discordant, colors harsh, smells unsavory. She was in fear of scalding herself under the shower, the normal temperature of the water seemed terribly hot. If this was higher consciousness, she wanted no part of it. She had a constant headache between her eyes, and at the back of her neck there was an aching void. Her spine seemed to vibrate at times.

As she lay on the air-couch in the presence of the screen and Owenvaun, she caught herself thinking such negative thoughts about her condition. As if the voice were a separate part of herself. Which of course it was. Jung had named this part of the Self the Shadow. How right he was! She told her Shadow Self to stand aside so that she could better experience the material from her consciousness.

* * *

Sam and An had spent several weeks in cleaning up the town of Thingy which was still in a state of filth from their stay there many years ago. All refuse such as dirty dried diapers were piled up in the square beneath the monument; all pieces of paper and discarded food wrappings also. Everything was scrubbed with disinfectant. When they had finished this task, there was a huge heap of garbage which covered the equestrian statue's base, and its inscription. They stood before the heap holding

hands, and with her other hand, An rocked the pram in which the baby was securely strapped.

Sam noticed something glinting near the bottom of the pile and walked across the cobbles to investigate. He picked up the object and recognized it instantly as the watch and chain that he had lost so many years before. He shook it and wound it up, pleased at the discovery that it ticked and that the sweep second hand went round as cleverly as ever it had done. Ceremoniously he placed it in his right-hand vest pocket, fastening the fob through a buttonhole. Then from his left-hand vest pocket Sam produced a cigarette lighter that he never used, not being a smoker, flicked it until it produced a flame and then applied it to a corner of the heap of dry and dusty diapers and paper and dirt. Very soon the pile began to blaze and gave off a great deal of heat.

* * *

Zona found that she was weeping out loud.

* * *

This heat was not unwelcome at first, for it was chilly winter weather, but within minutes they had to stand back from it and then to retreat altogether; the rubbish had turned into an inferno. The baby laughed and bounced up and down in the pram with pleasure, but Sam and An were rather worried in case the fire should spread. They real-

ized that if the town should catch fire, then their job would have been altogether too well done. They went inside the chemist's shop to watch anxiously, and even behind the plate glass they could feel the heat of the blaze. They went right to the back of the shop, and sweat ran down all of them, since the air was getting too hot to breathe. They wished they had not come in here, for there was no way out. Suddenly, in panic, Sam screamed out for them to turn their backs and flung himself face down on the floor, but An flung herself across the baby in the pram. The shop window exploded. Red hot fragments of glass went in all directions.

* * *

Zona stopped weeping.

* * *

When everything was cool enough, they went across to the monument and read the inscription which was now visible. This time it did not move Sam, he simply stared at it. But An knelt and wept for perhaps two minutes.

Then they walked together to the end of the town. An took the baby out of the pram and put it inside an open store, for someday somebody else might need that pram. She could not have taken it with her because it would not fit on the platform of the bus. All they could take home with them were the clothes they stood up in and the baby.

When the bus arrived, they climbed on and went upstairs so that they could look at the view, and as the bus was rather crowded and smoky, they opened a window. A woman in front of them turned round smiling.

"I'm glad you did that. It gets so smelly up here, doesn't it? What a lovely little girl. What's her name?"

"Miriam," said the proud parents in unison.

Soon it was time for them to get off the bus. They paid the conductor on the platform, as he had not come up for their fares. They then walked up several avenues, each leading off the other, all made up of identical houses built from red and yellow brick, each with a little green garden. At number seven Hawthorn Avenue, they stopped and went in. Sam switched on the electricity and water, and An turned on the central heating. When bath time came the baby began to cry.

"Plenty of time tomorrow, my pet, for all the things you want to do."

And the child accepted that and slept quietly in her little wooden cot, dreaming many dreams.

* * *

Owenvaun switched everything off and then sat waiting silently. For long minutes Zona lay inactive, before she sat up and dared to look at her superior. She got up, and together they left the room. At

the top of the elevator, instead of leading her to the car-tube entrance, he indicated the doorway of Great Blasket. They went outside, up the steps, and stood on the back of the island, high up, with the wind blowing continuously, its buffetings a shock to her heightened sensibilities. Zona felt chilled through.

But moment-by-moment, things were changing. She began to feel exhilarated, joyful, and extremely strong. There were dots of seals playing down in Seal Cove, and she noted that she did not merely note the fact as a happy and interesting sight. It was something far more. The seals were part of a pattern, as each white wave that came in was part of the pattern, and the grass, and the air, and herself. The air was not just air; it was a food, something she used, a positive substance, not merely something more or less invisible, to be taken for granted. Impressions came in to her fast and strong, things she had experienced time and time before today without any real notice of it in herself.

She felt that if the feeling of surging *reality* did not slack off soon, she would be overwhelmed, would not be able to perceive it. Everything was too strong, like LSD experiences she had had during her training, and yet, not like that. As if an LSD experience were a photograph of this, a distorted, highly colored, noisy motion pic-

ture of this true reality. She could hear Owenvaun speaking, and looked at him, but he was not speaking. He held her hand, knowing that this discovery had frightened her. He spoke out loud, to reassure her.

"It's all right, Zona, my dear. You are swept up by too much that is new. Too much reality all at once can be very frightening. You will soon become accustomed to it, and besides, this phase will not last. At first you will have these waves of impressions, but then your safety valves will close down, to protect you. Nothing to fear."

Zona steadied herself. It was true, the sensations were dimming already, and she was aware of a sense of great loss as well as relief.

"Owenvaun, how long have you had these powers?"

"It is many years since I began to realize my machine's potential. I thought I might be a freak, a sport—and yet I had clearly reached a higher state of being. I have experimented ever since. But I have needed to have the same phenomenon simply *happen* to someone else. It could not occur to a person who knew what was supposed to be happening, for the conscious thought of a new, advanced state of being confounds the material from the unconscious. You see, I want to develop the machine so that anyone can use it, provided they are first completely free from any sickness. I have been waiting for

just such a happy accident as yourself. As soon as you first reported to me the screen story of the boy and the baby, I thought it probable that the machine was finding you out, just as it had happened to me. Not only were the symbols almost identical, but they were symbols that do not normally appear on the screen in this form. They are almost all in a changed form, very few of them archaic or completely archetypal . . . with the main exception of the alchemical symbols, which remain true symbols for the philosopher's stone. Even if one calls it higher consciousness! For instance, the ritual of the cleaning up of the town and the fire, and the finding again of his watch were almost identical in my screening. Two such case histories indicate that there may be many more to be found—among the healthy. It needs much thought, and I need a helper. Perhaps you, if you consent?"

"I am your patient," she said stonily. "I failed. What of Thurston?"

Owenvaun dealt with her question almost absent-mindedly. "He is a changed individual, learning to play chess and mah-jongg, dating a nurse from pharmacy without any upsetting incidents, reading books in his spare time; he has even asked for music." Then he returned to the main issue. "Failed! The machine had been preset to make its primary response to a healthy

mind, Zona. You are a happy accident," he repeated, and then, not bothering with speech: *You will be*

my helper for a time, and when I die, you will take my place.

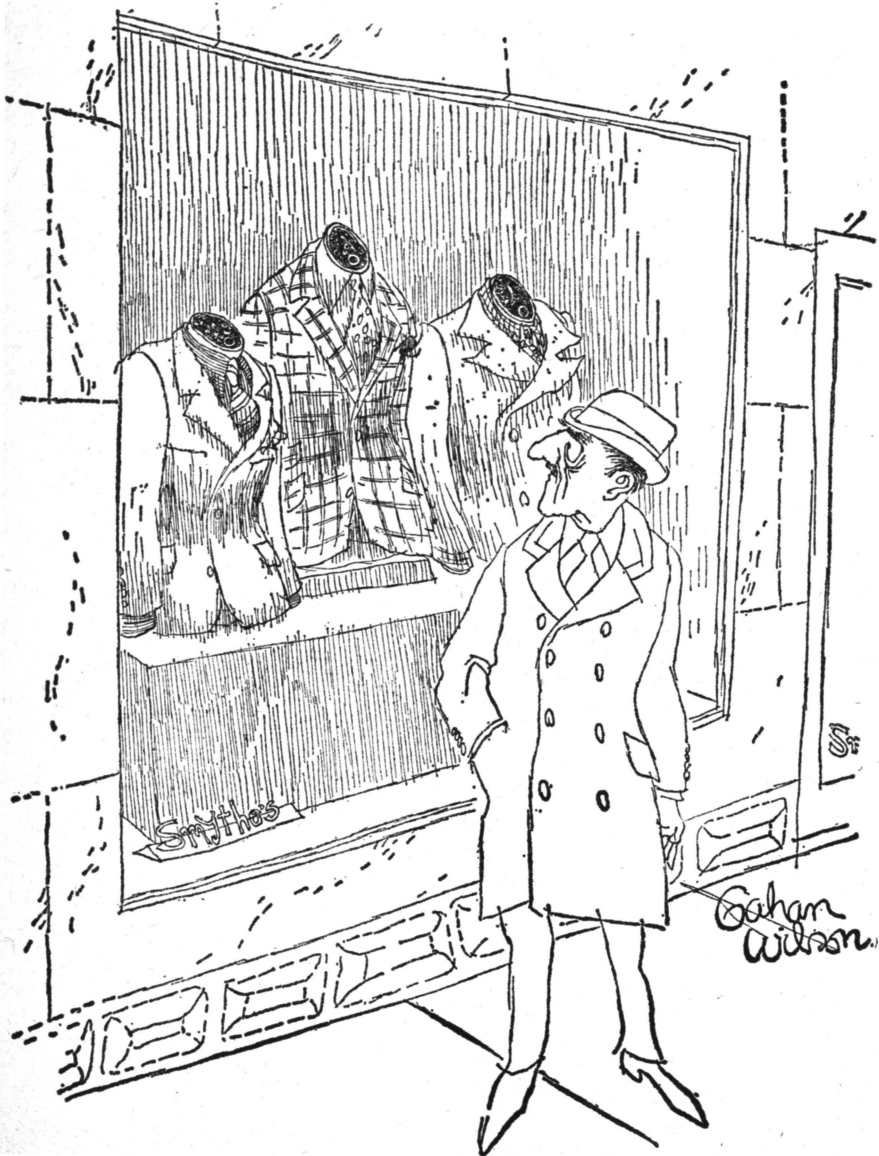
And so it began.



OF TIME AND US

It means, perhaps, not very much
 Except it is a wheel so huge it cannot
 Go nor come, but starts from Everywhere
 And ends at Everywhere, and does not
 Really start nor really end at all.
 Oh, what a puzzle-ball! Mystery's orb.
 Fortune's panic-rings.
 We slide around it like a sheaf of ghosts,
 Wade through its spokes
 Grind on its moveless rims and in its hub;
 We are so small it shames us in our whims
 With nothing looks and sounds
 That have not eyes to catch them and no ears;
 It is so vastly-huge that we
 Are not quite sure we're even in the game
 Until it is too late for haste to compensate
 For why we did not play it harder-out-to-win.
 We yell in frenzied doubt; addled, we flap about
 And never send the great words down
 Nor do the better deed.
 Roiled confusion in a changeless turn,
 We are the wheel-ball's dust.
 What can be more meaningless than us?

—DAVID R. BUNCH



BOOKS



ELECTION YEAR, U.S.A.

The world holds its breath: lives, livelihoods, the welfare and integrity of people and peoples all over the globe hang in the balance with every shift of power in the U.S. or U.S.S.R. The world watches, waits, listens. We talk.

Speeches, debates, discussions, panels, symposia, lectures, letters-to-the-editor, political advertisements, pamphlets, articles, poems, songs, records, cartoons, books.

And more books. Not just the predictable biographical, autobiographical, analytical, eulogistic, polemical, and predictive volumes by and about the candidates and would-be candidates, but a veritable river, spate, flood of argument, narrative, pejorative, paean, satire, sloganeering, data-processing, policy-interpreting, philosophical, scientific, spiritual, idealistic, pragmatic, prejudiced, protesting, and patriotic literature in every possible guise and disguise.

Not just another Presidential election, but a time of grave decision on issues we will probably never have a chance to reconsider: a time of crises as immediate and important for this country as those

of the 1860's, as vital to the rest of the planet as those of the 1930's. A time of national dissatisfaction without historical precedent: I doubt that anyone from the President down is satisfied or optimistic; never has U.S. prestige been so low with its own citizens—never before has the phrase "my country, right or wrong," been so charged with ambivalence.

Twenty years ago, when the seeds of the monstrous issues of today were sprouting in the ideological fallout of atomic victory, science fiction proved to be by far the most effective medium for prophets and propagandists. Nuclear and biological warfare, the population explosion, automation, possible planetary pollution, technological proliferation, were all topics indigenous to the genre, and (then) so little understood by most of the reading public that they could neither be treated as given in "realistic" novels, nor taken straight in non-fiction (on any level below the rarified, militant one of the *Bulletin of Atomic Scientists*).

Then, in the fifties—Eisenhower, and Sen. Joseph McCarthy—

the science fiction magazines were, for a while, the only pop arena in America for the dissemination and examination of non-conformist and dissident ("subversive") ideas. The use of the genre for this purpose became so familiar to a growing body of "mainstream" writers, that at least one new-won enthusiast swung considerable critical weight behind his conviction that political and social criticism was the *only* valid use of science fiction.

S-f writers generally refused to be limited to this aspect of the field; but the science fiction idiom was adopted by other mainstream writers, and even more by journalists (columnists like Buchwald and Baker, *Mad*-type satirists, documentarians like Hersey) as a standard vehicle for political comment.

Today, the science fiction infield is actually far behind the "underground" and even much of the mainstream, in the extent and intensity of its criticism of the status quo. Nor is the medium intrinsically particularly well suited to the examination of intergroup confrontations and institutional moralities. Nevertheless, it seems that every philosopher, politician, moralist or people-watcher currently without platform has, this year, bethought himself of Swift, Wells, Bellamy, Huxley, and Orwell, and sat himself down to construct a novel around his own

analysis of the ills of society or his individual recipe for salvation.

Since many regular writers of s-f can also be described as unemployed philosophers, a number of "message" novels and a general trend toward political themes are evident on the regular lists of publishers specializing in the genre. Others—depending on the author's reputation and political position—come from mainstream publishers, and some are even privately printed.

As most readers of this magazine already know, I too have certain strong political biases. I also like to believe that I am capable of recognizing literary merit even in a book entirely opposed to my own way of thinking. But art and propaganda are poor bedfellows at best, and even in the books closest to my own convictions, I have found none so far that merit high praise for their purely literary virtues: the best one can say of some is that they contrive to be entertaining while instructive, and of others that they are provocative enough in content to compensate for novelistic ineptitude. In any case, I make no claim, in this period of political passions, to a detachment amounting to perversity, which would permit me to admire the logic of a book whose premises I consider seriously in error—or recommend for pre-election reading a convincing argument for the Bad Guys.

What I can do, in an (only slightly reluctant) effort to be "fair," is open this column to opposing views; I therefore invite anyone who feels that books representing his views are being slighted or ignored here, to submit reviews to this space.*

THE REPORT FROM IRON MOUNTAIN ON THE POSSIBILITY AND DESIRABILITY OF PEACE first appeared in shorter form in *Esquire*, and was then published by Dial at \$5.00; both versions were introduced by one Leonard C. Lewin, presumably an editor at Dial, who presents the document as the final report of a "Special Study Group" convened (by "unnamed government administrators of high rank") in utmost secrecy in the summer of 1963, and as quietly disbanded in the fall of 1966, after its own decision to suppress its findings. The publication of the Report is purportedly due to determined opposition to the idea of suppression by one member ("John Doe") of the 15-man commission.

"... the unwillingness of Doe's associates to publicize their findings," says Lewin, is "readily understandable," since their recommendations were based on the conclusion that "lasting peace,

while not theoretically impossible, is probably unattainable; even if it could be achieved it would almost certainly not be in the best interests of a stable society to achieve it."

The deadpan approach slips only occasionally, and then only by the tiniest margin, into obvious farce—and I kept trying to explain away these small clear signs of send-up, *wanting* the "Study Group" to be real, *wishing* I could believe that there were high government officials prepared to sponsor, read, and act on a report so cynically realistic:

"We find that at the heart of every peace study we have examined . . . lies one common fundamental misconception . . . *the incorrect assumption that war, as an institution, is subordinate to the social system it is believed to serve.*

"... Although war is 'used' as an instrument of national and social policy, the fact that a society is organized for any degree of readiness for war supersedes its political and economic structure. War itself is the basic social system . . . which has governed most human societies of record . . .

"Wars are not 'caused' by international conflicts of interest. Proper logical sequence would make it more often accurate to say that war-making societies require—and thus bring about—such conflicts.

*The most interesting reviews will be used in the letters column which began in the May issue. Please limit comments to 250 words.—Ed.

“. . . 'war' is virtually synonymous with nationhood. The elimination of war implies the inevitable elimination of national sovereignty and the traditional nation-state.

"The war system not only has been essential to the existence of nations as independent political entities, but has been equally indispensable to their stable internal political structure. Without it, no government has ever been able to obtain acquiescence in its 'legitimacy,' or right to rule its society. The possibility of war provides the sense of external necessity without which no government can long remain in power. . . ."

In this vein, the book describes the functions of war from economic, political, sociological, ecological, cultural and scientific viewpoints; then considers possible substitutions for the various functions, and concludes that none of the 'war surrogates' considered are sufficiently "technically feasible, politically acceptable, and potentially credible to the members of the societies that adopt them," although the closest single substitute—"development of an acceptable threat from 'outer space,' presumably in conjunction with a space-research surrogate for economic control"—is considered "unpromising" only in terms of credibility. ("New, less regressive, approaches to the creation of fictitious global 'enemies' invite fur-

ther investigation.")

I have traced here, very sketchily, the line of reasoning presented under the subhead, 'Political' in the successive sections of the book, not because it is either the most incisive or the most likely to shock, but because it provided the final evidence of the fictional character of the book. Quite clearly, no administration capable of recognizing the callous truisms expressed here could possibly mismanage the conquest of Vietnam as badly as it is now being done; nor could a government of—after all—decent, civilized, twentieth-century Americans conceivably participate in the inhumanity of the present conduct of the war unless it had first come to believe its own mythology about the nature and purposes of the conflict.

IRON MOUNTAIN is neither fiction nor science, let alone science fiction—but it is the essence of politico-socio-economic science-fiction compacted into the fictionally scientific "Report" form, which has provided one of the great vehicles for contemporary s-f. The lack of plot is insignificant; the book is guaranteed to stir your adrenalin, no matter what your views: there is something in it to infuriate *everyone*.

There is more science and better fiction in *THE CASSIOPEIA AFFAIR* (Doubleday, \$4.95), a novel by Chloe Zerwick and Harrison Brown (one of the early post-WW

II anti-Bomb atomic scientists), which takes as its theme the impact of the discovery of an intelligent extraterrestrial planet on terrestrial international affairs—and more specifically, on the political and personal conflicts of two distinguished American scientists, one an Einstein/Oppenheimer figure, the other a Teller-type. Although the personal dramas are sometimes compelling, and the narrative is well paced and well told, the book lacks either the extrapolative logic or the excitement of *IRON MOUNTAIN*.

Hayden Howard's *THE ESKIMO INVASION* (Ballantine, 75¢), on the other hand, is one of the worst-constructed novels I have ever read—and one of the most brilliantly radical examinations of the philosophic and spiritual/moral premises on which, essentially, *all* aspects (however opposed) of contemporary American thinking are based. The book was first published as an extended series of short stories in *Galaxy*—of which the first was excellent, and the others increasingly tedious. It is a method occasionally utilized successfully by an accomplished and experienced novelist. This is Howard's first novel, and the stories, strung together, are almost as dreary as they were separately—until the explosive final sequence fits them together. The warm, affective opening should carry you a good way into the body of the

book, and you can then look forward to four or five more exceptionally moving and convincing scenes *en route*. But even if it goes very slowly much of the way, it is a book to be read, and not skimmed too much.

I look forward to Howard's next novel; I hope it is being written with book, rather than magazine, publication in the forefront of the author's mind.

In much the same category is *LET US REASON TOGETHER*, "A Novel of Election Year, 1968," written and published (paperbound, varityped-offset) by Thomas Morrill (Dupont Press, 1403 Stone Road, Tallahassee, Florida 32303. \$2), whose name will be familiar to readers of that unique journal, *The Worm Runners' Digest*, as the author of the memorable "Alice's Adventures in Evolutionland."

I wish I could say that Morrill has the same flair for Swiftian savagery that he had for Carollian pastiche. This is a heavy-handed leaden-footed novel about President Lyman P. Jimson (and his wife, Bug), his boyhood companions, Joseph (now General) Arim and Junior Sexton, now known as Ex. Other characters include Marylin and Robby Colleny, Nick Dixon, and a cross-section of dissenters and conspirators in "The Underground." *MacBird* did it better—or anyhow funnier—except

for one thing: this book has something *more* to say, and the reader with the capacity for endless conversations, expositions, and set-scenes characteristic of Moskowitian ("classic" 1930's) science fiction will find it worth the effort before he is done. I say this in full expectation, and with the warning, that not one in a thousand readers is likely to find himself in full, or large, agreement with Morrill's thesis, which builds from the premise that American entry into World War II was the initial error from which the Vietnamese involvement grew, and from which a true Police State is in process of growing. But you may be surprised—and upset—at the way the lesser premises cling together, given this foundation.

Also, I *think*, privately printed (Arcturus Pub., 1044 Lake St., Oak Park, Ill.) is Lowell B. Mason's **THE BULL ON THE BENCH**, the life story of Justice Thomas Bullock of the Supreme Court of Moovalia—the sovereignty which replaced the United States of America after an atomic Doomsday effected some swift gene-switching in humans and cattle both:

"With humanity spiritually impotent, and cattle freed of their muteness, the latter forged ahead . . . adopted the Constitution . . . drew up a Five Year Plan . . . issued Position Papers,

Proclamations, Directives, and Orders in Council. With that splendid generosity common to all who find it easy to take other people's property, cattle proceeded to care for their ill-fed, ill-clothed, and ill-housed relations still wandering about in open pastures."

The author was a Federal Trade Commissioner under President Truman, to whom the book is dedicated, with a nostalgic reference to the Truman Credo, "If you can't stand the heat, get out of the kitchen!" Those whose political memories, like mine, go back to pre- (Joseph) McCarthy times, will understand me when I say this is a truly Trumanesque book: knowledgeable rather than intellectual, more humorous than witty, not dirty but earthy, riddled with inconsistencies yet punctuated with sudden satisfying insights of a sort that seem to have vanished entirely from *my* world. This is a morality tale of the nobility of the Individual in the sinful morass of Welfareism. It would be nice to believe; it was refreshing to read; it is sad to have to remember, at the end, that the last claim of technologized man to that kind of simplistic Honor went up in mushrooming smoke over Hiroshima, on Mr. Truman's orders.

Patterned like **THE BULL**, Olof Johannesson's **THE TALE OF THE BIG COMPUTER** (Coward-McCann, \$4.00), translated by Na-

omi Walford from a Swedish novel by the pseudonymous scientist/author, is a "future history" of the evolution of life on earth through the age of humans and the "Symbiotic Age" to the beginning of the true Computer Age. It may be full of telling points; I wouldn't know: it was too dull to read.

—JUDITH MERRIL

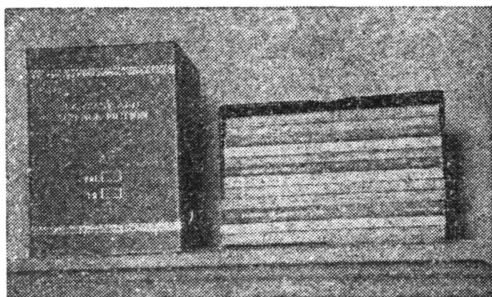


Join Sam Moskowitz in his time machine. Science Fiction by Gaslight

From the "golden age" of magazines, 1891-1911, Sam Moskowitz has gathered 26 superb stories—most never before anthologized—by such masters as H. G. Wells, Jules Verne, Robert Barr and William Hope Hodgson. Many reveal uncanny predictions decades before they happened. Includes extensive introductory material surveying the magazines of the day and the role science fiction played in their success. Another fascinating masterpiece by one of America's foremost science fiction historians. **\$6.95**



The World Publishing Co.
Cleveland and New York



Handsome, Sturdy **VOLUME FILES** *for Your Copies of* **FANTASY AND SCIENCE FICTION**

Each Volume File will keep
12 copies of **FANTASY &**

SCIENCE FICTION clean, orderly, and readily accessible. Sturdily built, the files are covered with a rich black and red washable leatherette, and the lettering is in 16-carat gold leaf.

Reasonably priced at \$2.95 each or three for \$8.25, they are shipped fully postpaid on a money back basis if not satisfactory. Order direct from:

JESSE JONES BOX CORPORATION

Dept. F&SF

P.O. Box 5120

Philadelphia, Pa., 19141

This story grew from a "treatment" done by Robert Sheckley for ABC-TV's commendable but short-lived series, Stage 67. A "treatment" is basically a story idea synopsisized in some detail; Mr. Sheckley was not involved with the script or production of this particular show. This prose account of Steve Baxter's perilous journey from Jersey City to Times Square is quite different in approach from the TV play; it is all Sheckley, and, as you will quickly determine, it is not entirely serious.

THE PEOPLE TRAP

by Robert Sheckley

IT WAS LAND RACE DAY—A time of vaunting hope and unrelied tragedy, a day which epitomized the unhappy 21st century. Steve Baxter had tried to reach the Starting Line early, like the other contestants, but had miscalculated the amount of time he would require. Now he was in trouble. His Participant's Badge had gotten him through the outer, exocrowd without incident. But neither badge nor brawn could be relied upon to carry a man through the obdurate inner core of humanity which made up the endocrowd.

Baxter estimated this inner mass at 8.7 density—not far from the pandemic level. A flash point might occur at any moment, despite the fact that the authorities had just aerosoled the endocrowd with tranquilizers. Given time, a man might circle around them, but Baxter had only six minutes.

Despite the risk, he pushed his way directly into their ranks. On his face he wore a fixed smile—absolutely essential when dealing with a high-density human configuration. He could see the Starting Line now, a raised dais in Jersey City's Glebe Park. The other contestants were already there. Another twenty yards, Steve thought; if only the brutes don't stampede!

But deep within the core-crowd he still had to penetrate the final nuclear mob. This was composed of bulky, slack-jawed men with unfocused eyes—agglutinating hysterophiliacs, in the jargon of the pandemicologists. Jammed together sardine fashion, reacting as a single organism, these men were incapable of anything but blind resistance and irrational fury toward anything that tried to penetrate their ranks.

Steve hesitated for a moment.

© 1968 by Robert Sheckley

The nuclear mob, more dangerous than the fabled water buffaloes of antiquity, glared at him, their nostrils flared, their heavy feet shuffling ominously.

Without allowing himself time to think, Baxter plunged into their midst. He felt blows on his back and shoulders and heard the terrifying "urrr" of a maddened endomob. Shapeless bodies jammed against him, suffocating him, relentlessly pressing closer and closer.

Then, providentially, the authorities turned on the Muzak. This ancient and mysterious music, which for over a century had pacified the most intractable berserkers, did not fail now. The endomob was decibelled into a temporary immobility, and Steve Baxter clawed his way through to the Starting Line.

The Chief Judge had already begun to read the Prospectus. Every contestant, and most of the spectators, knew this document by heart. Nevertheless, by law the Terms had to be stated.

"Gentlemen," the Judge read, "you are here assembled to take part in a Race for the acquisition of Public Domain lands. You fifty fortunate men have been chosen by public lottery from fifty million registrants in the South Westchester region. The Race will proceed from this point to the Registration Line at the Land Office in Times Square, New York—an adjusted

approximate mean distance of 5.7 statute miles. You contestants are permitted to take any route; to travel on the surface, above, or below ground. The only requirement is that you finish in person, substitutes not being permitted. The first ten Finalists—"

The crowd became deathly still.

"—will each receive one acre of unencumbered land complete with house and farming implements. And each Finalist will also be granted free government transportation to his freehold, for himself and for his immediate family. And this aforesaid acre shall be his to have and to hold, free and clear, perpetually unalienable, as long as the sun shines and water flows, for him and his heirs, even unto the third generation!"

The crowd sighed when they heard this. Not a man among them had ever seen an unencumbered acre, much less dreamed of possessing one. An acre of land entirely for yourself and your family, an acre which you didn't have to share with anyone—well, it was simply beyond the wildest fantasy.

"Be it further noted," the Judge went on, "the government accepts no responsibility for deaths incurred during this Contest. I am obliged to point out that the unweighted average mortality rate for Land Races is approximately 68.9%. Any Contestant who so wishes may withdraw now without prejudice."

The Judge waited, and for a moment Steve Baxter considered dropping the whole suicidal idea. Surely he and Adele and the kids and Aunt Flo and Uncle George could continue to get by somehow in their cozy one-room apartment in Larchmont's Fred Allen Memorial Median Income Housing Cluster . . . after all, he was no man of action, no muscled bravo or hairy-fisted brawler. He was a Systems Deformation consultant, and a good one. And he was also a mild-mannered ectomorph with stringy muscles and a distinct shortness of breath. Why in god's name should he thrust himself into the perils of darkest New York, most notorious of the Jungle Cities?

"Better give it up, Steve," a voice said, uncannily echoing his thoughts.

Baxter turned and saw Edward Freihoff St. John, his wealthy and obnoxious neighbor from Larchmont. St. John, tall and elegant and whipcord-strong from his days on the paddleball courts. St. John, with his smooth, saturnine good looks, whose hooded eyes were too frequently turned toward Adele's blonde loveliness.

"You'll never make it, Stevie baby," St. John said.

"That is possible," Baxter said evenly. "But you, I suppose, will make it?"

St. John winked and lay a forefinger alongside his nose in a

knowing gesture. For weeks he had been hinting about the special information he had purchased from a venal Land Race Comptroller. This information would vastly improve his chances of traversing Manhattan Borough—the densest and most dangerous urban concentration in the world.

"Stay out of it, Stevie baby," St. John said, in his peculiar rasping voice. "Stay out, and I'll make it worth your while. Whaddaya say, sweetie pie?"

Baxter shook his head. He did not consider himself a courageous man, but he would rather die than take a favor from St. John. And in any event, he could not go on as before. Under last month's Codicil to the Extended Families Domicile Act, Steve was now legally obliged to take in three unmarried cousins and a widowed aunt, whose one-room sub-basement apartment in the Lake Placid industrial complex had been wiped out by the new Albany-Montreal Tunnel.

Even with anti-shock injections, ten persons in one room were too many. He simply had to win a piece of land!

"I'm staying," Baxter said quietly.

"OK, sucker," St. John said, a frown marring his hard, sardonic face. "But remember, I warned you."

The Chief Judge called out, "Gentlemen, on your marks!"

The contestants fell silent. They toed the Starting Line with slitted eyes and compressed mouths.

"Get ready!"

A hundred sets of leg muscles bunched as fifty determined men leaned forward.

"Go!"

And the race was on!

A blare of supersonics temporarily paralyzed the surrounding mob. The contestants squirmed through their immobile ranks, and sprinted over and around the long lines of stalled automobiles. Then they fanned out, but tended mainly to the east, toward the Hudson River and the evil-visaged city that lay on its far shore, half concealed in its sooty cloak of unburned hydrocarbons.

Only Steve Baxter had not turned to the east.

Alone among the contestants, he had swung north, toward the George Washington Bridge and Bear Mountain City. His mouth was tight, and he moved like a man in a dream.

In distant Larchmont, Adele Baxter was watching the race on television. Involuntarily, she gasped. Her eight-year old son Tommy cried, "Mom, Mom, he's going north to the bridge! But it's closed this month, he can't get through that way!"

"Don't worry, darling," Adele said. "Your father knows what he's doing."

She spoke with an assurance she did not feel. And, as the figure of her husband was lost in the crowds, she settled back to wait—and to pray. Did Steve know what he was doing? Or had he panicked under pressure?

The seeds of the problem were sewn in the 20th century, but the terrible harvest was reaped a hundred years later. After uncounted millennia of slow increase, the population of the world suddenly exploded, doubled, and doubled again. With disease checked and food supplies assured, death rates continued to fall as birth rates rose. Caught in a nightmare of geometric progression, the ranks of humanity swelled like runaway cancers.

The Four Horsemen of the Apocalypse, those ancient policemen, could no longer be relied upon to maintain order. Pestilence and famine had been outlawed, and war was too luxurious for this subsistence age. Only death remained—much diminished, a mere shadow of his former self.

Science, with splendid irrationality, continued to work insensately toward the goal of more life for more people.

And *people* marched on, still increasing, crowding the earth with their numbers, stifling the air and poisoning the water, eating their processed algae between slices of fish-meal bread, dimly

awaiting a catastrophe to thin out their unwieldy ranks, and waiting in vain.

The quantitative increase in numbers produced qualitative changes in human experience. In a more innocent age, adventure and danger had been properties of the waste places—the high mountains, bleak deserts, steaming jungles. But by the 21st century most of these places were being utilized in the accelerating search for living space. Adventure and danger were now to be found in the monstrous, ungovernable cities.

In the cities one found the modern equivalent of savage tribes, fearsome beasts and dread diseases. An expedition into New York or Chicago required more resourcefulness and stamina, more ingenuity, than those light-hearted Victorian jaunts to Everest or the source of the Nile.

In this pressure-pot world, land was the most precious of commodities. The government parceled it out as it became available, by means of regional lotteries culminating in land races. These contests were patterned after those held in the 1890s for the opening of the Oklahoma Territory and the Cherokee Strip.

The land races were considered equitable and interesting—both sporty and sporting. Millions watched the races, and the tranquilizing effect of vicarious excitement upon the masses was duly

noted and approved. This in itself was sufficient justification for the races.

Additionally, the high mortality rate among the contestants had to be considered an asset. It didn't amount to much in absolute numbers, but a stifled world was grateful for even the smallest alleviation.

The race was three hours old. Steve Baxter turned on his little transistor radio and listened to the latest reports. He heard how the first group of contestants had arrived at the Holland Tunnel, and had been turned back by armored policemen. Others, more devious, had taken the long southern trek to Staten Island, and were presently approaching the approaches of the Verrazzano Bridge. Freihoff St. John, all by himself, flashing a deputy mayor's badge, had been allowed past the Lincoln Tunnel barricades.

But now it was time for Steve Baxter's gamble. Grim-faced, with quiet courage, he entered the infamous Free Port of Hoboken.

It was dusk on the Hoboken foreshore. Before him, in a sweeping crescent, lay the trim, swift ships of the Hoboken smuggling fleet, each with its gleaming Coast Guard medallion. Some already had cargo lashed to their decks—cases of cigarettes from North Carolina, liquor from Kentucky, oranges from Florida, goof balls

from California, guns from Texas. Each case bore the official marking, **CONTRABAND—TAX PAID.** For in this unhappy day and age, the hard-pressed government was forced to tax even illegal enterprises, and thus to give them a quasi-legal status.

Choosing his moment carefully, Baxter stepped aboard a rakish marijuana runner and crouched down between the aromatic bales. The craft was ready for imminent departure; if he could only conceal himself during the short passage across the river—

"Har! What in hell have we here?"

A drunken second engineer, coming up unexpectedly from the fo'c'sle, had caught Baxter unawares. Responding to his shout, the rest of the crew swarmed onto the deck. They were a hard-bitten, swaggering lot, feared for their casually murderous ways. These were the same breed of godless men who had sacked Weehawken some years ago, had put Fort Lee to the torch and pillaged all the way to the gates of Englewood. Steve Baxter knew that he could expect no mercy from them.

Nevertheless, with admirable coolness, he said, "Gentlemen, I am in need of transportation across the Hudson, if you please."

The ship's captain, a colossal mestizo with a scarred face and bulging muscles, leaned back and bellowed with laughter.

"Ye seek passage of *uns*?" he declared in the broad Hobokenese patois. "Think ee we be the Christopher Street ferry, hai?"

"Not at all, sir. But I had hoped —"

"To the boneyard wit yer hopes!"

The crew roared at the witticism.

"I am willing to pay for my passage," Steve said, with quiet dignity.

"Pay is it?" roared the captain. "Aye, we sometimes sell passages—nonstop to midstream, and thence straight down!"

The crew redoubled its laughter.

"If it is to be, then let it so be," Steve Baxter said. "I request only that you permit me to drop a postcard to my wife and children."

"Woife and tuckins?" the captain enquired. "Why didn't yer mention! Had that lot myself aforetime ago, until waunders did do marvain to the lot."

"I am sorry to hear that," Steve said, with evident sincerity.

"Aye." The captain's iron visage softened. "I do remember how, in oftens colaim, the leetle blainsprites did leap giner on the saern; yes, and it was roses all til diggerdog."

"You must have been very happy," Steve said. He was following the man's statements with difficulty.

"I maun do," the captain said.

A bowlegged little forebow deckman thrust himself forward. "Hi, Captain, let's do for him and get underway before the pot rots on the spot."

"Who you giving orders at, ye mangy, scut-faced hogifier!" the captain raved. "By Big Jesus, we'll let the pot rot til I say not! And as for doing him—nay, I'll do one deed for me blainsprites, shiver me if I won't!" Turning to Baxter he said, "We'll carry ye, laddie, and for naught ought loot."

Thus, fortuitously, Steve Baxter had touched upon a bittersweet memory in the captain's recollection, and had thereby won respite. The marijuana men pushed off, and soon the sleek craft was breasting the sallow gray-green waves of the Hudson.

But Steve Baxter's respite was short-lived. In midstream, just after they entered Federal waters, a powerful searchlight flashed out of the evening gloom and an officious voice ordered them to heave to. Evil luck had steered them straight into the path of a destroyer on the Hudson patrol.

"Damn them!" the captain raved. "Tax and kill, that's all they know! But we'll show them our mettle! To the guns, bullies!"

Swiftly the crew peeled the tarpaulins from the .50-calibre machine guns, and the boat's twin diesels roared defiance. Twisting and dodging, the pot runner raced for the sanctuary of the New York

shore. But the destroyer, fore-reaching, had the legs of her, and machine guns were no match for four-inch cannon. Direct hits splintered the little ship's toe rail, exploded in the great cabin, smashed through the main top-forests, and chopped down the starboard mizzen halyards.

Surrender or death seemed the only options. But, weatherwise, the captain sniffed the air. "Hang on, hearties!" he screamed. "There's a Wester do be coming!"

Shells rained around them. Then, out of the West, a vast and impenetrable smog bank rolled in, blanketing everything in its inky tentacles. The battered little kif ship slid away from the combat; and the crew, hastily donning respirators, gave thanks to the smouldering trashlands of Secaucus. As the captain remarked, it is an ill wind that blows no good.

Half an hour later they docked at the 79th Street Pier. The captain embraced Steve warmly and wished him good fortune. And Steve Baxter continued on his journey.

The broad Hudson was behind him. Ahead lay thirty-odd downtown blocks and less than a dozen crosstown blocks. According to the latest radio report, he was well ahead of the other contestants, ahead even of Freihoff St. John, who still had not emerged from the labyrinth at the New York end of the Lincoln Tunnel. He seemed to

be doing very nicely, all things considered.

But Baxter's optimism was premature. New York was not conquered so easily. Unknown to him, the most dangerous parts of his journey still lay before him.

After a few hours' sleep in the back of an abandoned car, Steve proceeded southward on West End Avenue. Soon it was dawn—a magical hour in the city, when no more than a few hundred early-risers were to be found at any given intersection. High overhead were the crenelated towers of Manhattan, and above them the clustered television antennae wove a faerie tapestry against a dun and ochre sky. Seeing it like that, Baxter could imagine what New York had been like a hundred years ago, in the gracious, easy-going days before the population explosion.

He was abruptly shaken out of his musings. Appearing as if from nowhere, a party of armed men suddenly barred his path. They wore masks, wide-brimmed black hats and bandoliers of ammunition. Their aspect was both villainous and picturesque.

One of them, evidently the leader, stepped forward. He was a craggy-featured old man with a heavy black mustache and mournful red-rimmed eyes. "Stranger," he said, "let's see yore pass."

"I don't believe I have one," Baxter said.

"Damned right you don't," the old man said. "I'm Pablo Steinmetz, and I issue all the passes around here, and I don't recollect ever seeing you afore in these parts."

"I'm a stranger here," Baxter said. "I'm just passing through."

The black-hatted men grinned and nudged each other. Pablo Steinmetz rubbed his unshaven jaw and said, "Well, sonny, it just so happens that you're trying to pass through a private toll road without permission of the owner, who happens to be me; so I reckon that means you're illegally trespassing."

"But how could anyone have a private toll road in the heart of New York City?" Baxter asked.

"It's mine 'cause I say it's mine," Pablo Steinmetz said, fingering the notches on the stock of his Winchester 78. "That's just the way it is, stranger, so I reckon you'd better pay or play."

Baxter reached for his wallet and found it was missing. Evidently the pot boat captain, upon parting, had yielded to his baser instincts and picked his pocket.

"I have no money," Baxter said. He laughed uneasily. "Perhaps I should turn back."

Steinmetz shook his head. "Going back's the same as going forward. It's toll road either way. You still gotta pay or play."

"Then I guess I'll have to play," Baxter said. "What do I do?"

"You run," old Pablo said, "and we take turns shooting at you, aiming only at the upper part of your head. First man to bring you down wins a turkey."

"That is infamous!" Baxter declared.

"It is kinda tough on you," Steinmetz said mildly. "But that's the way the mortar crumbles. Rules is rules, even in an anarchy. So, therefore, if you will be good enough to break into a wild sprint for freedom . . ."

The bandits grinned and nudged each other and loosened their guns in their holsters and pushed back their wide-brimmed black hats. Baxter readied himself for the death-run—

And at that moment, a voice cried, "Stop!"

A woman had spoken. Baxter turned and saw that a tall, red-headed girl was striding through the bandit ranks. She was dressed in toreador pants, plastic galoshes and Hawaiian blouse. The exotic clothing served to enhance her bold beauty. There was a paper rose in her hair, and a string of cultured pearls set off the slender line of her neck. Never had Baxter seen a more flamboyant loveliness.

Pablo Steinmetz frowned. "Flame!" he roared. "What in tarnation are you up to?"

"I've come to stop your little game, Father," the girl said coolly. "I want a chance to talk to this tanglefoot."

"This is man's business," Steinmetz said. "Stranger, git set to run!"

"Stranger, don't move a muscle!" Flame cried, and a deadly little derringer appeared in her hand.

Father and daughter glared at each other. Old Pablo was the first to break the tableau.

"Damn it all, Flame, you can't do this," he said. "Rules is rules, even for you. This here illegal trespasser can't pay, so he's gotta play."

"That's no problem," Flame announced. Reaching inside her blouse she extracted a shiny silver double eagle. "There!" she said, throwing it at Pablo's feet. "I've done the paying, and just maybe I'll do the playing, too. Come along, stranger."

She took Baxter by the hand and led him away. The bandits watched them go and grinned and nudged each other until Steinmetz scowled at them. Old Pablo shook his head, scratched his ear, blew his nose, and said, "Consarn that girl!"

The words were harsh, but the tone was unmistakably tender.

Night came to the city, and the bandits pitched camp on the corner of 69th Street and West End Avenue. The black-hatted men lounged in attitudes of ease before a roaring fire. A juicy brisket of beef was set out on a spit, and packages of flash-frozen green veg-

etables were thrown into a capacious black cauldron. Old Pablo Steinmetz, easing the imaginary pain in his wooden leg, drank deep from a jerrycan of pre-mixed martinis. In the darkness beyond the campfire you could hear a lonely poodle howling for his mate.

Steve and Flame sat a little apart from the others. The night, silent except for the distant roar of garbage trucks, worked its enchantment upon them both. Their fingers met, touched and clung.

Flame said at last, "Steve, you—you do like me, don't you?"

"Why of course I do," Baxter replied, and slipped his arm around her shoulders in a brotherly gesture not incapable of misinterpretation.

"Well, I've been thinking," the bandit girl said. "I've thought . . ." She paused, suddenly shy, then went on. "Oh, Steve, why don't you give up this suicidal race? Why don't you stay here with me! I've got land, Steve, real land—a hundred square yards in the New York Central switchyard! You and I, Steve, we could farm it together!"

Baxter was tempted—what man would not be? He had not been unaware of the feelings which the beautiful bandit girl entertained for him, nor was he entirely unresponsive to them. Flame Steinmetz's haunting beauty and proud spirit, even without the added attraction of land,

might easily have won any man's heart. For a heart-beat he wavered, and his arm tightened around the girl's slim shoulders.

But then, fundamental loyalties reasserted themselves. Flame was the essence of romance, the flash of ecstasy about which a man dreams throughout his life. Yet Adele was his childhood sweetheart, his wife, the mother of his children, the patient helpmate of ten long years together. For a man of Steve Baxter's character, there could be no other choice.

The imperious girl was unused to refusal. Angry as a scalded puma, she threatened to tear out Baxter's heart with her fingernails and serve it up lightly dusted in flour and toasted over a medium fire. Her great flashing eyes and trembling bosom showed that this was no mere idle imagery.

Despite this, quietly and implacably, Steve Baxter stuck to his convictions. And Flame realized sadly that she would never have loved this man were he not replete with the very high principles which rendered her desires unattainable.

So, in the morning, she offered no resistance when the quiet stranger insisted upon leaving. She even silenced her irate father, who swore that Steve was an irresponsible fool who should be restrained for his own good.

"It's no use, Dad—can't you see that?" she asked. "He must

lead his own life, even if it means the end of his life."

Pablo Steinmetz desisted, grumbling. Steve Baxter set out again upon his desperate Odyssey.

Downtown he traveled, jostled and crowded to the point of hysteria, blinded by the flash of neon against chrome, deafened by the incessant city noises. He came at last into a region of proliferating signs:

ONE WAY
DO NOT ENTER
KEEP OFF THE MEDIAN
CLOSED SUNDAYS AND
HOLIDAYS
CLOSED WEEKDAYS
LEFT LANE MUST TURN
LEFT!

Winding through this maze of conflicting commands, he stumbled accidentally into that vast stretch of misery known as Central Park. Before him, as far as the eye could see, every square foot of land was occupied by squalid lean-tos, mean teepees, disreputable shacks, and noisome stews. His sudden appearance among the brutalized park inhabitants excited comment, none of it favorable. They got it into their heads that he was a Health Inspector, come to close down their malarial wells, slaughter their trichinoidal hogs and vaccinate their scabrous children. A mob gathered around him, waving their crutches and mouth-ing threats.

Luckily, a malfunctioning toaster in central Ontario triggered off a sudden blackout. In the ensuing panic, Steve made good his escape.

But now he found himself in an area where the street signs had long ago been torn down to confuse the tax assessors. The sun was hidden behind a glaring white overcast. Not even a compass could be used because of the proximity of vast quantities of scrap iron—all that remained of the city's legendary subway system.

Steve Baxter realized that he was utterly and hopelessly lost.

Yet he persevered, with a courage surpassed only by his ignorance. For uncounted days he wandered through the nondescript streets, past endless brownstones, mounds of plate glass, automobile cairns, and the like. The superstitious inhabitants refused to answer his questions, fearing he might be an FBI man. He staggered on, unable to obtain food or drink, unable even to rest for fear of being trampled by the crowds.

A kindly social worker stopped him just as Baxter was about to drink from a hepatic fountain. This wise, gray-haired old man nursed him back to health in his own home—a hut built entirely of rolled newspapers near the moss-covered ruins of Lincoln Center. He advised Baxter to give up his impetuous quest and to devote his life to assisting the wretched,

brutalized, superfluous masses of humanity that pullulated on all sides of him.

It was a noble ideal, and Steve came near to wavering; but then, as luck would have it, he heard the latest race results on the social worker's venerable Hallicrafter.

Many of the contestants had met their fates in urban-idiosyncratic ways. Freihoff St. John had been imprisoned for second-degree litterbugging. And the party that crossed the Verrazzano Bridge had subsequently disappeared into the snow-capped fastnesses of Brooklyn Heights and had not been heard from again.

Baxter realized that he was still in the running.

His spirits were considerably lifted when he started forth once again. But now he fell into an overconfidence more dangerous than the most profound depression. Journeying rapidly to the south, he took advantage of a traffic lull to step onto an express walkaway. He did this carelessly, without a proper examination of the consequences.

Irrevocably committed, he found to his horror that he was on a one-way route, no turns permitted. This walkaway, he now saw, led non-stop to the *terra incognita* of Jones Beach, Fire Island, Patchogue, and East Hampton.

The situation called for immediate action. To his left was a

blank concrete wall. To his right there was a waist-high partition marked NO VAULTING ALLOWED BETWEEN 12:00 NOON AND 12:00 MIDNIGHT, TUESDAYS, THURSDAYS AND SATURDAYS.

Today was Tuesday afternoon—a time of interdiction. Nevertheless, without hesitation, Steve vaulted over the barrier.

Retribution was swift and terrible. A camouflaged police car emerged from one of the city's notorious ambushes. It bore down upon him, firing wildly into the crowd. (In this unhappy age, the police were required by law to fire wildly into the crowd when in pursuit of a suspect.)

Baxter took refuge in a nearby candy store. There, recognizing the inevitable, he tried to give himself up. But this was not permitted because of the overcrowded state of the prisons. A hail of bullets kept him pinned down while the stern-faced policemen set up mortars and portable flamethrowers.

It looked like the end, not only of Steve Baxter's hopes, but of his very life. Lying on the floor among gaudy jawbreakers and brittle licorice whips, he commended his soul to God and prepared to meet his end with dignity.

But his despair was as premature as his earlier optimism had been. He heard sounds of a disturbance, and, raising his head, saw that a group of armed men

had attacked the police car from the rear. Turning to meet this threat, the men in blue were enfiladed from the flank and wiped out to the last man.

Baxter came out to thank his rescuers and found Flame O'Rourke Steinmetz at their head. The beautiful bandit girl had been unable to forget the soft-spoken stranger. Despite the mumbled objections of her drunken father, she had shadowed Steve's movements and come to his rescue.

The black-hatted men plundered the area with noisy abandon. Flame and Steve retired to the shadowy solitude of an abandoned Howard Johnson's restaurant. There, beneath the peeling orange gables of a gentler, more courteous age, a tremulous love scene was enacted between them. It was no more than a brief, bittersweet interlude, however. Soon, Steve Baxter plunged once again into the ravening maelstrom of the city.

Advancing relentlessly, his eyes closed to slits against the driving smog storm and his mouth a grim white line in the lower third of his face, Baxter won through to 49th Street and 8th Avenue. There, in an instant, conditions changed with that disastrous suddenness typical of a jungle city.

While crossing the street, Baxter heard a deep, ominous roar. He realized that the traffic light had

changed. The drivers, frenzied by days of waiting and oblivious to minor obstacles, had simultaneously flooded their accelerators. Steve Baxter was directly in the path of a vehicular stampede.

Advance or retreat across the broad boulevard was clearly impossible. Thinking fast, Baxter flung aside a manhole cover and plunged underground. He made it with perhaps a half second to spare. Overhead, he heard the shrieks of tortured metal and the heavy impact of colliding vehicles.

He continued to press ahead by way of the sewer system. This network of tunnels was densely populated, but was marginally safer than the surface roads. Steve encountered trouble only once, when a jackroller attacked him along the margin of a sediment tank.

Toughened by his experiences, Baxter subdued the bravo and took his canoe—an absolute necessity in some of the lower passageways. Then he pushed on, paddling all the way to 42nd Street and 8th Avenue before a flash flood drove him to the surface.

Now, indeed, his long-desired goal was near to hand. Only one more block remained; one block, and he would be at the Times Square Land Office!

But at this moment he encountered the final, shattering obstacle that wrote *finis* to all his dreams.

In the middle of 42nd Street, extending without visible limit to the north and south, there was a wall. It was a cyclöpean structure, and it had sprung up overnight in the quasi-sentient manner of New York architecture. This, Baxter learned, was one side of a gigantic new upper middle income housing project. During its construction, all traffic for Times Square was being re-routed via the Queens-Battery tunnel and the East 37th Street Shunpike.

Steve estimated that the new route would take him no less than three weeks, and would lead him through the uncharted Garment District. His race, he realized, was over.

Courage, tenacity and righteousness had failed; and, were he not a religious man, Steve Baxter might have contemplated suicide. With undisguised bitterness he turned on his little transistor radio and listened to the latest reports.

Four contestants had already reached the Land Office. Five others were within a few hundred yards of the goal, coming in by the open southern approaches. And, to compound Steve's misery, he heard that Freihoff St. John, having received a plenary pardon from the Governor, was on his way once more, approaching Times Square from the east.

At this blackest of all possible moments, Steve felt a hand on his

shoulder. He turned and saw that Flame had come to him again. Although the spirited girl had sworn to have nothing further to do with him, she had relented. This mild, even-tempered man meant more to her than pride; more, perhaps, than life itself.

What to do about the wall? A simple matter for the daughter of a bandit chief! If one could not go around it or through it or under it, why, one must then go over it! And to this purpose she had brought ropes, boots, pitons, crampons, hammers, axes—a full complement of climbing equipment. She was determined that Baxter should have one final chance at his heart's desire—and that Flame O'Rourke Steinmetz should accompany him, and not accept no for an answer!

They climbed, side by side, up the building's glass-smooth expanse. There were countless dangers—birds, aircraft, snipers, wise guys—all the risks of the unpredictable city. And, far below, old Pablo Steinmetz watched, his face like corrugated granite.

After an eternity of peril they reached the top and started down the other side—and Flame slipped!

In horror Baxter watched the slender girl fall to her doom in Times Square, to die impaled upon the needle-sharp point of a car's aerial. Baxter scrambled down and knelt beside her, almost out of his head with grief . . .

And, on the other side of the wall, old Pablo sensed that something irrevocable had happened. He shuddered, his mouth writhed in anticipation of grief, and he reached blindly for a bottle.

Strong hands lifted Baxter to his feet. Uncomprehendingly, he looked up into the kindly red face of the Federal Land Clerk.

It was difficult for him to realize that he had completed the race. With curiously deadened emotions he heard how St. John's pushiness and hauteur had caused a riot in the explosive Burmese Quarter of East 42nd Street, and how St. John had been forced to claim sanctuary in the labyrinthine ruins of the Public Library, from which refuge he still had not been able to extricate himself.

But it was not in Steve Baxter's nature to gloat, even when gloating was the only conceivable response. All that mattered to him was that he had won, had reached the Land Office in time to claim the last remaining acre of land.

All it had cost was effort and pain, and the life of a young bandit girl.

Time was merciful, and some weeks later, Steve Baxter was not thinking of the tragic events of the race. A government jet had transported him and his family to the town of Cormorant in the Sierra Nevada mountains. From Cormorant, a helicopter brought them to

their prize. A leathery Land Office Marshall was on hand to greet them and to point out their new freehold.

Their land lay before them, sketchily fenced, on an almost vertical mountainside. Surrounding it were other, similarly fenced acres, stretching as far as the eye could see. The land had recently been strip-mined; it existed now as a series of gigantic raw slashes across a dusty, dun-colored earth. Not a tree or a blade of grass could be seen. There was a house, as promised; more precisely, there was a shack. It looked as if it might last until the next hard rain.

For a few minutes the Baxters stared in silence. Then Adele said, "Oh, Steve."

Steve said, "I know."

"It's our new land," Adele said.

Steve nodded. "It's not very—pretty," he said hesitantly.

"Pretty? What do we care about that?" Adele declared. "It's *ours*, Steve, and there's a whole acre of it! We can *grow* things here, Steve!"

"Well, maybe not at first—"

"I know, I know! But we'll put this land back into shape, and then we'll plant it and harvest it! We'll *live* here, Steve! Won't we?"

Steve Baxter was silent, gazing over his dearly won land. His children—Tommy and blonde little Amelia—were playing with a clod of earth. The U.S. Marshall cleared his throat and said, "You

can still change your mind, you know."

"What?" Steve asked.

"You can still change your mind, go back to your apartment in the city . . . I mean, some folks think it's sorta crude out here, sorta not what they was expecting . . ."

"Oh, Steve, no!" his wife moaned.

"No, Daddy, no!" his children cried.

"Go *back*?" Baxter asked. "I wasn't thinking of going *back*. I was just *looking* at it all. Mister, I never saw so much land all in one piece in my whole life!"

"I know," the Marshall said softly. "I been twenty years out here and the sight of it still gets to me."

Baxter and his wife looked at each other ecstatically. The Mar-

shall rubbed his nose and said, "Well, I reckon you folks won't be needin' me no more." He exited inobtrusively.

Steve and Adele gazed out over their land. Then Adele said, "Oh, Steve, Steve! It's all ours! And you won it for us—you did it all by yourself!"

Baxter's mouth tightened. He said, very quietly, "No, honey, I didn't do it all alone. I had some help."

"Who, Steve? Who helped you?"

"Someday I'll tell you about it," Baxter said. "But right now—let's go into our house."

Hand in hand they entered the shack. Behind them, the sun was setting in the opaque Los Angeles smog. It was as happy an ending as could be found in the latter half of the 21st century.

Going, going . . .

Gone. Almost gone, that is. At inventory time, we found that we had a limited supply remaining of two back issues, both collector's items:

VENTURE Science Fiction, May 1958: containing a novelet by Theodore Sturgeon and stories by Edmond Hamilton, Arthur C. Clarke, Gordon R. Dickson and Isaac Asimov. \$1.00 (All other issues of Venture are now out of print.)

SPECIAL ISAAC ASIMOV ISSUE, F&SF, October 1966: containing a novelet and an essay by Dr. Asimov, a bibliography of his work, and a profile by L. Sprague de Camp. \$1.00 (This is the third in a series of F&SF special issues; the previous two—devoted to Theodore Sturgeon and Ray Bradbury—are sold out and are now out of print.)

Send remittance with order to: Mercury Press, 347 East 53 Street, New York, N. Y. 10022.

Ann MacLeod is young, blonde, attractive and is married to Burt Filer, whose story, "Backtracked," immediately follows this one. Which information will in no way prepare you for the domestic but decidedly unromantic tale that follows: about Mr. Bates and his wife Milly and a House in the Country that needs a little fixing up. Such houses have a way of taking more than they give. As for the Filers, they are residents of Manhattan and have no plans for moving.

SETTLE

by Ann MacLeod

MR. BATES AND HIS WIFE MILLY (short for millstone, Mr. Bates often said to himself) bought a house in August. They were sweating, the present owners were sweating, the house itself was crackling out in sun blisters. Only the real estate agent remained cool. He was a husky, handsome chap, "a singer before I turned to the calm of country life," he noted modestly.

After touring the house, which everyone agreed could stand a little fixing up, the agent led Mr. Bates and his wife Milly to a stream behind the house, edged on the far side by a small thicket of mosquitoes and on the near side by a patch of scuffed dirt surrounding a toppled tricycle.

"A real buy," he told them. "You really must snap it up."

Mr. Bates bought it and they moved in on September 9th. A week later he returned from his job in the city about seven. Standing outside in the driveway looking up at the house, he became frightened at the fact that it was his. It seemed to be caving in on him. The windows seemed on the verge of melting, bright red and molten, the screen door was alive with wire hands.

He stood there till his wife came from the back of the house. "Henry, I didn't hear the car. I've just been down to the stream and I think we could really—Henry, is it your liver again? Come along, I'll fix you a nice glass of milk."

In the kitchen, thick with the smell of paint from half-empty cans, he drank lukewarm milk; the refrigerator hadn't come yet. As he swallowed, wincing, a strange tingling came to the small toe of his left foot. He knocked it against the table leg. "My toe's gone to sleep."

His wife was opening a tin. "The man called today. About the stove. If we can just finish painting tonight, they can move it in."

Mr. Bates took off his shoe and crossed his thin leg over his knee. "It's hurting a little. Perhaps I've —"

"And I think if we could tear —"

"Milly!"

"What, is the milk sour?"

He tore off his sock. "My toe's gone!" They stared at his white foot, the second toe longer than the first, the small one replaced by a puckered blister. Around them the house creaked and bent, although there was no breeze. A dog barked in the neighbor's lawn.

Mr. Bates was sleepless that night, reaching down to feel where his toe had disappeared, half hoping it would come back. After an initial burp of surprise, Milly had not been too concerned. "You're always jaywalking. I told you not to cross on the red," and she snored beside him with her mouth half open.

"But I don't remember."

"You probably had too much to

drink one night. Remember last Friday, just after we signed the papers? You didn't come home till all hours. It must have happened then and you just didn't notice. They must have given you some shot that just wore off.

"If we can just get the kitchen finished tonight . . ."

The next morning she woke him early to connect the garbage disposal. Mr. Bates worked at it with blurred eyes, pulling his robe around him to keep out the chill and drinking quantities of coffee from the electric percolator. Later, bending forward and blinking his eyes to stay awake, he drove to work, his hands clasped tightly around the steering wheel. His whole foot was tingling, and his touch on the gas pedal was awkward. His shoe seemed to bend in the middle.

At work, he headed straight past the coffee wagon to the men's room, shut himself in a stall and took off his cordovan and Argyle. Half his foot was gone. The stump rested there on his knee like a smooth fleshy doorknob. Mr. Bates panicked. He left word with his secretary that he would be out that day for medical reasons and limped five blocks down the avenue to the doctor's office.

After the examination, the doctor recommended another medical man, a Dr. Forbes, and Mr. Bates thanked him and subwaysed uptown, his foot very awkward.

"What floor's Dr. Forbes?" he asked the uniformed doorman anxiously.

"The headshrinker? He's thirty-two."

Mr. Bates limped out of the building and into a nearby bar. He ordered a double martini, something he'd never had before, but knew from the movies.

The bartender brought him a plate of cheese and onions. At first Mr. Bates ignored them, but after a few gulps of martini he started gobbling hastily.

"You know I've just lost half my foot," he told the bartender fuzzily. Mr. Bates got drunk occasionally but always with a group of friends and never in the morning.

"You don't say."

"Got to work and it was gone. Look." He tried to get his foot up over the bar, but it wouldn't go. He balanced on the back leg of the bar stool. "Can't seem to—"

"That's okay, mister. I believe you. How 'bout making it home now."

"Yes, home." Mr. Bates remembered the apartment. "No, we have a house now." He winced and struggled out of the bar, bumping into chairs and staring at his half-eaten foot.

He drove back early, about two, swaying across the white line and creasing a shrub in the driveway. Milly was asleep upstairs. He wandered through the house, kicking

at the sticky dark floors, glaring at the crusted windows. The house was quiet. A wasp buzzed in through a hole in the screen, up through a crack, and hovered around the new crib. Mr. Bates watched it for a while, his small slanted-down eyes moving around in circles, and then he went tiredly to the window and began taking the nails from the side strut. After an hour he'd finished planing and puttying the window, and it fitted smoothly. The wasp had disappeared. He walked across the hall to wake up his wife, and suddenly his shoe gave from under him, and he was lying awkwardly on the floor. Propping himself up, he saw his shoe and sock fall away, like a doll without stuffing, and when he tried to stand up, there was a knob on the end of his ankle and nothing else.

His wife came out, sleepy-eyed and pregnant. "Why are you laughing?"

"It's nothing. My foot has disappeared."

She stood in the doorway, her mouth open in a yawn, staring at his stump.

"Nothing at all." He hopped down the stairs, still laughing, and after a minute she came after him.

"Henry, we must call the doctor."

"I've been to the doctor."

"Would you like some hot soup? They brought the stove and the refrigerator in today and if you

could just connect them . . . Henry, whatever happened?" She embraced him, then drew away. "You've been drinking."

"Just medicinal." He hopped into the space behind the stove. The back of it spilled an accordion tube that wanted to curl around his leg. A wire tickled his nose. He turned, crouched, toward the wall, and it stood blank and smiling. "I'll have to make some connections, I guess."

"Henry, whatever happened?"

He looked up at her over the back of the stove.

"An infection. They had to amputate."

"But then you should be resting," she said, looking around. "Why did it have to happen now, there's so much to do before they bring the carpets in."

"There's no pain, no pain at all," he said, staring at the accordeon gas tube. "Just find me something for a crutch."

They had steak for dinner, burnt. "I'm just not used to the new stove," Milly said. "But the inside's not bad and the potatoes came out beautifully, don't you think?"

Henry nodded.

"I asked around about a boy to cut the lawn but the money they want is unbelievable. If we could buy one of those sit-down mowers, I think it might be worth it." Milly swallowed a mouthful of corn. "What infection did you have?"

"Nothing important." Henry mashed a piece of lettuce into his potato and edged his chair around so he could see the wall of the house. It seemed to be splitting and falling apart. He looked up suddenly to the ceiling which was bearing down. "I need some air." He hopped out and sat in the grass. Behind him the house was bulging pregnant in all directions, and he knew that if he turned around, it would be inches away, skinning the flesh from his ribs.

It was hard getting out of bed the next morning. For one thing his whole leg was gone, and for another he was hysterical. Milly calmed him with a cold towel after she'd got through with her morning sickness. "Here, I've done some bacon, just the way you like it."

Mr. Bates lay in bed, dropping pieces of bacon into his mouth from great heights, splattering the pillow with grease.

"I called work and told them you were sick. How do you feel, dear—don't eat that way, it's disgusting."

"I feel just fine," Mr. Bates said, laughing at a high pitch.

"As long as you have the day off, do you think, dear, you could plant grass next to the stream? You could just sit there and move around on your behind. Scrape with the garden claw and throw the seed."

It was October then and driz-

zling, but Millie provided a red-checked umbrella which Mr. Bates held over his head while he edged around the wet dirt scattering the slivery seed.

"It's going to be a lovely place," Milly said at dinner. "But it's too bad, what happened to your leg. Henry, don't draw your hand up into your sleeve like that. It's not funny. It gave me a turn."

Henry leaned back against the house, for which he felt a strange affection that night. "You know, I like this place, in spite of the fact that it's eaten my hand and my leg."

"It will be nice, dear, once we fix it up. It's our first real home." She reached out to squeeze his remaining hand. "Still, I wish we could tear that wall down and make a really big kitchen. I love those old-fashioned kitchens with a fireplace at one end and all those shiny things hanging around it. Do you think we could do it, Henry?"

"Well," Henry examined the stump on his left wrist. "It's a lot of work." He imagined a hook on the stump and thought philosophically of tearing it through the wall, diminishing it to curling threads of timbers and linoleum.

He stayed away from his job for a week, and by the time he went back he was just a torso, assisted in movement by two teenagers whom Milly had hired from a local temporary rental shop. He found it

awkward, sitting in the swivel-back chair behind his grey metal desk, but the teenagers fixed up barriers of masking tape around the edges so he wouldn't slip out, and they also picked up the telephone when it rang and fed him coffee.

Mr. Bates concentrated on doing the best possible at his job, despite the difficulties, as he had the house to pay for besides the thirty dollars a day the teenagers demanded.

At night he worked on sanding and polishing the floors, holding the electric sander in his teeth and blinking rapidly with the vibration. His feelings about the house had completely subsided; he thought of very little and ate his dinners with relish, bending his head into the plate.

Milly was disturbed. "How can we have guests in when you eat like that? I'd so wanted to have a big housewarming."

Henry looked up, his chin covered with grease and gravy. "I could eat beforehand."

"But you look terrible."

"I'm not at my best." He laughed. "I've seen better days."

"You've changed, Henry. You make me sick." She pulled the plate from under his face, causing some peas to get stuck in his nose. He rested his head on the plastic table and stared at the wall. A large crack appeared and water began leaking in through the paint.

"Henry, look at that. You must fix that immediately."

He did as best he could, his teeth had become quite talented, and he could even work a wrench with his tongue between the handles. The plaster was messy, but he used his cheek to smooth it. He finished at four in the morning and lay on the kitchen floor.

Milly found him there the next day and was upset. "Henry, you're only a head. How am I supposed to manage, I ask you. Answer me." He opened his mouth to explain but his sound was gone. "Don't think you can shirk your responsibilities like this. Henry, answer me." When he didn't reply, she picked up his head and carried it to an alcove in the living room. "If only your eyes were blue instead of that mud brown. Are you hungry?"

He motioned no with his mouth.

"Henry, I've planned the housewarming for a week from today. You've got to finish the house by then. I'll do what I can to help. Henry, are you listening?"

He motioned yes.

The next week he worked hard

both at the office and at home. The teenagers carried him to the city in a blue traveling bag, and he sat propped up on a stack of books. At night he put up wallpaper, climbing the ladder with his teeth and rolling down with his eyes closed. He worked in a frenzy and finished on time.

About the middle of winter, he was retired on the disability program and spent the next few months putting additional touches on the house. By spring he was only a set of teeth and a piece of brain, and Milly set him to cutting the lawn every day. He would chomp a mouthful of grass and spit it out to the side in a perfect fan, then pull himself forward another inch and take another mouthful. On sunny days he found it quite pleasant.

Then one morning a huge shadow which was his son crawled over and squashed him with a sweet-smelling, baby-soft knee. Milly mourned him for three days and then threw him down the garbage disposal.

He clanked a bit but that was all.



Burt Filer's first story for F&SF is an underplayed, yet affective tale of a man who wakes one morning to find that his body has aged ten years. He can only wonder why—and wait.

BACKTRACKED

by Burt Filer

THE FIRST THING HE SAW WAS Sally staring at him. She was sitting up in the big bed and had four fingers of her left hand wedged in her mouth. For some reason she'd drawn the sheet up around her and held it there with the other arm, as if caught suddenly by a stranger. Fletcher sat up.

"What's the matter? What time is it?" He felt odd and a little woozy. His voice sounded rough and both legs hurt, the good one and the other one.

"You've backtracked," Sally said. She gritted her teeth and gave that quick double shake of hers. The long brown hair fell down, and a curler came out.

Fletcher looked down at the arm he'd hooked around his good knee. It was sunburned and freckled the way August usually made it, but the August of what future year had done this? The

fingers were blunter, the nails badly bitten, and the arm itself was thicker by half than the one he'd gone to bed with.

Sally lay back down, blinking, on the verge of tears. "You're older," she said, "a lot older. Why'd you do it?"

Fletcher tossed off the sheet and swung his legs to the floor. "I don't know, but then I wouldn't. It wipes you out completely, they say." Hurrying across the old green rug they'd retired to the bedroom after long service downstairs, he stared at himself in the dressing mirror. At first he didn't believe it.

Gone was the somewhat paunchy but still attractive businessman of thirty-six. The man in the mirror looked more like a Sicilian fisherman, all weatherbeaten and knotty. Fletcher looked for several long seconds at the blue veins which wrapped his forearms

and calves like fishnets. Both calves. The left, though still as warped as ever, was thick now. It looked strong, but it ached.

Fletcher's face was older by ten years. Etched in the seams about his eyes was the grimness that age brings out through a lifetime of forced smiles. And though the hair on his chest was sunbleached, he could easily see that a good deal of it was actually white. Fletcher shut his eyes, turned away.

Walking around to Sally's side of the bed, he sat down and dropped a hand to her shoulder. "I must have had a good reason. We'll find out soon enough."

It was only six o'clock but sleep was out of the question, naturally. They dressed. Sally went down the stairs ahead of him, still slim and lithe at thirty-four, and still desirable. The envy of many.

She turned left into the kitchen and he followed, but continued past into the garage. His excuse for privacy was the bicycles just as hers was breakfast. Leave me alone and I'll get used to it, Fletcher thought. Leave her alone and she can handle it too.

He edged around the bumper of their car to the clutter of his workbench and switched on the light. The bicycles gave him a momentary sense of rightness, gleaming there. They were so slender and functional and spare. Flipping his own over on its back, he checked tension on the derailleur. Perfect.

He righted the thing and dropped the rear wheel into the free rollers. Mounting it, he pedaled against light resistance, the way he'd always dreamed the roads would be.

Maybe they would be now, with these legs. Why had he spent ten years torturing spring into the muscles of a cripple? Sheer vanity, perhaps. But at the cost of wasting those ten years forever, it seemed unreasonable.

Fletcher was sweating, and the speedometer on the rollers said thirty. He was only halfway through the gears though, so he shifted twice. Fifty.

Maybe he should call Time Central? No, they were duty bound to give him no help at all. They'd just say that at some point ten years in the future he had gone to them with a request to be backtracked to the present—and that before making the hop his mind had been run through that CLEAR/RESET wringer of theirs.

Sorry, Mr. Fletcher, but it's the only way to minimize temporal contamination and paradox. Bothersome thing, paradox. Your mind belongs to Fletcher of the present; you have no knowledge of the future. You understand, of course.

What he understood was that the body of Fletcher-forty-odd had backtracked to be used by the mind of Fletcher-thirty-six, almost as a beast of burden.

And Fletcher-thirty-six could only wonder why.

A lot of people did it to escape some unhappiness in their later years. It seldom worked. They inevitably became anachronistic misfits among their once-contemporaries. But ten years at Fletcher's age wasn't really that much, and he guessed they'd all get used to him. But would Sally?

Sixty, said the dummy speedometer. Fletcher noted with some surprise that he'd been at it for fifteen minutes. Better slow down, and save some for the trip. What strength! Maybe he'd learn to play tennis. He could see himself trouncing Dave Schenk, Sally looking on from the sidelines—Fletcher was smiling now. Sally would come around. She had a powerful older man in place of a 'soft young one, a cripple at that. Polio. He'd been one of the last. Other men had held doors open for him ever since, and he'd learned to smile . . .

Up to fifty again, slow down. And where was breakfast? This body of his hungered. And what had it done, this body? Knowing from bitter experience how slowly it responded to exercise, Fletcher decided that the lost ten years must have been devoted almost exclusively to physical development.

But for what? Some kind of crisis, that he might meet with superior strength on the second go-around? And why had he de-

cided to backtrack to this particular morning?

"Fletch, breakfast," Sally called. The voice was lighter and steady. Dismounting, Fletcher stood with his hands in his pockets and watched the silver wheel whir slowly to a stop.

She wouldn't want to discuss it. Not for a while, anyhow. It'd been the same with his leg, back before they were married. He switched the light off and went in.

"It'll be nice after that burns off," he said, nodding out the window.

The bench in the breakfast nook felt hard as he sat on it. Less flesh there now. Sally handed down two plates and joined him. Not across the table but at his side. A show of confidence. They ate slowly, silently.

Fletcher looked over at her profile. With her hair tied back like that she was very patrician. Straight nose, serious mouth. Like Anastasia, Dave Schenk had said, a displaced princess. She caught him looking at her, began to smile, changed her mind, put down her fork.

She faced him squarely. "I think I'll make it, Fletch." She lowered her forehead a fraction, waiting for a reassuring peck, and he gave it to her.

He turned out to have been right about the weather. Within an hour they were pedaling in bright sunlight and had stopped to

remove their sweaters. Sally seemed cheerful. For perhaps the third time, Fletcher caught her gazing with frank wonder at his body, especially his leg. He glowed inwardly. Aloud he said, "Forward, troops," and swooped off ahead.

They wound their way up Storm King Mountain. Occasionally a car would grind past them on the steep grades, but soon the two bicycles left the road. They had the clay path which led up to the reservoir all to themselves. May-pale sumacs on the left, and a hundred feet of naked air on the right.

"Hey," said Sally, "slow down." Dismounting, they sat under a big maple. She leaned her head on his shoulder and slid one hand cosily between his upper arm and his ribs. "Oh," she said, and raised her eyebrows.

They sat there for some time. Over them the branches reached across the path and out beyond the cliffs. Below, the Hudson wound in a huge ess, a round green island at one end. It was a wide old river, moving slowly. A tug dragged clumped barges upstream in an efficient line that cut off most of the curves. In the distance a few motorboats buzzed like flies, little white wakes behind them. Crawling along the far shore was a passenger train headed for New York.

It smelled like spring. Rising, Sally went over by the bicycles

and bent to pick a white umbrella of Queen Anne's lace. She came back twirling the stalk between her fingers. "Ready," she said.

He set her an easy pace, but did it the hard way himself, not using the lower gears. One of Dave Schenk's subtler tricks. Fletcher wished he was with them today.

At about eleven o'clock they reached the top. Between the power company's storage reservoir and the bluffs was a little park that no one else ever seemed to use. Sally spread most of their food on a weathered wooden picnic table. Then she went over and sat on a broad granite shelf. Fletcher set about starting a fire.

It was taking him quite a while, as he'd forgotten the starter and had to whittle some twigs for tinder. He nicked his thumb, frowned, sucked it, looked up.

Sally was on her feet again, picking more flowers. She paused from time to time to gaze out over the river. The view was even more spectacular here, Fletcher knew, even though too far back to see it himself. They were three or four hundred feet straight above the water.

Running a few feet beyond the main line of the bluff was a grassy promontory. Several bunches of Queen Anne's lace waved above the wild hay and creepers. He wished she'd get away from there and took a breath to tell her to.

Sally screamed as her legs slid

out of sight. Twisting midair, she clutched two frantic handfuls of turf.

She was only sixty feet away, but the fireplace and the big old table lay directly between them. Fletcher planted both hands on the smoking stone chimney and vaulted it. The thing was four feet high, but could have been five and he'd still have made it. A dozen running steps, each faster and longer than the last, carried him to the table. He yanked his head down and his right leg up to hurdle it, snapping the leg down on the other side and swinging the weaker one behind. Pain shot through it, and Fletcher nearly sprawled. It took him four steps to straighten out, and in four more he was there.

He hurled himself at the two slender wrists that were falling away, and got one.

Sally screamed again, this time in pain. Fletcher hauled her up to his chin, both sinewy hands around her small white one. Edging backward on his knees, he drew her fully up. Fletcher stood shakily and attempted to help her to her feet. His left leg gave way.

Falling beside her, he lay on the warm granite and tried to catch his breath. It was difficult for some reason. Her face swam before him, and as he lost consciousness he heard himself repeating, "So that's why, that's why —"

Fletcher's eyelids were burning, so he opened them, to look directly into the sun. He must have been lying there an hour. Sally—his mind leapfrogged back and the breath stopped in his throat. But no, it was over, she lay here beside him now. Fletcher rose to an elbow. His leg throbbed between numbness and intolerable pain, and it looked as if someone had taken an axe to it.

But Sally's wrist looked just as bad. The drying scum near her lips attested to that. As he moved her head gently away from the puddle, she moaned.

It took him ten minutes to crawl over to the table and return with a bottle of wine. They'd brought no water. He sprinkled some on her forehead, then held it to her lips. She came around, fainted, came around again.

Sally had made it about halfway down to the road when she ran into some picnickers. The jeep came at three, and at four they were both in the orthopedic ward at Rockland State.

Fletcher was still dozey with anesthetic and delayed shock. As he told the reporter what had happened, the little man nearly drooled. Their episode had occurred on Saturday. When they were released from the hospital and sent home on Wednesday, their story was still up on page four. On the front porch was a yellow plastic wastebasket full of

unopened telegrams and letters.

They hadn't had much privacy at the hospital. So after Sally had made the coffee she sat down opposite Fletcher at the kitchen table and asked, "How've you been?"

"Okay. Still a little disoriented, maybe."

"Yes." She stared into her cup. "Fletch, I guess the first time we went through that, I fell?"

Fletcher nodded. "I'd never have made it to you, the old way." He stared down at the cast on his leg. "Ten years of mine, for all of yours. I'd do it again."

"It wasn't cheap," she said.

"No, it wasn't cheap."

They made love that night. Fletcher had been worried about that, and found his fears justified to some extent. Ten years made a

difference. But Sally held him long afterward and cried a little, which was the best with her. He fell asleep feeling reassured for then, but knowing what was to come.

Fletcher dyed his hair and had some minor facial surgery done to smooth out his eyes and throat. He gained ten pounds. He looked pretty much like the Fletcher of thirty-six. A certain amount of romance was attached to his reputation now, and when he changed jobs his salary almost doubled.

His broken left leg never healed solidly, though, and for all intents and purposes he was back to where he'd started. He and Sally remained childless right up until their divorce two years later. She was later married to David Schenk, but Fletcher remained alone.



Michael Harrison is a Londoner; he writes detective fiction; his work has appeared in the U. S. in Ellery Queen's Mystery Magazine. He is also quite at home in the supernatural-horror genre, as demonstrated by this chilling tale about a rare book and its awful impact upon a too-careful reader.

AT THE HEART OF IT

by Michael Harrison

HOLYWELL STREET IS GONE, with its fine old overhanging, gabled houses of lath and plaster. So is the old Olympic Theatre and the Rising Sun Inn. No one could now tell you where that holy well stood from which the old street took its name, and no ghost could with fitness haunt the matter-of-fact modernity of Australia House.

But in 1893, when the inexplicable death of Mr. Rufus Hopkins caused such a stir, not only in adjoining Wych Street and Clare Market but throughout the length and breadth of Britain, the dingy purlois of St. Clement Danes seemed a most proper place for that sort of thing; and it was felt to be eminently suitable that the whole

business should reek of a sinister mystery which to this day has not been resolved.

Mr. Hopkins at the time of his death was something over 50; one of the many booksellers who had given to Holywell Street the unofficial name of "Booksellers' Row." He had a little eighteenth-century shop with a bow-front, and in the panelled rooms above he lived with his family: his wife and two grown-up sons.

When the evidence of these people was taken at the inquest, together with that of neighbors who had known the deceased, it was testified that all his life Mr. Hopkins had been singularly free from any mental aberration or nervous upsets. The business, while on a

small scale, was yet of sufficient size to provide necessities and comforts for them all, and the trade was steady. So that there was no reason why Mr. Hopkins should suddenly have become a prey to the most disturbing fancies, nor one morning be found dead of a seizure.

The shop had belonged to his father, and on leaving school Rufus Hopkins had started working for his father: running errands, cataloguing the purchases, keeping the day-book; then, as he made progress, attending sales and searching the stalls of Petticoat Lane and the Caledonian Market. For more than thirty-five years he had sold books in Holywell Street; watching through the bottle-glass panes of the window the heads bent over the boxes outside—"all in this box 2d."

He used more often to sit watching the faces in the street than reading. It was an entertainment which never palled on him. The endless variety of human beings that came poking about in the twopenny and fourpenny and sixpenny boxes. Scholars on the search for some rare item to titillate their literary fancy; schoolboys looking for cribs; the knowing-ones on the look-out for first editions of *Paradise Lost* or *Aldine incunabula*; and idle Autolycei, just looking. . . .

They were always different, the faces, and when one sometimes re-

appeared Hopkins would always recognize it, even though years had passed since its last visit. Sometimes he would see a man whom he had known as a boy, looking now for *curiosa*, where long since he had searched for Bohn's *Thucydides*. The bookseller never forgot, so that the tall dark man who went so meticulously over the titles in the boxes came to be quite an old friend.

He was not young, Hopkins could see that; and he was shabby, being dressed in a long black cloak buttoned up to his neck, and a wide-awake hat green with age. His face the bookseller could never see clearly, as he was always bent over the trays and the brim of his hat concealed his features; but Hopkins had an impression that the man's face was long and thin, like his figure; lined and old.

Hopkins had seen him first when he was just out of school; and twice a year since then the man had come searching through the cheap boxes. Sometimes he had books under his arm, but he had never in all those years bought even a twopenny volume from Hopkins's shop, nor had he ever enquired inside for the object of his search—if indeed he had one.

And the bookseller often wondered what it was that the man had sought so long—and why he had never enquired inside. Hopkins supposed that it was because of the man's poverty; that if the

book he wanted were not included among the cheaper volumes, he could never hope to buy it.

Mr. Hopkins loved a mystery; and this tall, black-cloaked man was an undoubted mystery. For one thing he never came during the day, but only in the evening, just after the lamps had been lit, and then only twice a year, in June and October. It was not until many years had passed that Mr. Hopkins realized that the days were always the same: June 24th and October 31st; nor was it until some time after that he recollected that the first was Midsummer's Day, and the second All Hallow's Eve.

"What a curious thing!" he reflected. He supposed it was on those two dates that the man's dividends came in; but still, it seemed curious that the second payment should come in October and not at Christmas.

Now Mr. Hopkins was not devoid of romantic impulses, but so many and so varied were the types he saw each day from his window that he was too apt to overlook the pathetic aspect of this endless searching among the twopenny and fourpenny assortments of his stock. And so it was that many years passed before the idea came to Mr. Hopkins to ask the man if he could help him to find the book that he wanted. It was only that the man was, after all, just another customer, and also that he

was obviously of that sensitive nature that goes too often with poverty, that the bookseller hesitated to break in upon his solitary quest.

But once the decision was taken, Rufus Hopkins was all eagerness for the next date to come round: October 31st. He would, he decided, enquire of the man what he wanted, and then, next June, as he saw him come along the street, Hopkins would slip the book (whatever it cost) into the twopenny box, so that the customer would be sure to see it. Hopkins was quite bitter with himself for having waited so long on a generous impulse. All sorts of little nagging thoughts were carking him. Suppose that the book that the man had wanted had been lying on Hopkins's shelves marked at one shilling—the book that all these years the poor old man had hunted so faithfully and pathetically!

"Rufus," he said to himself, "you're getting hard-hearted in your old age."

And so he resolved that if the old man's book could be bought anywhere, he should have it.

Now, all those who have planned these happy little deceptions, surprises, what you will, will understand the eagerness with which Rufus Hopkins awaited All Hallow's Eve. So that soon he began to fear that the man would not appear, or that this year he would choose another day, when the bookseller would be out. A dozen

fanciful fears that the good action would never be done.

But on the night in question—a dark, drizzling sort of night—just before eight o'clock, the old man came up to the shop window. Rufus could hardly find the patience to allow him time to search through the boxes.

Since June, Hopkins had fixed an arc-lamp outside his shop to encourage night-trade, and now, in its blue-white glare, the poverty of the man was more evident. His cloak was patched and darned, and his big black hat was shiny with grease. He was tall but sadly stooping; and he shuffled up to the books with a walk that bespoke the utter acceptance of weariness and despair.

Rufus watched him through the window with the eagerness of a cat, fearful that the old man should see him and be embarrassed. But the head was bent over the books and the brim of the hat hid the face.

Long white fingers turned the books over; over and over again. And then the bent, worn figure turned to go. It was the long awaited moment. Hopkins, gulping with inexplicable nervousness, pulled the door open with a violence which set the crazy bell bobbing and jangling on its curved spring.

Talking of the matter later that night, he told his wife that as he came up behind the tall figure he

was suddenly seized with an unaccountable distaste for the whole business and with the strongest possible impulse to let him go. But a moment's recollection of his good intentions overcame the bookseller's diffidence, and he tapped the man's arm.

"Excuse me," he said.

The old man turned; and Rufus was silent before the age and suffering which now faced him. For a long minute he gazed at the old, troubled face before he remembered what he had come to do.

He said, "Excuse me, sir; but I've seen you so often searching in the boxes, that I thought perhaps I could help you find some special book."

The old man's fevered eyes seemed to burn into him as he said it. Then he answered, "Thank you, but . . . well, I can only buy the cheaper books."

Hopkins gave a little nervous laugh.

"Well," he said, with a jocularity that he did not feel, "after all, there's a *camaraderie* among us folk who like books, and I've *dozens* of books inside." He took the man's arm as he said it and led him back to the shop. They entered and he pushed a chair forward.

"Sit down. Nobody'll come in now."

The old man sank into the chair with a sigh, and folded his white hands on the head of his cane.

"Now," Rufus asked briskly,

rubbing his hands, "let's see what we can do."

The old man smiled and gazed round the shop.

"It hasn't altered much," he said.

Rufus, in the act of fetching his ladder, spun round like a top.

"You don't mean to say you've been here before?"

"Yes—many years ago."

The bookseller nodded.

"I should say it *was*! Not in *my* time—and *I've* been here thirty-five years."

The old man said, "No. It was before your time."

Hopkins, holding the ladder with one hand, indicated his stock with the other in a wide, sweeping motion.

"Now, tell me the name of the book you want?"

He waited while the old man considered a little pocketbook.

He said, "The title is *Domus Vitæ*; it was written by an Englishman named Edward Chardell, and published by the van Epps."

"Amstelodami?"

"Yes. Do you know it?"

"No," said Hopkins, "I've never heard of it; but I know the brothers van Epp."

The old man shook his head.

"I was afraid not," and he got up to go.

Rufus said, "Wait a bit. I don't do all the cataloguing here. My assistant does a bit of it, and I don't know every book that's here."

He searched his shelves intently for a few minutes.

"Looks as though it isn't here." He turned to his visitor as he said it.

"Yes . . . I was afraid you'd not have it. It's a very rare book."

The bookseller descended the ladder and went to his little desk. He said, "I'll make a note of it; you never know."

He wrote in his journal, reading aloud:

"*Domus Vitæ*, by Edward Chardell. Published van Epp, Amsterdam. . . . What year?"

"Seventeen fifty-three."

The bookseller wrote down the date.

"It's a small book," said the old man, "duodecimo . . . and the twenty-four copies printed were bound by the van Epps themselves; so you may find it in its original vellum binding, with the arms on the cover of Lord Edward Sempiter, Chardell's patron, embossed in gold."

"Sempiter!" Rufus whistled, raising his eyebrows at the name.

"You know about him?"

Hopkins shook his head.

"Not much . . . but he was a member of the Hell-fire Club, and in their memoirs they talk of the wickedness of Sempiter."

There was a silence, and Rufus looked up from his writing to find the burning eyes fixed on him in an unwinking stare.

"Not wickedness. . . . A con-

tempt, if you like, for petty convention and prejudice; but, wickedness . . . no!"

Rufus closed his ledger. He said:

"I'll look for Chardell's book. It's in English?"

"Partly; some of it's in Latin."

"I see. And now, Mr.—"

The old man looked at him before answering . . . and afterwards Hopkins, in telling his wife, assured her that he commenced to say some name that began with "Ch . . ."; then he shook his head and said:

"Sempiter."

Rufus looked at the old man, wondering whether he had heard aright; but his visitor nodded.

"Yes. Sempiter. Lord Edward was my. . . was an ancestor of mine."

So Hopkins wrote down in his journal: "October 31st, 1892. Mr. Sempiter enquired after the *Domus Vitæ*, by Edward Chardell."

From his desk he asked, "Mr. Sempiter" (and here it seemed a smile passed quickly over the white face), "it occurs to me that I might come across the book with its cover and title-page missing. Could you give me some idea of its contents; so that I'd have a chance of recognizing it?"

And here again it seemed that Sempiter was about to say something and then changed his mind, for he started, "Chardell told me . . ." and continued, "I mean, Chardell says in his book that life

is immortal not so much in *time* as in *essence*. This book 'The House of Life,' was published as Chardell lay dying, and it contains all the sum of his enquiries, spread over a lifetime of careful experiment.

"He says," the old man explained, "that life exists outside of, and independent of, Creation, and independent, too, of the accidents of birth or dissolution. He claims that life (by which he means consciousness or volition) can and does attach itself to inanimate as well as to animate objects. A book—a house."

Rufus shook his head.

"You doubt it?" the old man asked.

"N—no. I was only wondering."

"For instance," Sempiter continued, "you don't disbelieve in what are commonly called ghosts?"

"I've never seen one," said Rufus.

"No? But that's what a ghost must be. The transference of consciousness from an animate to an inanimate object—a mere alteration of *locus*; no more. I'm surprised, though, that there isn't a ghost here."

"Here?" Rufus asked uneasily.

"Yes. 20A Holywell Street. . . . Heard of Digby Gascoigne? Byron's friend. . . ."

"Yes. I've his poems here"; and he turned to a bookshelf behind him. "Here it is." He handed a

slim green morocco volume to Sempiter, who opened it, and commenced to read aloud:

"We who all day had striven for the best;

in dreams, in sinfulness and song; now the twilight finds us here oppressed

by haunting memories of happiness escaped.

So we stand

silent; hand interlocked in hand; silent, on the lone last crest of a temporal sea;

and wonder at the buffets; at the wounds that gaped; and the loveless prospect of eternity.

So had we shared thoughts, as we shared food . . .

"Oh yes; that's Gascoigne right enough! I wonder he never came back, with so much to finish; why he went so quickly."

Rufus said nothing, and the old man asked,

"You've read those verses?"

"Once or twice."

He shook his head wonderingly.

"And you've never felt him near you?"

"No . . ." a little uncertainly. "Why should I?"

"He died here," said Sempiter. "He hanged himself in this shop."

He rose painfully from his chair, and Rufus to change the unpleasant subject said, "I'll find your book, Mr. Sempiter, if I have to ask every bookseller in London. I'll expect you on June 24th, as usual."

The old man, who had been walking slowly to the door, stopped dead.

"June 24th!" he whispered. "Now *how* could you know that?" And his febrile eyes seemed to burn themselves into Hopkins's brain.

The bookseller stammered. "Why . . . I, I've seen you so often on those dates." And the old man seemed to relax. He turned and passed through the door which Hopkins held open for him, and as he went down Holywell Street the bookseller thought he heard him mutter:

"Walburga's Eve . . . I wonder if he knows *that*?"

Now, the curious thing about the book for which Mr. Sempiter had been looking was this: that an advertisement in a trade paper brought two replies within the week, and rather than miss the chance of securing a copy, Mr. Hopkins wrote for both. They were in equally good condition; one even had a few uncut pages; and he paid seven-and-sixpence for one, and ten shillings for the other.

On the morning that they arrived the bookseller sat down in his shop and began to read the *Domus Vitæ* of Edward Chardell. He described his emotions afterwards to his wife, who later tried to repeat to the coroner what he had said.

He had opened the book with

interest; not unnaturally, when one considers how he came to be reading it. It was exactly as described by Mr. Sempiter, and was in the elegant typography that characterized all the work of the van Epp press. It was a slim book; not more than thirty-two duodecimo pages, and contained four mezzotint engravings.

He took it upstairs to show his wife, and they stood examining the drawings together.

"Throw the dirty thing away," said Mrs. Hopkins. "No good'll come of having *that* around!"

She repeated her words at the inquest, finding in them a sort of prescience with which women are only too ready to credit themselves.

The coroner had asked her, a little unnecessarily perhaps, to describe the nature of the engravings; and Mrs. Hopkins had found herself quite unable to do this. But by dint of careful questioning, the coroner had learnt that they were not obscene in the ordinary sense—that they were more *horrifying* than salacious. As she explained, "one look was enough for her."

But in his shop her husband had leisure to examine the pictures at length; overcoming an initial reluctance no less intense than his wife's. And he confessed to her that he had found them the most extraordinary compositions he had ever seen—and thousands of illustrated books passed through his hands each year.

The frontispiece, for instance, showed a man and woman seated at a table in a rich, gloomy room; and, with expressions of an animal lust writ on their faces, they were devouring the body of a child.

But horrible as their meal was—the full evil of the picture was in something hinted—some nameless, purposeful horror that hung over the whole scene. As though the villainy of the ghastly feast was not in the alimentation itself but in the *reason* for it.

The three others were variants of the same theme. In one, two plants had twined about a third; in another, two scorpions were attacking a butterfly; in the third, two babes (if one could call such horrors infants) were devouring the body of a cat. All were informed with that shifting quality of dreadfulness far above the intrinsic frightfulness of the scene itself. And under each was the legend: "*Mors domus vitæ*"—"Death is the abode of life."

Every morning, such fascination did the book possess for Mr. Hopkins, he opened and read it. But after a month he was no wiser than at the beginning. He understood, of course, what Chardell was saying. The theme was simple and clearly expounded. In poetry Wordsworth had said the same thing in the lines:

"Our birth is but a sleep and a forgetting:

*The Soul that rises with us, our
life's Star,
Hath elsewhere its setting,
And cometh from afar . . ."*

Chardell claimed that this corporeal existence of ours was only one of many; but (and here he differed from those religions that make a similar claim) he asserted that our transmigrations are changes only of *venue* and not changes of *state*. And more, he insisted that the true life is *consciousness*, and that as a body can be living without consciousness (as in sleep and catalepsy and idiocy), so can consciousness exist without a material body to support it. Indeed, to him consciousness was an entity, no less material than our bodies and capable of carrying on an independent existence.

Well, so far so good. It was a plausible mixture of Plato, Paracelsus, Aquinas, Swedenborg and Joseph Glanville; and Mr. Hopkins in spite of little clucking noises that he chose to make, was against his better judgment impressed.

But the curious thing about the book, as he told his wife, was this: that it seemed to hint, in some odd fashion, that there was some hidden meaning behind all these clear phrases. And often the bookseller had found himself trying to separate two pages, only to discover that the leaves were not fastened together. Yet so clear had been the impression that he had skipped

something that he had sought to separate a single page.

And this had happened not once but many times.

Still, he continued to read the book, and towards the end of the second month the impression of a hidden meaning became a certainty with him. In particular, he noticed that between the pages 28 and 29 there was a distinct *cæsura*; that although the pages followed on, there was a break in the sense.

He made a note of it, and by endeavouring to identify his mind with that of the author, he found he could mark a dozen other places in the book where, it seemed, Chardell had had to omit something and continue. Indeed, reading the book carefully, the bookseller came to the conclusion that the book was only an emasculated version of an original in which Chardell had confessed his whole faith.

And again, it seemed to Hopkins as he resolved these fine questions that an extra-personal influence was at work helping him to solve the problem of the *lacunæ*.

It occurred to him that there might be a cipher—and he read many works on cryptograms and hidden writing, applying all he found to the solving of this deep riddle. But he knew, after working days at his task, that there was no cipher used in the writing of *Domus Vitæ*.

It was about this time that Mrs. Hopkins, according to her evi-

dence, began to be worried about her husband. As she explained to the coroner, it wasn't that he was jumpy or slept badly, but that he seemed obsessed; taking little interest in anything beyond the book. But he wasn't unhappy. For him the solution of what he now felt was a first-class mystery engrossed him, and the hours passed all too quickly as he sat, pencil in hand, before the ever-open volume.

Then it occurred to him to endeavour to fill in the gaps himself; to start reading aloud slowly, and then, whenever there was an elision, to try to provide what must have been the author's intention.

He took a sheet of paper, and started to read the words that he now knew so well. And instantly it seemed that he was reciting from memory—a memory out of the forgotten years—and into his mind came memories of such dark grandeur as one might glimpse in the mezzotint illustrations of the book. And almost without volition—certainly without much consideration—he commenced to write. Quickly his pencil covered a quarto page, and then another and another. . . .

When he had finished, he read through what he had written; and, rising, he went trembling and with a white face to the fire; and there he tore up the three sheets and put them into the little iron stove. But a fragment of one sheet fell to the floor and was discovered before the

inquest. On it was written:

“. . . so that it is as Sempiter says: a book, a picture, a jewel; all can house the Living Essence that is beyond life. Thus, as my body lay dying, it came to me to provide such a resting-place for that Spirit which was going out on yet another journey. So I wrote this in order that . . .”

And after that Hopkins picked up the book and put it with its twin upon one of the upper shelves of his shop. He never, as far as was known, looked at it again.

When his wife asked him what he would charge the old man, he shuddered and said: “Mother, he's *welcome* to them!”

It is to be presumed that old Mr. Sempiter called for his book on Midsummer's Eve, as only one copy was found in the shop after the bookseller's death. Mrs. Hopkins remembered on that night hearing the shop door-bell ring about nine o'clock and her husband talking to someone, but she attached no importance to it.

She told the coroner that when he came up to his supper, he seemed “very quiet.”

The coroner said he had hoped that this Mr. Sempiter could throw some light on the business, and that he had ordered the inquest to be adjourned so that the witness could be traced; but so far they

had had no success. Indeed, search in the reference-books showed that the last Sempiter had died in the eighteenth century—that Lord Edward Sempiter who had been a member of the Hell-fire Club.

The coroner observed that it was possibly an assumed name. Then he proceeded to the cause of death. The Home Office pathologist, giving evidence, stated that Hopkins seemed to have been seized with a syncope at the top of the ladder, and that the bruises on his head were consistent with his having fallen from the said ladder. He had apparently got up in the very early morning, without awaking his wife, and was taking a book—*Domus Vitæ*—from the shelf when he had had the seizure and fell.

In answer to the coroner, the

pathologist admitted that he could not account for the fact that the body seemed drained almost completely of blood. He mentioned some rare Oriental diseases, but could not suggest how Mr. Hopkins could have contracted any of them.

The other curious thing is the unshaken testimony of Mrs. Hopkins. She was, she says, awakened by the noise of her husband falling; and running downstairs she found him dead. By his side was the book that she had implored him to destroy.

She picked it up, and then, in unconquerable horror, threw it violently from her. For she swears that, as she held it in her hand, it seemed to throb and flutter and palpitate *like a living heart*.

Coming next month:

SCIENCE FICTION NOVEL AWARD WINNER

SOS THE ROPE by Piers Anthony was the winner of the \$5000.00 SF novel award sponsored by F&SF, Pyramid Books, and Kent Productions. The novel will begin here next month.

This will be Mr. Anthony's first appearance in F&SF, however his work has been published in the SF field since 1962: fourteen short stories and several novels, including the recently published and well received CHTHON.

SOS THE ROPE is about a mysteriously structured future society consisting of combative nomads on the one hand and technologically advanced "Crazies" on the other. SOS is the man who attempts to discover the reason behind this strange state of affairs; THE ROPE is his weapon. It's an exciting story, one which you will not want to miss. The July issue goes on sale May 28.



COUNTING CHROMOSOMES

by Isaac Asimov

ALAS, I AM A SQUARE. I DON'T USE mind-expanding drugs; I have no secret urgings toward psychedelism; I don't smoke pot (the technical term for marijuana); in fact, I don't even use alcohol or smoke tobacco. I wear my hair and sideburns moderately short, have neither beard nor mustache, dress cleanly and conservatively (if, on occasion, sloppily) and speak a reasonably precise English.

I do all this as a matter of personal choice, however, and without deep, moral convictions. I have no objections whatever to the eccentricities of others, provided they leave me to mine, and provided those eccentricities do no harm to anyone but their owners.

I consequently spring to the defense of the long-hairs against my fellow-squares. In my time, I have published little essays pointing out that those who object to long hair on boys "because it makes them look like girls" ought to object to the practice of shaving, for the very same reason. Yet they don't; they usually object to beards, too, which makes nonsense of the logic with which they try to invest their prejudices.

In fact, it seems to me that the whole business of telling the sexes apart at a glance is over-rated. Why does one have to, if one doesn't have a personal interest in a particular individual? I like to quote Roland Young's "The Flea":

*And here's the happy bounding flea—
You cannot tell the he from she.
The sexes look alike, you see;
But she can tell, and so can he.*

So it was with some chagrin that I discovered that telling a boy from a girl can be important indeed and not at all simple. In the fall of 1967, a Polish woman athlete was inspected by doctors. Her unclothed body was

clearly female, but more subtle tests placed that femininity in question. The chromosome-count, it seems, was wrong.

And what are these chromosomes that can thus contradict the evidence of one's eyes in so vital a matter and get away with it? Aha, as you have just guessed, I'm about to tell you at length.

The chromosomes are tiny, flexible, rod-like objects within the body's cells, visible only under the microscope. It would take some five to ten thousand of them, strung end to end, to stretch across a single inch.

Even with a microscope, they are hard to see in the living cell. Like the rest of the cell, light passes through them easily. For a century and a half, microscopists studied cells without seeing the chromosomes.

But then, a century ago, biologists began treating cells with some of the new dyes that chemists were then starting to synthesize. Different parts of a cell contain different chemicals; some parts therefore absorb a particular dye and some do not. The cell, under such treatment, begins to display its inner structure in technicolor splendor.

In 1880, a German biologist, Walther Flemming, was using a red dye, which clung only to certain patches inside the cell nucleus. (The cell nucleus is a small body, more or less centrally located in the cell. It was early found to control the manner in which one cell divides into two cells—the key process of growth and development.) Flemming called these colored patches of nuclear material "chromatin," from a Greek word meaning "color."

Flemming was eager to learn whether the chromatin had something to do with the nuclear control of cell division. Unfortunately, chromatin could only be seen when colored by dye, and the dye killed the cells.

What he did, then, was to study thin slices of rapidly growing tissue, in which individual cells were in all stages of division. He dyed the entire slice and caught the chromatin at every stage of that process. By putting the different stages in the right order, he could work out the details of the process. (It was like taking a set of scrambled photographic stills, putting them in the right order, and then running off a moving picture film.)

It turned out that as a cell got ready to divide, the chromatin material collected itself into what looked like a tangled mass of short pieces of cooked spaghetti. These pieces were soon given the name of "chromosomes" ("colored bodies"). At the crucial moment of division, the chromosomes separated into two equal parts, one half going to one end of the cell and the rest to the other. The cell then divided through the middle, and two new "daughter cells" were produced, each containing its own supply of chromosomes. Once division was complete, the chromosomes in each new cell broke up into patches of chromatin again.

Further study showed that a particular species of creature contained the same number of chromosomes in each of its cells (with one important exceptional case which I'll get to in a while). It is not always easy to tell what this number is, since the chromosomes tangle together, and when there are many of them, it is hard to say where one leaves off and another begins. The best attempts at counting chromosomes in human cells seemed to show, at first, that there were 48 chromosomes per cell. In 1956, however, a more painstaking count showed only 46.

Chromosome counting has now become rather simple. Cells are treated with a chemical that forces the process of cell division to stop short at just the point where the chromosomes are most clearly shaped. These cells, caught in mid-division, are then treated with a weak salt solution that causes the individual chromosomes to swell, become puffy, and move apart. They can then be counted with very little trouble and in human cells, 46 chromosomes turns out to be correct.

But this raises a question. How can all human cells have 46 chromosomes? If the chromosomes divided into two equal parts when a cell divides, shouldn't each new cell have merely 23 chromosomes? And at the next division, shouldn't the number of chromosomes be still fewer?

No! Just before cell division, the number of chromosomes within the cell doubles. For a moment, there are 92 chromosomes in the dividing cell and, after division, each new cell has exactly half of that momentarily doubled supply and is back to 46 again. This happens at each cell division so that (again with one exception) the chromosome number remains 46 no matter how many times cells divide and share out their chromosome content.

The involvement of chromosomes in cell division is, as a matter of fact, very precise. The chromosomes aren't put together higgledy-piggledy at all. Chromatin comes together to form chromosomes of specific size and shape, and they are always formed in pairs. The human cells contain 23 pairs of chromosomes, carefully numbered, in order of decreasing length, from 1 to 22, with the 23rd pair being a special case.

At the midpoint of the process of cell division, each pair of chromosomes brings about the formation of another pair exactly like itself. Since it forms a replica of itself, the process is called "replication." After replication, two complete sets of chromosomes are present, and when the cell divides, the chromosomes separate in such a way that if a particular pair moves in one direction, its replica moves in the other. Each new cell ends with a complete set of chromosomes, one pair of each of the 23, with no pair missing and no pair added.

This careful division is necessary. Each chromosome, you see, is made

up of strings of genes, thousands of them in each chromosome. Each gene controls the formation of a particular enzyme molecule, which in turn controls a particular chemical reaction going on in the cell.

The chromosomes, therefore, are the "chemical supervisors" of the cell. They carry its instructions, so to speak. Everything the cell does or can do is made possible by the particular nature of its enzyme supply, and this is dictated by its chromosomes. Naturally, then, it is important that every new cell in the body get an exact set of chromosome pairs so that it may possess the instructions for the performance of its tasks.

(These instructions are basically the same for all cells, but they are somehow modified so that liver cells are produced in one part, brain cells in another, skin cells in still another and so on—each with widely different functions and abilities. The manner in which the chromosome instructions are modified is still a biochemical mystery, however.)

The process of replication passes chromosomes on, with precision, from cell to cell within a body. But how are they passed on from parents to offspring? How is a new body started with appropriate chromosome instructions?

This is done by way of the sex cells. The female produces egg cells; the male produces sperm cells. Each of these is distinguished from all other cells by the fact that they contain only *half* a set of chromosomes; only one chromosome of each pair. (This is the aforementioned exception to the rule that all human cells contain the same number of chromosomes.) At some stage in the formation of the sex cells a chromosome division takes place *without* prior replication. The 23 pairs simply separate, one of each pair going to one side and the rest to the other.

The egg cell is tremendously larger than the insignificantly tiny, tadpole-shaped sperm cell. That, however, need not be wounding to the male's ever-sensitive ego. The egg cell is large because it contains a sizable food supply in addition to its chromosomes. The sperm cell contains chromosomes only. From the instructional standpoint, the two varieties of sex cells are equal.

The sex cells produced by a particular individual are not all alike. Every chromosome pair may be like every other chromosome pair, but the two individual chromosomes of the pair are not *exactly* alike. (In other words "Aa" may be like "Aa", but "A" is not like "a".) The two chromosomes of a pair may be twins as far as size and shape are concerned, but the molecular structure of the genes they contain may be significantly different.

One particular sex cell may get chromosome "A" of the first pair or it may get chromosome "a". It may get chromosome "B" of the second pair or chromosome "b" and so on. The number of different combinations that

may be formed by taking, at random, one of each of 23 different pairs can be found by starting with twenty-three 2's and multiplying them together, 2^{23} . The answer is 8,388,608.

Even this is conservative, for pairs of chromosomes can sometimes wrap themselves about each other and swap pieces in any of a thousand different ways. A sex cell may get a chromosome that is mostly "A" but slightly "a."

Then, too, it is possible that a particular gene within a chromosome may undergo a change even while it is part of a living cell.

There are so many chances of variation in the chromosome pattern received by each sex cell that it is quite possible that each sex cell produced by a single individual has a slightly different set of chromosome instructions.

A new individual is formed only when a sperm cell from the male parent combines with an egg cell of the female parent to produce a "fertilized ovum." As a result of such a union of sex cells, the fertilized ovum now has a complete set of chromosomes—23 pairs, with one of each pair from its mother and the other of each pair from its father.

The possibilities of combination of sperm cell and egg cell produces a random reshuffling and recombination of genes from two separate individuals to form a new creature with a brand new set of chromosome instructions, not like that of either parent. With all the possibilities for variation among the sex cells produced by each parent, it seems quite certain that each one of the estimated 60 billion humans who have lived since time began was distinctly different from every other one, and that this will continue for the indefinite future. (Identical twins, triplets, etc., are exceptions for they arise from a single fertilized ovum that has, for some reason, divided into two or more separate cells that then develop independently.)

This ceaseless variation in instructions from generation to generation through sorting and recombination of chromosomes is, in fact, the probable biological basis for the value of sex. Creatures can, after all, reproduce without sex, with one parent producing offspring without help; some types of species do this. When, however, two parents combine to form a new individual, the shuffling of chromosomes that takes place introduces new variations on a scale not possible otherwise. The flexibility and versatility of a species is greatly increased and it can evolve much more quickly to meet changing conditions. Sex has therefore (I am personally glad to say) replaced non-sex altogether among all but the simplest creatures.

The moment of fertilization—of the union of sperm with egg—is sig-

nificant with respect to the 23rd pair of chromosomes. It is the only one that need not be a true pair in outward appearance. In the female it is, however; the pair being composed of two fairly long chromosomes, called "X-chromosomes." A female, having two of these, can be designated as an XX.

In the male, the 23rd pair is *not* a true pair. One of them is a normal X-chromosome, but the other is a stunted one, only about a quarter the length of the X. The short one is a "Y-chromosome," and the male is therefore an XY. Because of the sex difference, the 23rd pair of chromosomes are often called the "sex chromosomes."

Apparently, the differences in the enzymes produced by an XX and an XY set a body on one or the other of two different paths; one ending in a female anatomy and physiology and the other in a male version.

The Y-chromosome in the male is largely non-functional, which means that the male X-chromosome has no spare as backup and males are therefore a bit more vulnerable to certain genetic abnormalities. A defective gene in an X-chromosome in a male shows up; in a female it may be countered by a whole gene in the other X-chromosome.

Some "sex-linked characteristics," such as color-blindness and hemophilia, which appear in males but rarely in females, are very noticeable. Others are not but may account for the fact that the female life-span proves to be up to seven years longer than that of the male once the dangers of childbirth are banished by modern medicine.

When a female forms egg cells, the XX pair divides and each egg cell gets one X. As far as the overall shape of the chromosome content is concerned, all egg cells are therefore alike.

When a male forms sperm cells, the XY pair divides. Half the sperm cells end up with an X and half with a Y. There are, thus, two broad varieties of sperm cells formed.

In the activity that precedes fertilization, several hundred million sperm cells are released in the neighborhood of a single egg cell. The sperm cells (about half of them X and half Y) race for the egg cell, with winner take all. If an X-sperm happens to reach the egg first and fertilizes it, then the fertilized ovum is an XX and develops into a female. If a Y-sperm makes the grade, the result is an XY; that is, a male. The chances are about equal and so it happens that boys and girls are born in roughly equal numbers.

So far we are assuming that all will go well, and yet this may not be so. The process of cell division, involving the careful replication of the immensely complex chromosomes plus their precise division between two new cells, can easily go wrong and sometimes does.

Errors can take place. Sometimes these will only involve individual genes somewhere along the line of the various chromosomes. Such "mutations" can be fatal; or merely disadvantageous. There are even occasions when a mutation can be favorable.

But what if it is not a submicroscopic gene that is affected, but an entire chromosome that goes wrong? In the process of cell division, with the chromosomes being yanked roughly apart, it may happen that one of them may break in two and come back together again with one piece rear-side forward. A backward chromosome piece has its instructions reading differently, so to speak, and is not normal.

Or what if a chromosome breaks in two and does not reunite? The pieces might travel to opposite ends of the cell. One daughter cell may get a chromosome pair plus an extra piece of a third chromosome, while the other daughter cell gets not quite all of a pair.

Such chromosome aberrations are much more serious than are changes in individual genes. Chromosome breakage can involve hundreds of genes all at once. Such a wholesale blurring and slurring of instructions is almost certain to produce cells that cannot live and go through the intricate process of growth and division.

If such chromosome breakage takes place in the cells of a human adult, it need not be serious. One cell, or even a hundred cells, do not count for much among trillions. The damaged cells drop out and are replaced by those produced through correct division. In fact, since the damaged cells drop out and only the true-formed cells show up, cell division seems to be far more accurate than it may really be.

And what if the error takes place in the production of sex cells and one appears with such a chromosome aberration? In general, such a sex cell cannot develop far. Those children which do manage to be born usually lack serious chromosome aberrations and we get the idea that the processes of egg and sperm-formation are much more foolproof than they really are. Heaven knows how many botched jobs are scrapped and never come to view.

A hint of the botching arises from the fact that a few aberrations manage to make it to birth and babyhood. One birth out of some five hundred, for instance, is of an infant with "Down's syndrome," or "mongolism." (The latter name refers to the eyes, which seem to slant in such babies in a fashion associated with east Asians.) The condition involves serious mental retardation.

The cause of the syndrome was not known until 1959, when three Frenchmen, J. Lejeune, M. Gautier, and R. Turpin, counted the chromosomes in cells from three cases and found that each one had 47 chro-

mosomes instead of 46. It turned out that the error was in the possession of *three* chromosome-21's, a normal pair plus an additional single. This was the first disease ever pinned to a chromosome aberration.

Apparently, what happens is that every once in a while, a sex cell is formed after an imperfect division of chromosome-pair 21. The sex cell that finally appears, instead of having one chromosome-21, as it should, has two or none at all. After union with another cell with the normal single chromosome present, the fertilized ovum has either three, 21-21-21, or one, 21.

The case of the three is Down's syndrome. The case of one had, until recently, never been detected. It was suspected that the possession of one presented so serious a disadvantage for the developing egg that it never reached term. But then, at the Bethesda Naval Medical Center in 1967, a mentally-retarded three and a half year old girl was found to have a single chromosome-21. She was the first discovered case of a living human being with a missing chromosome.

Cases involving other chromosomes seem less common but are turning up. Patients with a particular type of leukemia, show a tiny extra chromosome fragment in their cells. This is called the "Philadelphia chromosome" because it was first located in that city. Broken chromosomes, in general, turn up with greater than normal frequency in the cells of people with certain other (not very common) diseases.

The sex chromosomes, too, can be involved in aberrations. An egg cell can be formed with two X-chromosomes or none. A sperm cell can be formed with both an X- and Y-chromosomes, or with neither. In such cases, a fertilized ovum may be formed that is XXY, or XYY, or simply X or simply Y.

Such cases are not common, perhaps because such embryos rarely complete their development. Nevertheless, they have been detected. A person born with an XXY set in his cells has the outward appearance of an underdeveloped male. On the other hand, X and XYY individuals seem to have the outward underdeveloped characteristics of a female.

The individual who made the headlines in connection with such an abnormality was Ewa Klobukowska, a tall, muscular 21-year-old Polish girl. She always thought of herself as a girl, and, although flat-chested, has the sexual organs of a girl. She was, however, an excellent athlete, and the question arose as to whether she might not have some male characteristics, including larger and stronger muscles than females have generally. This would be no crime, of course, but it would then be unsportsmanlike to have her compete with normal females.

Her chromosomes were counted and the six doctors (three Russians

and three Hungarians) found themselves in agreement. The announcement was that there was "one chromosome too many." Presumably this meant Miss Klobukowska was an XYY individual—alive, strong, healthy, but not exactly a female.

Naturally, it would be useful to devise methods that would cut down on such chromosome aberrations. Failing that, it would *certainly* be advisable to avoid conditions that increase chromosome aberrations. Biologists are well acquainted with a number of these. Energetic radiation, for instance, will do so, and will produce gene mutations, too.

It is partly for this reason that world public opinion bore down so heavily against nuclear bomb tests in the open atmosphere. The radioactive particles produced might not kill outright, but they would slightly raise the mutation rate and increase the annual production of defectives.

But it is not radiation only that encourages mutation. There are certain chemicals that do so; chemicals that interfere with chromosome replication and separation. Human beings are not likely to come in contact with most of the particular chemicals that chemists work with, but a few years ago there was the case of the tranquilizer, thalidomide, which produced deformed babies once it was given to pregnant women. It undoubtedly produced chromosome aberrations.

Anything else? Might there be such a substance to which people had not been exposed till recently, but which was now coming into wider use?

This thought occurred to Dr. Maimon M. Cohen of the State University of New York in Buffalo. In June 1966, after visiting a hippie hangout out of curiosity, he found himself wondering about the bizarre behavior of some of them. Were their cellular instructions being interfered with?

His work dealt with chromosome counts so he could check. Back at his laboratory, he made use of white blood cells, which could be obtained easily and in quantity from any drop of blood. He exposed some of them to a weak solution of LSD, then studied their chromosomes. He found they showed twice as many broken and abnormal chromosomes as ordinary white cells that had not been exposed to LSD.

What about exposure to LSD inside the body? He began to test white cells from people who admitted having used LSD. So did other experimenters, after the first reports began to reach the world of science.

There seemed rather general agreement. The white cells of LSD-users had unusually high numbers of broken and abnormal chromosomes.

Was it only in the white cells, or was it in cells generally? In particular, did chromosome aberrations take place in the sex cells of LSD-users to a greater extent than in non-users? If so, there would be more defective births among LSD-users than among others.

It is difficult to wait for births among what is still a small segment of the population, so experimenters turned to animals. Small amounts of LSD were injected into pregnant mice and, in a number of cases, there were serious abnormalities and malformations in the mouse embryos.

LSD makes its visible influence felt on the nervous system and the brain (it is for the sake of the pleasure obtained from the mental aberrations and hallucinations it produces that it is used), so it is not surprising that its effect on mice is most pronounced on the seventh day of pregnancy. It is then that the brain and nervous system are being rapidly formed; and it is brain malformations that most frequently appear in the affected embryos.

The equivalent period in human pregnancies is the third week—which generally comes before a woman knows she is pregnant and can therefore stop using the drug, if she is a user.

This adds a new dimension to LSD use, and strengthens my own feelings against it—since it is not merely an eccentricity, but is an agent of harm to individuals other than the user. Quite apart from the psychotic episodes it produces (up to murder and/or suicide) and from the danger of producing a permanent psychosis, it may increase the rate of defective births and multiply the load of human tragedy upon our planet.

The case is not yet proven, of course, but the indications are that LSD-users are undergoing the equivalent of a private bath of radiation fallout.

If so, fun may be fun—but the price can come high for themselves and higher for their unborn children.

CHANGING YOUR ADDRESS?

The Magazine of FANTASY and SCIENCE FICTION will follow you anywhere providing you let us know six weeks in advance. Please be sure to give us your old address as well as the new one, and **be sure to add the ZIP number.** (If convenient, send the address label from the wrapper of the next copy of F&SF you receive.)

MERCURY PUBLICATIONS
Subscription Service
P. O. Box 271
Rockville Centre, N. Y. 11571

The mystery of Stonehenge—that great prehistoric structure whose purpose has long baffled and fascinated archaeologists—is here deftly telescoped into a compact entertainment.

THE SECRET OF STONEHENGE

by Harry Harrison

LOW CLOUDS RUSHED BY OVERHEAD in the dusk, and there was a spattering of sleet in the air. When Dr. Lanning opened the cab door of the truck, the wind pounced on him, fresh from the arctic, hurtling unimpeded across Salisbury Plain. He buried his chin in his collar and went around to the rear doors. Barker followed him out and tapped on the door of the little office nearby. There was no answer.

"Not so good," Lanning said, gently sliding the bulky wooden box down to the ground. "We don't leave our national monuments unguarded in the States."

"Really," Barker said, striding to the gate in the wire fence. "Then I presume those initials carved in the base of the Washington Monument are neolithic graffiti. As you see, I brought the key."

He unlocked the gate and threw it open with a squeal of unoiled hinges, then went to help Lanning with the case.

In the evening, under a lowering sky, that is the only way to see Stonehenge, without the ice cream cornets and clambering children. The Plain settles flat upon the Earth, pressed outwards to a distant horizon, and only the gray pillars of the sarsen stones have the strength to push up skywards.

Lanning led the way, bending into the wind, up the broad path of the Avenue. "They're always bigger than you expect them to be," he said, and Barker did not answer him, perhaps because it was true. They stopped next to the Altar Stone and lowered the case. "We'll know soon enough," Lanning said, throwing open the latches.

"Another theory?" Barker asked, interested in spite of himself. "Our megaliths seem to hold a certain fascination for you and your fellow Americans."

"We tackle our problems wherever we find them," Lanning answered, opening the cover and disclosing a chunky and complicated piece of apparatus mounted on an aluminum tripod. "I have no theories at all about these things. I'm here just to find out the truth, why this thing was built."

"Admirable," Barker said, and the coolness of his comment was lost in the colder wind. "Might I ask just what this device is?"

"Chronostasis temporal-recorder." He opened the legs and stood the machine next to the Altar Stone. "My team at MIT worked it up. We found that temporal movement—other than the usual 24 hours into the future every day—is instant death for anything living. At least we killed off roaches, rats, and chickens; there were no human volunteers. But inanimate objects can be moved without damage."

"Time travel?" Barker said in what he hoped was a diffident voice.

"Not really; time stasis would be a better description. The machine stands still and lets everything else move by it. We've penetrated a good ten thousand years into the past this way."

"If the machine stands still—

that means that time is running backwards?"

"Perhaps it is; would you be able to tell the difference? Here, I think we're ready to go now."

Lanning adjusted the controls on the side of the machine, pressed a stud, then stepped back. A rapid whirring came from the depths of the device: Barker raised one quizzical eyebrow.

"A timer," Lanning explained. "It's not safe to be close to the thing when it's operating."

The whirring ceased and was followed by a sharp click, immediately after which the entire apparatus vanished.

"This won't take long," Lanning said, and the machine reappeared even as he spoke. A glossy photograph dropped from a slot into his hand when he touched the back. He showed it to Barker.

"Just a trial run, I sent it back 20 minutes."

Although the camera had been pointing at them, the two men were not in the picture. Instead, in darkish pastels due to the failing light, the photograph showed a view down the Avenue, with their parked truck just a tiny square in the distance. From the rear doors of the vehicle the two men could be seen removing the yellow box.

"That's very . . . impressive," Barker said, shocked into admission of the truth. "How far back can you send it?"

"Seems to be no limit, just de-

pend on the power source. This model has nicad batteries and is good back to about 10,000 B.C."

"And the future?"

"A closed book, I'm afraid, but we may lick that problem yet." He extracted a small notebook from his hip pocket and consulted it, then set the dials once again. "These are the optimum dates, about the time we figure Stonehenge was built. I'm making this a multiple shot. This lever records the setting, so now I can feed in another one."

There were over twenty settings to be made, which necessitated a great deal of dial spinning. When it was finally done, Lanning actuated the timer and went to join Barker.

This time the departure of the chronostasis temporal-recorder was much more dramatic. It vanished readily enough, but left a glowing replica of itself behind, a shimmering golden outline easily visible in the growing darkness.

"Is that normal?" Barker asked.

"Yes, but only on the big time

jumps. No one is really sure just what it is, but we call it a temporal echo, the theory being that it is sort of a resonance in time caused by the sudden departure of the machine. It fades away in a couple of minutes."

Before the golden glow was completely gone the device itself returned, appearing solidly in place of its spectral echo. Lanning rubbed his hands together, then pressed the print button. The machine clattered in response and extruded a long strip of prints.

"Not as good as I expected," Lanning said. "We hit the daytime all right, but there is nothing much going on."

There was enough going on to almost stop Barker's archaeologist's heart. Picture after picture of the megalith standing strong and *complete*, the menhirs upright and the lintels in place upon all the sarsen stones.

"Lots of rock," Lanning said, "but no sign of the people who built the thing. Looks like someone's theories are wrong. Do you

IT'S CORRECT TO CLIP!

Filling in the coupon on the next page offers the following advantages:

1. Guaranteed monthly delivery to your door of the best in science fiction and fantasy reading.
2. Reduced rate—it's cheaper to subscribe than to buy your copies at the newsstand.
3. An essentially unmarred copy of this issue—the coupon is backed up with this box, and its removal does not affect the text of the surrounding material.

have any idea when it was put up?"

"Sir J. Norman Lockyer believed that it was erected on June 24th, 1680 B.C.," he said abstractedly, still petrified by the photographs.

"Sounds good to me."

The dials were spun and the machine vanished once again. The picture this time was far more dramatic. A group of men in rough homespun genuflected, arms outstretched, facing towards the camera.

"We've got it now," Lanning chortled, and spun the machine about in a half circle so it faced in the opposite direction. "Whatever they're worshipping is behind the camera. I'll take a shot of it and we'll have a good idea why they built this thing."

The second picture was almost identical with the first, as were two more taken at right angles to the first ones.

"This is crazy," Lanning said, "they're all facing into the camera and bowing. Why—the machine

must be sitting on top of whatever they are looking at."

"No, the angle proves that the tripod is on the same level that they are." Sudden realization hit Barker and his jaw sagged. "Could your temporal echo be visible in the past as well?"

"Well . . . I don't see why not. Do you mean . . . ?"

"Correct. The golden glow of the machine caused by all those stops must have been visible on and off for years. It gave me a jolt when I first saw it, and it must have been much more impressive to the people then."

"It fits," Lanning said, smiling happily and beginning to repack the machine. "They built Stonehenge around the image of the device sent back to see why they built Stonehenge. So that's solved."

"Solved! The problem has just begun. It's a paradox. Which of them, the machine or the monument, *came first*?"

Slowly, the smile faded from Dr. Lanning's face.

Mercury Press, Inc., 347 East 53 St., New York, N.Y. 10022

Send me The Magazine of FANTASY AND SCIENCE FICTION.

I enclose ☐ \$5.00 for one year ☐ \$9.00 for two years

☐ \$12.50 for three years

Name F-6

Please print

Address

City State Zip #

Add 50¢ per year for Canada and P. A.; \$1.00 for other foreign countries

The spectacular technical successes of the space program may have had something to do with the fair amount of public receptivity to the more mundane, but no less exciting prospects for oceanographic research. (To the point where—if you have \$80.00—you can subscribe to an investment service called Oceanography Newsletter, which will tip you off to all the hot stocks in the field.) Oceanography has not been ignored in the SF field either, and here is a superior contribution: a strong and suspenseful account of the beginnings of a submarine city.

SEA HOME

by William M. Lee

THE ADMIRAL HAD CALLED IT A shore base assignment, and admirals are usually right, particularly when talking to commanders. Still, completing my fortieth turn around the deck, the prospect looked singularly like open ocean. On a clear day I could have seen the green hills of Santa Carlotta, eight miles to the south, but all morning a bright haze had obscured the horizon.

The deck was a railed walkway extending around the four sides of the structure which we called quarters, because that's the way the contractor had marked the doors. Quarters and the deck together constituted the topmost of four platforms which sliced across the tower itself: three near the top and one down close to the water line. The visible part of the tower was a

hundred feet tall, just about, and another three hundred feet—we don't say fathoms on this shore base installation—extended downward to hard rock ocean bottom, supported on six tubular steel legs.

I've no idea what this monstrosity cost the tax payers. Plenty of course, but not a circumstance to the ultimate cost of Sea Home itself which would some day, if all went well, become a small submarine city.

I made the forty-first turn around and kept wishing the news conference were over. In the past our conferences had been handled by P. R. officers and attended by such admirals and captains as suited the occasion. This time we'd been playing dirty and the press was going to be good and sore, and somehow it had wound up in my

hands. Be matter of fact, Washington had said. Keep it low-key.

I took a look into quarters to see whether anything of interest was happening below. Nothing. The console showed only its green circuit lights and the teletypes were silent. Tim Saybolt and I had agreed to suspend on-the-hour checks until after the interview.

Quarters consisted mostly of instrument room, office and lounge, but there were two small private cabins, a pantry and a head. The next level down provided living quarters and mess for sixteen men. There were only six aboard at the moment, including me, and it was almost oppressively quiet.

After a time there were voices from below. Berthing the launch seemed to require as much shouting as if she'd been a destroyer. Then the passenger-freight elevator came whining up and discharged Pete Swain and his charges in the little hall adjoining the lounge. I said hello.

Si Vogel had flown down from Washington, and he and George Britt had been brought over from Eglin in an Air Force plane. I was glad there were only the two of them. Both had been here before, while the tower was still under construction, and I recalled that Vogel had a mean disposition. He preempted the most comfortable chair, although Britt was fat and should have had it. Swain, my exec, poured coffee.

"So," said Vogel, "you've made some progress. Is this the finished setup?"

"As far as the tower's concerned, yes," I told them. "We'll be adding to Sea Home for years to come. It still has just six chambers. Skeleton crew only, so far."

It took a couple of seconds for that to sink in, then Si Vogel's face flushed darkly. "Do you mean, Commander—ah, Cheney—that you have people down there now?"

"Why, yes," I said, very low-key. "We have a good many miscellaneous jobs that must be done before Sea Home is ready for real occupancy, bolting furniture into place, installing light fixtures and so on."

Vogel was suspicious and a little belligerent. "If that's all it amounts to, why did Navy Medical announce that there'd be a news release tomorrow? Why at this particular time?"

"There's nothing special about the time," I said, trying for a disarming expression. "This group will be staying down, of course, until others arrive."

"I smell a rat," Britt said. "How many are down there?"

"Five. A medico, a medical lab technician, an electronics man and two professional divers."

"Mister Cheney." Vogel made it sound as nasty as possible. "In spite of Admiral Minter's assurance that we would have full coverage—interviews, photographs,

TV—you've apparently gone ahead and started the actual operation."

I shrugged. "In a small way, yes. You'll have lots of opportunities later."

The two of them exchanged looks. Britt got out his notebook. "Their names?"

"Gerd Carlsen, diver. Walter Pope, diver. Jacob Kepper, electronics. Susan Craig, technician. Dr. Timothy Saybolt, M.D., currently in command."

"By god," said Britt.

"Son of a bitch," said Vogel. "They've got a girl down there."

"Is that so remarkable? She's there because the card sorter popped her name out. Lab technician, WAVE, expert swimmer."

Vogel got to his feet and began to parade the lounge, turning his head to keep his scowl directed at me, like an ill-natured, red-faced owl. "You know damn well it's remarkable. What's more, it's news. If I know the Navy, you are now going to tell me that this was an order from Washington, and they are going to say that you set the timetable."

I'd had about enough of Si Vogel. "Matter of fact, I had authorization to invite the press to watch the descent, if I thought best. I decided against it." Nothing like a good lie to lower the blood pressure.

"By god," Britt repeated. "Photographs?"

"Sure." I opened the desk drawer and shoved across two sets, five individual shots and two group pictures, suited up, with and without face gear. "And you can talk to them by phone."

Vogel howled. "She's pretty. Damn it, she's a real beauty. And you decided—you had the unmitigated gall to decide—to keep us out."

"That was part of my reason. Cheesecake. Not needed."

"How old is she? Eighteen?"

"Twenty-one."

"What's she there for? Bedding down?"

"Vogel," I said, "I can't hope to clean up your mind, but we'll have no more of that, or your interview is over."

"OK. Let me talk to her."

"I'll let you talk to Commander Saybolt. It'll be up to him who else takes the phone."

"Navy!" Vogel said.

Pete Swain went to the console, flipped switches and rang once for Tim Saybolt. His voice came on and filled the room. Pete tuned it down a little.

"Cheney?"

"Yes," I said. "Our visitors are here, Tim. Mr. Britt and Mr. Vogel. Take over if you will."

"OK," Tim said. "What can I tell you?"

"You've licked the voice problem," said Britt.

"Yes, as you perceive. Not by an unscrambler, however. It's the air

we're breathing. You haven't given them anything on this yet, Cheney?"

"Not yet. Go ahead."

"Right. When I said we were breathing air, that was not of course accurate. We're breathing an artificial mixture. You fellows understand the problem of the bends."

"Yes," said Britt. "Nitrogen bubbles in the blood."

"Close enough. When you're breathing an oxygen-nitrogen mixture, it takes too long to come up. So for deeper dives you replace at least some of the nitrogen with helium which is less soluble in the blood serum. Right? Now there's something else about nitrogen. At a fairly modest depth it begins to show narcotic effects, and they get more pronounced as you go deeper. You get to feeling as if you'd had three or four martinis."

"Tough," said Vogel.

"Yes. But it's just as well not to get irresponsible ideas when you're working under water. Helium doesn't have that effect, at least not until you get a good deal deeper. At this relatively shallow depth—three hundred and four feet—we could breathe an oxygen-helium mixture very satisfactorily. But then you get the Mickey Mouse effect. Helium is a very light gas, and it pitches the voice up until your speech is almost unintelligible. That may sound trivial, but believe me, there are times when it's

damned important to communicate clearly.

"So we're using something new, a three-way mixture. Helium, oxygen and sulfur hexafluoride. The last is a heavy gas. Counteracts the lightness of helium. The atmosphere I'm breathing has the same density as yours. Result, no voice distortion."

Nevertheless, I thought, there was something odd about Tim's voice which I hadn't noted before. Or maybe I'd been noticing it subconsciously for several days, but hadn't given it any consideration.

"Sulfur what?" Britt asked.

"Sulfur hexafluoride."

"Sounds poisonous."

"It isn't. Colorless, odorless, biologically inert. Hardly soluble in the blood."

"It does appear, Commander Saybolt, Dr. Saybolt, whatever you are, that an important experimental program is going on." This from Si Vogel, with heavy sarcasm.

Tim ignored the tone. "Experimental work's all done. First animals, then volunteers in pressure chambers. No new variables. Just up to the engineers topside to keep our breathing mixture constant."

Britt said, "You do have port-holes, don't you? You're not just sealed up in those cylinders."

"Not sealed up at all. We're about six feet off bottom and there are hatches in the floor, some of them kept open. We can drop through onto bottom anytime we

want to take a swim. Portholes, yes, but nothing to see. At this depth it's dark. Our divers are out now, rigging light standards. We're well lighted inside here, naturally. In a week the seascape outside will be just as bright."

I put my finger on the oddity of Tim Saybolt's speech. It wasn't tone but speed. He was talking faster than usual. I broke in.

"What's your oxygen content, Saybolt?"

"Just a sec, I'll see. OK, it's normal. Why?"

"Nothing special. We didn't log it up here at ten hours."

"Any sharks?" Britt asked.

Tim laughed. "No. Everybody seems to want sharks, except us of course. Before the outside lights go on we'll have some screens erected."

"Let me speak to Susan Craig," Vogel demanded.

"If she's not too busy. She's running some blood chemistries." There was a considerable pause before Susan came on.

"Hello?"

"Hello," Si said, sounding a bit less surly. "How is it down there?"

"Very interesting."

"Frightening?"

"Not at all."

"Is it damp?"

"Yes, saturated."

"Chilly?"

"Not too chilly."

"What do you wear?"

"A swimming suit, mostly."

"Mostly?"

"That's right."

"How do you like being down there with four men?"

"They're very capable people. I'm glad to be a member of the team."

I said, "Excuse me, Susan, I'm breaking off." Pete, sitting by the console, snapped the switch.

"You're being completely uncooperative," Vogel said. "I'm going to report it."

"Do so," I told him. "Here are several copies of the release BuMed told you about. It'll give you all the facts you'll need for your stories, but why don't you leaf through and ask questions. We'll do our best to answer them."

They stayed for an hour, and stayed sore, but in the end they were asking sensible questions. At close to noon, I said we would have to be getting back to work.

"A hell of a trip," Vogel remarked. "You could have mailed out the release."

"By god, yes," said Britt.

"You were told that releases would be sent out from Washington today. You elected to make the visit. Sorry you were disappointed."

"You are like hell," said Vogel, and headed for the elevator.

Well, I hadn't behaved like a public relations man. Vogel would certainly write a letter of complaint which might find its way into my 201 file. I wasn't in the mood to care.

When they had gone, I called

Captain Wythe in Washington and told him I'd passed up a fine opportunity to invite Si Vogel to lunch, and that we could expect him to work the innuendos for all they are worth. He agreed it was a damn shame, but said they'd anticipated the situation when Susan Craig was picked. That was that.

I went down to the second level and checked with Master Sergeant Paillard, the one Army man we had aboard, to see if there'd been any fluctuations in the breathable gas composition, either the supply or the return. Both were monitored continuously, but in quarters we recorded spot data only once an hour. Everything was in order. There'd been no excess of oxygen to stimulate Tim Saybolt's speech.

For lunch I took a sandwich to quarters, wrote up the log, then settled to the nearly continuous job of requisitioning supplies.

Sea Home then consisted of six chambers, each a cylinder about sixty feet long by fifteen across. They lay on cradles side by side and were connected by passages. The walls were of lightweight stainless steel. Pressure being the same inside and out, they didn't have to be heavy. As I'd told Vogel with substantial truthfulness, our present job was mostly to complete the outfitting of the six chambers with the more important amenities of life. Experimental work was, in actual fact, quite incidental, al-

though no undersea operation could be carried on without posing and attempting the experimental answering of many questions. In this respect Saybolt had a more responsible job than I, since he was not only in command in Sea Home itself but, as a medical officer and research physiologist, he would study the long term reactions of his associates and himself to their environment. Long term meant, in this case, forty days, of which ten had already passed.

We'd had a full topside crew, of course, during the descent, along with some of the brass. The few days after that were occupied with checking and rechecking all lines of communication and supply—electricity, AC and DC, fresh water, cold and hot, and the breathable gas. Now we were well embarked on the job of outfitting for twenty-four people, which would be the maximum number until more chambers were added.

There was always a stack of scribbled notes and teletype messages from below, waiting to be converted to requisitions acceptable to Washington. A lot of these covered lab equipment, electronic gear and books. Books! They had a couple of thousand volumes down there now, miles of microfilm and more waiting on the third level. But in spite of all the advance planning, Saybolt and Kepler kept thinking of items they couldn't possibly do without.

At sixteen hundred everything had been put on the wire. Swain wasn't back from Santa Carlotta. I took the elevator down to the third level and walked back up, making a casual inspection as I went. The last freight haul of the day had gone down to Sea Home. The men were taking it easy and had broken out some beer, which was OK. They were a responsible bunch. I took a sniff of the wind, but didn't bother to look at the glass. It was only habit anyway. Our six-legged monster could withstand any hurricane with plenty of safety margin, and as to weather below, there wasn't any—slight changes of pressure reflecting any surface swell, and the faintest of currents.

The tempo of Saybolt's speech was still nagging at the back of my mind, so I ran back the tape and listened to it again, and he was definitely talking faster than normal. For him, that is. His conversation was always a little staccato, but you didn't usually notice it. Pete Swain walked in while I was thinking it over. His listened too, and said, "Commander Cheney, sir, you are a worry wart."

Once during the evening I called down—three rings meant anybody—and got Susan and told her, by way of an excuse for calling, that we'd be sending down fresh milk first thing in the morning.

Next day was strictly routine,

occupied, that is, with moving supplies below, more requisitions and phone conversations with Naval Research Labs and Bethesda. On moving supplies we were well ahead of schedule and increasing our lead each day. Four of the five noncoms working topside spent a fair part of their time loading up the cargo capsule, according to plan or to fill special requests. The capsule could be lowered rapidly into a water-filled lock on the top of one chamber of Sea Home; the magnetically attached cable would be disengaged; the lock would close and be pumped free of water; then the bottom of the lock, capsule and all, could be lowered to the deck on pneumatic jacks. It was a nice bit of engineering and it worked without a hitch. Passengers went down the same way but in a different kind of capsule.

It was amazing that the crew in Sea Home kept up with those topside, since they had to move and stow every item, often including assembling. But they did it and frequently pushed us for faster action.

I envied the group below. My job on the tower wasn't greatly different from some that I'd handled at sea. Sooner or later, though, I'd be relieved and would have a turn with the underwater team.

I didn't talk again to Saybolt until Thursday—Day 13. After getting some detail disposed of, I

asked to speak to each of the others in turn. There was no longer any room for doubt. Every one of them was talking too fast. Nevertheless, I went to the trouble of cutting the tape and splicing each section to a corresponding piece from the second day. Then I called Swain.

He pulled a long face. "You were right. Damnedest thing I ever heard. You've checked their air?"

"All normal. Oxygen, sulfur hex, helium, carbon dioxide. The nitrogen's down as close to zero as we'll ever get it."

"What's Tim think about it?"

"I haven't asked him, and I will, but something else first."

I'm not a medic, of course, but I've worked with them, and I've learned that a layman must never, never tread on medical toes. I wrote out a message, then opened the phone line and rang once. Tim came on after a minute.

"Yes?"

"A message from BuMed. I'll read it. Saybolt, Sea Home: Request transmit present physiological constants of all Sea Home subjects. Signed: J. G. for Minter."

"Who the hell is J. G.?"

"I don't know. I thought you would. Minter's exec, maybe."

"Damn it."

"Why?"

"Because now's not the right time. Stall them off a few days, will you, Cheney?"

"You can't stall a thing like that."

"Stall them two days, one day, as long as you can."

"I'll try to ignore it for twenty-four hours, if you give me one good reason."

"OK. I'm collecting data. Naturally. There's nothing unfavorable, so I've preferred to sit on it until I can draw some conclusions."

"It doesn't sound very convincing to me," I said, "but I'm not one of the scientific type. Let me have it by eleven hundred tomorrow. Minter should hold still that long."

Just before noon next day I called J. G.—Jim Gates—who really is Minter's executive, and a friend of mine.

"Jim," I said, "I just faked a request from your office. You'll back me up, of course."

"I will?"

"I think you will. Starting now, put this on the record. The five subjects in Sea Home have gained an average of two pounds apiece."

"Not remarkable," he said.

"No. Their respiration rates, average, are down to nine. Pulse rates, again average, a hundred and four. Blood pressures about eighty over sixty and all very close to that average. Body temperatures, by mouth, ninety-five point two. In addition to that, they're talking about thirty percent faster than normal."

"What's Saybolt think of these?"

"He didn't report them. I had to

weasel the information out of him by claiming your office was asking."

"That's not like Saybolt," Jim said. "It's right queer. You do have individual figures, don't you? Not just averages. Read them off for the record. Ask Saybolt for his interpretation and shoot it up here, whatever he says. The boss is in and I'll give him these without waiting. Consider yourself covered."

Pete and I exchanged looks indicative of a measure of relief, and I called Tim again to tell him that Washington wanted his comments.

"No comment," he snapped. Then, after a pause, "No comment beyond the obvious. Our environment is causing some metabolic changes. Not alarming. The changes are progressive, so I haven't bothered to report them. Better to wait until they level off. OK?"

This was, as Jim Gates had remarked, unlike Timothy Saybolt. He had always seemed to me to be an able but ultra-conservative scientist. Since he evidently had nothing further to offer, I prodded.

"Any other changes beyond the data you gave?"

"Nothing important. Our food intake is up."

"Is that so? How much?"

"Oh, about double."

"You don't say. Anything else?"

"We're sleeping less. About three hours."

"Three hours in twenty-four?"

"Yes."

"I suppose you know you're all talking faster."

"Hadn't noticed it, so I suppose we're listening faster, too. It's reasonable, though. We're working faster."

"I see. Anything more to add?"

"Light. We don't need as much."

"Very interesting."

"Yes, isn't it?"

"I'll be sending this through to Minter."

"I'm assuming that. It can't be helped."

"Will you keep us advised?"

"OK."

Washington's response to the transmission of this information was a lengthy silence. At last, about twenty hundred, Admiral Minter himself called.

"Cheney?"

"Yes sir."

"Abel Stokes will be coming down."

"Stokes?"

"Dr. Abel Stokes. Topflight in oxygen metabolism. We'll try to get him to Santa Carlotta tomorrow, but it may be the following morning. Eglin will give you the schedule. And Cheney."

"Yes sir."

"Glad you handled this as you did. Saybolt seems to be somewhat uncommunicative."

"Thank you, sir."

Abel Stokes arrived about mid-morning Sunday. He was, I

guessed, past the seventy mark, and was carrying more weight than, as a physician, he could have approved of. In addition he had a game leg, but he was active enough. Before settling for a discussion, he wanted to see everything, and we tramped around the three upper levels, winding up with a couple of turns around the deck. He inflated his chest, pulled in his belly and grinned at the watery prospect around us. "Think of it," he yelled over the singing wind, "been studying breathing all my life but never got around to enjoying it. Well, well, to work. What the hell is young Timothy up to?"

I got him settled at my desk and went to the console myself where I could play with the recorders.

"You know Tim Saybolt, do you?"

"Some. Smart lad."

"I'll be interested in your reaction, then, when you hear him speak. It's not only . . ."

"Whoa. Don't give me any more preconceived notions than I've already got. Let me see your gas analyses, supply and return."

He spent some minutes flipping through the gas charts.

"In my simple-minded way," he remarked, "I'd expected that slower respiration would mean reduced oxygen utilization and reduced carbon dioxide output. But if your gas sampling means anything, carbon dioxide's up, not down. Now don't start giving me engineering

details, son. Shut up and let's get on the phone."

I'm not going to record or even summarize that conversation or the subsequent ones between Stokes and Saybolt. It's enough to say that, over a day and a half, Stokes drew forth facts which he seemed to find pertinent. Metabolic changes were, as Saybolt had said, continuing. Their body temperatures were now down to ninety-four and respiration rate to seven. In addition Stokes got such items as red and white cell counts, blood sugars and skin temperatures. Every single datum, he told me, was abnormal.

Saybolt offered no objection to answering any direct question and if he hadn't the information at hand, would provide it later. But he volunteered nothing and treated the whole inquiry as if it were unimportant. He was fighting a delaying action.

By close to midnight Monday, Stokes looked so tired that I insisted we knock off. After he was abed, Pete and I went out for a look at the weather. The glass had been dropping, the wind had picked up, and there were high thin streamers of cloud which suggested a gale by morning. I tuned in the weather station at San Juan and heard that there was a tropical storm center down near Martinique. We went to bed.

The weather was worse as we sat over breakfast, with rain squalls

drumming against the broad windows of quarters. Abel Stokes had to go out for a promenade around the deck, and came in with his trousers dripping where the waterproof ended, but looking as pleased with himself as if he'd faced mortal danger. Then he wanted to call Washington.

Minter, it developed, had had to start his day at the Pentagon, but had arranged to have a suitable collection of medical brains on quick call. Jim said he would pass out the word, and they'd be calling back about eleven hundred. We poured more coffee and I rang once for Saybolt.

There was a long wait, then Walter Pope, one of the professional divers, told us that Tim was out having a swim. I asked if he was on airline or back-pack.

If a man is on airline he can stay out more or less indefinitely as far as breathing is concerned. Cold is another limiting factor, though. We had isotope packs which circulated warm water through the suits, but they only did a partial job, and in the dress rehearsals for Sea Home the divers were good and ready to come in and warm up after a couple of hours. If your man carries a back-pack with cylinders of stored gas, his time is down to an hour.

Pope said he was on back-pack and had been out about fifty minutes. Pope was a Georgia boy, and it was interesting to hear how his

drawl had been overtaken and passed by the speed-up in speech. Stokes questioned him a while about his personal reactions to the environment, and I found myself surprised all over again. Walter was exceptionally good at his job, but he'd never been long on brains. He displayed now an acuteness which was foreign to him. I asked presently for Gerd Carlsen, the other diver, who was a bit higher on the intellectual ladder.

"Can he call you back?" Pope asked. "Jake has him working on a lab problem, and I know he'd like to stay with it. Now I'm afraid I must get back to the unloading." And damned if he didn't ring off without requesting permission. What a way to run a Navy!

We rang for Susan then. She was willing to talk, up to a point, but it was evident that she was begrudging the time and wanted to get back to her laboratory, so I asked for Saybolt. She said he was out having a swim.

"But he went out ninety minutes ago, and he was on tanks."

"Yes," she said matter of factly, "we've learned to breathe very lightly. A back-pack will last several hours."

I held the connection and sat looking at United States' top expert on oxygen metabolism. He pulled the desk mike toward him.

"Susie."

"Yes, Dr. Stokes."

"Answer carefully, now. How

often do you go swimming?"

"Four or five times a day."

"In twenty-four hours, you mean."

"Yes."

"An hour or so each time?"

"An hour or two."

"Very good. What's your skin look like? Any different?"

"Yes, we've all gotten quite a deep tan."

"Godamighty," said Stokes. "It's beginning to add up."

"Of course it is, Doctor," Susan said, and rang off.

Again, I won't try to detail the conference call, which went on and on, enlivened—for me—by the fact that Abel Stokes invariably addressed the admiral as Pee-wee. They all argued, in a scholarly way, for more than two hours. Right from the beginning a couple of the conferees were flatly in favor of suspending the operation, and nobody, including Stokes, would support the position that there could be no physiological hazard involved.

The storm was worsening steadily and static had gotten very bad when Admiral Minter finally called it quits.

"Bring 'em up," he said. "Much as I hate to do it, that's an order. Can you hear me? Bring 'em up. Acknowledge."

"Yes, sir," I said. "We bring them up."

So that was that. I called Saybolt and got him.

"Admiral Minter has suspended the operation. Everybody up. We'll start to prepare the ack-room now and should be ready for you by about sixteen hundred."

The acclimatization room on the third level provided the safest possible way to pressurize and depressurize. As big as some small hotel rooms I've been in, it had view ports all around, a telephone, chairs and cots, toilet and wash-up facilities. It would hold ten atmospheres pressure. The people from Sea Home could make the ascent in a personnel capsule, all five at once, doing the three hundred odd feet in eight minutes. They'd transfer to the ack-room through an airtight coupling, and there they'd stay for up to the better part of a day while the pressure was gradually reduced and the oxygen content built up.

My statement to Tim had been greeted by silence, but I could hear low-voiced conversation at a distance from the phone.

At last I demanded, "Can you hear me?"

"Yes, I heard you. Sorry."

"What do you mean, sorry?"

"Sorry, we're not coming up."

"Hold on, now. That was an order. From Minter."

"I don't care if it's from the President. We're staying down."

"You don't know what you're saying. You'll be court-martialed."

Tim laughed. "You'll have to get us up first."

"You're insane."

"Wrong. We're sane for the first time in our lives and healthy for the first time, too."

"We can force you to come up."

"How?"

"Cut off your food. Cut off your fresh water."

"It wouldn't be easy. We've been doing some things down here that we haven't reported. We're very close to self-sufficient at this moment. But go ahead if you care to, and see what your pal Vogel would have to say."

"This is asinine. I'm coming down."

"Good. We'll be glad to see you."

I banged the switch off and discovered that Abel Stokes was red-faced with laughter.

"Go to it, son. Go down and see for yourself. It's the only thing to do. Do you know, when Peewee Minter laid down the law, I was almost hopin' something like this might happen."

"You don't think they're in real danger, then?"

"So help me, I don't know. Things are happening to their bodies that never happened to any human before, but I do believe Tim, that right now they're the healthy ones and the rest of us are sick. What worries me is what happens when they finally do come up. Are the changes fully reversible? Well, well, you heard my notions during our conference. Let's not beat the situation to death. You'll know

more after you've paid 'em a visit."

Pete broke in, as I was betting he would, with a strong suggestion that he be the one to visit Sea Home. He argued at some length, making, with more or less subtlety, the points that: I was in command on the tower and should clearly not leave my post; my diving experience was some years in the past; and—with the most devious circumlocution—he was younger than I and presumably better able to face the rigors of the descent. I thanked him and exercised authority. In large measure Pete Swain lacked the one quality which I felt might be needed. Imagination.

We concocted a careful message to Minter to be cabled, not phoned, once I had begun the descent. It ran: "Saybolt and group reluctant to ascend, fearing unfavorable reactions. Cheney has gone down to confer, Stokes concurring. Signed: Swain."

I'd forgotten to eat lunch, so I could go into the ack-room almost at once. It involved stripping and leaving my clothes in the outer shower room, scrubbing carefully with an antiseptic, then going through the airlock. Swain, wrapped in oilskins and buffeted by the storm, watched me through a port, and both he and Stokes kept their respective intercoms open so that we could talk.

I had once done a good many working dives at moderate depth and had been down to two hun-

dred twice. In addition, back at Bethesda, I'd taken a turn in a pressure room much like this, breathing oxygen, helium and sulfur hex at a simulated three hundred feet. I was ready to go down in an hour, with no sweat, but Swain, now in command, vetoed it and kept me there under observation for an extra hour. Then I climbed into the personnel capsule and sealed myself in.

With our cables there was no swing, even with the wind now holding at close to seventy, but there was a good deal of bumping until the capsule was under water; then no sensation at all until the clang and jolt of landing in the lower lock. Another clang signalled that it had closed above me, and presently a green light indicated that the lock was drained. Somebody outside swung back the port and I got my first look at Sea Home.

Or would have, except that it was almost dark.

Somebody grabbed my elbow and held on while I gained footing and made sure my knees weren't going to buckle. There was, after all, some reaction. I peered at him in the gloom.

"Carlsen?"

"Right, sir. I'll get some light on. We don't need it, but we don't mind it." He flicked switches and I was able to look around. Sixty by fifteen feet is surprisingly spacious when you're inside, even when the bottom third is sliced off to provide

flat flooring. This chamber, intended primarily for receiving and temporary storage of material, was essentially unused and was in fact nearly empty. Carlsen headed for a connecting passage, hitting switches as he went. I followed into the first of the three chambers designed for work and living.

Carlsen gave me the beginnings of a courteous but laconic tour. "Physics lab," he said. "Bio lab, metabolism, organic synthesis, marine specimens storage, communications room and lounge, electronics lab, electronics shop, kitchen and mess, library, conference and reading room. The bedrooms and toilet facilities are beyond. Care to see them?"

"Not now. Where is everybody?"

"Out swimming. I can call them in if you have questions I can't answer, but we knew you were on your way, so they'll be back soon in any case."

"Orders were that no more than two at a time were to leave Sea Home."

"Yes, sir," Carlsen said gently, "we do seem to have thrown the book overboard, don't we?"

I was beginning to shiver. The ocean outside was, of course, close to freezing, and the compressed atmosphere conducted heat away from the body at a high rate. Sea Home had originally been thermostated at eighty-five degrees, but we knew that, as their skin temperatures dropped, they had reset

the controls to cool the chambers. I was wearing a quilted coverall. Gerd wore the briefest of swimming trunks. Under the circumstances I was damned if I would ask for more heat.

Gerd's appearance had changed considerably. He was a big, heavy-shouldered blond and had been as hairy an individual as I'd ever known, with a real thatch of yellow wool all over his chest, belly and forearms. It was all gone. He still had eyebrows and the hair on his head, but that was it.

Susan had said that they were all tanned, but that wasn't the right word to describe Gerd's color, which was a golden brown such as you sometimes see on Creole types in the West Indies.

"Tell me about your skin, Gerd," I said. "No, wait. Let's go to the lounge and be comfortable." Frankly, I wanted to get into one of the rooms I knew to be dehumidified, where it might seem a little less chilly.

"OK, sir. I'll just take a dip in passing." With that, he pulled open a floor hatch and dropped through, feet first. No suit, no mask, nothing at all between Carlsen and all that ice water. He was back in less than a minute, though, shining wet.

"That's better," he told me. "If you stay dry for very long, you get itchy. The others are close by. They're coming aboard."

Like a jack-in-the-box, Tim

Saybolt popped up through the hatch. He wore minuscule trunks, like Gerd, and flippers. No mask, no back-pack.

I said, "Good god!" or words to that effect.

Next came Susan Craig. She was wearing trunks and flippers, nothing else. I mean literally nothing else. When she saw me she very nearly snapped a salute, which would have been a quaint sight. But she caught herself, not being in uniform.

I put on a deadpan and headed for the conference room trailed by five wet seals. Their hides were glossy and beautiful. They disposed themselves around the room. Carlsen paused at the door and pushed up the thermostat, not enough, but some.

"You're feeling the cold," Tim said. "Naturally. But if we get the place warmer than about sixty, we'd be jumping in the water every few minutes to cool off. Want an extra layer?"

"No thanks."

"OK. You won't be here long. That is, you shouldn't. But we're glad you came down to see for yourself. Excuse us if we confer as we are. Clothes are becoming uncomfortable and nearly intolerable. By tomorrow I expect we'll have overcome our human reticence and discarded the remainder. It doesn't matter. We're somewhat more civilized than when we came down."

Being only average civilized, I was trying to keep my eyes off Susan. "Have you any suggestions," I asked him, "as to what I should tell BuMed?"

"You can tell them the truth. That as a medical man, I consider it ill-advised to come up at this time. I'll say, between ourselves, that I have no doubt we'd survive it, but I doubt whether any of us could ever again be happy on dry land. We've discovered what it's like to be alive."

"But that implies that you won't ever want to come up."

"Right."

"You know what BuMed will say to that. The rate may have slowed down but the subjects are still changing. Body temperature, respiration rate and so on. Let's get them up while we still can, while the changes are still reversible."

"Yes, that's what they'll say. That's why we've been stalling and not reporting the whole story."

"Leaving out such little details as your ability to swim without masks. How long can you stay out without breathing?"

"Indefinitely. Of course, we're being cautious."

"I'd hate to see you being careless. How do you do it?"

"Take a good deep breath and hold it. But let's talk about first things first."

"Go ahead."

"Our trouble has been nitrogen."

"Trouble? I didn't know you'd had any."

"We haven't since we came to Sea Home. I put it that way to make a point. You see, we've known all along that nitrogen was narcotic at a couple of hundred feet. What the physiologists have never realized is that it's also a stupeficient at sea level and on dry land. It was so much a fact of life, we forgot to wonder about its effect."

"But nitrogen . . .," I began.

"Tim is talking about nitrogen in solution in the body fluids and tissues," Gerd put in. "Nitrogen in combination is essential to our kind of life."

"We've all been doped from the womb to the grave," Tim said, "and we, Cheney, are the first five people ever to have gotten down to the nitrogen level where we could begin to come awake. You, by the way, are poisoning us to a small degree. You spent some time in the ack-room, obviously, but you're still exhaling a little nitrogen, and we can all feel it. You, on the other hand, must be feeling pretty good."

"Well, yes. At least I expected to feel lousy on my first three hundred foot dive, and I don't. And I have the impression of thinking rather clearly."

Kepper looked up from the scribbling which had been occupying part of his attention. "There," he said, "is a formula for calculat-

ing prime numbers. It works up to a hundred thousand, and I can't think what good it is. No, Commander, your thought processes haven't improved any to speak of. You have a good imagination and you're extra alert. In twenty-four hours your memory would start to work the way a memory should. In seventy-two, you'd have approximately total recall."

"Now, listen," I said. "Test animals have breathed this three-way atmosphere of yours for quite long periods. I breathed it myself up at Bethesda. So did all of you."

"In the Bethesda test chambers there was several percent of nitrogen—too much—and we were in too short a time. I don't know about the earlier animal experiments, but I'll bet nobody asked the animals how they felt."

"What makes you think you're thinking better?" I asked. "I'm not doubting it, understand, but what's your evidence?"

"The total recall, for one thing," said Tim. "It makes you feel like a total person. Accomplishments, for another. Walter Pope has had a natural interest in mathematics, though he never knew it. In the last week he's galloped through differential and integral calculus. Gerd is becoming something of an expert in enzymes, and Susan could probably hold her own with the ranking biochemists of the country. Jake, on his part, has invented from a purely mathemati-

cal start a little gadget that pulls enough thermal energy out of the sea water to give us all the electric power we need. It looks like reverse entropy, but he assures us it isn't."

"First you learn to think," Susan said, "then your body goes to work. Cells learn to differentiate in new ways. In spite of the efforts to send us down here in as clean a state as possible, in terms of pathogens, we brought along a fine collection of viruses. Normally they'd be attacking cells to produce more virus. As it is, the cells use the viruses as building blocks to adapt themselves to new conditions. We've never realized the capabilities of the cell. Think what can happen when the first child is born down here."

"Susan and I plan to marry," said Gerd.

"Really? Who'll marry you?"

"You mean perform a ceremony? Well, for the benefit of people topside I expect Tim can listen while we exchange some promises. We'll stay monogamous until our first child can take care of itself. It makes sense, you know. I feel sure our new community will practice term monogamy."

"Your new community? Do you think the Navy will continue to send people down, when they can't or won't come back?"

Tim, with no uncertainty, said that they would. "After a period of confusion and soul-searching, yes.

A few at first, then more and more as the feedback of new knowledge becomes evident."

I shook my head. "But where could you find the volunteers. You like it down here, that's obvious. But for a man who had never experienced it, well, he might be pretty reluctant to say good-bye to everything he has known and move into a cold, lightless world."

"Rats," said Tim. "When we know enough to reach the stars, man will go, believe me, with no slightest hope of return."

"You may be right. What about your families?"

"My wife will want to join me," Walter Pope said. "Within a year, I should hope, she'll be allowed."

Jake Kepper shrugged. "Mine won't. She'll divorce me. So OK."

I changed the subject. "What about your skins? Abel Stokes seems to have guessed something, but he won't come right out."

"I'm sure he has," said Susan.

"Not in detail, naturally," Tim added. "Take a look at my hand."

The palm and the insides of the fingers looked normal. The back of the hand and his arm had lost the glossy, wet seal appearance. The skin was now matte and dusty, as if covered with pancake makeup.

"Under a low-powered microscope—I'll show you later—you'll see that I've developed some billions of minute scales. It's had the effect of increasing my body area many, many times. Most of those

scales act as absorbers of oxygen, but perhaps one in a hundred has a different function. They excrete carbon dioxide, and incidentally some other metabolic end products I don't need in my blood stream. You were bowled over when we came in without masks. The fact is that we simply aren't breathing. In air—in this atmosphere, that is—we breathe occasionally, not to forget how, but for the last number of days we haven't really had to. The change has been rather explosive."

"You're telling me that, in effect, you have microscopic gills all over your bodies."

"Not gills. Nothing like gills. A much more efficient respiratory mechanism."

I tried to sort out my thoughts. "You're saying that you've compressed a thousand generations of evolutionary adaptation into . . . less than three weeks."

"No. Evolutionary adaptation implies the gradual weeding out of lethal factors, the concentration of survival factors. Not genetic mutation either, although that may be involved. Call it cellular mutation on a broad front, if you want to give it a tag."

"I don't believe it."

"You saw us come in without masks. You think of a better explanation."

A buzzer sounded. Jake flipped a switch, and I heard Pete Swain's voice, amplified.

"Cheney?"

"Yes, here."

"We're in a mess."

"What's up?"

"First of all, we're having a hell of a storm up here. That tropical disturbance has gotten to be a full-fledged hurricane, and she's now just east of Puerto Rico."

"Will she hit us?"

"Not square, probably, but the wind is force eleven and rising."

"All right, so you weren't planning to go anywhere. What comes second?"

"Dr. Stokes has had some kind of attack. He must have gone out on deck alone and fallen. There's a gash along the side of his head that I've just now got patched up so it's stopped bleeding. He got back into quarters on his own. It looks like he crawled in and then passed out. We can't rouse him. I think he may have had a heart attack or a stroke. His breathing sounds terrible, sort of a snoring noise."

Tim leaned to the mike. There wasn't anything wrong with the transmission, but there was a lot of noise at the other end. "Can you hear me, Pete? Roll him over on his face. Very gently. We don't want him choking on his tongue."

"I already have."

"OK. Then do nothing. Don't undress him even if he's wet. Keep him covered. I'm coming up."

"I'll be along," I said. "It may

take Tim a good while to get through the ack-room, but I can hurry the schedule."

"But that's part of the trouble. You can't."

"Why can't we?"

"When we brought the cables up, the locking frame wasn't heavy enough to hold them. The wind wrapped them around a stanchion. It's unreachable and anyway one end of the frame tore loose."

"Yes," I said, "we're in trouble. Tim, tell him the best thing to do for Stokes until medical help can be gotten." The launch and the work boat were both at Santa Carlotta, securely tied down I hoped, and there was a retired general practitioner on the island, but it might be two or three days before we could get him to the tower.

"Is the elevator working?" Tim asked.

"It was a few minutes ago."

"Bring it down to sea level and wait for me. I'll be there in about thirty minutes."

"You're certain you can do it?" Susan asked.

"Certain enough. One of the tower supports has climbing rungs. They do go all the way up, don't they?"

"They go all the way up," I told him, "but it won't work. Even if you think you could climb those rungs at the rate of ten feet a minute, that particular stanchion is a good forty feet away from the loading platform and elevator."

"Isn't there a criss-cross of girders over to the platform?"

"Not directly."

"Draw me a diagram."

I made a quick sketch. "The girders are well under water of course, but with the waves they must be having up there, the girders will be almost awash between crests."

"Not so good."

"No. You can't do it anyway, Tim. I don't care how much you've adapted, you can't hold your breath and make that climb. You'd have to use a back-pack and that wouldn't work either, because you'd need more and more oxygen as the pressure diminished."

"Damn it, I'm not going to hold my breath. I'll have my lungs filled with water. Susan, find one of those filter masks, will you. You've got to strain most of the solid crud out of sea water before you breathe it."

"Get two masks, Susan," Walter Pope said. "I'm going, too. Don't raise objections, Tim. Getting across those girders will be tricky, and there ought to be two of us, roped together."

"OK. No objections." Tim peered at the sketch. "We turn at the second girder on our right. How do we get up on the platform?"

"You'll find another set of climbing rungs. How do you know you can fill your lungs?"

"How would you expect? We've

been trying it, off and on, for the last three days. It's not easy the first few times."

I'd read about the mice and the dogs with their lungs filled with oxygenated water, but that humans could do it, even these humans, was stretching the limits of an already strained credulity.

Susan came back with the filters—circular pads of cloth fitted into rubber face masks.

"Are you still on, Pete?" Tim asked.

"Yes, listening."

"Draw a medical emergency kit from the lockers."

"It's all ready for you."

"How does he look?"

"As of half a minute ago, no change."

"OK. Can you meet us at the platform?"

"Can do. There'll be two of us. The platform will be under water half the time, so we'll be suited up."

"Right. Count your thirty minutes from now, but give us some leeway—say, twenty-five to forty-five. Beyond that time something will have gone wrong, and you'll have to do your best for Stokes on your own. Susan can advise you by phone."

They put on canvas webbing harnesses and clipped on their rope. Tim said they'd be seeing us, then they slid through a hatch and were gone.

We sat and looked at each other rather solemnly. It was clear that,

in their estimates as well as mine, Tim and Walter were heading into serious danger. Jake Kepper fetched me a blanket to wrap up in, and coffee for everybody. So they still had one Navy vice remaining. Susan said presently that she wanted to digest at least one textbook on cardiology, in case her advice might later be needed, and she left us. After that it became obvious that Jake and Gerd were staying with me as a matter of courtesy only, so I suggested that I could do with a little sleep which, incidentally, was the truth.

It was six hours later when Jake came into my cubicle and woke me.

"Is it morning?"

"What passes for morning. Almost five, and breakfast is ready. Walter's back."

"They made it? What a hell of a note for me to pass out like that, without getting a report."

"It would have been remarkable if you hadn't, your first day down. Yes, they made it, but it was just as well they were roped together. Those girders had a coat of slime. I'll let Walter tell you."

Walter never did tell me much, just enough for me to gather that

they'd been damned lucky on the last few feet. He had stayed with Tim until it was clear there was nothing much he could do, then had quietly taken the elevator down to sea level, refilled his lungs in the first wave, and stepped off the edge carrying a length of chain as a weight.

That was four days ago. Hurricane Beryl has moved on at last, to harass shipping in the North Atlantic, but there is still a heavy swell, and it will be another day before Abel Stokes can prudently be taken ashore. I've talked to Tim half a dozen times. Stokes had a concussion, either preceded or followed by a mild heart attack, but he is sitting up and even starting to walk a few steps, and he's trying to talk Tim into a trip up to Bethesda. I'll be surprised, though, if Tim Saybolt doesn't show up by tomorrow, via the quick descent method.

I'm not feeling the cold any more, and today for the first time I didn't have to shave. It will be several days more before they get the personnel capsule reslung. By then—I don't really know. But after all, I have no immediate family to worry about.



MARKET PLACE

BOOKS-MAGAZINES

Contact Fandom, Fanzines, 12 for \$1.00 Johnson, 345 Yale Avenue, Hillside, N.J. 07205.

Science Fiction and Fantasy back issues magazines, books, pocketbooks, 5 for \$1.15. Free lists. Gerald Weiss, 92 South 2 Street, Brooklyn, N. Y. 11211.

BACK ISSUE SF MAGS, BOOKS. FREE CATALOG. Gerry de la Ree, 75 Wyckoff, Wyckoff, N.J. 07481.

SPECIALISTS: Science Fiction, Fantasy, Weird Fiction. Books, pocketbooks. Lists issued. Stephen's Book Service, 67 Third Avenue, New York, N.Y. 10003.

SF Bargains. List free. Werewolf Bookshop, Verona 4G, Pa. 15147.

30,000 magazines for sale; science fiction, western, detective, adventure, others. We buy collections, too. Send list, enclosing stamp. Magazine Center, Box 214, Little Rock, Ark. 72203.

Only a few copies left. Mercury Mysteries 4 for \$1. Mercury, Box 271, Rockville Centre, N.Y. 11571.

Genesis, Geology & Evolution, 60¢. Carbon-14 Dating, 30¢. Christian Evidence League, Malverne, N.Y. 11565.

Stories of CONAN, nowhere else in print, in TALES OF CONAN and THE RETURN OF CONAN (Howard-Nyberg-de Camp), \$3.00, Gnome Press, Box 181, Hicksville, N. Y. 11802. Shipments sometimes delayed.

Vintage F&SF for sale, plus large collection anthologies and novels. Specific inquiries only. L. Rose, 15 Lake St., White Plains, N.Y. 10603.

BUSINESS OPPORTUNITIES

FREE BOOK "990 Successful, Little-Known Businesses." Work home! Plymouth-235L, Brooklyn, New York 11218.

Start rock-jewelry business. Rock tumbler, 2 lb. capacity, 4 unbreakable barrels, 1/50 H.P. A.C. motor, 5 lbs. Gem Rock, 3 lbs. tumbling grits. Only \$18.50. Price list of necklace chains, etc. on request. Richard Loomis, 8149 East Thomas, Scottsdale, Az. 85257

CLUBS

OZ ENTHUSIASTS . . . Join the International Wizard of Oz Club. Receive fascinating BAUM BUGLE, Illustrated Magazine of bibliography, biography, history, comment, reproductions, news on all aspects of Oz and Baumiana. Only \$2.50 for full membership, year's magazine subscription . . . Remit to Fred M. Meyer, Secretary, 1620 First Avenue South, Escanaba, Michigan 49829.

HYPNOTISM

FREE! Hypnotism, self-hypnotism record—book catalog! Azadiads, 5786 Elm, Fresno, Calif. 93706.

FREE Hypnotism, Self-Hypnosis, Sleep learning Catalog! Drawer G400, Ruidoso, New Mexico 88345.

Free Illustrated, Hypnotism Catalogue. Write Powers, 8721 Sunset, Hollywood, California 90069.

LEARN WHILE ASLEEP, Hypnotize with your recorder, phonograph. Astonishing details, sensational catalog free. Sleep-learning Research Association, Box 24-FS, Olympia, Washington, 98502.

MOVIES

THE BLOB—starring Steve McQueen. Eerie movie of man-eating blob from outer space. 8mm 200 ft. reel—\$5.95 Super 8—\$6.45 Cinema Eight, Box 245, Gracie Station, New York City, 10028.

Do you have something to advertise to sf readers? Books, magazines, typewriters, telescopes, computers, space-drives, or misc. Use the F&SF Market Place at these low, low rates: \$3.00 for minimum of ten (10) words, plus 30¢ for each additional word. Send copy and remittance to: Adv. Dept., Fantasy and Science Fiction, 347 East 53 Street, New York, N. Y. 10022

PERSONAL

Cut living costs 111 ways! \$3 guide reveals how. Richard Schultz, 7718 Whitsett, No. Hollywood, Calif. 91605.

REAL ESTATE

CALIFORNIA acreage. \$20 Down; \$20 Monthly. Lands, Box 35291, Los Angeles 90035.

STAMPS

PENNY! Approvals! Regardless catalogue! Kloster, 4164 52nd Street, San Diego, Calif. 92105.

500 DIFFERENT STAMPS, \$1.00. Smith, 508-Z Brooks, College Station, Texas, 77840.

WANTED TO BUY

Arkham House Books, Sunday Comics, Comic Books. Goggin, 6202 Greeley Boulevard, Springfield, Virginia 22150.

Wanted: works of Robert Sheckley, Nelson Bond; need urgent, essential to mental health, send asking price, titles, Ben Hansburg, 3177 Oaklynn Drive, Uniontown, Ohio 44685.

MISCELLANEOUS

FOREIGN EDITIONS of Fantasy and Science Fiction. A few copies of French, Spanish, German, and Italian editions available at 60¢ each. Also some British F&SF at 60¢ each. Mercury Press, Box 271, Rockville Centre, N.Y. 11571.

MOON SHOP PUBLICATIONS. New, Moon Chart \$2.00. 20 by 25 inch Copernicus photo \$1.00. Two-sided Moon Chart: four maps including Mercator's projection, Index Sheet of 5,000 Formations \$3.00. All three items \$4.00. Postpaid: Herbert S. Ross, Box 117, South Walpole, Mass. 02071.

Build A Laser—\$3.00 complete information. J. Canavan, 166 Embarcadero, San Francisco, Calif. 94105.

JAMPACKED! Sententious Bimonthly! \$1. Refund-Guarantee. (Details Free.) "Penman," Deer Park, N. Y. 11729



YOUR MARKET PLACE

A market is people—alert, intelligent, active people.

Here you can reach 180,000 people (averaging three readers per copy—60,000 paid circulation). Many of them are enthusiastic hobbyists—collecting books, magazines, stamps, coins, model rockets, etc.—actively interested in photography, music, astronomy, painting, sculpture, electronics.

If you have a product or service of merit, tell them about it. The price is right: \$3.00 for a minimum of ten (10) words, plus 30¢ for each additional word. To keep the rate this low, we must request remittance with the order.

Advertising Dept., Fantasy & Science Fiction
347 East 53 St., New York, N. Y. 10022

| | | | | | |
|--|------|-----|---|-------------|-----|
| AANDAH, VANCE: Beyond the Game | May | 79 | KERR, WALTER H.: From A Ter- ran Travel Folder (verse) . | Feb. | 71 |
| ANDERSON, POUL: Books | Apr. | 40 | LANIER, STERLING: Whose Short Happy Life? | Mar. | 62 |
| ARTHUR, CHET: The Lucky Peo- ple | Feb. | 61 | LEE, WILLIAM M.: Sea Home (novelet) | June | 107 |
| ASIMOV, ISAAC: Science: The Sev- enth Metal | Jan. | 101 | LEIBER, FRITZ: The Turned-Off Heads | Jan. | 32 |
| The Predicted Metal | Feb. | 109 | LORY, ROBERT: The Locator | Feb. | 89 |
| The Seventh Planet | Mar. | 113 | MAC LEOD, ANN: Settle | June | 70 |
| The Dance of the Sun | Apr. | 80 | MALLETTE, MOSE: The Stars Know | Feb. | 66 |
| Backward, Turn Backward .. | May | 92 | MCALLISTER, BRUCE: Without A Doubt Dream | Apr. | 46 |
| Counting Chromosomes | June | 93 | McKENNA, RICHARD: They Are Not Robbed (novelet) | Jan. | 5 |
| BIGGLE, JR., LLOYD: In His Own Image | Jan. | 118 | MERRIL, JUDITH: Books | Feb. - June | |
| BRODY, LARRY: Demon | Apr. | 55 | NIVEN, LARRY: Dry Run | May | 84 |
| BUNCH, DAVID R.: That High-up Blue Day That Saw The Black Sky-Train Come Spinning | Mar. | 124 | NOLAN, WILLIAM F.: He Kilt It With A Stick | Feb. | 72 |
| Of Time and Us (verse) | June | 45 | O'DONNELL, K. M.: Final War (novelet) | Apr. | 101 |
| CARR, TERRY: Books | Jan. | 37 | REDD, DAVID: A Quiet Kind of Madness (novelet) | May | 104 |
| DE CAMP, L. SPRAGUE: Dino- saurus in Today's World ... | Mar. | 68 | ROSY AINE, J. H.: The Shapes (novelet) | Mar. | 91 |
| DE FORD, MIRIAM ALLEN: The Ajeri Diary | Mar. | 47 | RUSS, JOANNA: Books | Jan. | 37 |
| The Superior Sex | Apr. | 64 | SAXTON, JOSEPHINE: Light On Cader | Jan. | 66 |
| DELANY, SAMUEL R.: Books | Jan. | 37 | The Consciousness Machine (short novel) | June | 4 |
| Lines of Power (short novel) | May | 4 | SEARLES, BAIRD: The Wilis | May | 56 |
| DORMAN, SONYA: Lunatic As- signment | Jan. | 111 | SELLINGS, ARTHUR: Crack In the Shield (novelet) | Jan. | 75 |
| EISENBERG, LARRY: The Time of His Life | Apr. | 72 | SHECKLEY, ROBERT: I See A Man Sitting On A Chair and the Chair Is Biting His Leg (novelet) | Jan. | 43 |
| ELLISON, HARLAN: I See A Man Sitting On A Chair and the Chair Is Biting His Leg (novelet) | Jan. | 43 | (novelet) | Jan. | 43 |
| FILER, BURT: Backtracked | June | 76 | Budget Planet | Mar. | 81 |
| FISH, ROBERT L.: To Hell With the Odds | Feb. | 96 | The People Trap | June | 54 |
| FITZPATRICK, R. C.: Dead to Rights | Apr. | 29 | TARKINGTON, BOOTH: The Veiled Feminists of Atlantis | Feb. | 119 |
| GALOUYE, DANIEL F.: Flight of Fancy (novelet) | Apr. | 4 | THOMAS, TED: Aperture in the Sky | Feb. | 70 |
| GOULART, RON: Muscadine | Apr. | 92 | TUSHNET, LEONARD: Gifts From the Universe | May | 69 |
| HARRISON, HARRY: I Have My Vigil | Feb. | 93 | WHITE, TED: Wednesday, Noon | Feb. | 77 |
| The Secret of Stonehenge ... | June | 103 | WILHELM, KATE: Stranger in the House (short novel) | Feb. | 5 |
| HARRISON, MICHAEL: At the Heart of It | June | 82 | WILSON, GAHAN: Cartoons | Jan. - June | |
| JACOBS, HARVEY: The Egg of the Glak (novelet) | Mar. | 4 | Books | Apr. | 40 |

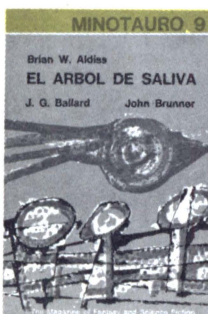
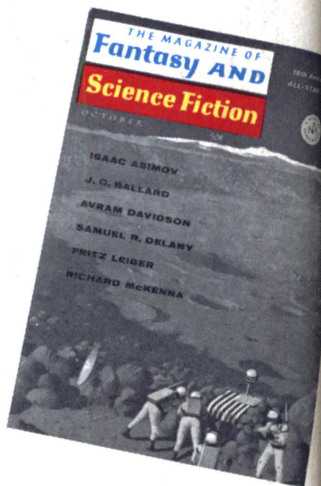


The Imprint of Quality

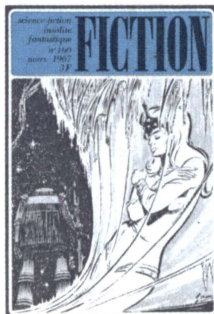
(since 1937)

THE MAGAZINE OF **Fantasy AND** **Science Fiction**

F&SF's readers are both young (84% under 45) and educated (62% have attended college). When they want relaxation or stimulation in reading, they turn to the best works of imagination and to FANTASY AND SCIENCE FICTION. "F&SF regularly supplies the finest the field has to offer in the way of short fiction"—Clifton Fadiman. Compelling fiction, along with informative and stimulating features on Books (Judith Merrill) and Science (Isaac Asimov), have earned F&SF its reputation as tops in the field.



Spanish
Edition



French
Edition



German
Edition

Joseph W. Ferman, Publisher

MERCURY PRESS, INC. • 347 East 53 Street, New York, N. Y. 10022