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Douglas Fulthorpe
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Future Issues

Amidst these glossy and colourful pages next year, as time marches on and SFM Vol 2 comes into being, we will try to live up to our name and offer you more original fiction. Since our short story competition we’ve collected enough short stories to scupper a space-ship, so it’s only a matter of time before these appear in print. The winning entries will begin to appear in the next issue (Vol 1 No 12) and from then onwards nothing will stand in our way.

Fiction aside, brace yourself for Mike Ashley’s forthcoming articles on the wizard of sf, Michael Moorcock, and the man with the Dangerous Visions, Harlan Ellison. Walter Gillings continues his series of articles Modern Masters of Science Fiction with stories and biographies of such writers as Jack Williamson, John Campbell, AE Van Vogt, Brian Aldiss, Frank Herbert and many others.

In the future SFM will be devoting more space to sf in the cinema and on tv; John Brosnan is engaged in preparing an article on this theme at the moment, with special emphasis on Star Trek and Dr Who. We are hoping to arrange for more timely film reviews and also advance news of films being made and about to be released.

Still on the more visual side of sf, we have plans to publish some of the black and white artwork submitted for our sf art competition. We’ve come to the end of our series The Artist in Science Fiction, although isolated interviews and articles on this topic will, of course, appear from time to time. In fact the publication of Anthony Frewin’s book One Hundred Years of Science Fiction Illustration provides just such an opportunity for some more comment on sf art.

Peter Weston has already demonstrated his comprehensive knowledge of science fiction with his article Don’t Laugh Earthling, I am the Ambassador from Sirius V! which appeared in SFM Vol 1 No 9. In future issues he will be tracing more themes in sf such as: Time travel; Psi-powers; Parallel worlds; Spaceships over the years; Catastrophe novels; Alien possession; Galactic empires; Matter transmitters; Immortality etc, etc. In addition to this Peter went to America for the World SF Convention and we’ll be publishing his report on that.

Malcolm Edwards reviews The Dispossessed, Ursula Le Guin’s new novel, in this issue of SFM and next month turns his attention to Philip K Dick’s Flow My Tears, The Policeman Said. Next year he hopes to interview a number of well-known authors starting off with Samuel Delany; this should appear in SFM Vol 2 No 3.

Other items arranged for your continuing delight and edification include: a regular comic strip; sf and fashion; more mention of music, and anything else exciting that happens. Science fiction is a literature of freedom and of ideas and in 1975 SFM will be striving to reflect this ideal.
Jack Arnold SF Film Director Extraordinaire

If you remember such great sf films as *It Came From Outer Space* and *The Incredible Shrinking Man* you will already be familiar with the work of Jack Arnold. In this personal interview JOHN BROSNAN has managed to discover the techniques behind directing tarantulas, barracudas and *The Creature From The Black Lagoon.*

Of the many so-called science fiction films produced in Hollywood during the 1950s only a handful are in any way memorable. These include such films as *The Thing, War of the Worlds, Forbidden Planet, Invasion of the Body Snatchers,* and the films of Jack Arnold. He directed two fine science fiction films—*It Came from Outer Space* (based on a story by Ray Bradbury), and the classic *The Incredible Shrinking Man* (with a screenplay by Richard Matheson based on his own novel). But even Arnold's monster films, such as *The Creature from the Black Lagoon* and *Tarantula,* possess a distinctive flair that is missing from similar productions of the period. In his book *Science Fiction in the Cinema,* John Baxter describes Arnold as "the great genius of the American fantasy film" and adds that his series of films made for Universal Studios between 1953 and 1958 have few equals in the cinema for sheer virtuosity of style and clarity of vision.

Jack Arnold's film career really began when he was a young actor working on Broadway before the Second World War. On his days off he would film his fellow actors on stage, using a sound-proofed 16mm camera, and then sell them the results. This lucrative hobby came in handy when, after Pearl Harbour, Arnold joined the Army Signal Corps while waiting to get into a pilot training school. The Army Signal Corps were making training films of all kinds and Arnold found himself working under the great documentary-filmmaker Robert Flaherty. Flaherty and Arnold became good friends and during the five months he was with him Arnold received an invaluable crash-course in film-making.

After the war Arnold and a friend formed a company to make documentaries which was very successful. It was for one of these documentaries that Arnold received an Academy Award nomination and this led to an offer from Universal Studios to direct feature films. The first of these was in 1950 and was a picture about teenagers growing up in the slums of New York. Originally called *Night Flowers* it was released under the title of *Girls in the Night,* but it did well at the box office and Arnold received other directing assignments from Universal. One of these, in 1953, was *It Came from Outer Space,* an eerie film about a group of aliens who take over the bodies of the inhabitants of a small desert town in order to repair their crashed spaceship.
How did 'It Came from Outer Space' come to be filmed?

Arnold: It started because Universal had bought a story by Ray Bradbury with that name. They thought it could be successfully adapted to make a $100,000 film. And just as it came out and Warner Brothers had just released one called The House of the Seven Gables, the film business was in the midst of a rain in other things. I was given a hundred dollars to figure out life than and that is all. And I ordered a hundred gross of the things and we rigged up a treadmill that dropped them at an increasing rate. And even above the gates of the tank and released tons of water on top of Grant for the big shock effect. And the really amusing part came at the end of the picture... the production office called me in to go over the effects of the camera... I was such a hard picture and we all worked so hard we decided that it was the last shot at the end of the film.

The scenes with Grant fighting the aliens are extremely well done. How difficult were they to film?

Arnold: It was very difficult. I had to shoot the ship in his web, then I had to make the spider come down from his web and come along the ledge, then I had to impale him with a bent pin, which was supposed to have been thrown by the ship, which is the last number of attempts before it worked. It was very hard to direct a spider. I finally did it by using air jets... I would prod him in the direction I wanted him to move with sprays of air. We flew in sixty Panamanian spiders, all of us. The size of the scene took a long time and the word that the only way you can get an audience to accept the impossible is to get them involved in an atmosphere. After we had flown in the spider, we called it vibes, a feeling of what you're trying to do. That's why I built a number of actual physical locations, I made them work for my story. That's why you see a desert and the ocean and the water that will help me to create an atmosphere. Most of It Came from Outer Space was done in the desert, the only scenes in the desert were the ones that were shot in the studio, and also the scenes in the little town which was on the Universal back lot. The scenes on the desert, the space ship, was of course, a model. We built a full-scale replica of it and things flew out in the desert and dug a big crater for it. Then we shot matches of it with miniatures for scenes of the actual space ship.

Did you shoot 'Tarantula' in the same area?

Arnold: Yes... in the same area about 10 or 15 miles in the desert to the north of Hollywood. Actually it was a place called Dead Man's Curve, where once there was an outcropping of rocks that I patterned after, in order to get into the desert and look for something that looked eerie and if it gave me the shivers I would say, right, we'll shoot there.

Cliff Stone was in charge of the special effects on many of your films, wasn't he?

Arnold: We gave him a tremendous performance, Clifton Stone was a camera man but he was the head of Universal's special effects department... he was a very knowledgeable and very good cameraman. We worked very well together. We had a lot of crazy problems to work out while making those films. For instance, in The Incredible Shrinking Man, apart from the problem of shrinking him down to less than an inch and getting him down into the cell and having him fight the spider we had the problem of making drops of water look large. The drops were supposed to be coming from a leaking hot water unit. The hero, played by Grant Williams, who was given a tremendous performance, thought, was living in a matchbook underneath it. Now Grant was 5' 11" tall and so everything had to be proportioned down to him look 1" tall. But the problem was to get the drops to look like it was 8" tall. We were using the biggest sound stage there was at Universal and we got up on the top and rigged a device that released water a small amount at a time but the water would spread out and we were going to get our drops. Then I remembered a little bit about my in-splendour when as a kid I found a box of contraceptives. I don't know what they were done on top of people from Windows and I remembered that they used to hold a tear-shaped form on their whole... I got hold of one at the studio, filled it with water and had one of the guys drop it from the top of the sound stage. It turned out to be the perfect proportion and splattered just like a large drop and it hit the floor. So you often have a green line around people. It's very tricky to do properly.

Whatever happened to Grant Williams after he appeared in 'It Came from Outer Space'?

Arnold: I don't know. He never did catch on with the public. His looks are pretty good in the 1950s. Grant was blonde and blue-eyed, kind of too pretty to be a character actor but not quite handsome enough to be the leading or Taylor type that Hollywood wanted at that time. He never changed, he had the same part. In our films, the science fiction ones, the picture itself was the star, and the special effects, but the actor was never the star. Yet In The Shrinkin Man almost three-quarters of the film was acting. It required real acting and it wasn't just a case of reciting banal dialogue as happened in so many of films. Grant had to act... and I thought he gave an outstanding performance and it didn't help his career. Universal didn't take him out of that and put him into an A picture as they should have done, they just put him into more B pictures. That's happened to us all in this business. We didn't get enough of the star. Lady Luck sometimes sits on your shoulders but other times she's your busyelsewhere.

Of your sf films is 'The Shrinkin Man' your favorite?

Arnold: Yes. Definitely. It was the most challenging. It had a meatier role, they had done a film similar only in the sense that the people were small, that was Dr Cyclops, but they stayed one size. Neither did I have the foresight that I thought that sort of situation required... the situation being 5'1" and the place suddenly becomes bigger and threatening. Where as in The Shrinkin Man an ordinary car becomes bigger than the average person. When I wanted to make the audience realise that their own car was potential hells... that the familiar was becoming horrible, the circumstances were changed. In the same vein I once wrote a story called 'A Man In A Boat'. In 'The Shrinkin Man' starts off in this spaceship which is in trouble. It gets drawn into the gravitational pull of an unknown planet and crash-lands. The crew tries to survive in the jungle and while they are exploring they keep finding peculiar things that give them the idea that the place was once inhabited by human beings... they find pieces of railway track and big objects made of rubber and periodically they are inundated with a torrent of water though the sky is always clear at the time. Then they get attacked by these giant insects... giant ants, spiders, etc and eventually by the end of the picture everyone is killed. And then a giant hand reaches down and picks up one of these objects, and it is shown that the setting is Earth and that they had landed in someone's back garden. All the objects they found were made of toys, the environment was like ordinary garden insects and the torrents of water were caused by a sprinkler. What had been hell for them was an ordinary garden lawn. Once again I wanted to create the atmosphere of having familiar things in an ordinary place behind a mystery. But I couldn't sell it to any of the studios... they didn't like the idea of everyone dying in the end. They wanted a happy ending.

Whose idea was 'The Creature from the Black Lagoon'?

Arnold: He was a composite creation. The producer who was assigned to make those sf films, Bill Alland, who is no longer in the business, found this story by Maurice Zimmer and he called me in on it. We worked on it together, and also with help from Robert L. Lippert who financed the film. The idea came to be known. Then we sold the story to the studio. We had a lot of fun trying to come up with monster... making it what it should look like. We made a lot of tests before we decided what it appeared in the film and it turned out very good.

Where did you shoot those marvellous underwater scenes in 'Creature from the Black Lagoon'?

Arnold: We shot them at Silver Springs in Florida. Very clear water there... of course, if I had to go to pay me... but then discovered that they made dandy bombs when you used water with water with water. So we had to do only one or take because of a mistake his department made... that was in a scene when Grant was supposed to be introduced by the split-screen scene and he was supposed to put his arm around his wife's waist but we had to take him off so we had to shoot one side of the split screen again. But that was the only time in the whole picture. Cliff was a genius and that the whole process wasn't used when I made Shrinkin Man. We used a combination of making our own mats and rear projection. Anyway, blue screen work always looks...
‘We flew in sixty Panamanian tarantulas because the domestic ones were too small and we couldn’t keep a sharp focus on them. We had to get the biggest ones available and they were tremendous beasts 6” in diameter. We used all sixty of them during filming because we had to light to such an intensity they almost cooked!’

The spaceship from IT CAME FROM OUTER SPACE actually a miniature, and you the figure of a man (courtesy Universal Pictures)

Scientist Leo G. Carroll inspect his work in a scene from Jack Arnold’s TARANTULA (courtesy Universal Pictures)

Leo G. Carroll experiences one of the unpleasant side-effects of scientific research (from TARANTULA, courtesy Universal Pictures)

surface of any body of water. You know the feeling when you are swimming and something brushes your legs down below ... it scares the hell out of you if you don’t know what it is. It’s the fear of the unknown. So I decided to exploit this fear as much as possible in filming The Creature from the Black Lagoon. But I also wanted to create sympathy for the creature ... or my little beastie as we called it ... because I liked him. I’d gone to Florida to find an underwater swimmer and we found a boy who was swimming in a show who could hold his breath for five minutes at a time.

He didn’t use air tanks at all during the filming? Arnold: No. He was such a good underwater swimmer that what we had was an air hose off-scene and when he felt he needed air he would swim over to it, take a deep breath and then swim back to the scene. That way he could stay underwater for ages. We couldn’t build air tanks into the costume because then you would have seen the bubbles. But he was sensational. His name was Ricou Browning. He became a director later and I believe he’s directing a TV series down in Florida at the moment. In the second film (Revenge of the Creature) we filmed him in a fish tank in Florida. The first one had done very well at the box office so the studio wanted a sequel. We dreamed up a story about the Gill-Man being captured and put in an oceanarium in Florida. When I went down to scout locations the oceanarium people showed me this tremendous tank full of sharks, barracuda, moray eels, even an octopus. They were fed by divers going into the tank and feeding them by hand. I looked into the tank and said, could you guys possibly screen off a part of the tank with a net and then take out the most dangerous fish so that I can shoot the creature inside it. I told them I not only had to get the creature in the tank but also my leading man and lady. I said if they took one look at those sharks in there I would never get them in. So they assured me they would but when I returned with the company and we got ready to shoot I saw there was no net. Where’s the net, I asked. And they said, you don’t need a net ... those fish won’t bother your actors ... they’re too well-fed. So I was in a fix. How was I going to get my actors to go in there? Now I had a crazy camera-man on that picture, he was nuts. He said to me that I’d better go into the tank with him to demonstrate to the actors that it was safe. He talked me into it so I put on a mask and air tanks and jumped in. I closed my eyes at first. After a while I opened one eye and there was a damn shark, at least 12” long, his mouth open and looking at me. And he was only about a yard away. I didn’t know what to do. I didn’t know whether to make any movement or to stay absolutely still ... so I just shut my eyes again. It seemed the best thing to do. Then he brushed by me and I felt his skin ... it was like sandpaper. I shot to the surface then and said, come on in nothing to it! But the amazing thing is that by the third day ... after all our initial reluctance to go in the tank ... all of us were so used to the sharks that we were actually kicking them out of the way. The only animal that gave us any trouble was a turtle. It developed a liking for the creature’s costume and kept bing chunks out of it. Finally we had to assign a grip to stay underwater with the sole job of making sure that the turtle didn’t bother our monster.

Were the budgets on those films relatively tight? Arnold: Well, for those days they weren’t. We spent about seven to eight hundred thousand dollars which was a lot of money for a film in the 1950s. That’s what made the difference between our science fiction films and many that followed ... such as the ones that American International Pictures made and the Japanese ones. They just went out to exploit the market without trying to do anything imaginative. But our budgets were fairly large. It wasn’t a budget that they would give, say, to a Lana Turner picture but it was above average for a B picture.

TARANTULA was very good for a monster film. Did you use the same technique to control the spider that you used in The Shrinking Man? Arnold: Yes. We controlled it with air jets. What we did was match the rocks in the studio to the actual rocks out there in the desert, then shoot them in perspective. We’d push the spider about with the air jets until I got the shot I wanted. I would want, say, a leg to appear over the top of the hill first, then the mandibles etc. Usually after about ten attempts we got the shot I wanted. We’d shoot the spider against a black background then superimpose it into the scenes with the live actors.

What have you been doing since making your science fiction films? Arnold: Well, I’ve been making other films, such as The Mouse That Roared ... and I got involved in TV too. I was the Executive Producer on the It Takes a Thief series with Robert Wagner. Now I’ve formed my own company to make films. I’m tired of doing TV now ... too much hard work for too little artistic satisfaction. The money is good but it’s like working in a sausage factory. With my own company I’ve got the financial backing to make three films. I’d like one of them to be a science fiction film. I’m constantly looking for suitable science fiction stories to film but I haven’t been able to find anything. I’m still in the market though. If anyone wants to send me a story I will read anything. I love science fiction, I think it’s a staple like the western in film making ... more so because it requires a great deal of imagination ... at least the good ones do. They demand more from an audience than the average escapist fare.

Then you still read a lot of science fiction? Arnold: I read as much as I can. I’ve read a lot of SF books but so few of them are suitable for filming ... not suitable for the films I want to make. Anyway, I want stories that I can create an atmosphere with but so many of them are like technical manuals. Robert Heinlein has written a couple of books that I like ... such as the one about the huge starship that has become a world unto itself (Universe) as it drifts through space. I was interested in filming that and also Stranger in a Strange Land, a great story. Columbia bought that but they don’t know what to do with it. They’ve spent a lot of money having different versions written but they still haven’t licked the problem. But the answer is right there in the book ... all you have to do is dramatise what Heinlein wrote without trying to improve on it. I think it would make a good movie and I may try and get it away from Columbia. Another point in its favour is that it wouldn’t require elaborate special effects. I’ve been trying to get Richard Matheson to write one for me again ... he wrote Shrinking Man ... he’s a beautiful writer. We might get together and see if we can dream up a suitable story. But that’s in the future ... if my health lasts that long, or if that long. I’ve got a lot of plans, I just hope I’ve got enough time to fulfil them.
the Artist in
Science Fiction

By Julie Davis

Dean, Roger
Age: 30
Educated: Four years at
Canterbury and three years at
The Royal College of Art.
Work includes record sleeves
for Yes, Osibisa, Greenslade,
Uriah Heep, Badger and many
other bands; the sleeve designs
are also available as wall
posters. His involvement with
Yes has also extended to the
design of their stage sets.
He also dabbles in furniture
design and an example of this
can be seen and sat on at

Ronnie Scott’s Club, London.

Roger Dean is possibly the
foremost illustrator of record sleeves
in this country. His work can be
found wrapped around the
recorded music of Yes, Osibisa,
Uriah Heep and many others.
The first sleeve to attract major interest
was the design for the first Osibisa
album which featured the flying
elephant now so characteristic of
the band. It seems that Roger’s
distinctive style is so unique that
once you’ve seen one album sleeve
you can recognise them all, if not
from his artwork then from his
familiar style of lettering (although
there are about ten exceptions to
this rule).

But Roger’s main interest and
indeed his motivation to design
such aesthetic packaging is not just
a ploy to sell an album or even to
deny some personal satisfaction
from creating a ‘pretty picture’.
Many of his paintings are
essentially three-dimensional
architectural designs and often his
involvement with album sleeves is
simply to use them as a medium
to propagate his architectural
ideas.

In fact it was his work with
three-dimensional objects that
occasioned his début as a sleeve
artist. It so happened that whilst
working on a design for a seating
arrangement in the first floor
discotheque at Ronnie Scott’s he
left his college notebook lying
around and the manager of a group
called Gun began leafing through
it and found a drawing he wanted
to use on the sleeve of their album
Race With The Devil. That was in
1967 and since then Roger has
illustrated over fifty-one covers.
Roger’s designs obviously have
a very wide appeal and probably
help to sell the albums they
package. In fact they may fulfil the
same purpose as the well-
packaged cake-mix in the
supermarket. On this point Roger
commented:

The attractiveness in the
drawings is partially incidental and
partially an attempt on my part to
make people want to like them,
so that I can introduce them to
other ideas which I want them to
like and which aren’t just pretty
pictures. My drawings are not
about art at all. I am not interested in
art. I am not interested in fantasy
in the sense that your magazine is.
What I am interested in is putting
ideas represented on the sleeves
actually into practice. If some of
those buildings and some of those
sections of worlds appeal I don’t
want them to appeal only out of
the pages of a book. I want people
to be able to walk around them.
climb the staircases, walk the corridors.

Roger's vision of his cover designs becoming reality forms part of his ambition to build a structure based on natural forms. He explained the motivation behind this:

"Architecture is designed to a set of criteria, they call it functionalism but they dress it up with aesthetics, but the basis of it is that the materials and technology work together comfortably and are checked by the economic. The design is intended for mechanical man, for ergonomic man. My objection to that was that it didn't accommodate the emotional human being. I was doing some research on sleeping and it's quite obvious that whether people sleep comfortably or not isn't to do with whether they have a good mattress or not. It's to do with whether they are feeling uneasy, nervous or relaxed and at ease. I tried to see if it was possible to determine these things architecturally, and if was, you can make somebody uncomfortable and you can make somebody comfortable architecturally by altering their position in space and their relationship with the rest of the room.

The ideas are very strategic in concept, it's very similar to defending yourself against attack in a way. Especially when sleeping, you are in a very passive state so you need to be in a very good strategic position in relation to the rest of the room and anyone who may appear in it. These are the kind of ideas I was utilising to get the house together, to some degree and in some form these things apply to the whole house.

To the uninitiated Roger's ideas for a house may be incomprehensible but he admits that there are really no words to describe it.

The vocabulary of architecture is based on Euclidean plane geometry and nothing I do is derived from that. It's incredible how precise we are about organic architecture, maybe we ought to use medical terms because they describe the function and not the shape.

Roger confessed to being an addict in a sense although he made some rather scathing comments about the genre:

"Science fiction is unfortunate in having a most unsatisfactory framework of existence. It's considered literary kitsch. I believe it should be the mainstream of literature because all the books that have become important down the generations of civilisation have been books about ideas. Superficially science fiction would seem to offer the most scope for idea content, but the promise is unfulfilled. Good ideas and good writing rarely coincide. All too often the medium is used for entertainment alone and its potential beyond this should be obvious to everyone. I don't just mean in the sense of fantasy technology, the potential for anticipating human evolution is there and perhaps the means to bring it about and definitely the means to bring about a social evolution.

'Science fiction is a long standing frustration with me. It's the area I want to read in with the most exciting material. But, there's just not enough done. I wonder if the heralds of science fiction are using the right medium. I wonder if producing a book is the most successful way of broadcasting an idea which one considers if? The quality of if suggests that it isn't though there is obviously a lot of imagination at work.'

Lately a lot of Roger's time has been devoted to composing a book about his work which is scheduled for publication in the New Year. Through the book, which features primarily his record sleeve designs, he hopes to catch the attention of people who already like his illustrations and then feed them with his ideas for buildings, cities, worlds and galaxies. Included in the book will also be some mention of his work with Yes for whom he designed some very interesting stage sets."
He told the story of the whole cosmos in two volumes ... and his hero was the entire species of Man.
5: OLAF STAPLEDON

5 to-dye-in-the-wool science fiction fans, not to have read Olaf Stapledon's *Last and First Men* is the unforgivable sin. Yet to most of today's readers Stapledon's name conveys little or nothing. Very few anthologies include an extract from his works, which is not surprising, as Stapledon had never written for the pulp magazines—and, anyway, his books were not written as science fiction; he called it "philosophical fiction" or "meta-philosophical kind".

Still, to avid readers of the 1940-50s, and to many lesser writers whose names are better-known, the works of Olaf Stapledon represent the zenith of imaginary travel: the two which together encompass the whole cosmos in a mind-blowing panorama of 'future history'—*Last and First Men* and *Star Maker*. A second side of the Atlantic, these unique fantasies were regarded with veneration and their author as a master fit to rank with Wells himself, if not to replace him as the new peer of the literature.

Nor was this adulation limited to the invertebrate readers of science fiction, for many of Olaf's novels remained unaltered for years after his first, other works had been acclaimed by critics. Before then, he had published two small volumes of poetry which reflected his early socialist leanings, and the first of several non-fiction works which appeared at intervals between his novels—if they could be described as such.

A Master of Arts and Doctor of Philosophy, William Olaf Stapledon (he disliked his first name) was born in 1886. After the deaths of his family, he worked in a shipping office, but had spent part of his childhood in the Scottish Highlands. He left Manchester Grammar School at 17 to work in a printing office in London until the first world war interrupted his career. He once confessed in a letter: "I really have not had a career, having chucked and chased from one thing to another without finding my feet anywhere." He called himself 'a bumbledruggie'.

After the war he married an Australian girl and returned to the university at Liverpool where he received his PhD and continued to lecture in philosophy and psychology. He and his wife sought recreation in walking, swimming and mountaineering. They had two children and a dog, a black and white terrier, and a cat, black with a white tail. They lived in the 1920s that he wrote *Last and First Men: A Story of the Near and Far Future*, which he described in a preface as 'an essay in myth creation' while denying any attempt at prophecy.

Adopting the viewpoint of an inhabitant of a distant epoch—one of the Last Men—he projected his imaginary history of humankind over no less than two thousand million years, to the end of recorded time. It detailed the rise and fall of successive civilisations, during which the apes subdue the human species and then themselves are subsumed in an interplanetary conflict in a man's reversion to savagery. Then a new race arises, to be ruled by giant brains and give place to yet another breed of supermen.

At length the Fifth Men are menaced by the break-up of the Moon, compelling them to migrate to Venus after a million years preparing for the move. Finally, in the light of the sun, the Ninth Men are sent to colonise Venus, nine more species evolve over the next six hundred million years before their story ends. Not on a planet for the Last Men, faced with spiralling climatic and environmental changes and biologically more bizarre mutations, but of the psychological and sexual dimensions, and the dawning of the first social and civic institutions. In this way, the book was refreshingly different from the bulk of current American science fiction; yet its substance was essentially similar, and its scope as ambitious as that of any other, with the exception of *The Two, a French* astronaut Camille Flammarion's classic *Omega: The Last Days of the World*, in which the last man and woman find refuge on Jupiter before the sun goes out.

When *Last and First Men* hit the literary headlines in 1930, JB Priestley pronounced it 'far and away the best book of this kind in our time ... a masterpiece.' The following year it saw publication in the USA, where the noted French science fiction writer Pierre Benoit hailed it as 'the boldest and most imaginative book of our times.' In *Amazing Stories*, literary editor CA Brandt also noted it as 'worth careful study ... a masterpiece in the realm of science fiction.'

By 1932 it had been supplemented, here, by *Last Men in London*, in which the author adopted the same remote Neptunian viewpoint to tell what was, in the main, a story based on his own experiences, especially during the war when he served in France in the Friends' Ambulance Unit. *Star Maker* was also released in 1932. According to Davis it hailed it as 'the boldest and most imaginative book of our times.' In the near-limitless visions of the book, this more introspective narrative seemed like an anti-climax. But to those who persisted it presented a fascinating picture of the life and customs of future men—his science and philosophy, as it were—by the 20,000-year-old Explorer of the Human Past.

In *Star Maker* his manipulation of the pacificist Paul as he grows from boyhood to maturity, Stapledon subtly revealed his own attitude to every aspect of life, from politics to sex; and at the end of the emergence of a potential super-race, the novel offers a vision of Paul's pupil, hints at the story of God's last man, which followed in 1935.

Opening the story 'between jest and earnest,' the author did not disguise the fact that it had been inspired by JD Beresford's classic *The Hampdenshire Wonder*, which dates back to 1911. Adopting this time a straightforward novel approach, he produced a thoroughly entertaining work on a theme which has since been developed by many writers. Essentially, however, it reflected the author's constant preoccupation with 'the true life of the spirit': though even the enlightened mutant himself cannot define precisely what that implies.

In *Star Maker* (1941), Stapledon returned to the super-being theme, but instead of a boy with extra-sensory powers the main character had canny instincts while growing in mind and spirit—and at length consorting with the girl who raised him. In this novel, Stapledon introduces the idea that 'fantasy of love and discord' represents Stapledon at his best as a novelist.

But for sheer imaginative power and original conception nothing can compare with his 'cosmological fantasy', *Star Maker*, which appeared in 1933. In the author's own words, in a letter written just prior to its publication: ' *Star Maker* is, I feel, much more influenced by more remote and philosophical work (than *Last and First Men*). Probably the most difficult of all the novels for his publisher's catalogue, he wrote his own blurb which summed up the vast extent of the work in 100 words:

*An imaginative exploration of the cosmos reveals the history of life and our galaxy and throughout the swarm of galaxies. After tracing the fortunes of many non-human intelligent races in remote planetary systems, the story tells of the dire events which preceded the foundation of a utopian Society of Worlds in our own solar system. Thus the story of the current inhabitants of Earth is essentially that of the philosopher rather than the teller of tales; yet he told an engaging story in which the hero was no super-scientist or conquering spaceman but the entire species of Man.*

What puzzled his most ardent readers was that he knew nothing of American science fiction until 1936, when the Liverpool writer Eric Frank Russel introduced him to the pulp magazines. His reaction was one of surprise that so much writing was being done elsewhere. He had often read pulp magazines, and was impressed by the qualities of Gerard Heald, the science writer who later moved to California and produced that remarkable novel, *Doppelgangers* (1947). He also adopted some of the notions of Professor JB Bernal, who in the 1920s envisaged whole societies being transported through space on miniature planets. By the time *Star Maker* appeared, Stapledon had joined the British Interplanetary Society, but it was not until 1948 that he was persuaded to lecture them on *Interplanetary Man*. The occasion gave many of his disciples their only chance to see and hear the smiling, mild-mannered man with grey hair and twinkling blue eyes who Arthur C Clarke has described as 'one of the most civilised men of our time'.

Repeated attempts by at least one editor to induce Stapledon to write for a science fiction magazine all proved futile, however. His excuse was that his mind did not run along the lines of short stories; but some of his later novels made very slim volumes. *Star Maker* was a bestseller in 1944, which looked forward to a world state in the 1970s. Two years earlier, *Darkness and the Light* suggested the prospect of two alternative futures for mankind, with communism and capitalism.

In *Death into Life* (1946), he explored the past, present and future through the ubiquitous 'spirit of man'. More mystical than scientific, this 'fantasy' contained only faint reflections of his first tremendous work, *The Flames*. *Star Maker* is, however, an extraordinary book, with its visions of the human soul, atomic fission to become spiritual guides to blinding mankind—a theme by no means new to science fiction. But it did little more than underline the author's previous statements on what he called 'the tragic disorder of our whole terrestrial life.'

His last novel, *A Man Divided* (1950), published shortly before his death at the age of 64, is mainly interesting as providing further insight into Stapledon's own personality and the shaping of his philosophy. Though ostensibly the tale of a dual personality which is influenced by a woman with psychic powers, it clearly derives from his own varied experience and his efforts to resolve his intellectual conflicts.

Even more enlightening is the posthumous work, *The Opening of the Eyes*, which was completed for publication in 1954 by his widow, Agnes. Agnes, who is still active in her eighties. In the words of his lifelong friend Dr EV Rieu, in a preface to the book, it describes how Stapledon had 'reached the goal of his thinking' and 'came to terms with the man he feared was his own death'. The conclusion was that, although God might be an illusion, 'Without the fiction of my existence, I am no more than a reflex animal and the world is dust.'

The Fantasies of Olaf Stapledon

These are given in chronological order, as published in the UK. Dates in brackets indicate subsequent or sole publication in the USA. Paperback editions are listed.


*Includes in Novels of Science (1945), ed. Donald A Wollheim.

Collections:


‘But one thing is certain. Man himself, at the very least, is music, a brave theme that makes music also of its vast accompaniment, its matrix of storms and stars.’ Olaf Stapledon ends his great masterpiece LAST AND FIRST MEN with this statement and it is the same theme that runs through this short story. A WORLD OF SOUND is something of a collectors’ item since it is the first short story Stapledon ever wrote (he only wrote two) and has only appeared in print once before, in 1937.

A WORLD OF SOUND

BY

OLAF

STAPLEDON

The room was overcrowded and stuffy. The music seemed to have no intelligible form. It was a mere jungle of noise. Now one instrument and now another blared out half a tune, but every one of these abortive musical creatures was killed before it had found its legs. Some other and hostile beast fell upon it and devoured it, or the whole jungle suffocated it.

The strain of following this struggle for existence wearied me. I closed my eyes, and must have fallen asleep; for suddenly I woke with a start. Or seemed to wake. Something queer had happened. The music was still going on, but I was paralysed. I could not open my eyes. I could not shout for help. I could not move my body, nor feel it. I had no body.

Something had happened to the music too, and to my hearing. But what? The texture of sounds seemed to have become incomparably more voluminous and involved. I am not musical; but suddenly I realized that this music had overflowed, so to speak, into all the intervals between the normal semitones, that it was using not merely quartertones but ‘centitones’ and ‘millitones’, with an effect that would surely have been a torture to the normal ear. To me, in my changed state, it gave a sense of richness, solidity and vitality quite lacking in ordinary music. This queer music, moreover, had another source of wealth. It reached up and down over scores of octaves beyond the range of normal hearing. Yet I could hear it.

As I listened, I grew surprisingly accustomed to this new jargon. I found myself easily distinguishing all sorts of coherent musical forms in this world of sound. Against an obscure, exotic background of more or less constant chords and fluttering ‘leaves’, so to speak, several prominent and ever-changing sound-figures were playing. Each was a persistent musical object, though fluctuating in detail of gesture and sometimes ranging bodily up or down the scale.

Suddenly I made a discovery which should have been incredible, yet it seemed to me at the time quite familiar and obvious. I found myself recognising that these active sound-figures were alive, even intelligent. In the world of music, living things are perceived as changing patterns of visible and tangible characters. In this mad world, which was coming to seem to me quite homely, patterns not of colour and shape but of sound formed the perceptible bodies of living things. When it occurred to me that I had fallen into a land of ‘programme music’ I was momentarily disgusted. Here was a whole world that violated the true canons of musical art! Then I reminded myself that this music was not merely telling but actually living its story. In fact it was not art but life. So I gave rein to my interest.

Observing these creatures that disported themselves before me, I discovered, or rather re-discovered, that though this world had no true space, such as we perceive by sight and touch, yet it did have a sort of space. For in some sense these living things were moving in relation to me and in relation to one another. Apparently the ‘space’ of this world consisted of two dimensions only, and these differed completely in quality. One was the obvious dimension of tonality, or pitch, on the subtle ‘keyboard’ of this world. The other was perceived only indirectly; it corresponded to the heard nearness or remoteness of one and the same instrument in the normal world. Just as we see things as near and far through the signification of colour and perspective, so in this strange world, certain characters of timbre, of harmonics, of overtones, conveyed a sense of ‘nearness’; others a sense of ‘distance’. A peculiar bluntness, often combined with loudness, meant ‘near’; a certain flatness or ghostliness of timbre, generally combined with faintness, meant ‘far’. An object receding in this ‘level’ dimension (as I called it) would gradually lose its full-bodied timbre, and its detail and preciseness. At the same time it would become fainter, and at last inaudible.

I should add that each sound-object had also its own characteristic timbre, almost as though each thing in this world were a theme played by one and the same instrument. But I soon discovered that in the case of living things the timbre-range of each individual was very wide; for emotional changes might be accompanied by changes of timbre even greater than those which distinguish our instruments.

In contrast with the varied but almost changeless background or landscape, the living things were in constant movement. Always preserving their individuality, their basic identity of tonal pattern, they would withdraw or approach in the ‘level’ dimension, or run up or down the scale. They also indulged in a ceaseless rippling play of musical gesture. Very often one of these creatures, travelling up or down the scale, would encounter another. Then either the two would simply interpenetrate and cross one another, as transverse trains of waves on a pond; or there would be some sort of mutual re-adjustment of form, apparently so as to enable them to squeeze past one another without ‘collision’. And collision in this world seemed to be much like dissonance in our music. Sometimes, to avoid collision, a creature needed merely to effect a slight alteration in its tonal form, but sometimes it had to move far aside, so to speak, in the other dimension, which I have called the ‘level’ dimension. Thus it became for a
while insubordinate.

Another discovery now flashed upon me, again with curious familiarity. I myself had a 'body' in this world. This was the 'sound'-pattern of some fixed object at a distance, in either dimension or both, I obtained a purchase on the object, and could draw my whole body toward it. I could then reach out another limb to a still farther point. Thus I was able to climb about the forest of sound with the speed and accuracy of a gibbon. When I moved, in either dimension, experienced my movement merely as a counter movement of the world around me. Near objects became nearer, or less near; remote objects became less remote, or slipped further into the distance and vanished. Similarly my movement up or down the musical scale appeared to me as a deepening or heightening of the pitch of all other objects.

I encountered the lovely being whom I was seeking. I laughed to myself at the ease and sweetness with which her musical name came to me when I needed it. They answered only with an augmented scream of infantile grief, as they fled into the distance.

Distracted, I crossed my journey. Presently I came into a great empty region where I could hear a very remote but ominous growl. I halted, to listen to the thing more clearly. It was approaching. Its form emerged from the distance and was indistinct in detail; I recognised it as no mere childish bogey but a huge and ferocious brute. With mlimbering motion in the bass, its limbs propelled it at a surprising speed. Its harsh tentacles of sound, flickering into the sky, far up into the treble, noised in search of prey.

Realising at last the fate that had probably befallen my dear companion, I turned sick with horror. My whole musical body trembled and wept with anxiety. Before I had decided what to do, the brute caught sight of me, or rather sound of me, and came pounding toward me with the roar and scream of a train, or an approaching shell. I fled. But soon realising that I was losing ground, I plunged into a thicket of chaotic sound, which I heard ahead of me and well up in the treble. Adapting my musical form and colour as best I could to the surrounding wilderness, I continued to climb. Thus I hoped both to conceal myself and escape from the reach of the creature's tentacles. Almost fainting from the altitude, I chose a perch, integrating my musical limbs with the pattern of the fixed objects in that locality. Thus anchored, I waited, motionless.

The brute was now moving more slowly, noting in search of me as it approached. Presently it lay immediately below me, far down in the bass, its body was now all too clearly heard as a grim cacophony of growling and belching. Its strident tentacles were beneath me, like the trees beneath a man clinging to a cliff-face. I felt as if I were surrounded by the beats of the brute's body. Such was my relief that I lost consciousness for a moment and slipped several octaves downward. Before I could recover myself. The movement revealed my position. The beast of prey returned, and began climbing awkwardly toward me. Altitude soon check- ed its progress, but it reached me with one tentacle, one shattering arpeggio. Desperately I tried to withdraw myself farther into the treble, but the monster's limb knelt itself into the sound-pattern of my flesh. Frantically struggling, I was dragged down, down into the subsoil of bass. There, lumps and talons of sound tore me agonisingly limb from limb. Then suddenly I woke in the concert hall to a great confusion of scraping chairs. The audience was making ready to leave.
The history of the science fiction magazine in England has been somewhat erratic; magazines have appeared and disappeared at irregular intervals leaving great gaps which usually instigated withdrawal symptoms in sf addicts. To fill these gaps sf fans have come together in various parts of the country at various times and produced their own magazines. In this instance science fiction reveals itself as an almost unique form of literature being perhaps the only genre to invite such an enthusiastic response from its fans. In this series of articles we've asked 'fanzine' editors to talk about themselves and their magazines in the hope that the 'fanzine' will be brought more sharply into focus.

FANZINES IN FOCUS

Peter Weston and Speculation

YOU SUDDENLY see a fanzine and think, My God! I must do one!”—Peter Weston reminiscing on how it all started. Today Speculation, several times Hugo nominee, Nova 1973 and Europa 1972 awards winner, is arguably the most science fiction fanzine produced in England. Containing articles, book reviews, discussions with writers, letters etc. Speculation is one of the most easily accessible fanzines for the newcomer, and the one in which he is most likely to find familiar material.

Inspiration came to Peter Weston, founder and editor of Speculation, in the shape of a grubby little green thing which went by the name of Les Spinge (from the habit of certain Stourbridge fans who went round pokign each other and saying 'Spingy!' though 'embly amateurish' by today's standards, this publication, the first fanzine Peter Weston had ever seen, fired his imagination and infused him with a desire to produce his own magazine. As he says:

I spent the next three months working on a fanzine which was to contain articles and reviews by fellow-members of the Erdington Science Fiction Circle (I’d been a member of this group for about six months) all four of us writing little essays on the books we liked.

The first issue was done on a Banda Duplicator at the company Peter was then working for; it was very small, purple and indecipherable. As he admits:

‘It was a typical first issue; every editor has the first issue blues, or in my case purples. The first issue of almost every fanzine is something people slightly ashamed of and nostalgic for, and which they prefer not to show to people. After that you start getting things right.’

In fact Pete reckons he did things completely the wrong way round. According to him you should first join in fandom, read other fanzines for a couple of years, and then see where there’s a gap in the field. What he did was start entirely from scratch, making his own contacts, finding his own contributors and learning the rules as he went along.

Zenith (as the fanzine was first called) coincided with a full in of both in England and the USA, so Pete can claim to have been the only person in the world publishing an amateur science fiction orientated magazine at that time. Also Zenith was revolutionary in that it was the first English fanzine to take advertising. In the fifth issue Peter Weston had an advert from Four Square Books which enabled him to include a very attractive Eddie Jones wash painting as a black and white half-tone wrap-around. As he recalls, in its first year Zenith beat all English fanzine records for appearance.

Financial independence is another of Zenith/speculator’s attributes. Peter Weston started selling his fanzine at the ‘ridiculous’ price of 1/- each, and six for £1/-, but escalation came in quite quickly. Since Zenith is what was known as a ‘fan-run’—a serious and constructive publication about sf—and was aimed at a broad spectrum, as well as being easily accessible, it quickly gained a lot of readers. It went on sale publicly in Birmingham (smashing all sorts of taboos in the process) through Pete actually delivering them to bookstalls by hand. Initially Pete found the fanzine dug deep into his appearance account. 300 copies of 50 pages each were produced on a duplicator, along with postage 1,200 engrosses not coming cheap even then. But, as he says:

‘Book cost on the water then is coming back a thousandfold. After ten years of very hard work Speculation is now paying off tremendously.’ From issue six onwards Zenith had more USA subscribers than British ones, simply because there are more fans there. Today two-thirds go to the USA.

In contrast to most fanzines which usually run to roughly 100 copies each issue, Peter Weston immediately aimed at an ambitious number—150, rising quickly to 200 and 300. From issue ten he was restricting circulation to 500—the maximum he felt he could handle, since production was always a nightmare.

‘Production problems fade into a sort of limbo. Every issue has been an agony. There are 20,000 sheets of paper to be put through a Gestetner Duplicator which invariably goes wrong half way. There has been a special disaster issue in which every single thing went wrong, and a blood-splattered issue where I caught my thumb on the stapling machine—nasty and an issue in which the ink leaked all right when printed but never actually dried!’

Starting with no experience, Pete Weston has had to cope with the problems of finding duplicators, cutting stencils, (wax ones at first), designing layouts, typing and collating as well as the actual collecting, writing and editing of the material. In the early days Zenith was one of the best laid-out fanzines, but now Pete says he would rather spend time on getting good material to read and drop the accent on illustration and presentation.

Sources and contacts can be regarded as the life-blood of any fanzine. Pete Weston considers himself very fortunate in that he has been able to establish such good contacts over the last ten years.

‘If there’s one thing I feel proud of in my time in sf it’s that I have been responsible for bringing in and helping to bring in a lot of good people to sf fandom.’

He has also done a lot of promotional work to get outside fandom, such as putting ads in The Writer, New Worlds and International Times; from these and other diverse sources he’s drawn people like Jack Cohen, Mark Adlard and Tom Shipley, and has therefore always been able to include quite a high proportion of professional content in Speculation. Fanzine production is of course a spare time activity for the majority of editors, but it is a full-time interest as Pete admits, taking in friends, hobbies, holidays and family.

‘I’ve worked hard for ten years and Speculation is a success, and although I’m not entirely the serious young of student I was, it is still one of my prime reasons for living!’

As well as producing Speculation, Pete writes for other publications, organises sf cons, and runs the Birmingham Science Fiction Circle which was relaunched in 1971. This activity in the fan world has meant a drop in his production issues. Whereas he used to be able to bring out four or five issues annually, he has not been able to produce an issue now for over a year. This by no means infers that Speculation is dead—far from it! The fanzine is Pete’s first love and he fully intends to keep it going. (Meanwhile readers please note that Pete is up to his eyebrows in a new house, a new baby and a new job, but it only a rapidly dwindling supply of Speculations. Hopefully a new issue will appear soon so keep your eyes peeled and your enquiries till later!)

Pete finds that doing everything himself is the only way to produce the fanzine; otherwise he loses the sense of personal involvement. As far as he’s concerned it’s a one man band except for the collation. As he says:

‘Putting pages in order and stapling them has been known to cause madness!’ Fortunately he has enlisted the willing labour of Bob Rickard and the Aston University of Group in this matter.

Science Fiction has come a long way since the days when enthusiasts like Peter Weston had to apply direct to the Post Master General for permission to spend fifteen bob of the country’s money on American sf books. One of the reasons for this change is the host of sf fanzines now available, with Speculation in the foreground, which offer readers informed discussion on all matters sf. Roll on the next issue! —Aune R Butt
THE LEGEND OF GX-118

BY DAVID S. GARNETT

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discipline one or two of them. You know what it's like, and no one cares to have to take the pills.

What did they say about it?" asked Carsten. ''Or didn't they like discussing rape?"

Polimoto knitted his brow. He'd just got out of answering. "They said the women didn't seem to know what was happening."

"Any offspring?"

"Of course not."

"Why 'of course not'?"

"You seen any children while you've been here?"

They both said they hadn't seen any. Carsten, "But nor did I see anyone was old."

"Polimoto's thick eyebrows rose, then fell as he frowned. He and Carlsen simply looked at each other."

H  

had wanted to come back to Heaven because it wasn't called that any more, and it wasn't like it used to be. 3V film they'd shown him, they'd got it all wrong. Didn't they know what they listened to him? He knew, he could remember."

Carlsen peered at the interviewer again, seeing him only dimly. The man tried not to look at him, "To Carlsen," the man said. "To Carlsen, are you listening to me?"

"Yes."

"Can recall for you how you survived the first savage attack from the creatures."

"Yes, I'm listening to you."

"Tell me how you got back, how you got to the face. It's no good, he said to someone. 'We'll have to call it off. It was a lunatic idea. Stupid old fool. Turn my gun even look at him. Don't know who they allowed him on the planet.'"

"He's right," said another voice. "Some more."

The observers from the Department of Extra-Terrestrial Affairs always ran both of death and of having their minds tampered with. But then it was in the old days, in the old days."

"I don't think so."

The other man looked surprised. "But if it hadn't been for you two, it might have been years before the planet was cleaned."

"You can't bribe us, Polimoto," said Carlsen.

"It's not true!" said Polimoto, glaring down at his glass. "At least once when there was silence on the surface as the Galenic men watched their chief confront the DETA pair. Suddenly Polimoto laughed, a short humourless laugh. 'Okay,' he said, and that was the end. 'If that's how you want it, it's your own fault.'"

"What will happen now?" asked Carsten.

"Isn't it obvious?"

"Not to me."

"This is the greatest thing in the whole Universe!" said Polimoto, stretching out his arms as if to demonstrate the magnitude of the Universe. "To be able to live forever, barring accidents—and even now it has to be a very bad accident for transplants and prosthetics not to keep anyone alive. You ask what will happen? We'll start to exploit him. That's what we'll do.""

"What about investigations into side-effects?" said Carlsen.

"That's not up to me. And anyway, what possible bad effects are there to living forever?"

"Think of the years only they have serving them at the table," said Carlsen, "and how they've stagnated. You said yourself they were a dying race."

"Or if they're not dying," added Carlsen, "they soon will be if you start taking the water. Cultural shock."

"Cultural shit," said Polimoto, and he walked away.

"We can't let them do it," said Carsten. "No. But maybe they'll discover what's so special about the water and be able to synthesise it."

The other man nodded. "It must have happened recently—within the last few thousand years—or else the natives would never have evolved this far. A meteor from space that hit the ice on the continent perhaps."

Carlsen was more concerned about the consequences than the reason. How could they contact the Department? Polimoto claimed that the base's hypertechnology was obsolete in the ocean, perhaps."

Polimoto knitted his brow. "They're almost exactly like you and me. You can tell by looking at them."

"They're not human. They might have been once, but not any more," Polimoto filled his glass to the rim with pale wine, adding: 'Don't be deceived by appearances.'"

Polimoto said he had seen quite a few of the natives during the day. All had been small and light-skinned, but so were many Earthmen. It seemed as though Galenic had found a world it would have to surrender. If these people were still there, there must be no outside interference."

"They take fires," went on Polimoto. "They eat raw food."

"So did your ancestors," said Carlsen. "Tell me, has any of your men tried the native women?"

Hassan stared at him in disbelief, but the younger one ignored him. "Have they?"

Polimoto shrugged, then nodded. "I've had to
By C.D. Renmore

What is life? What is intelligence? Don’t worry, I shall not attempt to answer such philosophical questions here. Yet we all wonder at one time or another whether there might be ‘intelligent life as we know it’ on other worlds out there in space.

There is a very great difference between asking whether there is life on other planets within our own solar system, and asking whether there could be life on planets orbiting other stars. The quest for life in our solar system is one which we can expect to settle by direct exploration before the end of the present century; perhaps even within the next decade. But the nearest star is thousands of times as far away from us as the farthest planet, and this difference of scale is crucial. From such a great distance, we cannot even tell for certain whether the nearest star has any planets circling it, let alone whether any of them supports life as we know it. The direct exploration of the stars is a totally different sort of challenge from the exploration of the planets. Exploring the planets is rather like getting to know your neighbours in the same road; going to the stars is more like emigrating to Australia.

To begin with, then, I shall talk about life in our solar system. Now if you are a biologist, you would be fascinated by the prospect of finding even a few simple plants on Mars or Venus. For most of us, though, the really interesting question is whether there is a chance of our explorers meeting intelligent beings like themselves with whom they can communicate. Our unmanned interplanetary probes are at this very moment reaching out towards the very limits of the solar system, transmitting information back to us for as long as their power supplies last. Armed with this increasing knowledge of our near neighbours in space, we can begin our search for extraterrestrial life in the confident belief that the matter will be settled one way or the other within the next few years.

Our solar system

We are searching for intelligent life as we know it, so it is natural to start with the members of the sun’s family which seem most closely to resemble the Earth: Mars and Venus. Mars has caught the imagination of writers ever since Lowell suggested, towards the end of the last century, that the ‘canals’ he claimed to have seen might be evidence of advanced life on that planet. Although he has since been discredited, the recent Mariner space probes have found what look like dried-up river beds, suggesting that running water was once a feature of the Martian surface even though it does not appear to be so now. The atmospheric pressure on the surface of Mars is too low to sustain the sort of animal life that we see here on Earth, although the biologists working on the Viking mission (due to land an unmanned probe on Mars in 1976) are planning experiments to detect any possible manifestation of life as we know it. The evidence so far does not encourage scientists to expect advanced life there; nor, at least, on the visible surface of the planet.

Venus, the evening star, presents astronomers with greater difficulties than Mars for one very good reason: they cannot see the surface directly. Venus is covered by what seems to be a dense cloud layer and will not give up her secrets so readily. To ‘see’ through the clouds it has been necessary to use radar signals and ultraviolet light. Venus seems pretty inhospitable to life as we know it. The Venus IV canister, parachuting down to the surface of Venus in 1967, reported a temperature of over 550°F and pressures over twenty times as great as Earth surface atmospheric pressure before its transmissions ceased. Mariner X found this year that there are traces of sulphuric acid in the atmosphere of Venus; yet this by no means rules out the presence of life in some form. Remarkable experiments here on earth have identified organisms which can withstand that sort of environment!

After Mars and Venus, where shall we try next? How about Earth—is there intelligent life on Earth?

Now that photographs of the Earth from space are available, we can look at them from an outsider’s point of view and ask: what sort of observations, and from how far away, give definite evidence to an observer in space that there is indeed intelligent life on Earth? What are we really doing here is to ask our starting question in a back-to-front manner; and in so doing, we can learn more about how to detect life on other planets by remote measurements. The results are very informative—and very surprising as well.

Carl Sagan (Cornell University) has studied satellite photographs of Earth and concludes that ordinary photography shows no signs of intelligent life on Earth until features as small as one hundred yards across can be distinguished! This seems incredible when you think of the size of cities, airfields and so on; but remembering that we are looking for intelligent life, and this means that we need evidence of order and pattern. Cities admittedly do show up as big smudges on less detailed photographs, but what does that prove? And their lights are visible at night, too—but that could be due to some chemical process, or even volcanic action. We have to accept that ordinary photography is not much good at detecting signs of intelligent life at long distance, which is what we are really interested in. What other indications are there that work over interplanetary (or even interstellar) distances?

One powerful technique for detecting life (though it will not tell us whether that life is intelligent or not) is spectroscopy. Spectroscopy is basically the study of light after it has been split up into its component colours by a prism or some equivalent of the device. From a study of the spectrum, as it is called, one can find which substances are present in the source of light and in what quantity. The planets shine only by reflected light, as does the Moon, but even so their atmospheres can be studied.

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expanding. The explorers are always looking for new worlds to conquer. The solar system is vast, with billions of stars and planets out there. This is an exciting time to be alive, as we continue to push the boundaries of our knowledge.

Other solar systems

Advancements in technology have allowed us to explore other solar systems. With the help of advanced telescopes and spacecraft, we have discovered many new worlds that are unlike anything we have seen before. These discoveries have expanded our understanding of the universe and opened up new possibilities for colonization. The search for extraterrestrial life is ongoing, and we are one step closer to realizing our dreams of exploring the cosmos.

Are we alone?

The search for extraterrestrial life is a major topic of discussion in the scientific community. Despite the vastness of the universe, we have yet to find evidence of other intelligent life. This has led some to wonder if we are alone in the universe. The search for extraterrestrial life continues, and we will likely continue to make exciting discoveries in the years to come.

Life on Earth

Earth is a unique planet in the universe, with a diverse range of life forms. The evolution of life on Earth has been a slow and complex process, with many challenges and setbacks along the way. Despite these challenges, life on Earth has thrived and continues to evolve.

In conclusion, the search for extraterrestrial life is an exciting and important field of study. As technology advances, we will continue to make new discoveries and push the boundaries of our understanding of the universe. The search for extraterrestrial life is an ongoing quest, and we will likely continue to make exciting discoveries in the years to come.
started sending sufficiently powerful radio transmissions ten years ago, then they have reached out precisely thirty light-years and no further. Beyond that distance there is an influence—call it what you will, but whichever it is, *no matter how sensitive*, could possibly detect our existence. If we seriously expect a response to our signals, then we must assume that the chance of the reply must not be more than thirty light-years away; and fifteen light-years is a lot less than the average distance of the five hundred given by Sagan.

To sum up: there is no contradiction between the two statements that planets are relatively common and that we have not yet had any messages from the stars. It is precisely what one would expect at this stage. Yet the information horizon is recorded in the speed of light; the ‘sphere of influence’ within which signals from us can be received is growing at a decreasing rate. If we compare the volume of space enclosed by our sphere of influence after twenty years with the volume after two years, we get a ratio of not ten to one but a thousand to one; and after two hundred years the volume enclosed has increased a millionfold. Eventually the rate of radio waves will sweep past some distant receiver and they will know— if they did not know already—that they are not alone. How do they feel about it? As I have no experience of such things I think it is possible that they feel that we are alone; there is really nothing else they can do but play it as patiently as we can.

Out of the corner of my eye I see the gleaming sunlight on the Razer of Oceana. But it is too late to stop now: we must rush on to the very limits of possibility, and then keep going after that. If things go wrong, that is more than usually gullible, may I suggest that you read no further.

**Speculations**

One assumption we must make, if we are to continue at all, is that really *someone* out there is smart and intelligent. If we don’t assume that, then, by definition, there ain’t much to speculate about.

Speculations, starting from that assumption, can be classified into two broad groups under two heads: either they are aware of us or they are not. Let’s start with by the far more likely of the two: that they are not aware of us.

Top of the list of possible reasons why we have not heard from them is the simple one that the news of our birth (in radio terms) has just not reached them yet. Even at the speed of light, our signals have only traversed about thirty of the five hundred or so light-years to the hypothetical average-distance advanced civilisation described by Sagan. Yet there is one big factor I have not taken into account:

if we accept that we cannot expect to have a direct line of sight to our signals for a long time to come, why have we not intercepted the signals that they are sending to one another? Space should be full of signals radiating in all directions, just like ours; and some at least of these advanced civilisations must have been at it for a lot longer than we have. So what’s wrong?

One possibility that has been put forward is that we have not been tuning in to the right frequencies. This is very reasonable, since it is far from obvious what ‘natural’ frequency one might choose. Our ‘listening’ frequencies in the past have been limited by laws which cannot penetrate the atmosphere; a seriously systematic search would need an orbital radio telescope, free from interference and able to receive signals at any frequency. However, I have an idea of my own about why we have not intercepted the messages that are sending to one another.

Suppose that you were going to try and signal to someone in another position you knew accurately, using a torch at night. If you were several miles away you would adjust the torch focus to provide the right possible beam to make the best possible use of the light from the bulb. You would certainly not remove the reflector and let the light go off in all directions, relying on them spotting the few thousandths of one per cent that happened to go in their direction. This is just what we do with microwave links here on Earth: they have highly directional aerials which make the best possible use of the power available. If this technique is needed between two points on Earth, how much more necessary it will be for communication between the stars? The links, if they are at all of the sort we can imagine, will need to use very tight beams (like laser beams) in order to maximise the received power. It is not surprising that we have failed to intercept intelligence beams. If they are unaware of our existence, they will not have a transmitter pointed in our direction.

Still continuing with the assumption that they are unaware of us, what other possibilities are there? Perhaps we have missed the point entirely and are in fact intercepting messages without even realising that they are messages; and the fact that they are not intended for us wouldn’t make much sense. What about gravitational waves? Thought waves?

And while on the subject of the message, here is a favourite puzzle of mine: when is a noise not a noise? When it’s a signal, you will say, and quite right too. But how and when do you give up the word ‘signal’ to transmission and decide that it is noise? This question is of great interest to military electronics experts; they want to disguise a signal so that it seems to noise (to the enemy). Have we really studied the radio ‘noise’ spectrum from space carefully enough? And in particular, have we studied it for long enough? Our own techniques for transmitting information over interplanetary distances (for example from the Voyager and Mariner probes) can give a clue: we transmit the picture one fragment at a time, building up each dot painfully slowly and then moving the signal to noise ratio by taking more time over the signal. If we need to send distances within our own solar system, what sort of scaling factor would apply between the stars? How long do you sample a waveform before deciding in your wisdom that it is just noise?

Incidentally, if we fail to recognise their signals as signals, there is a chance that they could make the same mistake with ours.

That would be one sort of time barrier—the sampling time needed to distinguish a signal from the background of noise. But there is another, equally fundamental kind of time barrier: the biological clock. Imagine trying to communicate with another human. Say you see a point: the time-scales or lifetimes of the two are vastly different from one another and from the time-scale of a human being. A flea has a great deal it must do before it is ready to die, and it behaves accordingly. A tree, on the other hand, can live for five thousand years. All right, I’m not seriously suggesting that we should talk to the trees (though we might try listening to them) but the mere fact of such vast differences of tempo in the life-forms on our planet surely opens up at least the possibility that there may be comparable differences between even highly intelligent species in the Galaxy as a whole? What sort of frequencies might tree-like beings use to communicate? A few cycles per year? The information flow rate can afford to go down quite a lot when you can rely on fifty centuries of uninterrupted talk.

The thing that we are slowly coming to appreciate is that life is a property of matter, neither more nor less than it has always been under a special set of circumstances; we are therefore freaks, or is life universal and infinitely adaptable in reasonable circumstances? In which it exists? If we find life—any kind of life—on the other planets in the solar system, with their different conditions, then it will begin to look as though, given time, life can appear under virtually any conditions; it will be the key; with enough time, it is a matter of fact that if you have the right mixture and you cook it until it is just right (you have all the time in the world, remember) then eventually it will organise itself into stable chains of molecules able to reproduce themselves. After that, it is again only a matter of time (a thousand million years?) until at last, somewhere, a collection of molecules organise itself to the point where it can say ‘and think’. That’s how we happen to be bipeds who have evolved on an oxygen-rich planet with plenty of water. Our long-chain molecules rely on the remarkable evolution of the carbon atom. As far as we know, only silicon is capable of forming molecules having that sort of complexity and so might form an alternative basis for life. But we cannot possibly say at this stage what a thousand million years of evolution might do for collections of molecules on a planet orbiting, say, an X-ray star; or a planet with enormous gravity; or with a radiation that is so severe that accumulations at millions of times the rate possible in our evolution. We just don’t know.

The idea of intelligent life-forms co-existing, yet being totally unaware of one another’s existence owing to the biological time-barrier, fascinates me and I would like to give you a very amusing illustration of the idea I read about recently. A competition in the USA offered a prize for the wittiest solution to the following problem: devise a suitable conversation between a man, a woman and an alien on the first encounter. The winning entry showed how the man and the woman standing together beside what looked like a potted plant. This was the conversation, as my memory served:

Man: I see no sign of intelligent life.
Woman: Nor do I.
Plant: I am a tree.
Now, having considered the possibility that they’re there but don’t know about us, suppose instead that they do know about us. That is the less likely, but much more sinister possibility.

If we accept for the moment that they know about us but decline to communicate, we are led to ask why. There are some who maintain that they have been in touch before thousands of years ago, and have left their marks if only we had the wit to appreciate the fact. Should we take these ideas seriously? My guess is at least as good as mine. I shall finish by passing on two ideas along these lines, both proposed recently by quite respectable members of the scientific community.

The first suggestion is that life on Earth began as a deliberate infection of micro-organisms placed here by another civilisation. We are therefore on a biological culture-plate or in an incubator, being observed (presumably) through some kind of microscope. And who would bother to start a conversation with a microscope? The second idea is that we are a protected species, living in a section of space set aside as a sanctuary where we can develop naturally; a kind of an ecological quiet zone. Of course, our keepers would not want the visitors to disturb us.

**Down to Earth again**

We began on firm ground by considering how our unmanned space probes would undoubtedly tell us within the next few years whether primitive microbes exist on Mars; we finished by wondering whether we ourselves might be just teeming, ephemeral bacteria under some cosmic microscope. The question of intelligent extraterrestrial life is very much an open one; even Carl Sagan himself admits that we could indeed be alone in the universe after all.

Skeptics dismiss the whole subject as a colossal waste of time; cynics say that all the other civilisations have existed—and then destroyed themselves in nuclear wars, as we shall do in our turn, and that is why the radio sky is so quiet.

But the debate goes on. It is not in the nature of Man to stop theorising just because the facts happen to be insufficient data to reach a firm conclusion; and for myself at least, I would not have it otherwise.

Jupiter is an enormous cauldron in which Nature experiments with mixtures which might eventually produce life
THE LAST WEAPON

A science fiction satire by
Douglas Fulthorpe
The truth of the matter is, doctor,” the gaunt young man explained slowly, “I’m just unemployed!” His haggard features, ruddy with resignation and fear, were momentarily enlivened by a trace of tired expectancy as he awaited the other’s reaction.

Doctor Plumhart nodded vigorously in understanding for perhaps a quarter of a minute, then performed an almost ninety degree shift in his cranial orientation and pronounced: “I see,” he replied with assurance, “no one in full possession of his faculties, as you obviously are, can be considered unemployed.” What I mean, he thought behind the facade of his fashionably aloof smile, is that there are no absolutes in this world. No one is ever perfect, not even to the extent of being unemployed. He shifted his patient’s interrupted attention with a friendly wave of his hand.

“Now, I know you’re twenty-six, and you’ve had nearly two hundred jobs, covering everything from polishing gold bricks at the Royal Mint to janitor’s assistant at Wapsipine Zoo—

None of which I could hold down.” Shaw cut in. He had spent twenty nervous evening details of his life, a drab and pitiful story of loneliness and failures.

Dr Plumhart seemed oddly unmoved by Shaw’s chronicle of woe. On the contrary, he had half-rolled comfortably in his swivel chair, listening and seemingly unaware of the fact that his patient was toying with his watch. It was an unconscious habit the moment he began to think, and Shaw was already moving with the same grace and fluidity as a man who was used to handling the finest instruments.

Shaw wondered idly whether he might have been mistakenly introduced to another psychiatric patient. No, the astonishing address of the man had been hinted at by the Rehabilitation Committee, who nevertheless appeared to regard him with considerable interest. This jolly old man, on considering Dick Shaw’s case-history, had mentally wrung the collection of facts and then cast around for a suitable repository to receive his patient, before it burned their metaphorical fingers.

Equally desperate were the staff of the local branch of the Ministry of Vacations. “We have an unbelonging word following the decade of the latest government bearing that title,” the Rehabilitation Committee was absolutely convinced of this, but they were only able to unload him. Just as, he thought wistfully, Dr Plumhart, in turn, would undoubtedly shift him on to somebody else.

“Tight rope artist,” Shaw exploded wrathfully. The little man was obvious to his annoyance, however, to properly fulfill the demands of his duties, he must be shifted on to a pad, he straightened with his smile predictably broader than ever, and tore the top sheet off the end.

“Take this prescription for a pair of shoes,” he rapped.

“That’s right. A pair two sizes bigger than those you’re wearing.”

Plumhart’s eyes were bright with triumph. “I knew the moment you landed into the room, like a man landing on high-lands. I saw it in my eyes. And, I knew—dressed in white shoes. A cramp sole means a pinch shoe.”

Shaw’s mother wanted you to have a foot, Mr. Shaw, he thought. She had been kept in the right shoes. You’ve squirited your feelings, because of a misconception formed in your childhood that the right shoes are tight shoes.

The room had been thoroughly searched before the meeting. Only the previous week an American spy had been discoveredrossed to the underside of the table in this very room. The juicy sounds of his chomping on a gum proved his undoing.

“I’d like to believe you, doctor, I really would,” Shaw was saying the prescription in his hand partly in doubt, partly in wonder. “But how can tight shoes make a person neurotic?”

“Think, Dick think! Can any person suffering constant pain think or act constructively? Your whole life has been one of endless, all-pervading pains, permitting every fibre of your existence—mind-numbing, oppressive torture, eating into your soul like a worm.”

Shaw was still dubious. “I don’t feel any better when I take my shoes off.”

“Just like that. A man with tight shoes. A cramp sole means a pinch shoe.”

“Your mother wanted you to have a foot, Mr. Shaw, she thought. She had been kept in the right shoes. You’ve squirited your feelings, because of a misconception formed in your childhood that the right shoes are tight shoes.”

“Exactly. That’s the situation in a nutshell.”

“A nutshell, eh?” Shaw huffed, half risen from his chair. “Look, Doctor Plumhart, would you explain one thing which is puzzling me? Why all the laughs? What’s so funny in my condition?”

“Nothing.” The little man lay back in his black swivel chair, his feet on the desk. “Nothing whatsoever. I never joke about a patient or his problems.”

“What I do is ‘think happy’.” Contrary to belief held in some quarters, a man works most consistently and efficiently when he is in a happy, contented state. Within limits, contentment is a mental attitude, which, again within limits, may be acquired.

“Of course, it cannot cure disorders of a nervous, much less psychopathic, nature. What it does do is to elevate the temperamental level a couple of notches or so, inducing a proportional enhancement in intellectual and emotional qualities.”

He grinned cheerfully. “What a mouthful! You see!” he ended triumphantly, “the mere idea of it has you smiling, for the first time since you entered this room.”

He stood up and shook hands with Shaw. “Well, goodbye Dick. You won’t need to see me again.” Just then the door opened. Think happy and think big, at least as far as your feet are concerned...

The Chairman of the Appointments Board, at 60, was at the pinnacle of his career, just as, by coincidence, transatlantic relations were at an almost insurmountable level of lowness. In conjunction, these two factors ensured him an abundance of working activity. Continued on page 24.
Ursula Le Guin is established as a formidable figure in children's literature, with her fantasy novels, and as a leading name in the sf genres, but now with her latest work she is coming into conflict with the established perfect institutions. Knowing this, Ms Le Guin makes it very clear that this is one of her major themes. The Odanessian society of Anares in The Dispossessed is a Utopia with feet of clay. Anareans and Urras, the twin worlds which are the setting of this novel, are separated by a cultural chasm. Anareans believe that they have the task of providing a balance to this solar system in which the Moon—Anares—is somewhat larger and more powerful than Earth. When Urras is in dire need of food, it would drain its resources to provide them. Anareans, who have no such task to perform, find this kind of behavior undesirable. They have no interest in the fate of Anareans, and the author's task is to create these societies without having to borrow anything from our world save mankind itself. There are many similarities—they are essential to the story—but the idea that the Anareans are an intellectual society with a tradition of excellence and wisdom from the weight of our history and institutions, and can thus build the worlds they need to build.

Ursula Le Guin's portrayal of Anarean society is an offshoot, a couple of centuries old, of that of Urras. It is founded on the precepts of the revolutionary philosophy proposed by the thinker Odom, who conceived of a anarchic state based on individual social responsibility had nearly caused the downfall of government on Urras. In order to save themselves, the Urrasian establishment bought off Odoo's followers by giving them Anareans. Since that time the two worlds have been almost totally cut off from each other. On Anareans, where there is no such thing as private property, the only boundary wall on the planet is the one which surrounds the spaceport where a few Urrasian ships land each year. From the Anarean point of view, the wall harms in the universe, leaving the Anareans to wonder why the Odanessian society quailed in the face of an invasion.

There is no war. There is no compulsion to do anything. If a man does not wish to work he need not: he still has free access to food, clothing, shelter. People use these things as they need them; they do not, cannot, own them. The greatest insult is to be termed a 'propertarian'. A central computer-backed agency allocates jobs and postings: Anareans are not on a poor planet; some local emergencies or major problems require a large force to be raised for a time. But anyone is at liberty to refuse such a posting. If you do not do your share you may become unpopular with your neighbours, but this may be avoided by moving around a lot—and there is a whole class of people, the nunchihi, who do just this.

The intention was to establish a non-centrized society, run federated rather than hierarchically. There was to be no controlling centre, no capital, no establishment for the perpetuating of bureaucracy and the dominance of the rich. The idea was that of the Anareans, and they built their own comfortable niches. Already on Anareas, the petty and the jealous have found ways of imposing themselves on others; on Urras, one can only imagine the power of a whole series of local communities. Altogether, from which comparisons are made, seems to be the term 'just a little too black, the air is too blue, the sky and the miserable masses a little too wide for the lesson to carry maximum impact. When Shevek eventually escapes the cozy world into which his hosts have thrust him, the world he finds himself in—the other Urras—is oddly reminiscent of its atmosphere of 1940s films like The Third Man: The sea was fine, foggy rain was falling, there were no street lights. The lamp posts were there, but the lights were not turned on, or were extinguished. Yellow beams slanted from around shuttered windows here and there, and the pavement, grey with the rain, was being moved by avoiding moving around a lot. The air is grey, the sky is grey, it is always hot. It is habitable, it is still habitable—but not as this world is. This is a living world, a harmony. Mine is a discord. We are not alone—and our small desert was a desert. We can only look at this splendid world, this vital society, this Urras, this Paradise, from the outside. We are capable only of seeing the world, and maybe to understand it, and our society. Shevek is the protagonist, a brilliant young Anareenist physicist. Shevek and the Odanessian chose a desert: we Terrans made a desert to. We can only look at this splendid world, this vital society, this Urras, this Paradise, from the outside. We are capable only of seeing the world, and maybe to understand it, and our society. Shevek is the protagonist, a brilliant young Anareenist physicist. Shevek and the Odanessian chose a desert: we Terrans made a desert to. We can only look at this splendid world, this vital society, this Urras, this Paradise, from the outside. We are capable only of seeing the world, and maybe to understand it, and our society. Shevek is the protagonist, a brilliant young Anareenist physicist. Shevek and the Odanessian chose a desert: we Terrans made a desert to. We can only look at this splendid world, this vital society, this Urras, this Paradise, from the outside. We are capable only of seeing the world, and maybe to understand it, and our society.
By Julie Davis

MINISTRY OF SCIENCE FICTION? In an era when the general public believes that science fiction is going up in the world, especially as MENSÀ, the highest level of intelligence, is becoming an active interest. In June this year Isaac Asimov was created joint vice-president of the society, and whilst in England he gave a lecture at the University of East Anglia in which he discussed his sf work. But, MENSÀ's latest move is a little more controversial, Mr Richard Kirby, the society's research officer, has suggested that we establish a government ministry of science fiction.

Mr Kirby made a careful study of Olaf Stapledon's novel essay Last and First Men in which we are introduced to the concept of the 'genius' and the intelligence would, Mr Kirby believes, be able to survive ideas from works of speculative fiction and putting them into practice is then the task of Mr Kirby's suggestions. He has placed science fiction within the bounds of contemporary philosophy of science which is an attempt to define the methodology which leads to scientific progress. Here he quotes Sir Karl Popper who says there is a formula which leads to the discovery of knowledge: 'Conjecture boldly and subject to severe testing.'

In Mr Kirby's view sf writers provide our greatest source of conjecture, because it is the nature of their subject to go beyond the information they already have. In fact sa has been defined as: 'An attempt to study the effect of human experience and behaviour of changes and supposed changes in science and technology.' Science fiction explores the possible.

Unfortunately throughout of the same themes appear again and again, there is a problem of poverty of imagination, although a few such as Philip K. Dick and the right lines. For example Noise Level by Raymond F Jones which is the story of a film made about the discovery of anti-gravity, when it is shown to a group of scientists they hurry off to discover it for themselves believing that it is possible but not knowing how, when they do discover it they are told the film was a hoax.

Katherine Maclean's short story Snowball Effect also provides us with an example of boldly conjecture with its tale of applied sociology.

In short, Mr Kirby is suggesting an academic discipline of applied science fiction. He proposes that a comprehensive content analysis of all popular sf stories, and a comparative study of all sf science, would provide a computer bank of hypotheses which can be fed to scientific research writers who will solve them in fiction; and he also suggests that liaison committees be set up between science and writers to combine the actual with the possible.

He rejects our passive role as objects in the universe, we are subjects and therefore we should take the future in our own hands and define it. Mr Kirby believes that the responsibility for this lies with the sf writers, he wants universities and research establishments to employ resident of writers to stimulate new and worthwhile research. He then goes as far as to suggest that sf will no longer stand for science fiction but henceforth it will mean science fertilizer.

Needless to say Mr Kirby's ideas were not received too favourably by the scientists present at the meeting.

IF YOU'VE GOT A PET SF SHORT STORY (not the one you've just written, unless its appeared in print) that you think says something important about the world then you might like to contact Dr John Borden. He is currently compiling an anthology of sf and speculative fiction short stories to be used as a college textbook for training vocational counsellors and therapists. The sort of story he is looking for would depict: an alternative life style; the impact of change; the meaning of work or leisure; or any other concept or setting that will help to make the students more 'future-oriented'. Dr Borden is an associate professor at The Florida State University, Tallahassee, Florida 32306, USA, and that's where you should send your nominations.

SF GOES INTERNATIONAL—we have just received a copy of ANTARES which is a Turkish fanzine! Complete written in Turkish, except for an English summary at the beginning. ANTARES seems to compare favourably with regard to the other fanzines we've received. From the summary I gather that sf in Turkey is influenced mainly by STAR TREK, the books of Erich Von Daeniken and the film 2001. Thanks to the enterprising soul who sent us ANTARES all the way from Turkey (how did you get a copy of SFM?) and good luck with future issues! Meanwhile, does anyone know of any other Turkish evening classes in progress at the moment?

CORRIGENDUM: In SFM Vol 1 No 6 we gave the name of the treasurer of the Tolkien Society as Archie Mercer, there has now been a change of personnel in the society and Mrs Janet Gibb has taken over. So all membership subscriptions should be paid to her at 49 Bereford Road, Islington, London.

BOOKS

The Sky Is Falling by Lester Del Rey. Published by New English Library, 30p. The story of a parallel universe which exists within the dome, when the dome begins to crack-up it appears that the sky is falling. To save their world and its inhabitants, various space travelers, university students, a ferris engineer, who can patch up the cracking dome.

The Moon Is Hell by John W Campbell. Published by New English Library, 30p. This is the first in a new series of science fiction classics. John W Campbell is renowned as editor of several science fiction magazines in the thirties, forties and fifties. He is also a sf writer and The Moon Is Hell is a study of the effects of the moon on the first man who landed there.

The Roots of Coincidence by Arthur Koestler. Published by Picador, 50p. The relationships between respectable science and the science of the supernatural are constantly changing. Close ties between research and the occult formed in the days of the alchemists have fallen away and been partially rebuilt, especially as the study of parapsychology becomes of wider scientific interest. Arthur Koestler has created this book from a discussion of several syntheses of physics and metaphysics, the ideas of men as disparate as Pico della Mirandola and Carl Jung. Looking outward, Koestler pleads for open-minded analysis, combined with an induction in non-scientific ritualism and superstitious credulity.

The Cosmic Colouring Book published by Mushroom Cloud Publishing Company Limited, Redhill, Surrey, 75p. This book contains thirty-six outline drawings of witches and wizards; fairies and flowers, earth, air, fire and water; inner space and outer space. You can use water-based paints, including Polymer and Acrylic, glitter, crayons, pencil, pen and ink, the choice is yours. And when you've finished you've got a personal and permanent picture book to show to all your friends.

The Other Side of the Sky by Arthur C Clarke. Published by Congi Books, 35p. Imagine you are the first man to leave Earth in order to live in space, or imagine you live in a space station, where you are, dependent on rockets from Earth to bring you everything you need; or imagine what happens when without spacecraft you are suddenly projected into the total vacuum which surrounds your cabin on the perimeter of the space station. These are only three of the twenty-four themes that Arthur C Clarke pursues in this book. These stories reflect Clarke's reputation as a brilliant scientist—all the technical details are handled in a splendidly assured and dexterous fashion—and at the same time they are the unflagging fertility of his imagination, his mastery of the sf form (there is invariably a breathtaking twist in the final sentence) and his power to convey a sense of awe and wonder at the immensities of outer space and the fantastic possibilities for mankind that lie just around the corner.

The Mask of Cthulhu by August Derleth. Published by Neville Spearman, £1.95. Great Cthulhu—Hastor the Unspeakable—sunkken R'yeh—all come to life again in these five novellas and one short story. HP Lovecraft himself suggested the theme of The Return of Hastor shortly before his death. The remaining tales in this collection of horror stories followed naturally upon it—the account of the terrible psychic residue that remained lurking in The House in the Valley; the true life incident which drove the narrator to his doom in The Whippoorwill Hills in the inescapable agreement which lay behind The Sandnirk Compact; and the search which followed the discovery of The Seal of R'yeh in the house near Innsmouth.

Beyond Earth: Man's Contact With UFOs by Ralph Blum with Judy Blum. Published by Bantam Books, 50p. The latest Gallup Poll reveals that 15,000,000 Americans believe they have seen flying saucers! Not aircraft, not meteors, not migrating birds, not high altitude balloons, not Venus, not swamp gas, not temperature inversion or anything similar, but multiple-witness hallucinations, not plastic garlic bags, not candles—but authentic sightings of unknown unidentified flying objects, sightings which are authenticated by police officers, policemen and other trained observers. Ralph and Judy Blum examine the evidence for the existence of UFOs.

Conscience Interplanetary by Joseph Green. Published by Pan Books, 40p. Arthur Clarke has progressed from 2001: A Space Odyssey to the 23rd century. In this latest novel he has overcome twenty-first century, the conscience of one man must decide whether life on a newly discovered world is likely to be better than life on Earth. The pressures of big business and grasping politics will stop at nothing to force his hand.

Rendezvous With Rama by Arthur C Clarke. Published by Pan Books, 40p. Arthur Clarke has progressed from 2001: A Space Odyssey to the 23rd century. In this latest novel he has overcome twenty-first century, the conscience of one man must decide whether life on a newly discovered world is likely to be better than life on Earth. The pressures of big business and grasping politics will stop at nothing to force his hand.

The Trail of Cthulhu by August Derleth. Published by Neville Spearman, £1.95. No one but August Derleth could have captured so skilfully the mood and design of HP Lovecraft's Cthulhu Mythos and yet have done so in a manner all his own. The story tells of the deceased pursuit of Cthulhu, the search for his lair in sunken R'yeh, of the danger from Cthulhu's minions, ever wary of detection and disclosure. It begins in a house on Curwen Street in legend-haunted Arkham, Massachusetts, on a ship on a shunned and mysterious island in the South Pacific. In between the scene ranges from the Inca ruins near Machu Pichu to London, from the Nameless City of Irem—in a memorable scene evoking the shade of the mad Arab Abdul Alhazred—to Singapore. The result is a theatrical and dramatic sequence of events which fits into place more pieces in the mosaic of the Cthulhu Mythos than any other fiction written since Lovecraft's death.
READERS' questions on any aspect of science fiction are dealt with in this feature so long as they are of general interest. Send your questions to THE QUERY BOX, Science Fiction Monthly, New English Library Ltd, Barnard’s Inn, Holborn, London ECIN 5JR. They will be dealt with as quickly as possible.

THE QUERY

HIDDEN CARES

Can you tell me more about Famous Science Fiction, mentioned in Michael Ashley’s review of the sf field? Is it still possible to get copies?

This was a pocket-sized magazine, published quarterly at 50c by Health Knowledge, Inc., New York, starting with the Winter 1968-9 issue and ending with the Summer 1969 issue. It was edited by Robert Aw Lowendes, a former writer for National Geographic and knew the sf field as well as his editor was opened: Robert A. McCall. The policy was to feature humorous stories of the late 1950s which had not been revived by the anthologies because they were "honored in their own time.” And the most famous of all was JA Mitchell’s “The Last American,” which dates back to 1898. Others, mostly writers whose works were translated into English, were Jack Williamson’s (recently revived), "World-Trekkers” by Edmund Hamilton, the last in a trilogy by the same author, and some others by John L. Campbell. All of whom, with the exception of Williamson, are substantially older than the 1950s. The story is set in a prehistoric era and the writer is a pre-eminent one by Jon P. Trower (you almost get it right), a distant relative who has disappeared with his bride from the island of Guernsey. The account told of the founding of Helen’s Island, a subterranean race constructed beneath the Indian Ocean by a psycho-physician who plans to populate it with selected couples from the doomed surface world. He is also in communication with alien creatures on distant planets and is trying to sell his aid to saving Earth from its fate, in spite of the “Law of Independent Development.”

The monogram remained obscure, at least to me, but the book is full of original conception and altogether fascinating. I hope you enjoy a copy.

EIZLY CLASSIC

Can you locate me for the story by L. Ron Hubbard, Return of the Master, which appeared around the early 1950s and was used for the movie, The Days the Earth Stood Still? N. Cockburn, New Malden, Surrey

The story, actually titled Forever to the Master, was first published in Amazing Science Fiction, October 1940. It was included in the celebrated anthology, Adventures in Time and Space, edited by Raymond [Healy and Francis crochet (Bantam House, New York, 1944); Grayson, London, 1955); the latter. It was also the story of the Abominable Stories from 1930 to 1933, and later became a contributor.

IN THE DARK

I need some information on the history of science fiction films. Can you recommend an inexpensive book on the subject?

G. Burt, England

For its size, the paperback Science Fiction in the Cinema (Tate Press) packs a lot of information into 150 pages, covering the history of sf films from the Moon to Kubrick’s 2001. The author, Roger Skirrow, is an Australian who writes when he isn’t watching movies.

WORMHOLD

Who did the covers for Dune and Dune Messiah?

D.W. Peddie, Westcliff-on-Sea

The covers of the NZL paperback editions of Frank Herbert’s tales of the planet Dune were painted by Bruce Pennington. An article about him appeared in the first issue of SFM.

With reference to Derek Stokes’ letter in SFM Vol 1 No 8, I feel compelled to write and defend my sex. I am quite willing to accept that he is writing from his personal experiences, but really...

My husband and myself are both avid sf readers. We both buy books and, in common with most other married couples we know of, do not need to justify or explain why the weekly budget is slightly out and why extra books have appeared on the bookshelf AGAIN. As for hiding books or sending them to a friend’s address there are just as many men who make their wives feel guilty about spending money on things they enjoy — e.g. the new hats that suddenly appear. If more men treated women as intelligent human beings and didn’t try to intimidate or belittle them when they are in of books, then they might feel free to browse along bookshelves. Anyway it was me, not my husband, who placed a regular order for S.F. by O’Brien (Brentwood, Essex).

I was looking forward to the article, Science Fiction in Rock Music, but in the event found it rather disappointing for a number of reasons.

Gene Cochran (and SFM in general) seems to have a thing about Hawkwind and, to a lesser extent, Pink Floyd, and the impression I got was that the idea of an article on rock music was concocted as an excuse for a discography on Mr. Cochran’s favourite band. The article that emerged consisted of a reasonable piece on Pink Floyd and a lengthy PR job on Hawkwind.

Hawkwind have little more than a cursory acknowledgement of other manifestations of ‘in’ rock.

It seems to me that Gene Cochran has missed a golden opportunity to explore an area that has barely been touched before. As the article points out, the music of Pink Floyd and Hawkwind is not totally sf-oriented, but there are plenty of other people to whom this also applies, whose music nevertheless contains elements of various sorts. Examples are the Roxy Music with their futuristic stage costumes and synthesised music, particularly as evidenced by Enzo (who even at one time claimed to be of extraterrestrial origin), Rick Wakeman with his Journey to the Centre of the Earth project, Elton John and Bernie Taupin’s Rocket Man and I’ve Swun the Saucers; one-off like Nelson’s Spacemen, the Kinks’ Superroc Rocket Ship, King Crimson’s 21st Century Schizoid Man, and even Ricky Wilde’s I Am An Astronaut. And then there is the person who is probably more steeped in it than any of those I’ve just mentioned — David Bowie. What about his Diamonds Dogs album, Saviour Machine; the very recent We Are the Hungry Men (about the dangers of overpopulation); the whole concept of Ziggy Stardust and the Spiders from Mars; but especially Five Years, Drive-In Saturday and the classic song (eight years ahead of Silver Machine), Space Oddity? Now that Gene Cochran has got Hawkwind out of his system, perhaps SFM will publish an article which really deserves the title, Science Fiction in Rock Music.

CR Stanley (Southsea, Hampshire)

Winners of Crossword Competition No 2

Science Fiction Monthly Vol 1 No 8 featured our second crossword competition and offered as prizes three copies of Christopher Priest’s collection of short stories Real-Time World. The winners are the authors of the first three correct entries pulled out of the post bag and are as follows:

Peter Pinto, D4 Bedford Road, London WC2
A. Muttons, 50 Deveron Road, Beardsen, Glasgow G61 1NQ and DM Bath, 5 Fairwater Grove West, Llandaff, Cardiff CF5 2JN.

SOLUTION

Across 1 Michael Moorcock 2 Buyer 3 Dr Who 4 TFF 5 Harry Potter 11 The Topper 12 More 13 Doctor 18 Titch 19 6 5

Down 1 Skelter 2 Twelve 3 Dr Who 4 TFF 5 Harry Potter 11 The Topper 12 More 13 Doctor 18 Titch 19 6 5

SCIENCE FICTION MONTHLY 27
A little Yorkshireman, at the other end of the table, was the first to break out of the gawking trance which held the entire body. He pointed a shaking forefinger at the empty windowframe.

"Armocrystal has an ultimate advantage, shrieking that of stainless iron. His voice was an incredible whisper. And he shivered it like a slab of butterscotch."

Shaw flicked a glance at the speaker. "Consideration of the basic and evident physical properties of the material, indicated a macroscopic crystalline structure of lattice form, whose cleavage plane distribution could be simply inferred by visual inspection of its refractive characteristic."

"I see, I see," the Yorkshireman muttered. "And then you--"

"Gashed out from his papers, for a few seconds he blandly surveyed his audience of five, who gazed back at him in glum resignation to verbose egocentricity."

"We have one more candidate for interview, gentlemen," he said mildly, and then moistened his lips with water.

This was the cue for the man on his right to speak. The Staff Relations Officer, young, brilliant, and intensely image-conscious, followed the current vogue by affecting a ridiculous mock French accent. Thirty years previously he would probably have spoken in the clipped, incisive American style. Today it was fashionable to imitate one's Gallic allies in thought, word and deed.

The next candidate, he began in soft, liquid syllables, was one Richard Shaw, who was due to arrive in five minutes at three o'clock. This man had recently astounded the Rehabilitation Committee, to whom he was assigned, by the phenomenal increase in his employability coefficient, which the committee naturally attributed to the help they had given him.

In addition, or, as the Staff Relations Officer put it, "adjectives," Shaw claimed to have invented a military weapon of major significance. This revelation jarred the idle-listening Board members out of their semi-comatose studies. It wasn't every day they had the opportunity to consider a potentially newcomer to the illustrious company of such products of human ingenuity as the automatic flaming machine, leprosy gun, and the brain fluid cavitator.

The Appointments Board would consider Shaw for employment, and would also decide whether or not his invention was worthy of consideration by a Weapons Committee.

The last word of the Staff Relations Officer's voice died in the large, austere room. Each man attended to his thoughts, the Chairman with his triumphs of Board form, past and present, the last speaker fiercely contemplative of his next down moves on the political chessboard, the others morosely considering various implications of the coming eruption of military science.

The room had been thoroughly searched before the meeting. Only the previous week an American spy had been discovered lashed to the underside of the table in this very room. The juicy sounds of his chomping on a waif of mentholated gum had proved his undoing. (He had taken the precaution of jamming the building's acoustic detectors, but had overlooked the natural hearing faculty of the board members.)

Bong! The first stroke of nearby Little Ben clove the air. Its larger predecessor had gone to the melting pots in the austerity drive of the early nineties. The Chairman pursed his lips and prepared to deliver a characteristic remark of withering disapproval, a dry observation to the effect that possibly Mr Shaw's weapon had proved to be conclusively successful.

At the second stroke a shadow appeared on the translucent armocrystal window behind the Chairman's left shoulder. Following the sudden gaze of his colleagues, he turned half around in time to see, precisely at the third stroke of three o'clock, the window shuttered inwards in a shower of glass, in the midst of which he glimpsed a diving figure.

The Board members gasped at the intruder, sprawled on the maroon carpet. Thousands of crystal discs of similar shape and size to a fifty peace piece. The newcomer was a rather slightly built young man with nondescript features, extraordinarily attired in a camouflage suit with marching helmet.

"This weapon is an instrument, not of death, but of life. He carefully squeezed the trigger again and then slowly played the soundless instrument over the circular arc of anxious faces. Its function may be inferred from its name, the harmonic escalator."

On his back were strapped twin cylinders, also camouflaged, from which flexible pipes snaked over his shoulders to a mysterious device resembling a sub-machine gun with a black, camouflage-ribboned barrel, held firmly in his grasp. The gun, if such it was, was pointed quite definitely, pointedly, one might put it, at the Chairman.

"This weapon's celebrated dry wit had undergone rapid and drastic dehydrogenation to the point of desiccated opacity. The Staff Relations Officer was hastily debating whether to dive under the table or sing a snatch of Yankee Doodle (blat his French accent), for, like the others, he believed the camouflage-clad figure was one of the vanguard of an American invasion force.

'Mr Chairman, gentlemen.' The intruder bobbed his high-tenor hat politely, 'Richard Shaw, for interview.' He smiled warmly at the amazed gathering.
The inhabitants of a distant city know that their civilization must hold out as the invaders unleash the Fire Storm.

Fire Storm!

The Head and the Hand

Standardize! And now they measure their stations without external standards. And now they tackle where this world is, and what it is. And feel it. Just feel it.

Real Time World

A Real Time collection of extraordinarily imaginative short stories from CHRISTOPHER PRIEST, who proves himself to be as much a master of the SF short story as he is of the novel.