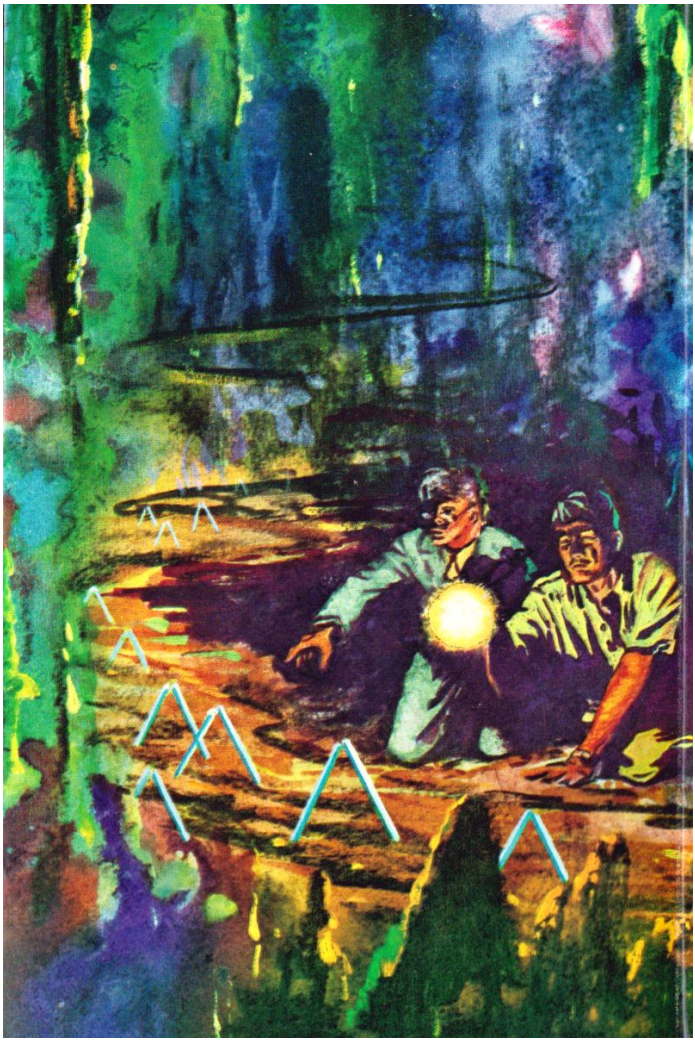
Captain W.E. JOHNS

the Quest for the Perfect Planet

Title: The Quest for the Perfect Planet—A Story of Interplanetary Exploration
Date of first publication: 1961
Author: W. E. (William Earl) Johns (1893-1968)
Date first posted: February 14, 2024
Date last updated: February 14, 2024
Faded Page eBook #20240208

This eBook was produced by: Al Haines, akaitharam, Cindy Beyer & the online Distributed Proofreaders Canada team at https://www.pgdpcanada.net



THE QUEST FOR THE PERFECT PLANET

A story of Space Exploration

BY

CAPTAIN W. E. JOHNS

London

HODDER & STOUGHTON

First printed 1961

MADE AND PRINTED IN GREAT BRITAIN FOR HODDER AND STOUGHTON LIMITED, LONDON BY C. TINLING AND CO. LIMITED, LIVERPOOL LONDON AND PRESCOT

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FOREWORD

WHEN this series was begun, seven years ago, the exploration of space was regarded by many as a flight of fancy, an extravagant creation by people not quite in their right minds. There was nothing unusual in this. As we pointed out in the Foreword of Book I, *Kings of Space*, there have always been those ready to scoff at any unusual project.

At the time of the publication of *Kings of Space*, in 1954, the science of astronautics had not received much publicity, for little of a practical nature had been done towards reaching out to the stars. Men could look, for they had made giant telescopes; but they could not go. What lay beyond the atmosphere of the Earth was largely a matter of surmise.

Today we have a different picture. Never before have so many apparently insoluble problems been answered in so short a space of time. In fact, events have overtaken the most optimistic predictions, with the result that there are fewer scoffers than there were. More eyes are on the stars, and when men decide to go somewhere they will find a way.

Progress is, after all, a matter of step by step development from an original idea. Thus has it been with transportation which, starting with a pack animal, jumped in the ratio of ten to one with the introduction of the first simple wheeled vehicle. From this to steam as a motive power was the next long stride. Again, from steam to the internal combustion engine which, by providing more power for less weight, made the flying machine possible. Jet propulsion came next, to be followed by atomic energy, the ultimate possibilities of which no man can foretell; but it is more likely to take us to the stars than the liquid fuel rockets now being used for space research. So we go on, step by step, towards interplanetary travel.

One of the difficulties that arises when writing a book of this sort, which tries to avoid technicalities, is how to convey to the reader certain peculiar conditions that occur in "space" without recourse to the special words used in astronomy and by those now working on space projects. For example, in the event of a projected trip to another planet the first question a novice might ask is: "How far away is it?" No answer can be given because the distance varies from day to day. Our neighbour Venus, for instance, can be as close to us as forty million miles and as far away as sixty million. To explain how and why this should be would, apart from taking up a lot of space, involve details which the reader might find boring.

In the earlier books of this series certain terms have been defined in the hope of simplifying matters, and at the speed space exploration is advancing the intelligent reader would do well to learn a few more, because they are certain to appear in newspaper reports; and unless they are understood they are likely to sound like so much double-Dutch. Here, then, are a few more words for the vocabulary of the bright boy who would like to keep up-to-date with events. They will not necessarily be used in this book, so they may, if the reader prefers to ignore them, be skipped.

APOGEE. The maximum distance of a heavenly body from Earth. Thus, the apogee of our moon is 253,000 miles.

PERIGEE. The minimum distance. Again in the case of the moon, 222,000 miles. The reverse of apogee.

OPPOSITION. The position of two bodies when diametrically opposite to each other. Thus, when the moon is full it is in opposition to the sun.

APHELION. That part of the course of a planet which is farthest from the sun.

PERIHELION. That part of the course of a planet which is nearest to the sun. In other words, the reverse of aphelion.

ALBEDO. Deriving from the Spanish word meaning whiteness this means the ratio of the total amount of sunlight reflected (in all directions) from a body, to the amount received by that body. The degree of albedo gives an idea of the substance of which the body is formed, some surfaces reflecting better than others. Venus, by reason of its surrounding clouds of gases, is as high as 59 per cent (the highest in the solar system) while our moon is only 7 per cent, which suggests it is composed largely of dark rocks.

CHAPTER I

THE PROFESSOR STATES HIS VIEWS

"THERE are days when I feel depressed, bowed down under the weight of knowledge I have acquired in our travels; days when I envy the simple rural labourer, going about his tasks without fear, without haste, knowing nothing and having no desire to know what goes on in that awesome Universe of which his little world is a microscopic part."

The speaker was Professor Lucius Brane, wealthy, eccentric scientist-philosopher who, in a far from spaceworthy craft of his own design had made a trip, before it came to grief, that had brought him into contact with spaceship commanders of other planets, and in their so-called "flying saucers" had made voyages of long duration. In the library of his house, Glensalich Castle, situated in the remote Highlands of Scotland, he was engaged in after-dinner conversation with the friends who had accompanied him on these flights, and now enjoyed his hospitality.

For the benefit of those who have not previously met the Professor he was a small, lean man of indeterminate age, with bright blue eyes under shaggy brows and a high-domed forehead. He wore his hair rather long, not so much from choice as a disinclination to waste time having it cut. He had formed an unconscious habit of pushing it back with his fingers when the front fell forward, as it usually did when he was perturbed. At such times, too, his metal-rimmed spectacles tended to slide towards the end of his nose.

Having no one in the world to please except himself he could afford to dress as he liked, and personal comfort was obviously of more importance than appearance. The soft-collared shirts he wore were too big round the neck, loosely tied by a narrow strip of black silk ribbon which as often as not had come undone. His frock coat of Edwardian cut, spotted with chemical stains, had seen better days, as had a pair of flannel trousers that

had not known a crease for years. On his feet were a pair of cheap canvas tennis shoes, which for ordinary purposes he held to be the most satisfactory footwear ever designed.

His companions were Group-Captain "Tiger" Clinton, Retired, one time of the Aircraft Research Establishment, and his son Rex, sixteen, slim, as straight as a lance, fair-haired and, like his father, grey eyed. The fourth member of the party was Squadron Leader "Toby" Paul, late of the R.A.F. Medical Service. An old friend of Tiger's he had acquired his nickname from his figure, being short and rather stout, after the manner—although not to the same extent—as a Toby jug. Belying a jovial expression and an inconsequential method of speaking he was a doctor and a surgeon of ability and experience.

It was Tiger who answered the Professor's last remark. "You astonish me. I had no idea you felt like that, and I can't see why you should. When one considers what we have done, where we have been and what we have seen—"

"Exactly, my dear fellow," broke in the Professor. "That is my point. Too much knowledge can be overpowering, overwhelming, more than our feeble brains can assimilate. It tends to give one a sort of mental indigestion. You see, knowledge, like the Universe, is infinite. There is no end. The question arises, where does one stop? Or does one never stop, but go on and on . . . ?"

Rex stepped in. He looked perplexed. "I'm sorry, sir, but I can't follow this line of argument."

"Well, it's like this, my boy," resumed the Professor. "We believe there is no end to the Universe, although, to be sure, it is almost impossible for us to imagine anything being literally endless. In the matter of the Universe it is in fact impossible for us to grasp the magnitude of the distances involved. When we try to describe them, in our helplessness we finish by making imbecile signs with our hands. Yet we are bound to ask ourselves such questions as, was there ever a beginning to all this? Was there always a Universe? If not, from whence came the original gases, the hydrogen of which the stars were formed; the stars which, after burning, as our sun is burning, for billions of years, burnt themselves out, and after cooling down became planets like the one on which we happened to be born. Again, we may ask ourselves, will it ever end? *Can* it ever end? Where would all this mass of matter go if it did end? We can't answer these questions, and to attempt to do so makes the brain reel. It is the same with what we call knowledge."

“This is getting a bit too deep for me,” remarked Toby. “Could you be a little more explicit?”

“I merely remarked that knowledge is like the Universe: there can be no end to it. Put it like this. If you were privileged to live another thousand years you would know more than you do today. Should you live on for another ten thousand years you will know still more, but even then the total sum of your knowledge would be no more than a step towards what would be left to learn. And so *ad infinitum*, because to knowledge there can be no limit, no end.”

“But think of what we know—”

“I do, and realize how little we know. We have visited some thirty or forty planets and planetoids within, comparatively speaking, easy distance of Earth. A mere forty, out of the vast number within our reach. We have seen wonders. What wonders do the others hold? The imagination boggles at the possibilities. We don’t know.”

“Do we want to know?” asked Rex, tentatively.

“On other worlds,” resumed the Professor, pensively, “we have been granted a glimpse of civilizations so old that in comparison our little Earth is but a newly born infant. We have seen worlds in the unspeakable horror of birth, a blaze of heat beyond description surrounded by tortured gases hurled out by forces of which we still know little. We have seen worlds in their heyday; we have seen worlds in decline and worlds long cold in death. We have seen a world snuffed out of existence like the flame of a candle, a daily occurrence in this fantastic scheme of things—if, indeed, there is a scheme. That, one day, will be the fate of the Earth. It could be tomorrow, or not for another ten million years: but that end is inevitable, for it is a fundamental law of the Universe that everything born must die, and planets are no exception. I ask you, my dear Group-Captain, are such thoughts conducive to that peace of mind which is the essence of happiness?”

Tiger stared. “If you feel like this why did you in the first place devote your time and money to the exploration of Space?”

“I acted in ignorance.”

“Are you sure it wasn’t just curiosity?”

“Not entirely. I had a vague hope that I might benefit mankind.”

“How?”

“When it became clear to me that Earth was moving with ever increasing momentum towards ultimate disaster I resolved to find a way of escape for at least some of those who would prefer to make new homes elsewhere.”

"I doubt if anyone would go."

"Not today, perhaps, but in the not too distant future. Consider what men have done to our good Earth in the last few generations. Five hundred years ago the continents of America and Australia had not even been discovered. All that was known of that great land mass, Africa, was the Nile Delta and a strip of the Mediterranean coast. So little was known of that vast country, China, that it might have been on another planet. Look at these places today and see what men have done, and are still doing to them. The entrails have been torn out of the soil in a frantic search for minerals and oil. The great rivers have been dammed to form huge inland seas. Mountains have been levelled and landscapes altered beyond recognition. Noble forests have been laid flat leaving hideous deserts in their place. Here at home the once sparkling rivers have become drains to carry sewage to the sea—itself becoming foul with the radio active effluents from atomic reactors. Remote islands have been blasted off the map—but why go on? If all this could happen in a mere two hundred years can you imagine what will happen in

the next two thousand? No, you can't. Do you remember our first conversation in this house on the day when, lost in the fog, you blundered into it?"

"Of course. You said something to the effect that in the lust for power and the folly of war Earth's resources were being sacrificed to no good purpose, and the day of reckoning would come. You argued, I recall, that even if this planet survived the experiments of crazy scientists the population would outgrow its food supply and even perhaps dwelling accommodation. Unless something was done the end could be starvation for multitudes."

The Professor nodded sombrely. "What has happened since, and what I have seen on our voyages, has not caused me to change my mind. In the purpose for which I set out I must regard my efforts as having failed."

"I can't see why you should think that."

"Although I have been given opportunities for observation beyond my expectations, the truth is, of the many uninhabited planets we have visited none has offered the security and the amenities we enjoy here on Earth."

"Some were far in advance of us."

"I am talking of unoccupied worlds, not established civilizations where the introduction of a new race of men would lead to trouble."

"I don't follow you. Why should there be trouble?"

"Because sooner or later the two peoples would fight for supremacy. You have only to look around you to see what would happen. Here we have a beautiful world with plenty of room for everyone, yet on all sides we find one race of people envious of others. To live in peace nations must arm to protect themselves. The inevitable result of racial hatred is war. That is what our civilization has come to."

"I'm afraid you're right," agreed Tiger, sadly.

"The truth is this," continued the Professor. "The only uninhabited worlds we have seen that appeared to be ideal for colonization suffered from some sort of physical frightfulness, which is of course why they have remained unoccupied. Progress, or even a comfortable existence, would not be possible under the shadow of impending disaster. When we landed on that charming little planet which we named Arcadia we thought it perfect. So it was—then. When, on a later occasion, we returned, we discovered why there was no one there. Its long elliptical orbit periodically took it so close to the sun that all life, animal and vegetable, had been scorched to death. The fact that this only happened at intervals of many, perhaps hundreds of years,

made no difference. There could be no future on such a world, no incentive to do anything."[1]

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[1] See *Now to the Stars*.

Tiger nodded. "I see your point. Life in such conditions, knowing extinction was every day coming nearer, would be impossible."

"You will, no doubt, recall similar examples," went on the Professor. "You will remember the world that suffered from regular inundations as its enormous moon dragged all the water over the land in the form of monstrous tidal waves. That was no place to live. Then there was the world which, rotating—or rather, wobbling—on an unbalanced axis, its weight being one-sided, was from time to time devastated by such gales of wind as to make normal life impossible. We need not mention those worlds which were quite useless even as a temporary residence, being nothing but water, ice, solid rock, or metal. In short, my dear fellow, we still have to find an uninhabited world comparable in every respect with the one on which we had the good fortune to be born."

"What about that planetoid Multova told us was named Lut?" reminded Rex. "That struck me as being a very bonny little world."

"It had possibilities," conceded the Professor. "But I wouldn't call it perfect. You can't have forgotten what happened to you there."

Rex smiled wanly. "I have not."

"It would be a highly dangerous place for children, who would, I suspect, be unable to resist paddling in its treacherous waters."[2]

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[2] See *To Worlds Unknown*.

"Then how about Mars for a retreat? It has the advantage of being handy."

"No—no. The Martians, now hard at work restoring their homeland, would resent invasion, particularly if we introduced our innumerable disease germs and microbes. The catastrophe that practically denuded their planet did at least wipe out the bugs for them."

“The fact of the matter is, Professor,” said Tiger shrewdly, “to return to your original argument, knowledge begets a yearning for more knowledge. Let’s face it. Space exploration is like a drug, for which the only relief is to be found in another dose of exploration. You’re itching to be off again on another trip. Am I right?”

The Professor’s eyes twinkled. “Perhaps. My papers are completely up-to-date. If I can add a little more to them so well and good. But that is not to abandon my original project. I would still like to find a new world, let us say the perfect planet, to which our people, or some of them, could retire when the day of doom appears on the horizon, or even before that should they find the strain of living in our present conditions of noise, insecurity and anxiety, intolerable. There was a time, and not so long ago, when people feeling like that could take ship and transport themselves to a new land, there to settle and lead peaceful lives; but those days have done for ever. There are no new lands, unless a man cared to face the rigours of Antarctica, and the old lands only permit strangers to enter under regulations which some people might find irksome.”

“There are still a few uninhabited islands,” reminded Rex.

“Those who would escape could find no salvation there,” declared the Professor. “Should some over-enthusiastic scientists one day make a mistake, as is not impossible, they could do to Earth what was done to Kraka —blow it to smithereens. Apart from that, with all sorts of missiles being hurled into space there would still be a chance of one falling on one’s head, even on a remote island. No, Rex, my boy; escape today means escape to another world. At least, that’s what *I* mean.”

“Tell me this,” requested Toby. “Supposing you found another world, the ideal planet, what use would it be to you?”

“I would offer it as a haven of refuge to people who are alarmed by what is going on here and would prefer to start a new life elsewhere. For obvious reasons I had no thought of trying to evacuate the entire population of Earth. I was thinking only of a few selected persons, enough to keep our race going. At some future date, should Earth have come to its senses, they could return if they wished.”

“What I meant was, how would you get these new-style emigrants to their new world?”

“Borrow two or three ships from those of our friends who have them. They did not hesitate to go to the rescue of Parvo when that unlucky planet was threatened with obliteration by collision with its own moon which, for some unknown reason, had drifted out of its orbit.”[3]

"Before we start romancing about the transfer of populations from one planet to another we still have to find the perfect place on which to unload the refugees," Tiger pointed out, practically. He looked curious. "Why did you bring up the subject tonight?"

The Professor smiled mischievously. "Come—come! Surely you can guess?"

"Is it because this happens to be the night of a full moon?"

"Of course. According to our arrangement with Vargo, provided he is not engaged on other work he will be near us, in the *Tavona*, watching for our signal lights."

"I see. So that's it. Do I take that to mean you will go with him, should he call?"

"Yes. I shall go. My bag is already packed. If anyone else would care to come I suggest it is time to make the few preparations that are necessary, for in an hour the moon will rise over Scotland and Vargo does not care to stay too long on the ground for fear of being discovered and possibly apprehended."

The others rose. "If you go I shall go with you, of course," said Tiger, as they went off to their respective rooms to pack their bags.

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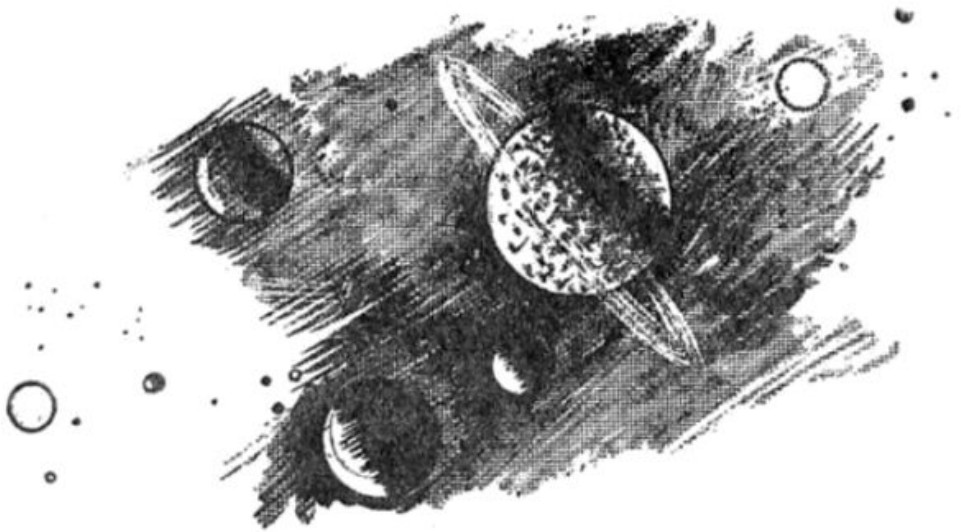
[3] See *To Worlds Unknown*.



CHAPTER II

THE ELIXIR OF LIFE

"ASIDE from trying to find the ideal planet I had another reason for wishing to speak to Vargo," stated the Professor when, in about half an hour, they had reassembled.

"And what is that, if I may ask?" inquired Tiger suspiciously.

"Dacoona."

"What about Dacoona?"

"I am anxious to learn if the mystery of the long life of the people of that planet has yet been solved. I have thought a great deal about it. I regard it as one of our outstanding discoveries, because if this faculty could be introduced to Earth we would indeed have achieved something worth while."[4]

"I've thought a lot about it, too," declared Toby. "The only conclusion I have arrived at is that the extraordinary life-span of the Dacoonians is due to the presence of certain peculiar chemical conditions on that particular planet."

[4] See *The Death Rays of Ardilla*.

"That may prove to be the answer although at the moment I'm not convinced of it."

"What have you against that theory?"

"Because once in a while there is a case of remarkable longevity on Earth, the person concerned having lived on a perfectly normal diet. Why should that happen? If the cause were known it could be applied to others. For example, I need only quote the instance of Thomas Parr, commonly known as Old Parr, who for some unknown reason managed to live to the venerable age of a hundred and fifty-two. The date of his birth was checked in the parish register by the Earl of Arundel, who took him to London. When —as he claimed—the polluted atmosphere killed him, he was buried in Westminster Abbey."

"That probably was hereditary," said Toby. "He came from a family of long livers. His mother lived to see a hundred and ten."

"That doesn't alter the case. Why should this particular family be different from others? They must have had something others are denied. Was this rare thing something that is common on Dacoona?"

"There are plenty of people today who have turned a hundred," Toby pointed out.

"That's a very different matter from hundreds of years. Actually, if people on Earth can live to be a hundred we really shouldn't be astonished if people on another planet can live to be much older."

"Do you want to be three or four hundred?" inquired Rex, curiously.

"Why not? Think of the things one could learn, and the worlds one could visit, in that time. If it is possible let us do it. People often talk of being tired of life but few die from choice."

"Very well," returned Toby. "What's your theory?"

"You are a doctor, so let us approach the subject from the biological angle," suggested the Professor. "You will agree that by far the greatest number of people die by accident or from disease?"

"That is correct."

"Without accident or disease our normal expectation of life would be greatly increased?"

"Certainly."

“Eventually, however, we die because our bodies become worn out. After a certain age deterioration is always going on, and while our systems do their best to repair the damage there comes a time when they cannot keep pace with the wear and tear on the cells, tissues and sinews, of which we are composed. Then, one by one, our faculties fail, and we die.

“That, roughly, is the story. The remarkable thing is that we live as long as we do. From the day we are born that little pump which we call a heart must go on, year after year, working non-stop. Imagine trying to make a pump, even of tough metal, that would work day and night for perhaps a hundred years without occasionally being dismantled for overhaul!”

“It couldn’t be done because it would be impossible to install an automatic self-repairing mechanism—such as we have. The Dacoonians must have a better one, or else they are subject to less wear and tear.”

“They have long periods of sleep,” reminded Rex.

“The vital parts of the body must function even in sleep.”

Toby took up the argument. “The conditions of atmosphere, gravity, temperature, humidity and so on, are different from ours. There could be salts in the ground, unknown to us, which would be present in the water they drink and the food they eat. They have developed in those conditions. Because of their lower gravity their hearts have less work to do, keeping the bloodstream flowing, than ours. Their pulse rate is fifty and they have a lower normal temperature than ours.”

The Professor shook his head. “Other planets and planetoids have those conditions but the people live no longer, or not a great deal longer, than we do. There must be something else. Some planets have conditions utterly different from ours yet people everywhere are very much alike. Indeed, one of the salient facts we have established—setting aside the stage of development, or evolution, which is simply a matter of time—is that the type which we call human is more or less the same everywhere. Men may be larger or smaller, but the shape of the figure is constant. As we have seen, men may be hairy barbarians with coarse features and habits, being perhaps fifty thousand years behind us in what we are pleased to call civilization. Others may be fifty thousand years ahead of us, but the general physique remains unaltered. That of course is why the type has become dominant.”

Tiger nodded. “We have at least settled all that nonsense about the inhabitants of other worlds possibly having enormous heads with six eyes and spindly legs.”

“But nobody ever really believed that,” protested Rex.

“Certainly they did,” disputed the Professor. “It is not so long ago, when the most inaccessible parts of our own planet were being explored, that people had no difficulty in believing travellers tales of men whose heads grew under their shoulders, or men with one eye in the centre of the forehead. On the other hand there were sceptics who flatly refused to believe there were such creatures as flying fish, or fish that climbed trees, although these things happened to be true. After all, Herodotus, the celebrated Greek traveller of the fifth century B.C., refused to believe in the existence of the Atlantic Ocean because he had never met anyone who had seen it. But to return to Dacoona. Why should this particular planet be singled out for exceptional treatment? That is what I would like to know.”

“And you think Vargo might now know the answer?”

“It is possible. The food and water will by now have been analysed. The scientists on that mighty planet Terromagna, of whom our good friend Multova is one, are working on the problem, and, as you may remember, they had some surgical experiments in view. I hope they have been successful, for life is, perhaps, the greatest of all mysteries. As Saint Paul said, “Death is the final enemy”, so if we can find a way of holding him at bay we may claim to have made the greatest discovery of all time, for he is the monster that has haunted men since they were able to think. It is the problem that is common to us all, rich and poor alike. It might be called the riddle of the Universe.” The Professor glanced at the clock. “Rex, be good enough to go and switch on the lights, for Vargo may be overhead watching for our signals.”

“I’ll wait for him on the hill and bring him down if he shows up,” said Rex, and departed on his errand.

The Professor, his spectacles on the end of his nose, reached for one of the home-made caramels he used in lieu of tobacco. “If we can’t uncover the secret of Dacoona I see no reason why we should not pursue our quest for the Perfect Planet, if one of our friends will put a ship at our disposal. Which reminds me, we must not forget that Vargo has developed quite a passion for tea. We will have a pot ready for him.” The Professor chuckled. “I can well understand why, having smelt that obnoxious pipe of yours, Group-Captain, he has not succumbed to the habit of smoking.” He rang the bell.

Judkins, the efficient butler, answered it, and took the order for a large pot of tea to be brought in.

A quarter of an hour later, with the tea tray waiting on the table, the door was opened and Rex ushered in the tall, austere figure of the space

navigator, Vargo Lentos, the man who, in an earlier voyage, they had saved from death on Mars.[5]

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[5] See *Return to Mars*.

"Here he is, right on time," announced Rex, beaming.

"Come in my dear fellow," invited the Professor, warmly. "Be seated and have some tea. As you see, we have it ready for you. I trust you bring good news from your part of the Solar System."

Awkwardly, with his arm bent stiffly at the elbow, Vargo shook hands all round, his cream-coloured face breaking into a smile at thus being able to demonstrate his knowledge of the customary Earthly greeting. While he was doing this Rex poured him a cup of tea.

When, with the cup in front of him Vargo had made himself comfortable, he said, in his thin precise voice: "The crew of the *Tavona* send their compliments. We were all happy to see your lights come on, hoping it meant that you wished to make another voyage." He looked at Rex with a bantering light in his remarkable, penetrating eyes. "Borron told me to tell you that his daughter, Morino, your lady friend on Mino, thinks you have quite forsaken her."

Rex looked a little embarrassed. "Nothing of the sort. I'm looking forward to seeing her again; but I can't hop off to Mino when I feel like it, as if the planetoids were just round the corner."

"Borron thinks it is time you were married. With us, as you know, interstellar marriages are not uncommon."

Rex shook his head sadly. "Morino wouldn't be happy on Earth, so far away from her own people, and I wouldn't want to live the rest of my life on Mino. Besides, what would the registrar of marriages, here, say, if I gave my wife's address as Mino, now in orbit between Mars and Jupiter?"

There was a general laugh, and the Professor resumed: "Why didn't Gator and Borron come with you to the house for a cup of tea?"

"Shall I take them some?" put in Rex, quickly.

"Unfortunately it isn't possible," replied Vargo. "After being seen by that Scottish boy the last time the ship was here they thought it better to rise and wait at a safe altitude."

"Very wise," approved the Professor. "The last thing we want to happen is for the *Tavona* to be seen on the ground. It would set people talking."

“Is it your wish to come with us when we leave?” inquired Vargo.

“That will be our pleasure, I hope. We have our things packed ready for the voyage. It includes some packets of dry tea leaf for you, and one or two other things I thought you might like.”

“Thank you.” Vargo sipped his tea with relish.

“Now tell me. Have you any news? In particular I am anxious to know if the secret of the long life of the Dacoonians has been found.”

“Possibly.”

“Why do you say possibly? Either it has or it hasn’t.”

“Not at all. I saw Multova of Terromagna the other day. He dropped in on Mino to see some relations there. He mentioned that the experiment of inoculation, with the curious glandular secretion that occurs in the throats of the Dacoonians, had been carried out. A number of people of different age groups, all volunteers of course, were treated.”

“Were these successful?”

“It is not possible to say. Only time will show, so we shall never know.”

The Professor’s spectacles slid to the end of his nose. “What do you mean?”

“Proof that the operation was successful can only be established by the length of the life of the people who submitted themselves to the test. If they live to be two or three hundred years old only they will know it, for the rest of us will be dead.”

“Bless my soul! Of course. What a dolt I am. So I shall never know the answer. What a pity.”

“Would you care for an injection yourself? I’m sure Multova would be happy to oblige.”

“How long is it since these inoculations were made?”

“I shall have to work that out if you want the figure in your time. Let me see . . . roughly a hundred days.”

“Has there been any physical effect so far?”

“All the subjects complained at first of a strange feeling hard to describe; but it passed. With the young people there has been no visible change, but with one old man there are hopeful signs. His hair was white and very sparse. Dark hair is now growing through it and he reports an increase of energy.”

“Capital! Then it looks as if the fluid is doing the trick.” The Professor turned to Rex. “Now’s your chance, my boy, to establish an all-time record for long life on Earth.”

"If I claimed to be three hundred years old, who would believe me?"

"No one—unless you revealed how the trick was done."

"They wouldn't believe that, either."

There was another laugh. "He's right," said Toby.

"I shall have to discuss this with Multova when I see him, as I hope I shall in the near future," said the Professor.

"You would like to go to Terromagna?" suggested Vargo.

"Among other places, yes. As a matter of fact on this occasion we have a definite object in view."

"And what is that?"

"We thought of searching for the perfect unoccupied planet or planetoid."

"For what purpose? Are you thinking of leaving Earth?"

"No, but there may be some people who would like to in view of what is happening here; the sort of people who ask for nothing more than peace and quiet."

"That does not surprise me," returned Vargo. "The project should please Rolto."

"Why?"

"If he knows your race is safe from extinction he will resume his arguments that the present population of Earth should be destroyed before the mad scientists who seem to be having their own way on your planet blow it to pieces, and perhaps everyone else in our Solar System at the same time. Realizing that if Earth goes, in the chain reaction that would follow many other innocent worlds might go too, we have people who think there is something to be said for his argument. People on planets where sanity rules cannot understand your behaviour. All your talk is of peace as if it was the ideal state to reach, as indeed it is, yet all you do is devote your entire energy and resources to the production of machines that are taking you farther away from it."

"That," answered the Professor, "is precisely why I would like to find a haven of refuge for those who are opposed to this folly but are unable to do anything about it. Do you happen to know of a nice little planet with no one on it?"

Vargo thought for a moment. "I doubt if there is such a thing as a *perfect* planet, although that would depend on what you would demand to meet the requirements of that description. Few planets compare favourably with

Earth, which makes it all the more lamentable that you should take the risk of destroying it, of reducing it to ashes or overloading it with radio activity."

"We saw on Selinda what too much radio activity could do to a world that must at one time have been a delightful place on which to live," put in the Professor, sadly.[6]

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[6] See *The Death Rays of Ardilla*.

"As you yourselves will have discovered," went on Vargo, "however pleasant a world may appear there is usually a physical defect to cause anxiety, although—and here lies the danger—the trouble may not be apparent at first sight. It is a big question, for it means you must find a world in the right age of development, neither too hot nor too cold, with your own conditions of gravity and atmosphere and a reasonable assurance of continuity. Such a place may exist. I will make inquiries among the captains of the Remote Survey Fleet. They may suggest somewhere. And we could of course investigate some of the planets that appear on our charts but have not yet been inspected. That work is still in progress, but with hundreds of thousands within reach it occupies much time." Vargo sipped his tea with obvious pleasure. "Your scientists still continue their experiments, I believe."

"Yes."

"We think you shot a rocket at the moon."

"That is correct."

"It missed."

"The first one, yes. We knew that."

"Do you know where it went?"

"No, but it was thought to have gone into orbit round the sun."

"I can tell you where it went. It crashed on a planet of the Second Region named Trinos, fortunately without killing anyone."

"Are you sure of that?"

"Yes."

"How did you recognize it as coming from Earth?"

"By the figures and letters on the dials of the instruments. You see what you are doing. You are playing into the hands of Rolto. I must say that the sooner you realize that there are other people in the Universe to be

considered the better for you and everyone else. The truth is, somewhere, I could not say exactly where but it was probably shortly after the production of your first steam engine, your civilization went off the track. Every new major invention presents that danger, and the farther you go the wrong way the more difficult it becomes to turn back. You have had great teachers and philosophers; you would have done better to follow their guidance instead of putting yourselves at the mercy of a few misguided scientists. Stay with them and you are doomed." Vargo finished his tea and stood up. "Well, if you are ready let us go. We can continue this conversation later. We must not keep the *Tavona* waiting too long."

"We are ready," answered the Professor, getting up.

"Good. Then I will bring down the ship and we will be on our way to Mino, for I must first report to the High Council, now making preparations for the return to our ancient home on Mars, where, thanks to you, the work of restoration and reconstruction proceeds apace."

"For that, at least, you can thank our misguided civilization, which made it possible," replied the Professor slyly.

Vargo did not answer.

CHAPTER III

ZORA TEN

AN hour later, in the spaceship *Tavona*, already making astronomical time in the void of outer space, the conversation was resumed, chiefly for the benefit of the crew, who, naturally, wanted to know if any particular objective had been planned for this occasion. Gator, the Captain, and Borron, the old experienced Navigator of the starways, heard of the Professor's project with amusement, but not without interest. There was, they agreed, nothing new in the evacuation of a small planet, for they had all seen this done; but such a tremendous undertaking, involving the employment of many ships, was only done in the case of dire emergency. The idea of anticipating disaster, brought on by the inhabitants themselves through their own folly, seemed to strike them as ludicrous, particularly as there was still time to avert catastrophe.

Gator said he knew of no planet or planetoid which would provide the peculiar requirements demanded, these being, of course, temperature, atmosphere and a gravity at least approximating to those to which the evacuees had been accustomed on Earth. Any violent change in these would almost certainly have harmful effects. He agreed that such a planet might, and probably did, exist, but this would mean exploration to find it. While new worlds were constantly being investigated by the survey fleets of

several planets that had spaceships available for the purpose, the number still to be explored was inexhaustible. He added a note of warning. By this time the Professor should know the dangers of making a first landing on an unknown planet—a sentiment with which Rex was in full agreement.

"Why not try Zora Ten?" suggested Borron, with a curious smile.

Vargo would have ignored the remark as unworthy of serious consideration, but the Professor, looking over his glasses, said sharply: "What is Zora Ten? I have never heard of it."

Vargo explained. "I think Borron is joking, but I will tell you about the planet he named as a matter of interest, because it involves the unusual event of a planet leaving its constellation. Admittedly, the whole system was dark and cold in death, as you would suppose, its sun having burnt itself out."

The Professor adjusted his spectacles. "This is fascinating," he declared. "I always realized, of course, that a sun must ultimately expire when the fuel that kept it alive became exhausted. Our own sun will do that one day. But I confess I did not know of a case where it had actually been seen to happen."

"The solar system which we call Zora, in the Third Region of our galaxy, was much like our own in that it comprised a central sun surrounded by planets and their satellites, in this case ten," said Vargo. "The one most distant from its sun was charted by us as Zora Ten. As far as I know no one has ever landed on it, there being no purpose in doing so."

"How can you say there could be no purpose if you have never been there?"

"You must take my word for it."

"I can't recall hearing on Earth of a constellation called Zora."

"Because the sun being dead there would be no light reflected by the planets, which would remain dark and therefore invisible. When the sun died all life on the planets died too. The atmospheres were retained, but without light and warmth life would not exist. How long ago this happened it is impossible to say, but it might have been millions of years before our own solar system was created."

"Then you don't know what state of civilization was reached by these planets before the end came."

"No."

"Death would not be sudden."

"Of course not. It would come slowly over a long period, according to how long the sun took to expire. We can imagine how we in our own system would feel if it became obvious that the sun was losing its power. Under the

strain of knowing they were doomed people would lose their will to achieve anything in the way of progress."

"Unless they had a means to escape to another planet, or rather, another solar system."

"There could be no question of evacuating the enormous population of Earth. People who had ships would need them for their own use. When that time comes you may have ships so that some could escape, although how they would be chosen is not easy to imagine. But to return to Zora, which became a place of utter cold and darkness. The story does not end there. Some time ago, exactly how long I cannot say, the astronomers on Ando, who as you know keep unceasing watch on the Universe, observed a new star in the sky, faint at first but shining with increasing brightness."

"How could that happen?"

"How it could happen I don't know, but the star turned out to be Zora Ten, which had left its system and was moving to within the influence of another sun. As I have said, this planet was the one most distant from its own sun, and the Andoans have a theory that when that sun died, that is to say, when it burnt itself out, it lost some of its mass, and consequently some of its gravitational attraction. Zora Ten, the outer planet, would be the most insecurely held, and therefore the first to break away. Naturally, it would move towards the next most influential body."

"You mean, a body exercising a greater attraction than what was left of the original sun?" put in Rex.

"That is exactly what I mean. It is the only theory we can advance to account for such an unusual event. The fact remains that Zora Ten, once of the solar system Zora, is now in orbit in the system Thenus. What effect that has had on the other planets in Thenus we don't know."

"Remarkable," murmured the Professor. "Has anyone been to Zora Ten since it took up its new position?"

"Not that I've heard of. It would be a dangerous mission."

"There could be no form of life, animal or vegetable, on it."

"That is what one would suppose, although as you should know by now, in the Universe one cannot be sure of anything."

"But if all life had died how could it return?" queried Rex.

"In the same way that life began on Earth, and on other planets. Given the correct conditions life could begin all over again. Seeds deep in the ground may have retained their vitality. Given light, heat and moisture, they

would grow. With the return of vegetable life, animal life, in its lowest form of course, could follow."

"A fascinating possibility," said the Professor. "I would like to see this place. Borron, you have travelled far and wide, why haven't you set foot on it?"

"It can offer little attraction."

"Then why did you suggest it might be the answer to our search for the perfect planet?"

"If Zora Ten was left to make its own recovery by the normal processes of evolution it would take time beyond computation before it became a place on which a man could live in comfort; but, assuming that conditions of atmosphere and temperature were favourable, an invasion by people already civilized would be an altogether different matter. By the introduction of the things they needed they could do in a few years those things for which nature unaided would require thousands of millions of years. After all, that is not very different from what we are doing now on Mars, which you found in a state of utter desolation, but is now once again a fertile and prosperous world. Even the soil seems to have profited by a rest."

"What a project!" exclaimed the Professor. "Imagine it. Starting on a new world, with no opposition, to make it whatever you wish."

"You like the idea," said Borron, smiling.

"It may be the answer to our problem," declared the Professor. "At all events, we must put Zora Ten on our list of possibilities to be explored."

Gator, Captain of the *Tavona*, who had been listening to the conversation, stepped in. "It was thought for a time that it would have become one of the brightest planets; and it would have been had it not altered its course and gone into orbit where it has. Had it continued it would have ended up in the constellation of Ledon, which would have been strange."

"Why would that have been strange?"

"Because after being in total darkness it would have found itself in perpetual daylight."

"*Perpetual* daylight. How so?"

"The constellation of Ledon has five suns, none of them very large but all strong enough to give light. These are so placed that as the planets of the system revolve and move in their orbits, as one is lost to sight another comes into view. As a result of that the people are always in daylight. The only darkness they know is artificial."

“That must make life very difficult. Doesn’t it interfere with their sleeping arrangements?”

“No. Every house has a room without windows, or sometimes under the ground. By this means they are able to rest their eyes. These five suns do away with the necessity of having artificial light. If you want light you only have to draw a blind or open a shutter.”

“Remarkable,” breathed the Professor. “Dear—dear, what shall we hear of next. One would have thought five suns would have made the planet uncomfortably hot.”

“It would be cold without them, for they are all distant.”

“Have you been to Ledon?”

“Once, a long time ago. The people are very tall. No doubt so much sunlight encourages growth. Everything grows fast. They have several harvests in a year of their own time, which is shorter than yours.”

“Ledon must also go on our list,” said the Professor.

“You can talk of it again later,” interrupted Vargo. “We are approaching Mars, where I shall have to stop for a few minutes to deliver a message. You will see great changes. We will then go on to Mino where I must obtain the permission of the High Council to undertake the quest you propose. If the ship is not required for any other purpose the request will not be refused. Space captains are encouraged to explore. I shall not be long on Mars. You can stretch your legs and take some food while you are waiting for me.”

“Are we likely to see that dangerous fellow Rolto?” asked Rex.

“You may, for he is there. As a result of his misbehaviour on the planet Lila[7] he has lost his command and is now engaged on ground duties. At present he is on Mars in charge of the installation of communications. He is very clever at that sort of thing and has been responsible for several innovations.”

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[7] See *To Worlds Unknown*.

The *Tavona*, which had been in free fall, was now checked by its jet brakes and presently came to rest on the astradrome in the centre of the chief town which, when they had first seen it, the Professor had named Utopia. As Vargo had promised they were amazed by the amount of work that had been done.

As they stood waiting Rex saw Rolto, wearing his usual cynical smile, coming towards the ship. His greeting when he joined them was: “So you have come back. I am not surprised that you spend as much time as possible away from your own world.”

“What do you mean by that?” asked Rex, frowning.

“Come over here and I will show you something. It won’t take a moment.”

Rex followed the ex-space captain into what, from the many instruments, was evidently a new space communications control room.

“Listen,” said Rolto, walking to a panel and making some adjustments. At once the air was filled with a low roar and babble of meaningless sounds. “Why do you make so much noise?” he inquired, sarcastically.

Rex stared. “I don’t understand.”

“The noise you hear is Earth, my young friend, going about its daily business. Earth must be the noisiest planet in the galaxy, if not the Universe. The interference you broadcast is a nuisance to everyone.”

Rex shrugged. “You don’t have to live there.”

“For which I am very thankful.” Rolto switched off what was obviously an amplifier. “I understand why you get away from home on every possible occasion.”

“We shall not, I hope, be in your way,” said Rex, curtly, and turning away walked back to the ship.

“What did he want?” asked Tiger.

“Oh, he still has a chip on his shoulder about Earth.”

Further explanations were prevented by the arrival of Vargo. The doors were closed and the *Tavona* proceeded on its way to Mino.

CHAPTER IV

REAL SHOCKS

THE *Tavona* was not long on Mino, long enough only for greetings to be exchanged with the High Council and for the ship's stores to be checked and replenished. However, this was time enough for Rex to have a few words with his girl-friend Morino. The nearest he got to personal relations was to suggest that one day she might care to make a trip to Earth to see what conditions there were like. She said she would like to do that very much if the rule forbidding women to make interplanetary trips could be waived for that particular purpose. Rex said he would speak to her father about it. He told her of how Rolto had once made an unofficial visit in order to spy and how he had completely lost his nerve in the traffic and had ended up in a lunatic asylum for insisting that he had come from Mars—an unhappy state from which they had rescued him.[8]

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[8] See *Now to the Stars.*

Before leaving the ground Borron produced a chart on which had been marked certain planets which might meet with their requirements. These he

had obtained from other Space Captains and from the Minoan Remote Survey records. They were all distant.

"I have worked out what you would call an itinerary," he said, "although that need not prevent us from calling at any likely-looking planets or planetoids as we proceed to the Fourth Region of the galaxy, which, from the enormous number of worlds it embraces has always been a profitable area for exploration."

"You have Zora Ten on your list?" queried the Professor.

"Yes. On the way we shall pass near two or three other small planets about which there have been vague and curious reports which the High Council would like me to investigate. I will tell you about them in due course."

As they entered the ship that was to take them far into the unknown Rex took a last look (as he always did) at a distant double star which he knew was Earth and its satellite Moon, wondering if he would ever see them again. In the same way as a traveller on Earth regards the country where he was born, to him they were "home", and he was conscious of a feeling of relief while they were in sight. For some illogical reason which he could not have explained, while he was prepared to lose his life he disliked the thought of leaving his bones for ever on some wandering star. Such is the strange attraction of "home". However, within an hour of take-off (he still judged time by his watch) Earth had faded from sight in the gloom of the eternal void.

Time passed, sometimes in conversation, reading, eating, sleeping, or more often in the curious state of semi-coma, neither sleep nor wakefulness, which space travel induced. At such periods, Rex had discovered, the brain, with nothing to occupy it, indulged in strange, dreamlike thoughts.

This interval of boredom came to an end when Borron announced they were nearing their first objective, a planet without a name identified on the chart as X 1001. Everyone was awake on the instant, each gazing through his observation window at a yellow ball of reflected light floating in space.

"This is one of the planets about which the High Council would like more information," said Gator.

"What is known about it?" asked the Professor.

"Very little."

"Landings have been made on it?"

"One landing only. The captain who made it found a condition for which he could offer no explanation. It seems he had a shock in more senses than one and left in haste. All I know is, there is a good atmosphere and abundant

vegetation. There is also a certain amount of animal life, all low forms. Nothing of a dangerous nature was seen."

"Then we have nothing to worry about. Indeed, it may be the very planet for which we are seeking."

"I haven't finished yet. There is one range of mountains in the form of a high plateau, presumably the result of erosion or earth subsidence. About the middle of this great rock formation there is an opening, too large to be called an ordinary cave. It was in this place, into which the captain had ventured, rashly as I would think, that the shock occurred."

"What sort of shock?" asked Rex.

"That is something I cannot tell you. All I can say is, there was a shock defying explanation. I have been instructed to call to find out more about it."

"Well, at least we have been warned," said Tiger, cheerfully.

"That isn't much use without knowing where and in what form the danger lies," Toby pointed out.

Vargo agreed. "All we can do is use our eyes and be prepared for anything. We may assume it is something most unusual or details would have been given. We should soon know the answer, for here we are, and there is the big rock massif we were told to expect, conspicuous because it stands alone. Unless it is a shadow cast by a projecting rock I can also see the break that must be the entrance to the cave. As there appears to be nothing else of interest it would save time and energy if we could land as near to it as possible."

Gator said he would do so, and presently, after a slow descent in order to give everyone an opportunity to survey the landscape, he touched down at a distance of a hundred yards or so from the actual objective, the entrance to the cave. There was only one so there could be no mistake.

The general scene looked harmless enough if somewhat monotonous, comprising rolling plains of grass with occasional areas of what looked like desert, or bare earth, and patches of jungle. Several streams meandered across the panorama, rising, it seemed, from the range of hills. There was no sign of life. The landing was made on one of the bare patches.

As they had been told the atmosphere was good there was no need to make the usual tests before opening the doors, and Vargo was about to do so when Tiger laid a hand on his arm.

"Just a moment," said Tiger in a curious voice. "What can I see?"

They all looked.

"Snakes!" exclaimed Rex, unnecessarily, for what he could see must have been plain to all.

It was not the size of the snakes that caused a pause in the proceedings, for, as snakes go, they were small, none more than two feet long. It was the number of them that presented a problem. There were hundreds, and more were arriving every minute from the grass that surrounded the sandy area so that it could be said the ground was literally alive with them. Vivid green in colour, with a scarlet zig-zag stripe down the back, they were as much alike as peas from the same pod. To reach the cave without walking through them was impossible, although, as Vargo remarked, none appeared to be actually going into the cave. They stopped short just outside the entrance and appeared to be content to bask in the sun.

"Dear—dear. What are we to make of this?" questioned the Professor.

"They couldn't have been here when our last ship landed or some reference would have been made to them," asserted Borron. "What think you, Group-Captain? Is there not something unnatural about this extraordinary gathering of snakes?"

"Unusual rather than unnatural, I would say. I imagine such a gathering can mean only one thing, preparation for a migration, possibly an annual occurrence. On Earth it is common for some animals and birds, and even fish, to pack together before moving off to a fresh locality. If animals and birds do this, why not reptiles? These snakes couldn't possibly occur in such numbers as this all over the planet, if for no other reason than there would not be enough food to go round. No. They have come together for some purpose, and if we could wait long enough no doubt we would see what it is."

"Can't we open the doors and let some fresh air in?" asked Rex.

"It might also let some snakes in. They could climb up the legs of the ship. Danger hinges on whether or not they are poisonous. If they aren't, then we could ignore them, for in no other way could they do us any harm. On the other hand, if they are venomous it would be folly to risk being bitten. It may not follow here, but on Earth some of the smallest snakes are the most deadly, as for instance, the *krait*, in India. The larger sorts, like the python and anaconda, kill by constriction."

"I agree with all you say," said the Professor. "Our problem is how to find out whether or not they are poisonous."

Tiger smiled. "Let's face it. There's only one way to do that. Step out and be bitten."

"We could kill a great number of them with our jet brakes," offered Rex.

“And if you happened to miss one, just one, and it bit you, and it turned out to be poisonous, where would you be? No, I wouldn’t advise that. The only sensible thing to do is forget about the cave and go away.”

“Could this be the shock we were warned about?” asked Rex.

Borron answered. “No. A shock suggests something sudden and unexpected. Admittedly we didn’t expect to find all these snakes here, but there was no shock about it because they were plain to see and we were never in danger.”

As things turned out the problem resolved itself. Some little while later, while they were still discussing the phenomenon, the snakes, as if by a signal, began to move off, and in a few minutes there was not one in sight. As they passed over the next piece of open ground they were in such numbers that they looked like the shadow of a cloud.

“Good riddance to that lot,” said Rex, as Vargo opened the doors and they stepped out into fresh air.

They advanced to the mouth of the cave, getting their “land legs”, and there they stopped to regard what from its size alone was no ordinary cave. It was enormous. Three lorries loaded high could have driven in abreast.

“This is where we get the shock so we’d better watch our steps,” said Tiger, hitching his rifle forward and jerking a cartridge into the breech. “Who goes first? Having a weapon, I will,” he added, answering his own question.

For some distance there was nothing of interest, and as plenty of light came in through the entrance there was no need to use the torches which, knowing what they were going to do, they had brought with them. A bend, however, cut off most of the daylight, and the torches were brought into use. The advance became a very slow walk. There was still nothing much to see, except that the cavern seemed to be getting larger. Indeed, there was so little of interest that Rex would have thought nothing of the adventure had they not been warned to prepare for a shock. What was it? Where was it?

Rounding another bend, by which time Rex reckoned they must be near the heart of the mountain, they were all brought to a halt by the spectacle that confronted them. This was no longer a cave, or what is usually meant by a cave, for the sides and roof receded to form a chamber so vast that it might have contained a cathedral. That was not all. The rock became streaked with patches of brilliant colours.

The Professor walked over and ran his fingers over a broad splash of green. “Marble,” he said.

“What an amazing sight,” breathed Rex.

“Unbelievable,” agreed Tiger.

“I have never seen anything like this,” put in Vargo.

“What could have done it?” asked Rex.

The Professor answered. “Minerals, my boy. Nature has been extravagant here.”

“Having fun with a paint brush,” remarked Toby, lightly.

They lingered for a little while, feasting their eyes on a scene of such singular beauty. Then Vargo broke the spell by calling attention to a faint sound of running water not far away.

“It must be down here,” he remarked, moving slowly down a slight incline.

The others went with him and soon saw that he was right. The incline ended in a stream of running water which, in the light of their torches seemed to have a reddish-brown tint. It emerged from a tunnel on one side and disappeared into another on the far side. But more remarkable than the colour of the water were certain projections, all more or less alike, that rose to a height of about eighteen inches above the surface. Silence fell as everyone stared at them, trying to make out what they were.

They looked like a series of rather thick sticks which in the light of the torches looked like metal of some sort. It was clear they were not small stalagmites, which would have been vertical. These leaned towards each other in pairs and were joined at the tops to form roughly the shape of an inverted letter “V”. Rex noticed that while one arm of the V was often of a grey colour the other was a darker, coppery shade.

“This is a queer set-up,” observed Tiger. “What do you make of it, Professor? Those projections could almost be artificial.”

“How could they be artificial if, as we have been assured, there is no one on the planet? No. This must be another of Nature’s little tricks. There are plenty scattered about on Earth.”

“That’s hard to believe.”

“You’d find the Giant’s Causeway, and the Blue Grotto of Capri, hard to believe if you’d never heard of them.”

“True enough,” admitted Tiger.

“Let’s see what the things are made of,” said the Professor, reaching out across the water.

“Be careful!” cried Vargo, sharply.

The warning was too late; or if it was heard, ignored. The Professor’s fingers closed over the nearest V. There was a slight crack, a blue flash, and

with a cry breaking from his lips he was hurled backwards.

The others rushed to his assistance. “Oh—oh—oh,” he panted. “Mind my glasses.” A jacket made a pillow for his head, but it was soon clear that no serious damage had been done.

“Now we know all about the shock,” said Tiger. “To me it looked like a real shock—an electric shock.”

“How could there be electricity here with no one to make it?” Rex wanted to know.

“Impossible though it seems it was certainly an electric shock that knocked me over,” declared the Professor.

Vargo had gone to the tunnel from which the stream emerged and was shining his torch up it. “These metallic-looking objects go for some way,” he announced. “And what of the colour of the water? Could that be the result of mineral salts in it? What do you think, Professor?”

The Professor, who had now so far recovered from his shock as to be able to sit up, gave the matter consideration. “The only explanation I can think of is that these V-shaped objects are batteries.”

“Batteries!” cried Rex. “But that’s impossible. How could they get charged?”

“Call it yet another trick of Nature. Primary cells do not have to be charged. Were you not taught at school, or as an aircraft apprentice, that certain elements when immersed in a particular solution will produce an electric current?”

“I remember vaguely hearing something of the sort.”

“Very well. Let us now try some reasonable conjecture. From the colour of the water it looks very much as if it might contain Potassium Bichromate. Should those rod-like projections contain zinc and copper, which is by no means impossible, we could call them electrodes. With the stream as the electrolyte you would have a Bichromate battery, a single cell which would give a force of two volts.”

“But surely two volts couldn’t hurt anyone, unless it is that these are stronger because they are larger?”

“No—no. The size of the cell makes no difference to the voltage, only to the amperage. Now then. As you see, there are quite a number of those staple-like projections. Moreover, by some rare chance, with which we need not concern ourselves, they are connected in series by the join over the top of each pair, one arm of which belongs to one cell and the other to the next in line. Now do you see what happens?”

Rex looked doubtful. “Not exactly, unless that arrangement means the voltage is stepped up.”

“Good. That is what happens. By arithmetical progression two volts would become two hundred at the hundredth post. And so on. We don’t know how many of these posts there are, but if there were enough I could have been killed—unless, of course, some happened to be imperfect or disconnected.”

Tiger stepped in. “To me, the fantastic part of the affair is that it could happen in nature, by accident, as one might say.”

“It all goes to prove what you have often heard me say, that in nature anything can happen. This may be the only place in the entire Universe where this particular arrangement occurs. I don’t say, how *could* it occur. Rather would I say, when one considers the countless billion rock and mineral formations in our galaxy alone, why *shouldn’t* it happen? That applies to anything within the limits of our imagination—and beyond it. What other marvels, we may ask ourselves, are there yet to be discovered?”

“It’s incredible,” declared Tiger.

“Why should it be? We have electrical activity in the atmosphere, why not in the ground? Of course, the odds against such an occurrence as this are beyond computation; but you could say that of any condition capable of producing life, and supporting it. What we see here may not always have been like this. That metallic rod formation could have been here long before there was a stream which, by pure chance somewhere along its route, picked up the bichromate. Indeed, I would hazard a guess that this is of recent occurrence, or the rods would have been worn away or become too eroded to be effective.”

“If we are going to spend as much time as this discussing why a certain thing has happened we shall not get very far,” put in Vargo practically. “The thing is here. I accept it. That it is remarkable, I agree; but so is everything remarkable. The question that brought me here has been answered. How about you, Professor? From what you saw outside did this appeal to you as the perfect planet for which you are seeking?”

“No, my dear fellow, it did not. I’m sure we can find something better than this.”

“I should hope so,” put in Rex. “That army of snakes, I feel, could make life very uncomfortable.”

“Then let us move on,” decided Vargo.

CHAPTER V

THE TROGLODYTES

THE *Tavona* went on, always moving nearer to the Fourth Region although sometimes going out of its way to permit the survey of a planet which, as far as was known, had not been explored. Sometimes the astronauts landed, but more often they did not, for from the ship, from a low altitude, it was usually possible to see if the place offered possibilities. If nothing more, these landings, when conditions were suitable, made a break from the boredom of space travel and gave everyone an opportunity to take some exercise. At the same time the ship could be cleaned up and aired.

When provisions and water were running low they also turned aside, to planets known to be occupied, for stores. In this way some old friends were met and new ones made.

In the matter of food, while in transit they had of course to subsist on specially prepared concentrates, the result of research by the scientists of the older planets where space flight had long been practised. These stores were available at all advanced planets. They were never refused and nothing was expected in return for them, civilization and hospitality going hand in hand. Which, as the Professor once remarked, was to be expected. As a diet, these dehydrated, highly compressed foods, which were intended simply to keep the travellers alive and free from hunger, had little flavour, and so became monotonous. It was satisfying in the matter of bulk, the small biscuits, cubes or pellets, as hard as iron, swelling a hundredfold in bulk, and at the same time becoming soft, in the damping, decompression chamber, installed in

every ship for that purpose. These preparations, providing all the calories and vitamins necessary for human life, could be warmed, but for obvious reasons there could be no question of actual cooking inside the ship while in flight. Tea, however, could be made.

The only time these special foods could be "cooked" was on the ground during a landing, when it was done in a pan or pot over a small open fire. The tiny biscuits, a quarter of an inch square, expanded by the absorption of water to the size of tea plates when they were as soft as new bread, could then be split and toasted. On these same occasions, that is, when the ship was on unknown ground, inviting-looking fruit, and what might have been wholesome vegetables, were often seen, but they were never touched, for no one could say what the result of eating them would be. Often they resembled those found on Earth, or were known to members of the crew to be "safe", but temptation to taste had to be resisted for fear of poisoning.

Naturally, the possibilities were often discussed on the argument that on Earth, and other human-occupied worlds, someone, at some time, had had to risk his life in order to discover what was good to eat and what was not.

As the Professor reminded his friends one day when Rex appeared with some luscious-looking fruits like peaches, quite a few of the things that were eaten at home were, in their original form, poisonous, and could still only be eaten by people whose stomachs over a period of time had become accustomed to them; or which parts were good and which were dangerous. For example, vegetables like the potato, which if eaten green, is still poisonous, as are the leaves. The same with rhubarb, originally imported as a medicinal root which had a violent effect on the stomach. Honey made from rhododendron flowers had once poisoned an invading army, although the local people could eat it with impunity. The same with bread made from a particular form of Siberian wheat.

The Professor went on to point out that children were taught by their parents which berries were good to eat and which were not, the blackberry, raspberry and strawberry being "safe", while deadly nightshade, holly and yew berries were not only dangerous but could be fatal. These things were known as a result of experience and passed from one generation to another, although in the first place somebody had to make the test. They would, he concluded, be ill-advised to try such experiments. The old belief at home, that what birds and animals would eat was safe, was not to be relied on. For instance, birds would eat yew, holly and honeysuckle berries, but they would be foolish to follow their example.

The Minoan members of the *Tavona*'s crew, like the people of most of the older planets, were vegetarians, although whether this was from choice

or had been brought about by a shortage of meat was not known. Cows were kept for milk and birds for eggs. As far as Vargo was concerned this had always been so. To eat flesh was considered barbaric, and people who practised it were little better than cannibals. This question arose one day on a small well-furnished planet when, seeing a herd of animals resembling small pigs, Tiger had shot one and then declared his intention of cooking and eating it. This, after cleaning it, he did, watched in shocked silence by the Minoans as he sampled what he was pleased to call a slice of ham. But disapproval turned to laughter when, on taking the first mouthful, he pulled a face and spat it out, saying it tasted like the heel of an old boot.

On another occasion Rex caught a fish and fried it. He voted it so excellent that Vargo risked a taste and had to agree with him, although he still maintained that meat eating was a barbarous custom.

"It isn't entirely a matter of taste," said the Professor. "Men must eat what food happens to be available where they happen to live. On Earth we have a tribe which, living surrounded by ice and snow, ask for nothing more than a slice of raw seal fat, and another that regards cockroaches as a tasty dish; but neither are my cup of tea, as we say. In order to live, people eat what they can get. Let us be thankful for what we have."

That concluded the debate, and thereafter the travellers lived chiefly on what they had with them. Which is not to say that Rex never thought longingly of a nice juicy steak or a veal and ham pie fresh from the oven.

The party had its first serious misadventure on a quite large planet in the Third Region of the galaxy. Isolated, it was marked on Borron's chart by a number and a sign indicating its existence was doubtful. He had never landed on it, nor, as far as he knew, had anyone else. However, it had been sighted and the ship was turned towards it, its relative position to the sun of its own solar system suggesting that it should at least be comfortably warm.

Investigation from a low altitude appeared to confirm this, for there was an abundant growth of vegetation, trees and areas of grassland through which rivers, rising in the hills, wound their way to lakes of some size, but hardly large enough to be called seas, that filled what presumably was low ground. As Rex remarked, they might have been looking down on Earth before men had appeared to change its face by building roads and cities.

There was some doubt about human occupation because Tiger, surveying the terrain through the binoculars, said he thought he could make out tracks, although these could have been made by some other form of life. One or two dark moving objects were seen, but it was impossible to say what these were because they disappeared from sight as the ship drew near, either into holes

in the ground or some other form of cover. On the open ground the grass appeared to be tall, possibly reeds. The conclusion reached was that if there were human types there they had made little impression on their world.

When the ship attempted to touch down what Tiger had said about the grass being long was confirmed, and it took them a little while to find a place where it would not be above their heads when they stepped out. Such a landing would serve no useful purpose because their view would be obstructed. However, a place was finally found where the lush growth that appeared to cover most of the planet was not more than two or three feet high. This was in a broad valley on one side of which the ground sloped up rather steeply. Still no sign of life could be seen, but as Rex surveyed the scene while Vargo was making the usual tests for atmosphere and pressure he observed that a number of tracks, no broader than sheep tracks, converged on the hilly side of the valley. More or less in line at the point of convergence he also noticed a number of holes, made conspicuous, as a rabbit hole is revealed, by the loose sandy soil that had been thrown outside.

What struck him as significant was the fact that the holes were in line. They had obviously been made by something. But what? They were much too large for rabbit holes, or even fox holes, having a diameter, as near as he could judge, of about three feet. They were perhaps fifty yards from where the ship had landed, and he was still considering them when Vargo opened the doors, saying that the air, atmospheric pressure and temperature, were near perfect.

They all stepped out and breathed deeply of the cool sweet air while getting their balance. As always after being in the ship for a long period, they were a little shaky on their legs and it took a minute or two to become accustomed to solid ground under their feet.

“I think you’d better bring your rifle,” Rex advised Tiger.

“Why? I can see nothing moving?”

Rex pointed. “I’ve been looking at those holes. What do you suppose made them?”

“It could be something dangerous,” said Tiger, and he fetched his rifle.

“Listen,” requested Vargo.

They all obeyed, for there was no need to ask for what they were to listen. Clearly through the still air came a sort of mumbling, like muffled voices.

“If I didn’t know it was impossible I’d say what we can hear is a lot of people talking,” said Tiger.

“Why should it be impossible?” queried the Professor.

"I'd say, rather, how could it be possible? Unless something has gone wrong with my ears those voices are quite close to us."

"Could they be coming from those holes?" suggested Rex. "Could we have struck a tribe of cave dwellers—what do you call them—troglodytes?"

"Even troglodytes have the wit to make caves large enough to walk into," Tiger pointed out. "Let's take a walk. There may be people in that wood over there." He began walking towards a coppice that stood a little distance away on the opposite side of the valley.

"Be careful," warned Vargo. "We are on unknown ground."

Tiger, followed by the rest, began walking slowly along one of the narrow tracks that led roughly in the direction of the stand of timber to which he had referred.

They had not gone far when a shrill cry from behind spun them round. It came from one of the holes. Standing outside it was a man, a little dark figure not more than four feet tall, even allowing for a great mop of black hair. He had a short garment tied round his waist and carried an object that could have been a lance or a spear. Seeing that he was observed he began to dance, striking the ground with his weapon. As the explorers stared he was joined by two more, who began throwing themselves about in the same sort of antics, at the same time letting out piercing shrieks.

"We had better get back to the ship," said Vargo. "Where there are three there may be more."

"So we *have* found a race of troglodytes," said the Professor. "I don't think they can be hostile or they wouldn't remain where they are. The whole force would be out, threatening us. From the way they are pointing they seem to be trying to show us something."

Instinctively Rex looked back over his shoulder in the direction of the wood. What he saw froze him stiff, as the saying is. Then a wild cry of alarm broke from his lips. It brought the others round so that they saw what he was looking at.

Standing on the edge of the wood was a monster so horrible that Rex's blood ran cold. To be fair to the creature it may be that it was only horrible because he had never seen anything like it. Nor could he have imagined it, although that could be said of many creatures that live on Earth.

It was grey in colour and clearly one of the family known as pachyderms. Its skin was wrinkled and hung in loose folds like that of an elephant, although in size it was much smaller, standing no more than five or six feet high. It had four long, white, gleaming tusks, curved outwards. Nor was that all. What made the thing such a horror was a coil of weaving trunks

that protruded from its head like the arms of an octopus. They were as long as its body, and as they waved about it was impossible to count them.

Suddenly, before anyone had recovered from the shock of seeing such a monstrosity, all the trunks went straight up in the air. A hoarse trumpeting like the cries of an angry elephant broke from it and it was charging towards them at the speed of a runaway tank.

It was the speed of the charge that astounded Rex and took the strength out of his limbs. It seemed incredible that such a creature, with thick, stumpy legs, could cover the ground at such a rate. To reach the ship before it overtook them was manifestly impossible.

Tiger braced himself and brought the rifle to his shoulder. It cracked. It hit the beast, too, for Rex saw dust fly from its hide; but for all the good the bullet did it might as well have struck a block of granite. Again the rifle crashed, but the bullet must have struck a tusk or the frontal bone of his head, for it screamed off in a ricochet. There was no time for more for the creature was on them. The party scattered.

Then an extraordinary thing happened. There was a crash and the monster disappeared from sight. It might never have existed. Rex did not see it go for he was looking the way he was running; but when the thunder of hooves ended abruptly he snatched a glance behind to see where it had gone. It was not there. Tiger was standing as he had last seen him, the rifle raised for a last shot. Looking bewildered he lowered it.

The others had all stopped and turned, too.

"Where is it?" shouted Rex.

The beast itself answered in a series of furious squeals.

Rex joined Tiger and together they advanced cautiously to the spot. Before them yawned a hole. Scattered around it were thin branches, twigs and grass, showing plainly what had happened.

"A pitfall," said Tiger. "Do you realize that had we gone on walking another few steps we should have fallen into the trap ourselves?"

Seeing the creature's trunks over the edge of the hole, as if it was trying to pull itself out, he took a pace nearer and took aim between its eyes. It needed three shots to kill the horror.

By this time the others had come up and could see for themselves what had happened.

"I have a feeling," said the Professor, "that the natives who came out of those holes were trying to warn us either against the beast itself, or the trap. Where are they?"

“They’ve gone,” answered Rex.

“Gone where?”

“Back into their holes, I suppose. I didn’t see them go.”

“Dear me! How very odd. One would have thought they’d have come to look at the fearsome beast in the hole.”

“They may be more afraid of us than of the beast,” said Tiger, dryly.

“With those multi-trunked brutes about I’m not surprised they are forced to live in holes in the ground,” went on the Professor, adjusting his glasses. “I fancy it’s a case of the dog and the rabbit. When pursued the men make for their holes, which are too small for the beasts to enter.”

An illustration of this was provided a minute or two later when the explorers had returned to the ship and were standing by it discussing the situation. A yell brought it to their attention.

Round the end of the wood came a man, running so fast that he appeared to be flying over the ground.

He had good reason for haste, for behind him, travelling just as fast, if not faster, came one of the pachyderms. It was touch and go which would reach the holes first, the man or the beast. The man just did it. Without pause he dived headlong in the nearest hole, leaving the frustrated creature scratching at the ground for all the world like a dog that has just missed a rat.

“Look what’s coming!” exclaimed Rex, as from the side of the wood appeared the vanguard of a herd of the creatures.

“Good heavens!” cried the Professor. “It’s time we were moving off. Some of them are coming this way.”

There was a scramble to get into the ship.

From a safe height of fifty feet an astonishing picture was revealed. There was not one herd but several, scattered across the plain for as far as the eye could see.

“They must have been lying down in the long grass when we dropped in,” said Toby.

“What numbers,” said the Professor. “This is what the great herds of American bison must have looked like before they were exterminated.”

“I don’t think it’s your perfect planet,” murmured Vargo.

“Far from it,” agreed the Professor, warmly. “It looks to me as if these hideous creatures are the dominant form of life here. It is obvious that the little men we saw can do nothing to reduce their numbers. Always on the defensive they have been forced to seek safety in burrows. Apparently men

are not always the top dog on a planet. Here they could only achieve that by developing more effective weapons than those lances with which they appear to be armed."

Tiger nodded. "They'll need lots of ammunition."

"I think we have seen enough," concluded Vargo, and the ship went on its way, leaving the little human inhabitants to work out their problem.

CHAPTER VI

PIGS AND PLUMS

It is not to be supposed that it was only necessary for the *Tavona* to proceed to a planet, any planet, for the occupants to land and stroll about. Far from it. Atmospheric conditions, both in composition and pressure, were often so far removed from what was necessary to support normal human life that even if the ship did touch down the doors were not opened, tests having shown that conditions were so unsuitable, according to their own standards, that further investigation would achieve no useful purpose. Sometimes there was little or no air at all; or if there was it could consist of a gas, such as carbon dioxide, which made the place useless for their purpose, which was of course to find a world with conditions at least approximating those of Earth.

This did not necessarily mean there was no life of any sort on such a planet. Sometimes the movement of what were obviously living creatures could be seen, creatures which had presumably developed in that particular environment, thus proving the Professor's argument that life in some form could occur in *any* conditions. On such occasions further investigations could have been carried out by wearing the space suits which were always carried for emergencies, but as no one was inclined to suffer the slight discomfort this equipment would impose, for no useful purpose, no time was wasted on them.

Then, again, there were planets so enormous that gravity, always proportionate, would have made walking impossible. In comparative terms

their bodies would have weighed a ton or more. On the other hand, some planetoids were so small that movement would have been dangerous. With muscles adapted for the gravity of Earth any great reduction would allow them to take tremendous strides, or jump considerable distances and risk injury on landing.

Yet again, there were planets which by their very formation made them useless for occupation, as could be observed without even landing. A not uncommon failing was a superabundance of water, which could cover so much of the land that the world was one of small islands, often far removed one from the other. There were others on which there appeared to be no water at all, the entire terrain consisting of nothing but rock.

On one of these, a planet about the size of Earth, they did make a brief landing. It was a place of towering cliffs and mountains, and at first a safe landing appeared to be impossible; but observing a small plateau, which was in fact a giant mountain with a flattened peak, they went down for no other reason than to satisfy the Professor's curiosity. The spectacle presented, of mighty mountains rising on all sides to the horizon, was breath-taking, and as far as Rex was concerned, frightening. There was no snow, as would have occurred on such mountains on Earth, which suggested a complete absence of moisture in the atmosphere. Everywhere the peaks, which appeared to be black basalt, rose stark against the sky, causing the horizon all around to appear as an endless line of giant fangs.

This, as with other unusual formations, caused the Professor no surprise. It was only to be expected, he asserted, that in the billions of planets in the eternal ocean of space, every conceivable condition of land, sea and air, would be found.

Planets that had already been charted by space captains were ignored. So the ship went on its way, and of the next score of planets visited landings were made on only three, the rest being abandoned when a circumnavigation had revealed that for one reason or another they were useless for their purpose.

Rex realized more and more the truth of what they had been told in the early days of their travels, that the number of worlds occupied by intelligent human beings was small in comparison with the whole; and it was only on a few of these that what is called civilization had reached a stage beyond their own, Terromagna for example. Others were on their way in the matter of scientific development. It was all a matter of time. Only on the oldest planets, where conditions were eminently suitable, had real progress been made towards the ideal state; or what was presumed to be ideal, for what constituted absolute perfection was still a matter for debate and conjecture.

Taking the picture as a whole the position of Earth in the development of art and science could be seen fairly clearly. Some worlds were in advance of it, others far behind. Rex began to get an idea of the real meaning of Time.

Only one danger had to be faced while the *Tavona* was actually in transit and that was always present. Collision with a meteor. Fortunately these were few and far between, and the risk was no greater than with another ship. The velocity of both would be such that neither would be seen, and it was some consolation to know that should such a collision occur they would know nothing about it. With meteorites and meteoric dust, minute particles of stars or planets that had disintegrated it was a different matter. Such collisions did occasionally occur and there was no way of preventing it. The noise was terrifying, as was the impact when it was felt, the ship reeling under the blow. Only twice did a fragment penetrate the ship's hard skin, a morsel about the size of a pea, as could be judged by the holes made where it had entered and left the ship. These were temporarily repaired with patches carried for the purpose, a simple procedure since the pressure inside, with none outside, held the patches in place. Permanent repairs were made at the next landing. Slight grazes and dents, caused by the ship passing through a cloud of meteoric dust, or frozen hydrogen, were sometimes found.

Over this rather dull period of long distance travel without result the explorers had only one adventure worth recording. It happened on the second of the three planets on which landings had been made. The general appearance of it from a low altitude had made them hopeful, even optimistic, for they found themselves looking down on a world roughly the same size as Earth almost entirely covered with vegetation. The hills were low and rounded, forming valleys through which rivers wandered to spill themselves into areas of water that could have been called large lakes or small seas. Across a sky so blue that there was obviously an atmosphere floated fleecy white clouds. There was a sun at about the same distance—as far as this could be judged from its size—as is the sun of the Solar System from Earth. This promised a comfortable temperature, already suggested by the abundant vegetation, comprising, also as on Earth, forests of dark conifers and other evergreens, deciduous trees and rolling grass plains. There were two satellite moons, one rather close and the other distant.

The *Tavona* cruised over it for some distance, circling, looking for signs of life, particularly human, as would be revealed by towns or settlements and communicating roads. Surprisingly, they saw none. As the Professor observed, they might have been looking down on Earth before men started to tear it to pieces. "It is very strange," he said. "One would certainly expect to find life here."

What looked like a perfect landing place was found on an area of what seemed to be sandy desert furnished with a certain amount of scrub such as occurs in arid lands on Earth. Everything now depended on the atmosphere, and it was with some impatience that everyone waited while the regulation tests were made.

During this interval, Vargo, always cautious, remarked that while they had seen no signs of life it did not follow there was none. With so much of the ground concealed under forest, which would hide anything that dwelt in it, they would be well advised to be careful. If conditions were so ideal for vegetable life, as obviously they were, it would be reasonable to expect animal life in one form or another.

The Professor agreed.

"Not long ago you could have flown over many parts of Earth without seeing habitations," said Tiger. "What about North America? The Red Indians didn't build towns. All you might have seen from the air were the herds of buffalo roaming the prairies. Even today you could fly over the forests and jungles of Brazil without seeing a living thing. But there's plenty of life, including Indians who greet visitors with a poisoned arrow."

"That is exactly why I say we should be careful," returned Vargo.

The news that the atmosphere, both in content and pressure, was almost exactly the same as that of Earth, was received with satisfaction all round.

"All the more reason why we should expect to find life similar to our own if somewhat more backward in development," said the Professor, as the doors were opened and they stepped out to enjoy the cool fresh air.

Said Vargo: "Every time we do this we say we will proceed with caution, yet almost invariably we find ourselves involved in some form of peril."

"At the moment, at all events, I see nothing here likely to worry us," said Tiger, surveying the landscape, his rifle under his arm.

"I have heard you say that before," reminded Borron, in the voice of experience. "Let us be ready for the unexpected to happen."

"It's no use telling us to expect the unexpected, my clear fellow," rejoined the Professor with a chuckle. "On these occasions we have to take our chance, and that's all there is about it. For the moment I suggest we sit in this delicious sunshine and enjoy ourselves. I'm sure someone will be kind enough to prepare a hot meal. If there are any unpleasant people about they'll soon be along to see who is making the smoke. Frankly, I doubt if that will happen, or we should have seen *their* smoke. To the best of my knowledge there is not a race or tribe on Earth that did not learn long ago

how to make fire. I may be wrong, but I have a feeling this is just what we have been looking for."

What had struck Rex, as he looked around, was the size of the vegetation, particularly the trees, the nearest of which was a stand of magnificent conifers, not less, he estimated, than five to six hundred feet high. Grass, shrubs and flowers were in proportion, some of the flowers being a foot or more across. He remarked on it.

The Professor agreed that the trees were exceptionally fine, but reminded him that the famous pines of North America, *Sequoia gigantea*, commonly grew to a height of three hundred feet and had immense boles. "There must be something here, possibly in the soil, that agrees with them," he concluded, leaving Rex to speculate on how useful it would be for human beings—should there be any—if the edible fruits and vegetables were in proportion.

Curiously, perhaps, it did not occur to him at the time to wonder what the effect would be if the animal kingdom, including humans, were also of a proportionate size. That came later, when they were sitting at their ease round a small fire, enjoying hot soup. He was still admiring the trees, the nearest of which ended in a straight line less than a hundred yards away, when he thought he saw a movement in the dim interior. Owing to the height and density of the foliage it was practically dark under the trees, and for the same reason there was no underbrush. Naturally, trees of such proportions each required a good deal of ground, and he imagined, rather than observed, that the ground underfoot would consist of the usual carpet of pine needles, an assumption which presently turned out to be correct.

"What are you staring at?" asked Tiger, noticing his interest.

"I wouldn't be sure but I thought I saw something move inside the wood. I may have been mistaken. Anyhow, I can't see it now."

The subject was dropped and the meal proceeded, to conclude with several cups of tea. Tiger lit his pipe. "Well, what do we do next?"

Vargo looked questioningly at the Professor, who replied: "From above we saw as much as it was possible to see, and as we shall learn no more from where we sit I suggest we take a walk."

"For what purpose?"

"To confirm, as far as it is possible, that this is a world as near perfect as we can imagine."

"I have a feeling you're going to be disappointed."

"Why? It's hard to see what can be wrong. The physical conditions could hardly be better. The relative positions of the sun and the moons,

temperature, the rate of rotation, atmosphere and gravity, make for all that we require. The place does not suffer from natural disasters such as fire, flood or earthquake, or we should see signs of such events."

"Then why is there no animal life?"

"I am not yet satisfied that there is none. I can think of many places at home where one could sit for half an hour without seeing anything of interest."

Tiger was not convinced. He puffed at his pipe. "If there are no animals here there must be something wrong."

Vargo agreed, and said he thought the inclination of the planet might be different from that of Earth.

"How do you work that out?" inquired the Professor.

"You did not appear to notice, as we made our survey from above, that there are no polar ice caps. That can only mean that the temperature at the poles cannot be much less than it is here."

"I see no danger in that. Indeed, it should be all to the good. My argument still stands. There cannot be anything far wrong or the vegetation would not thrive as it does."

"How about radio activity?" offered Rex.

"There is nothing wrong in that direction," stated Gator. "My test showed it to be only slightly above normal. I agree with the Professor. Anything abnormal would have an adverse effect on the vegetation."

"I don't agree," argued Toby. "Something abnormal could cause the vegetation to be abnormal, which it is, as we can see. That could apply to any other form of life."

"Why waste time in surmise?" said the Professor, rising and brushing crumbs from his jacket. "Let us take a stroll."

The others got up. Gator, Borron and the crew elected to remain with the ship to give it a top overhaul. The rest, after Tiger had scanned the open area through his glasses, sauntered towards the forest.

But they had not gone far when things began to happen.

The first was the sudden appearance of an insect that would have been a common spider had its body not been the size of a turtle. It was pale brown in colour and covered with fur. It rose from behind some scrub as if it had been disturbed by their approach. It gazed at them for a few seconds with innumerable eyes, in which, to the relief of everyone, there was no animosity, and then began to sidle away on long furry legs.

Watching it in silence they saw it make a rush and pounce on a smaller creature, which it instantly tore to pieces and conveyed to its mouth with its pincers. While thus engaged another creature of its own kind appeared, if anything rather larger and darker in colour. Both stopped and glared at each other. Then, with a rush, they were locked in a tight embrace, the pincers of each tearing tufts of fur from the body of the other. The spectacle was made the more horrible because this was without a sound except the harsh rasp of claw against claw. The fight lasted about five minutes, when the larger, having killed the smaller, went on its way taking no notice of the spectators.

Said Tiger, dryly: "If all other forms of life here are of a proportionate size it's going to be no place for children to play."

"I wouldn't condemn the place on that account," protested the Professor. "If not friendly the horrid creature made no attempt to harm us."

"How about that one," put in Vargo, pointing at a monstrous scorpion, four feet long, that had appeared from some tall grass and stopped on seeing the surviving spider.

Again they stood still to watch: but the spider retired hastily, and the scorpion went on to another patch of reed-like grass into which it disappeared. Tiger, who had raised his rifle, lowered it.

"If we meet with nothing more hostile we shall take no harm," declared the Professor. "I am finding this most interesting. It does begin to look as if the animal life here has developed on the same gigantic lines as the vegetation. Why not? There's nothing unique in that. It happened on Earth millions of years ago when the lizards grew to the weight of many tons, although that did not save them from extinction when their period of supremacy expired. The same with the giant sloth, deer and rhinoceros. No doubt there were giant insects, the remains of which have disappeared through the ages. Here, I fancy, we see a world in a transitional stage from one dominant form of life to another. Modern weapons would soon eliminate the undesirable inhabitants, although I suspect the greatest monsters have already gone and the others are on their way out."

They walked on, more cautiously now, keeping careful watch, and in this way they came upon another astonishing sight.

Standing just clear of the wood was a tree, a quite ordinary-looking tree it had appeared to be from a distance, for which reason no one had remarked on it. But now they were close it was possible to see that the leaves were broad and thick, and that it was laden with fruits like huge blue plums, some of which had fallen and lay strewn about the ground. And that was not all. Also lying under the tree, from their stertorous breathing fast asleep, lay a

dozen or more hogs of an enormous size. At least, in spite of coarse hair that covered their skins they were more like overgrown pigs than any other animal. Even as the explorers stood watching one of them got up, or attempted to do so; but after staggering about, grunting, it fell again and lay still.

"I think I can guess what's happened here," said Tiger.

"What?"

"They're all drunk."

"*Drunk!*"

"That could be the answer. I once saw something like this in Africa, only in that case it was elephants that had had one too many."

"One too many what?"

"Plums. Nearly all wild animals love them. But when the fruit gets overripe it ferments inside them and produces alcohol, whereupon they become as daft as a man who has had too much to drink. You can hear them a mile off. They're all right after they've slept it off—which I imagine is what these porkers are doing." Tiger grinned. "A slice of bacon from one of those beauties would be quite a meal."

For a few minutes they stood watching. Rex picked up one of the fruits, the size of a coconut and weighing a pound, but on general advice he refrained from sampling it. He threw it down, and then, as their interest abated they moved on.

CHAPTER VII

THE WORLD OF GIANTS

THE biggest surprise of all came soon afterwards. They were close enough to the edge of the forest to see into its dim aisles, and were crossing a patch of soft sand when Toby, who happened to be a little to one side, stopped dead, an arm outstretched, finger pointing. "Look!" he rapped out.

They all looked in the direction indicated and the reason for his behaviour was explained. Clearly defined in the sand was a footprint. It was unlike that of any animal they knew. The only shape it resembled was that of a human being—not a bare foot but one wearing a light covering. Double normal human size the outline of heel and toes was plain, although covered by a fine mesh or webbing effect such as might have been made by the fabric sole of a shoe or sandal.

"So we've found Man Friday at last," quipped Tiger.

"Who is Man Friday?" asked Vargo, curiously.

"He was a character in a book," explained the Professor. "But let us not talk about that now. This is no joking matter."

"I could never quite swallow that story of a single footprint in the sand, unless Friday was lucky enough to have wings," went on Tiger, stooping to look closely at the mark. "But now it seems—"

"There's the next footprint, over there," broke in Rex, pointing to an identical print two yards away.

“That obviously must be the length of his stride,” declared the Professor. “If that was made by a man he must be a giant. And why not? It would conform to everything else we have seen here.”

“You’re dead right,” said Toby, grimly. “There he is.”

“Where?”

“Right in front of us.”

Everyone spun round, and there, on the edge of the wood, watching them, stood the man who had left his trace in the sand.

Apart from the fact that the man was a giant there was nothing particularly remarkable about him. Had it not been for his size the man might have been a fair South Sea islander. He wore a single garment, a robe splashed with a crude design. It hung from one shoulder and was gathered in round the waist with a piece of cord. He wore nothing on his head. On his feet were shoes laced up to the knee. In his right hand he held what might have been a weapon although it looked more like a staff that was used as a walking stick. It was topped by a shepherd’s crook. He looked surprised, but showed no sign of hostility.

And so, for a good two minutes, they remained, gazing at each other. Tiger, who had half raised his rifle to the ready for an emergency, lowered it. “For a moment I thought I should have to play Jack the Giant Killer,” he said, lightly. “He must be ten feet tall.”

“He doesn’t look in the least dangerous,” said the Professor.

As if to confirm his words the giant raised a hand in what was clearly intended to be a salutation, or even a sign of his friendly intention, as he walked slowly towards them.

“I must say he’s a fine looking type,” murmured Toby. “He can’t be alone. I wonder if all his friends are like him.”

“I see no reason to doubt it,” returned the Professor. “What puzzles me is this. He is obviously intelligent, if not civilized as we understand civilization. Why didn’t we see signs of dwellings from the air? I’m sure such men would live in communities. Even if we didn’t see their houses why no smoke from their cooking fires? That invariably is a sure sign of human beings.”

There was no time to answer these questions for by now the man had come up to them. His expression was one of calm confidence. He said something, but what it was of course no one knew. The important thing was, his tone was friendly.

The Professor answered in a similar tone of voice. “We are happy to meet you,” he said. It sounded rather foolish.

The giant made a sign that obviously meant they were to follow him, indicating the direction of the forest.

“Well?” queried Tiger, looking at Vargo. “Do we go with him?”

Vargo shrugged.

“Of course we will go with him,” decided the Professor. “This is our most important discovery in a long time. If we can find out *why* he is a giant we may learn why once in a while a giant of a man occurs on Earth. Years ago, when I was a student, the problem fascinated me, as it still provides scientists with food for thought. It is a question which no one on Earth has been able to answer.”

By this time they were following their guide through the gloomy shades of the forest, their footsteps making no sound on a thick carpet of pine needles dotted with huge clumps of grey-green moss of the sort that is commonly found in fir and pine woods on Earth. There was no difficulty in walking, for the lowest branches of the trees did not start under fifty or sixty feet.

“Do you mean there really have been giants on Earth?” Rex asked the Professor as they walked along.

“Plenty, my dear boy. I can recall some of them, well authenticated in comparatively recent times. There was a man named Miller who once walked about England in a fancy uniform to exhibit himself. He was well over eight feet tall with a body in perfect proportion. His hands measured a foot across and his fingers were nine inches long. There was an Irishman named O’Brien who stood eight feet seven inches in his socks. We call such men freaks—but are they? Why should one or two men attain such dimensions? Why, at the other end of the scale, are there dwarfs? Why are some men fat? Daniel Lampton, in spite of taking plenty of exercise, turned the scale at fifty-two stones. We may get a clue to the answers here, if, as I think, we have found a race of natural giants.”

They went on between the great trees, itself an impressive experience, and had covered about a quarter of a mile when they came to what evidently was the objective, a fairly extensive glade in which stood a semi-circle of large, well-constructed houses built of interlaced fir branches roofed with very large leaves—the reason, Rex realised, why they had not been seen from above. In front, seated on logs that served as chairs, or forms, were several men. Near the door of one of the houses a number of women stood gossiping. Farther out in the glade half a dozen children were romping. All

were giants; although as giant is a relative term it might be better to say they were all of the same stature as the guide.

On the arrival of the visitors there was a short silence before everyone walked forward to meet them. To Rex's relief there was not the slightest suggestion of hostility. Before he was encircled he noticed two things of interest. There was no fire, no smoke or ashes to show there had been one. The second item was a long, roughly made table on which had been piled an assortment of fruits and vegetables, all of remarkable size. That was as much as he saw before he found himself looking up at the faces that had gathered around him. Expressions were all the same, curious but kindly. The tones of their voices when they spoke, as some did, were soft and melodious, with no hint of anything except friendliness. An extraordinary feeling came over Rex that he and his party had suddenly shrunk in size.

"What a tragedy we can't speak their language," groaned the Professor.

"It is always the difficulty with strangers," said Vargo. "We would have to stay here for some time in order to be able to ask questions, or carry on an intelligent conversation."

"Then let us stay. We are in no hurry. It seems to me that we have had the unusual and pleasant experience of falling among people who are by nature gentle."

By this time fruit, and bowls of liquid which turned out to be fruit juice, were being offered to them.

"If we stay a little while what shall we do about the ship?" asked Vargo. "Gator and Borron will be worried for us."

"I'll run back and tell them we are all right," offered Rex.

"You might lose your way in the forest."

"I could follow our tracks to the far side of the wood. From there I would be able to see the ship."

"It is too dangerous. You don't know what you might meet."

"Then let the man who brought us here take me. We should be able to make him understand what we want."

"If we can then it should be all right," said the Professor. "I must stay here a little while to learn more about these good, simple people. Simple they obviously are. We can judge that from the garment they wear. Unless I am mistaken the fabric is made in the manner employed by many primitive peoples. Vegetable matter of some sort soaked in water and pounded into a flat material before being dried. No doubt various fruit juices are used as dyes to supply the colour effects."

At this juncture Tiger broke into the conversation with an exclamation of alarm. “Great heavens! Look what’s coming.” He raised the rifle.

“Wait,” cried the Professor. “Our friends are not afraid.”

Why this should be was not immediately apparent, for into the clearing had stepped a great grey lizard with a body the size of a hippopotamus. It had a long tail and a neck almost as long that ended in a small head. The Professor’s warning not to shoot was soon justified, for not only did their hosts take not the slightest notice of the reptile but the children, laughing with calls of greeting, ran towards it. The beast made no protest as some of them climbed on its back. Others ran for some fruit, which the creature seemed to expect, for it took from their hands what was offered, and munched it, the juice running down its neck.

“How about that for a pet,” said Tiger, who was the first to recover from the shock and had apparently grasped the situation.

“This is one of the most enlightening things I have ever seen,” declared the Professor, pushing up his glasses. “See, it is quite at home.”

“Fantastic,” said Toby. “How could this come about?”

“I would say because the people here, far from trying to kill it or do it an injury, have always treated it with kindness, as, indeed, they have treated us.”

“If that goes for one thing it could go for others,” remarked Vargo.

“You may well be right,” agreed the Professor. “Come to think of it, the monster insects we saw on our way here made no attempt to molest us. That pile of fruit may provide the answer to this astonishing state of affairs. The people here are not flesh eaters. If that is so, it would follow that they do not kill anything. Creatures would soon get to know that.”

“If everything here is vegetarian it may also explain why everything has grown to such a size,” suggested Rex.

The Professor looked doubtful. “It could be so, but I suspect there is more to it than that. Some peculiar quality, perhaps, in one of their fruits or vegetables.”

A fowl with a body the size of an ostrich was the next arrival. With short legs and neck it bore some resemblance to a hen, particularly when she clucked to a brood of chicks she brought with her. Still in their down they were the size of a normal barnyard hen. They walked about, pecking, regardless of the people.

“Remarkable! Remarkable,” said the Professor. “If wild creatures were not hunted by merciless men you see how tame they would become. But we

knew that already. When Darwin first landed on the Galapagos Islands he found precisely these conditions, although with the exception of the tortoises they were of ordinary size. He had to step over birds sitting on their nests."

"What about the ship?" reminded Vargo.

"Yes—yes. Of course. We must let them know that all is well and that we intend to stay a while."

Rex found their original guide, and pointing in the direction from which they had come, beckoning, began to walk.

The man seemed to understand at once what was required of him and they walked on together.

"Bring my camera when you come back," requested the Professor. "We must have a record of this or no one would believe it."

"No one on Earth would believe it anyway," asserted Tiger. "People can play such tricks with cameras that they would say you had faked the photos."

On the way through the wood Rex learned something more about their new friends. Their strength was in proportion to their size. A big log lay across their path. Rex would have gone round it, but his companion picked it up as if it might have been a match stick and tossed it to one side.

They reached the ship without incident to find the crew in a state of anxiety which Rex was at once able to relieve. He explained what had happened while his new friend regarded the ship curiously but without real interest. It was clear that, as so often with uneducated minds, his imagination did not rise to a full comprehension of such a wonderful device. Neither, for that matter, were Gator or Borron particularly impressed by the land of giants. With them the business was in reverse. Old hands at space travel they had seen such incredible things that nothing could surprise them any more. They said they would stay with the ship, whereupon Rex collected the Professor's camera, and returned with the giant to the village.

He found the others sampling the fruit, and learned that a house had been put at their disposal. The Professor took some photographs, but as far as further progress was concerned the language remained the difficulty. Sign language was slow and could only get them so far. It slowly dawned on the visitors that the giants saw nothing remarkable on their own planet, as was understandable. They were only puzzled to know why their guests should be so small.

The visitors stayed in the village for three days, and in that time a few facts did emerge, although the reason why everything should be on so large a scale remained a mystery. It was confirmed that the giants did not eat

meat. They did not use fire, and there was reason to suppose they knew nothing about it, for when the Professor lit a small one as a demonstration a man tried to pick it up and burnt his fingers. This nearly caused a panic and the experiment was not repeated. They knew nothing about metals, although, as the Professor, said, it would be preposterous to suppose there were none there.

Fresh fruit and vegetables were brought in daily and laid out on the communal table. These grew wild and enormous quantities were eaten. There was no cultivation. This had a bearing on the settlement being so small, for it was learned, not without difficulty, that there were similar settlements all over the planet wherever food was abundant. They were situated at a distance one from the other in order that the food supply should never be exhausted in one place. The people often called on each other. There was no war, and the meaning of it was not understood. The people of the planet were all alike. The staple item of their diet appeared to be a giant form of celery.

"What beats me is how do they get their strength from such a vegetable?" said Toby, when they themselves were eating some.

"Why not?" replied the Professor. "The chief food of the gorilla, one of the most powerful animals on Earth, is wild celery, among other roots. They, too, are vegetarians."

It was soon evident that the giants, unlike those of fairy tales, never killed anything. This did not appear to have any religious significance, as with some people on Earth, for as far as could be ascertained there was no religion. Strange and fearsome-looking beasts often wandered into the settlement. No one took any notice of them. After helping themselves at the food table they departed without causing trouble. This, as Tiger once remarked, "took a bit of getting used to".

Even more so was it when they made excursions into the surrounding country. There was plenty of life, all of a primitive nature, although from its behaviour it might have been domesticated. There were no higher mammals, no carnivores such as lions and tigers. It was decided that the reason why these creatures had not been seen from the air must have been due to the height and density of the vegetation. Even the grass was tall, with razor edges that could cut if not treated with respect.

Rex had one curious, rather amusing experience. The son of their original guide, a youth standing about seven feet tall with whom Rex had become friendly, came to him with a basket of plaited reeds filled with a horrible-looking mess of rotten fruit. It had a strong, sickly smell. He made a

sign for Rex to go with him. Not having the least idea of what was in store Rex went. After a walk of about a mile through a labyrinth of narrow tracks they came to a big, solitary tree, rotten with age and partly hollow. Near it the young giant spread out his fruit mash in a long line, and having done this backed away making a loud buzzing sound.

Rex retired hastily when from the hollow trunk came a bee the size of a blackbird. It made straight for the mash and began to feed greedily. More followed, and soon there was a line of them, looking like a lot of cattle feeding at a trough.

Rex was not very happy about this, for knowing how painful an ordinary bee sting could be it seemed likely that a sting from one of these monsters—assuming they had stings—would kill him. For about twenty minutes he and his companion sat on the ground watching the bees gorge themselves. Thinking that this was the sole object of their visit Rex was getting bored when the giant went forward to the tree and started hacking out, with his wooden knife, great slabs of honeycomb. This he put in the now empty basket. Rex held his breath, expecting to see him stung to death, but the purpose of the fruit was then revealed. The bees were either so drunk or stupefied that they were hardly able to move, much less fly. With the basket loaded with honey they returned to the village.

Fascinating as all this was, by the third day Vargo was showing signs of impatience. The Professor, quite happy, would have stayed on, but Vargo would not have it.

"Very well, my dear fellow," sighed the Professor. "If you say so then we must go. It has been a wonderful experience."

"How does this conform to your idea of the perfect planet?" inquired Vargo.

"Perfectly. But there is one thing wrong."

"What is wrong?"

"The people."

Everyone looked astonished.

"What is wrong with the people?" asked Rex.

"With the people, nothing. That's the trouble. They are so happy and contented that I could not find it in my heart to inflict on them the woes of what we are pleased to call civilization. As I have said before, one can't have more than happiness, and this, although in their ignorance they may not realize it, they have. Can you imagine what would happen here if we introduced a party of people from Earth? Never mind the risk of bringing in the germs and microbes of our miserable ailments against which they would

have no resistance. Their strength would be of no avail. Think of the things our people would do in the belief that they were improving the standard of living. Imagine how busy they would be educating people who get along very well without our complicated systems of government. Our friends here would learn the meaning of labour and bloodshed. The trusting animals would be slaughtered for meat. If there was no one here I would put the planet on my list as a possibility, but as things are, no. We must leave these care-free giants in the peace they now enjoy. They have their welfare state. To bring in new people would be like trying to mix oil and water."

There was a short silence. Then Toby said, with a sigh: "I'm afraid you're right. It seems a pity."

"Let us leave it at that," concluded the Professor. "This is one planet of which, I am sure, we shall all have happy memories; one of the few from which we were not glad to escape."

They departed the next day, with all the people from the village standing round the ship waving them good-bye.

"And to think they didn't even ask us where we came from," said Rex, looking down from his window.

"Why need they bother their heads with that?" returned the Professor, taking out his bag of caramels. "The lucky people have not yet learned to worry, having no cause, as far as I could see. Perhaps their turn will come. I will confess now that there was one other doubt in my mind about staying there too long."

"And what was that?"

"We, too, by being exposed to their conditions, might have become giants, and that would have been highly inconvenient," answered the Professor, with a chuckle. "At my age it would be no joke to find myself growing out of my clothes."

CHAPTER VIII

THE INVISIBLE DEATH

THE *Tavona* sped on through space, always heading in the general direction of Zora Ten, which had been made the final objective, but sometimes making detours to take in some of the planets noted as possibilities on Borron's chart.

This calling at unexplored planets was dangerous work, a very different matter from simple interplanetary travel over the well-routed tracks between known worlds, and they were all aware of it. It could be compared with an expedition on foot across an unknown continent as against air or rail travel on Earth.

More planets and planetoids were visited, sometimes without incident and often with considerable risk, although in view of the chief object of the expedition no time was wasted on worlds where the atmosphere was such as to make existence possible only by using breathing apparatus. This could usually be determined in a few minutes by making the customary tests. When landings were made the spot chosen was always on open ground, a precaution against surprise attack by man or beast.

It was on the fringe of the Minoan Fifth Region that Gator headed for a planet noted on his chart. It bore no name, but was one of a large solar system, and placed at such a distance from its sun that temperature and light should be satisfactory. It had no moon, but its size, and this was important

since it determined the gravity, was not very different from that of Earth. These were the first requirements.

From above, as they drew near, it was at once evident that it did not come into the category of "civilized" worlds, in the generally accepted sense of the word. This could always be ascertained from a considerable altitude, because civilization meant cultivation, cities and communicating roads. These always stood out plainly where they existed, as of course they do on Earth. It followed naturally that the more cultivation denoted a more concentrated population. But this was only a guide, for as the Professor pointed out, on Earth a thousand years ago no civilization would have been seen on large areas of its surface, although there were plenty of people. Nothing would have been seen, for instance, on America, or Australia, and very little on Africa, Europe and Asia alone having civilizations.

Even from a low altitude no sign of life could be seen on the planet now being surveyed; which was remarkable in view of what could be observed, in particular a splendid growth of plants and trees. In fact, the panorama might have been called enchanting. Under a blue sky rivers wound their way to blue seas fringed with golden sand. Verdant islands lay like emeralds on water so calm that it might have been turquoise velvet. There were areas of rolling hills and lakes that might have been a picture of the Lake District. This was the sight that first greeted the eyes of the explorers. It promised well, although as Rex had by now learned from bitter experience it was impossible to judge the constancy of a climate, or anticipate such calamities as earthquakes, volcanic eruptions, floods and the like. It seemed strange that there was no indication of animal life, if not human beings.

Preliminary tests having shown a good atmosphere the ship went down to look for the ideal landing place. This was always an anxious moment, made with caution. It was also a period of great curiosity, when something beyond imagination could appear, or happen.

Was there life, intelligent or otherwise, and if so what form would be dominant? was always the big question. For it had been found that wherever there was life one particular form had achieved superiority over all others. Usually it was man, if he was there, but it could be animal, reptile, or even some queer form of vegetable life, this depending on the age of the world and the way evolution had worked out.

It seemed that at one particular era in the millions of years of a world's existence there was always a turning point when, perhaps by pure chance, the future was decided. Whether man or animal should rule supreme. If true man appeared, in no matter how barbarous a form, he always came out on

top in the long battle for survival. Thus had it been on Earth in the days of the fantastic prehistoric monsters, the great lizards and mighty mammals.

The Professor was of the opinion that this question of survival was resolved by how long it took the human form to invent the first primitive tool or weapon. If an ape-man learned to use the branch of a tree as a club, it was only a matter of time before he tied a stone to one end to make it more efficient. This done, his future domination was assured. It might take him a million years to develop a throwing spear, but it would come. In another five or ten million years a genius might invent the bow and arrow, or, as happened in Australia, the boomerang. In Central America and South East Asia it was the blowpipe and poisoned dart. In the process of evolution time was of no importance: but the faster man went with his inventions and discoveries the faster became his progress. On Earth it had taken men thousands of years to advance the single step of putting a barb on a fish hook to make it more efficient, yet from the first gunpowder cannon to the ballistic missile had been only a few hundred years.

The ship cruised slowly over the unknown world with everyone at his window looking for some sign of life, however primitive, which seemed certain to be there although it might be difficult to see by reason of the dense cloak of vegetation, mostly forest, that covered the surface of the planet. It was remarked that its dark, rather curious tinge, was in colour more blue than green. This was also the case of the grass, in the few places where it appeared. But no movement of any sort was to be seen.

The only remark was made by the Professor, who said: “This is very strange.”

The several large expanses of blue water were inland seas rather than the oceans which, on Earth, ran from Pole to Pole. In every case they lay tranquil, without a ripple. No waves broke on the miles of broad, sandy beaches, which were in fact the only open ground.

“If there is anything here it must sometimes cross the sand to reach the water, in which case there will be tracks,” said the Professor.

Gator took the ship down to a few feet and ran for some miles over one of the beaches, but there was not a mark on it. With its pristine surface unbroken by so much as a scratch it might have been there since the beginning of time.

“There must be fish in that beautiful water,” observed Toby.

“They’re not worried by seagulls, anyhow,” returned Tiger. “I don’t see a bird of any sort.”

“It looks inviting for a swim,” contributed Rex.

“I’d think twice before I tried that. I wouldn’t try to guess what might be in that water.”

“Very strange,” said the Professor again. “There appears to be no immediate danger, Gator, so let us go down. I suggest you land on the sand.”

Gator complied. The feet of the *Tavona* scraped quietly on the untrodden sand. The hermetically-sealing double doors were opened and a flood of warm fresh air poured in.

“What a spot for a seaside resort,” said Tiger, as they stepped out into warm sunshine and looked around to admire the scene. On the one side lay the inland sea, so still that it might have been blue ice. On the other, along the back of the beach, ran a forest of what might have been date palms had they not borne clusters of large red flowers. Utter silence reigned. No wavelet lapped the beach. No breeze rustled the drooping palm fronds.

Rex found this unnatural calm disturbing. He had an uncomfortable feeling there was something wrong, but it was impossible even to guess what it might be. How could a world such as this be so serene? It looked as if it should be swarming with life yet there appeared to be absolutely nothing, not even an insect.

Said the Professor: “I must think about this. It all looks too good to be true. As beautiful a world as one could imagine with no one on it.”

“Isn’t it a bit early to say there’s no one on it?” queried Tiger.

“I find it hard to believe that if there was anyone, or anything, here, this sand could remain as we see it, without a footprint of any description.”

“It doesn’t make sense,” declared Toby. “Are you asking us to believe that on a world like this, a veritable paradise, no form of life has yet appeared? If not, why not?”

“Let us think about it. It is rather warm here in the sun so I suggest a picnic in the shade of those delightful flowering trees.”

Taking the teapot and some biscuits they walked up to the trees, leaving two members of the crew in accordance with their practice of never leaving the ship unattended. Reaching the trees they sank down in the shade, again to admire the scene and wrestle with the problem presented by an apparently perfect world on which the only form of life was vegetable.

Only Vargo looked worried, and when asked why he merely said that in his experience when conditions appeared to be out of tune with nature there was usually something wrong.

Borron, the wise old navigator who had seen many unique worlds, agreed.

“Is it my imagination, or is it getting warmer?” asked Rex, whose early exhilaration on stepping into the air had evaporated, leaving him feeling dull and listless.

Gator looked up at the sun. It had climbed a little higher but, as he observed, not so much as to affect the temperature. He admitted to feeling drowsy, but thought there was nothing unusual in this after a long run in the ship.

The Professor offered his paper bag. “Would anyone like a caramel?”

Rex looked at the bag and started to laugh.

“What do you find so amusing?” inquired the Professor.

“I don’t know.”

“Because I offered you a caramel?”

“I think it must have been.” Rex laughed again.

The Professor looked puzzled. “You have never found that funny before although hardly a day passes without you accepting a caramel.”

Tiger was smiling broadly. “It is funny though, when you think about it.”

The others were laughing quietly, and this had the inevitable result of making the Professor laugh, too.

In another minute they were all rocking with laughter. Even the two crew men in the ship could be heard laughing, although what they had found to laugh at was not apparent. Rex laughed until he sobbed, until becoming exhausted he lay on his back with an inane grin on his face.

Suddenly Toby stopped laughing. His expression switched to one of alarm. He scrambled unsteadily to his feet. “Come away,” he shouted. “Back to the ship.”

“Why the hurry?” inquired Tiger. “I’m very comfortable here.”

“We’re all too comfortable,” snapped Toby. “Don’t you realize what that means?”

“No.”

“We’ve all been laughing at nothing.”

“Have we?”

“Oh dear. What is all this fuss about?” asked the Professor, sleepily.

Toby staggered across to Rex, who appeared to have gone to sleep. He shook him, but got no response. He whipped round to the others. “Quick! Or it will be too late.”

“What’s wrong?”

“We’re being drugged, poisoned. It must be something in the atmosphere. Back to the ship. We’ve no time to lose.”

Even then the others seemed reluctant to move. Vargo, Gator and Borron seemed the least affected. Spurred by Toby’s obvious apprehension they

dragged the others to their feet and presently they were all staggering back to the ship, holding on to each other for support.

"What is it?" asked Tiger, as they stumbled along.

"Don't ask questions now. Save your breath."

It was touch and go whether they reached the ship. No help came from the two crew men, and the reason was revealed when, on reaching it, by which time Rex was being dragged, they were found to be unconscious on the floor. There was some difficulty in getting everyone into the ship. The Professor was on his knees and Tiger, lurching about as if he was drunk, seemed unable to find the door.

Toby may have saved the situation by going in and turning on the emergency oxygen cylinders. This revived them all, and after a few minutes they were all sitting on the floor staring stupidly at each other. Rex, the first to be affected, was the last to come round. Toby closed the doors, and as the air in the ship returned to normal so did the occupants.

"That was a near thing," he told the others, grimly. "A little farther to go, just another fifty yards, and we would never have got here. Had we delayed another five minutes under those trees we wouldn't have got on our feet. We would have sunk quietly into oblivion."

"Do you mean—it was the trees?" asked Rex, shakily.

"I don't know. It could have been. There are trees on Earth that have a reputation for discharging poison."

"The Upas tree of the East Indies, *Antiaris*, for instance," put in the Professor. "My dear fellow, you saved our lives. I must have been very slow not to realize what was happening to us. What made you suspect it?"

"My experience as a doctor, I suppose. We were all behaving strangely. First there was that abnormal hilarity followed by the lapse to unusual fatigue. It was when I saw Rex passing out that the truth hit me."

"We were perfectly all right for some time."

"That might well be the case with a slow poison or narcotic."

"Have you any idea of the nature of it?" asked Rex.

"The symptoms were those produced by Nitrous Oxide."

"Isn't that what in the lab. at school we called Laughing Gas?"

"The same thing. In dentistry it has been used as an anaesthetic."

"I should have thought of it as soon as we started laughing in such a ridiculous manner," declared the Professor.

"The reason you did not was probably because your faculties had already been affected."

“What about yours?”

Toby shrugged. “I am a doctor, and medicine is never far from my mind. As I see it now, the amount of poison gas in the atmosphere must be small, for which reason it would be slow to take effect. Given time, however, one would have inhaled a lethal dose.”

Vargo spoke. “As I have said so many times, one can never be sure of anything, even of an atmosphere unless one goes through the long process of a complete analysis. Usually one can rely on one’s nose to detect the presence of a dangerous gas.”

“Not in this case. Not even was our breathing affected.”

“So now we know the answer to our riddle—why there is nobody here,” said the Professor. “Who would imagine that so fair a place could be a death-trap. Yet what of the vegetation? Why is that not affected?”

“Apparently it is not susceptible to this particular form of poisoning, although it may account for the peculiar blue coloration of the foliage. We still don’t know definitely the precise composition of the poison.”

“The presence of Nitrous Oxide, if that is the villain, might be beneficial to plant life,” resumed the Professor, thoughtfully. “It is well known that plants are not allergic to Nitrogen. Nitrates are used as fertilizers. Well—well. There is nothing we can do about it. It seems a pity. I thought I had found my ideal world at last, but as things are there is no point in staying here any longer. Let us be thankful we escaped with our lives from what might well have been our very last port of call.”

“In space travel,” concluded Vargo, sombrely, as the ship began to rise, “you can trust nothing. Not your eyes, your ears, nor apparently your nose, as we have just learned.”

CHAPTER IX

THE MONSTERS

THE *Tavona* went on, with only the Professor still sincerely optimistic about the outcome of their quest. The others did not voice their doubts in his hearing, but as Rex said to his father when the Professor was asleep, if by some chance they did find a world enjoying the same physical conditions as Earth it could be reasonable to expect human beings on it at exactly the same stage of civilization. This would make it useless for their purpose. That such a world existed in the billions that comprised the Universe Rex did not doubt, but he reckoned the chances of finding it to be about the same as those of a man meeting his "double", his exact replica.

Strangely enough, on their very next call it looked from a distance as if this million to one chance had come off when they found themselves passing through a solar system very much like the one of which Earth is a member. There it was, a central sun surrounded by the same number of planets set at approximately the same distances. The two nearest the sun were ignored as it was obvious they would be too hot for human occupation, but the third, in the same relative position as Earth, looked as if it might have possibilities. It had, but close investigation soon made it clear that they had arrived too early; in fact, several million years too early.

At the Professor's request the *Tavona* was taken near it, and it was at about a thousand feet when the Professor, who like the rest was staring down

from his observation window, asked in a curious voice for his binoculars.

"What do you think you can see?" asked Tiger.

"Unless I am mistaken I'm looking at a living specimen of Dinornis Maximus."

"What's that?"

"A bird. One of the family of great Moas which once roamed the Earth. It stood about sixteen feet tall. I see several standing together in what appears to be a swamp. And on the edge of that lake, unless my eyes deceive me, stands a Hesperornis, a monstrous bird with teeth."

"How do you know of these creatures if they are no longer with you?" asked Vargo.

"I would not profess to be an expert but I have made some slight study of Palaeontology, as we call the science of extinct monsters."

"If you are correct in what you think you can see there is no point in landing."

"On the contrary, my dear fellow, it would be both interesting and instructive to see alive and flourishing the fantastic creatures that once occupied our planet. There was a period, you know, when there was nothing too bizarre for nature to realize, forms of life beyond our wildest imaginings. It was their remains, when our early ancestors found the bones, that gave rise to stories of dragons."

"You mean the great lizards, like the Dinosaur," said Tiger.

"Not only lizards," returned the Professor. "There were birds, mammals and fish, all on an enormous scale, and, as they would seem today, quite preposterous. Imagine the Stegosaurus, with spines a yard high on its back; the Triceratops, with its huge bone neck shield and horns on its head and snout; or the Dinoceras, with six horns and bayonet-like tusks. Weird and wonderful were the monstrosities that once walked the Earth, and may still be here. Is this a younger world than Earth or have these great creatures somehow managed to survive? This is a question I would like to answer."

"Why did they die out on Earth?" questioned Rex.

"We're not quite sure about that, although obviously for one reason or another they were the losers in the struggle for existence. Of course, they did not all die at once. The Great Irish Deer, *Cervus Magaceros*, for example, lingered on for a long time before it went the way of the rest. It's called Irish because its remains are plentiful in Ireland. Standing from ten to twelve feet tall, with antlers measuring eleven feet from tip to tip, what a majestic beast it must have been. In the matter of comparison, the head and horns of the

specimen in the Natural History Museum weigh eighty-seven pounds, as against the twenty-four pounds of the present day Scottish Red Deer. We really must go down, Gator, and have a closer look at this. I see a good place, slightly to the right, that appears to be an area of well-grazed grass. The middle is clear, so I do not think there is any danger. Should anything approach we can always escape by taking off."

Gator did not look very pleased about it but he did not argue.

"Make the usual atmospheric tests, please," requested the Professor.

Vargo looked at him very hard. "You're not thinking of going out?"

"Why not?"

"Can't you see what there is outside?"

"Yes, but not very well through my glasses and the window. I would prefer a clear view if the atmosphere is satisfactory, as I am almost sure it must be or these creatures would not be here."

"A little fresh air wouldn't do us any harm," put in Tiger.

Nothing more was said. The tests were made, and as they proved satisfactory the doors were opened.

"That's better," asserted the Professor, standing on the step. "Now," he went on enthusiastically, "there's a sight for you!"

The sight was a vast rolling plain with an occasional tree, or group of trees, in the manner of an English park except that the trees were not of that order. Some were short and some were tall, but they all had a stiff look about them, with thorny-looking trunks and no foliage except at the top. But it was not the vegetation that excited Rex's interest. It was the herds of animals, the like of which he had never seen before, that were standing, grazing, or moving about in the lush grass. They took no notice of the ship.

Said Tiger, admiringly: "The plains of Africa, with the great herds of buffalo, deer and antelope, must have looked something like this before men arrived with firearms and began to wipe them out. Obviously there are no firearms here. Do you recognise any of these beasts, Professor?"

"Yes, indeed. On Earth they are all prehistoric, which is puzzling me. Why should they have survived here? Unless, of course, this planet is many millions of years younger than Earth. The animals we see before us are all grass eaters, and therefore probably harmless. It might well be they are the ancestors of the African fauna you mentioned a moment ago. Given time, it is reasonable to suppose they will develop on the same lines. Those that are unable to keep pace with the march of evolution will become extinct."

“What about that queer creature nearest to us, the one that looks half-way between a cow and a deer?” asked Rex. “We have nothing like that on Earth today.”

“No, but there was a time when we had, for you may see its bones in the Natural History Museum. In Palaeontology, as we call the study of extinct monsters, it is *Siyatherium Gigantium*. Notice the ox-like head with two pairs of horns, and the prolonged upper lip rather like a tapir. Those fellows have jaws twice the size of those of a buffalo.”

“What’s that queer-looking job standing half left against that solitary tree?” inquired Tiger. “From its size and shape I fancy I’ve seen something like that in the Natural History Museum.”

“That might well be, for they have a cast of the skeleton. It is a giant sloth which has been given the name of *Megatherium Americanum*. There are still sloths in the jungles of South America, but none with the proportions of that one. Standing erect, as it is now, it can be eighteen feet high. It has bones more massive than those of an elephant. Its thigh bone is twice as thick. It is, like all the sloths, a vegetarian, and there is a theory that it used its great weight to push or pull down trees in order to eat the twigs and leaves. It appears to be about to do that now from the way it is holding the tree in its arms. Why these powerful beasts should die, leaving only their smaller types such as the elephant, the rhino and the hippo, which are survivals of an earlier age, we still don’t know, although there are many theories. Size alone did not save them. Speaking of elephants I think I see a herd of mammoths in the distance.”

Attention from this, however, was drawn to a colossal creature emerging from what may have been a lake deep in the swamp. Its shape was roughly that of a lizard, with a long tail and a long neck ending in a small head.

“What a fantastic brute,” cried Rex. “What is it?”

“Clearly one of the Dinosaur family, probably, from its size, *Brontosaurus Excelsus*, which could attain a length of sixty feet and a weight of twenty tons. Its footprint measured a yard across. It is thought to have been an amphibian, living on aquatic plants. It must sometimes have got stuck in the mud, and died there, for it is in such places on Earth that its bones are found. It was, we think, a stupid, slow moving creature, without any sort of armour such as some of its contemporaries enjoyed, although that did not save them. For all its vast size I do not think we need be alarmed, although it has seen us, or the ship, and is having a good look. It may suppose the ship to be an armadillo of comparative size. That would not be impossible. The gigantic Glyptodon, the remains of which have been

found in South America, was ten feet long and high in proportion. Some may have been larger. Judging from what we know once happened on Earth, in the normal course of events it will take this planet millions of years to catch up with us."

"To think that these astonishing creatures once roamed the Earth," murmured Rex, in an awe-stricken voice. "What amazes me is that such powerful monsters could have died out. Is it known what caused that?"

"There are several theories, the most probable of which being a great change in climatic conditions. The Ice Age, for instance, when the polar ice reached down to Africa, must have played havoc with many species. Such a change would inevitably affect the vegetation on which much of the animal life lived; so the great brutes may have starved to death. We know from where their remains have been found that many perished in swamps and bogs when they dried up. We have seen that happening recently in Africa, where hundreds of hippos died when the lakes in which they lived became dry. The poor brutes crowded into the mud and finally sank in it."

"So one day, when they have ceased to exist, their remains may be found."

"Exactly. On the other hand, many prehistoric beasts were drowned in floods. We had an example of what can happen in June of 1794, when there was a devastating flood in the Solway Firth district. When the water subsided, on one sandbank alone were found the bodies of horses, cattle, nearly two thousand sheep, forty-five dogs and innumerable hares and rabbits. The remains of mammoths have been found in nearly every county of England so they must have been common."

As they stood gazing at the strange scene, just a scene, the Professor remarked, as might have been seen on Earth many millions of years ago, a change came over it. The giant sloth, which had pulled down the tree and was feeding on the leaves, suddenly stood erect, and after gazing at something in alarm began to blunder away on all fours. The Brontosaurus raised its little head on its long neck, let out a curious cry and began to move back into the swamp.

"Now what?" said Tiger. "They're behaving as if they're scared of something. What would monsters of that size be afraid of?"

"Possibly a flesh eater of some sort," surmised the Professor.

"Yes, and I think I know what it is," put in Toby, sharply. "What's that creeping through the reeds? It looks mighty like a man to me."

Suspicions were confirmed when, a minute later, the silence was shattered by wild yells as from the reeds sprang a small army of skin-clad

figures carrying sticks, clubs and stones. Howling like dogs they rushed at the sloth, spreading out to surround it.

Then followed a spectacle which none of those who saw it was ever likely to forget. It was clear that the men were hunters and the sloth was the quarry. What shook Rex was the insane ferocity of their attack; the reckless way they flung themselves at the beast, throwing stones and striking it with their crude weapons.

The sloth turned on its assailants, striking out with its massive legs, but whichever way it turned at bay it was beset from behind. It must have killed several of the attackers, for when one of its blows went home the man was hurled yards and seldom got up again. But for all its size it was soon evident that the sloth was doomed. Bleating, it tried to get away, but the shrieking savages gave it no respite. As it weakened some of them even climbed on its back and struck at its head. Completely overwhelmed, gradually its struggles became more feeble, and it sank under a hail of blows never to rise again. Like parasites the victors crawled over it until it ceased to move, paying no attention, Rex noticed, to those who had fallen in the fray.

"If prehistoric men behaved like that it isn't hard to understand why some of the animals became extinct," observed Toby, grimly.

The savages were hard at work tearing strips of hide from their victim and eating it raw as if they had been a pack of wolves, when the noise of shouting suddenly subsided.

"They've seen us," said Tiger. "They're looking this way."

"They're coming this way," corrected Vargo. "I wouldn't advise you to wait for a closer view of them. I'd feel happier in the *Tavona*."

This apparently was the general feeling and there was a rush for safety in the ship. By the time all were inside, with the doors closed, the pack, now howling again, were coming with a rush, whereupon Gator lost no time in becoming airborne. From a height of a hundred feet they looked down at the primitive mob.

"That was all most interesting," said the Professor.

"I don't think it would suit your purpose."

"It might, were it not for its uncouth inhabitants."

"It's a queer thought," put in Tiger, reflectively, "that half a dozen troops with modern weapons could wipe out the lot—men and animals."

"In which case," put in Toby, "the planet would advance fifty million years in a few days."

“The picture of civilized man, or what we call civilized, turning the place into a vast slaughter house, is one I wouldn’t care to see,” answered the Professor. “I think we’ll leave the planet to catch up with us in its own time. From the present weapons of the gentlemen we see below us, to the hydrogen bomb, will be a long, long journey. I wonder if they will be any happier then than they are now.”

“We won’t wait to see,” decided Gator, and the *Tavona* resumed its journey.

CHAPTER X

THE KINGDOM OF APES

WHILE the events on the planet which Borron said was named Flentos were not as spectacular as some the space explorers had witnessed, from a scientific point of view, relating to the evolution of Man, they were of outstanding importance in that they went some way to prove certain theories held on Earth.

The adventure, which was curious rather than dangerous, began when, with the *Tavona* still heading for its final objective, Borron, indicating a dull planet at no great distance, remarked casually: "We need not waste time there. It is far from being the perfect planet."

"From its low albedo I would judge it to be mostly rock or very heavily forested," observed the Professor. "Considering it has a sun conveniently placed it gives practically no reflection."

"You are correct," confirmed Borron. "That part of the surface which is not rock is entirely covered with giant trees, nearly all of them of the same species. There are rivers and lakes but no seas. Owing to the afforestation the rivers cannot be seen from above. There is quite a good atmosphere, although as one would expect from so much vegetation, it has a rather high nitrogen content."

"Which I take to mean you have been there."

"Once, when I was one of the crew of a survey ship. It was a long time ago, but it is unlikely that conditions will have changed. It offers little to make it attractive, but I admit we found it amusing."

"In what way?"

"It is inhabited by monkeys almost to the exclusion of everything else, although there were some birds which had to hang their nests from the very extremity of the branches to prevent their eggs and young from being eaten by the monkeys. Or so we assumed. The planet was named Flentos, meaning, in Minoan, the Place of Monkeys."

"What sort of monkeys are they?"

"We saw only two species, one of which you would probably call apes. They are quite large and have learned to use weapons."

"Use *what*?"

"Weapons." Borron smiled. "Oh no, nothing complicated. Just sticks and stones."

The Professor pushed up his glasses. "How remarkable! Are you sure these were not primitive humans?"

"Quite sure. They are covered with hair."

"Some people believe the earliest men had hair."

"These also had tails."

"Are you sure there are no men there?"

"We saw none. Before we saw the monkeys we thought they were men, for we could hear them chattering what sounded very much like a language; but when the creatures appeared we saw they were monkeys."

"What happened?"

"They soon made it clear that we were not welcome, for they greeted us with gestures which, while comical, were so aggressive that we thought it prudent to leave."

"I must see this place," declared the Professor. "What you tell me excites my curiosity."

"Why should it? Monkeys are a common form of life on many planets, including Earth, as you have told me."

"Flentos may confirm a theory, commonly held on Earth, concerning the evolution of the human type."

"And what is that?" inquired Vargo.

"Some scientists believe—I am speaking particularly of Earth although it could apply elsewhere—that in the remote past, during the process of

evolution, there came a split, a sort of parting of the ways, in a certain form of mammal. Some took to the forests and others remained in the open. Those that took to living in the trees developed into what we call monkeys, adapting themselves to that environment. As a fall might mean death or injury their arms and hands became long and strong. Their tails became prehensile, to hold on to the branches—a sort of extra hand. When on the ground they continued to move on all fours.

"Those that chose to live on open ground had no need for these specialized limbs. They learned to stand on their hind legs to look around them and so in course of time they walked erect. In this way they also grew taller. This, it is said, was the branch which, over millions of years, developed a high degree of intelligence and so became the first primitive man, able to make simple tools and weapons. All this of course is pure conjecture. Now you understand why I am so interested to hear of monkeys carrying sticks."

"An ingenious theory," said Vargo thoughtfully. "It could be correct."

"Proof might be found on this planet Flentos," resumed the Professor. "Borron says the place is almost entirely covered with dense forest, with practically no open ground. That means that every creature would remain a forest-dweller, never enjoying the conditions that would lead to a higher form of life. Remember, sunlight encourages growth. Some of the African natives who chose to stay in the deep forest have remained pigmies."

"Don't misunderstand me," went on Borron. "These monkeys are not without intelligence."

"One would expect that. On Earth we have a type of ape, called chimpanzee, which comes uncomfortably close to the human form and readily copies our habits." The Professor smiled whimsically. "Fortunately they have not yet learned to talk, or life would be unbearable. They would never stop asking questions. They might tell us a few uncomplimentary things about ourselves."

Said Gator: "From this I take it you would like to see the inhabitants of Flentos."

"Please." The Professor glanced at Toby. "How Darwin would have welcomed this opportunity."

"Who was Darwin?" inquired Vargo.

"One of our great naturalists who startled the people of Earth with his theory of the evolution of Life."

The *Tavona* was now swinging round in a tremendous curve towards the planet that had been under discussion, and as it drew nearer it could be

observed that its colour was a uniform sombre green. Rex felt the usual twinge of apprehension at the thought of landing on an unexplored planet, and asked Borron if he thought they were likely to run into danger.

The navigator said he didn't know, but he thought not. "We only saw the monkeys, and they, I must admit, were aggressive little beasts."

"I don't think we need be afraid of monkeys," put in Tiger, casually.

Dropping lower, the *Tavona* went into orbit round the planet, when it could soon be seen that what Borron had said of the place was true. There was no large expanse of water, although occasionally a silver thread between the trees revealed a stream. Open plains were also nonexistent, and it took Gator some time to find a landing ground. Eventually he decided on an area of no more than three acres in extent, around which the great trees rose up dark and gloomy, like the walls of a prison. The reason why no trees grew on this particular spot was evident as soon as the ship touched down. It was an outcrop of almost solid rock. The only vegetation was a small plant that followed the several cracks and fissures. This bore fruits in the manner of a strawberry, except that they were white instead of red.

Overhead the sky was deep blue, denoting an atmosphere as Borron had promised. The usual tests therefore being unnecessary the doors were opened and everyone stepped out, Rex, for one, being glad of the respite from being cooped up in the machine. The air was soft and warm, and he inhaled it in long deep breaths. A confused murmur of sound, like nothing he had ever heard before, became audible.

"The monkeys," said Borron, pointing.

Rex, who had been examining one of the berries, wondering if he dare risk tasting it, raised his eyes to the tree tops, and saw that the branches were alive with animals, some sitting still, chattering, others swinging from branch to branch apparently in a state of excitement. Having seen plenty of monkeys before he was not particularly interested. The only thing that surprised him was the number of them. These, he noticed, were rather larger than the more common sorts of monkeys, but apart from that there was nothing remarkable about them.

As everyone stood watching a spectacle that was curious rather than exciting, suddenly the scene changed. As if at a given signal the animals began dropping towards the ground, and it was then that Rex noticed that some of them carried sticks. It might be more correct to say small pieces of branch torn anyhow from a parent tree. In some cases the leaves had not been removed. Reaching the ground a few advanced into the open,

screaming abuse and making threatening gestures in the direction of the spectators.

"I don't think we shall do much exploring here," said Tiger, dryly. "A full scale attack by those belligerent little devils could be an ugly business. A rifle would be no use against that mob."

"You are right, Group-Captain," agreed the Professor. "We shall be well advised to stay near the ship. What a strange spectacle. Very odd. The monkeys we have at home are normally timid animals."

More and more monkeys were arriving on the ground, and presently there was an army of them, yelling, grimacing and brandishing their sticks. There was no order in their ranks although some appeared to be urging others forward. Some occasionally stood erect, but for the most part they remained on all fours. The noise was indescribable. Rex found it rather frightening, and backed a little nearer to the door of the ship prepared for a swift retreat should a charge occur. If that happened, and if it was pressed home, it was obvious that they would be unable to stop it. What Borron had said about the little beasts was understatement rather than exaggeration.

Suddenly, again for no apparent reason, the scene changed. Silence fell, with the abruptness of a radio switched off. Every monkey stood rigid.

"Here they come," said Tiger, crisply. "We'd better get inside."

He was mistaken. The expected attack did not materialize. Instead, the din broke out again, rising to sheer pandemonium.

"They're not looking at us," said Vargo.

This was true. The monkeys were no longer looking at the ship. Every head was turned towards the far side of the clearing. Their front began to change in that direction.

"Good lor! Look what's coming," exclaimed Toby.

From the wall of trees towards which the monkeys were looking had emerged the advance guard of another hairy army.

"The apes," said Borron.

Their number was fewer than the monkeys, but what they lacked in that respect they made up for in physique. They were not as tall as the gorilla found on Earth but up to the size of a well-grown lad of fifteen, and more heavily built. They walked erect, as if this was their natural posture, and each one carried a club. Not a rough branch, as in the case of the monkeys, but a short, heavy piece of wood. The noise they made was quite unlike the shrill chattering of the monkeys. They barked and growled in deep hoarse voices, like big dogs.

“If there’s going to be a fight, the apes will win,” asserted the Professor. “They are better armed.”

“But what could they have to fight about?” asked Rex.

“Probably for possession of this open space, since open ground seems to be in short supply. Or it might be for the fruit that we see growing here. I noticed some of the plants had been stripped, as if creatures had been feeding on them. It seems that in the absence of men the dominant form of life, in this case the apes and monkeys, are prepared to fight for anything worth having. Dear—dear! How truly astonishing. On our own planet only men are mad enough to destroy themselves in wars. Here, without men to put everything else on the defensive, it would seem the lower forms of life indulge in the same folly.”

“These two tribes certainly seem to hate each other,” said Tiger. “Just look at them.”

Completely ignoring the visitors the two armies were now advancing, the monkeys cautiously, the apes with confidence, each side trying to make the most noise and each individual working himself into a fury.

“Their behaviour is much the same as that of warring tribes of savages on Earth,” remarked the Professor. “I imagine it was this violent hostility that encouraged the production of weapons, crude as they are. Hands and teeth were not enough. The next step should be bows and arrows. You will notice that already they have learned to use stones for throwing.”

Actually, this did not apply to the apes. They seemed to be content with their clubs. But the monkeys were prancing about looking for anything that could be thrown. Stones began to fly.

“I wouldn’t have missed this for anything,” said the Professor. “If I hadn’t seen it I would have found it hard to believe.”

“If civilized men are crazy enough to fight, why not monkeys,” put in Rex.

“True, my boy, true,” conceded the Professor. “You make a point there.”

“Look! The apes have a leader.”

One of the apes was now walking in front of the main body, barking like a dog and brandishing his club in a manner that was obviously intended to encourage those behind.

“No doubt these creatures understand the bestial noises they are making but I would hardly call it a language,” said Vargo.

Here the conversation ended, for at this juncture, as if by mutual agreement, the two armies rushed at each other and joined battle. The noise

was appalling. There was no method; no concerted effort. Each beast chose an opponent and endeavoured to beat him down. Teeth and fists were used freely. Tufts of hair were torn out. Some of the contestants fell, some to lie still, others to rise again and reeling about resume the battle. The spectators, spellbound, could only stand and stare in fascinated wonder.

Tiger yelled above the din. “This is what war between men must have been like in the old days. Every man for himself.”

“Let us get inside the ship,” said Vargo, practically.

The advice was accepted without question, for although the battle raged without any attention being paid to the ship it was fast spreading all over the open ground, and some of the beasts were getting uncomfortably close. Seen near at hand their ferocity was dreadful to watch. Clearly it was war to the death, and no mercy was shown by either side.

It was through the observation windows, behind closed doors, that the finish was witnessed. Suddenly the monkeys broke and fled to the trees. One, its escape cut off, tried to climb on to the *Tavona*, but it was caught, dragged off, and had its brains beaten out by a blood-stained ape. Not content with that the larger beast picked up its dead foe by the hind legs and swinging it round bashed it to pieces on the rock in a paroxysm of insensate rage.

“Very pretty,” said Tiger.

In a few minutes it was all over, with the apes in possession of the field. They did not attempt to follow the surviving monkeys into the trees, where they might have been at a disadvantage, or too clumsy to catch their more nimble adversaries. For a little while they walked about making uncouth noises and clubbing any fallen monkeys that showed signs of life. Some of the apes had nasty wounds but they took no notice of them. Some appeared to become aware of the ship for the first time and moved towards it.

“I think it is time we were moving off,” said Borron.

The Professor agreed. “Yes, I think it’s all over. All we are likely to see here now is a repetition of this barbarous onslaught so we might as well be on our way. Flentos has certainly been worth a visit. It has given me much to think about.”

The *Tavona* continued its journey.

CHAPTER XI

ADVENTURES GALORE

If, in their tour of space in search of the ideal planet, the explorers encountered creatures and conditions so strange as to be unique in their experience—as indeed they did—it was only to be expected. As the Professor more than once averred, they came into the category of phenomena simply because, as far as was known, they did not occur elsewhere.

Of all the planets visited they had never found two that were identical, and it seemed most unlikely that they ever would. For that to happen they would have to be subject to precisely the same conditions of magnitude, gravity, atmosphere, temperature—determined by the distance of the nearest sun—and so many other minor circumstances that the chances of two being absolutely alike were remote.

As the Professor pointed out, they themselves called things incredible or fantastic simply because they were not found on Earth, for which reason they had no previous knowledge of them. In many cases they could not have been imagined. Conversely, human beings of another planet would find things on Earth equally astonishing, although to the inhabitants of Earth there was nothing remarkable about them.

Again, another factor that had to be taken into account, quite apart from the natural order of things, was the degree of development of the creatures, which included the human type, that dwelt on any particular planet. This, the Professor was convinced, depended almost entirely on the age of the planets. Time in the Universe was not a matter of years, or thousands of years, but millions of years; and during these astronomical periods the process of change and evolution was always at work.

Earth itself was an example. A visitor from another planet today would find a state of civilization entirely different from what it would have been had he arrived a mere two thousand years earlier. In that comparatively brief period of time, apart from the scientific and mechanical devices they had invented, men had changed the face of their little world. Forests had been cleared and deserts made fertile. Dams had created great lakes. Cities had arisen in what had been wilderness, and linking them had appeared a network of roads, canals and railway lines.

Aware of this, from the outset the voyagers had realized that to find another world in exactly the same stage of development was not seriously to be expected. But, the Professor argued, they might find something like it. The possibility, he was sure, existed. To find what they were looking for was only a matter of time. Unfortunately, in this case time was governed by the years of life that remained to them. Could they, in a lifetime, find another world, like, or similar to, the one on which they had been born? Although he did not say so Rex was beginning to doubt it.

No matter where the *Tavona* landed it had become a normal event to encounter something abnormal, a peculiar form of life or a physical condition outside all previous experience, and there seemed no reason why this should not continue. This “unknown quantity,” as the Professor called it, was not necessarily dangerous, although more often than not it was. By its very nature it could not be anticipated. There was seldom any warning. But this, as Vargo often pointed out, was space exploration, and those who engaged in it had to accept the risks.

Apart from the ordinary risks of landing on unknown planets where certain precautions were always taken, there were the ever present perils of interplanetary travel. At any moment the ship might collide with a meteor. The power jets might fail as a result of passing through a belt of gas, or the ship disintegrate through being exposed to solar or cosmic rays, or radio activity of exceptional virulence. However commonplace space travel might become in the future these risks would always have to be taken.

Many curious adventures occurred as the *Tavona* proceeded on its quest, and while some were so trivial as hardly to be worth recording there were

others they were not likely to forget. Mention might be made, for instance, of what were later referred to as the Red World, Spiderland and The Jeweller's Shop.

It was the unusual colour of the Red Planet that took them to it, for even at a distance in a sky of midnight blue it shone like the stop sign of a traffic signal. As it happened they did not land, as they might have done to satisfy the Professor's insatiable curiosity; which was lucky, for had they done so the consequences could have been serious.

As they drew nearer the globe continued to shine, with reflected light, a dark brick-red colour. They circumnavigated it twice, always getting closer, seeking the cause of the mystery. With everything the same extraordinary colour—and this included the vegetation if there was any—it was not easy to discern details. The high ground and the low was of the same uniform tint. The Professor would have landed, but Gator, wise from experience when confronted with what he did not understand, was suspicious, and held off. The ship became stationary at a height of a few hundred feet.

They were still discussing the possible reasons for this peculiar state of affairs when the planet itself provided the answer. A bright red plume, evidently the result of a subterranean explosion, shot to a tremendous height into the air, there to form a monstrous mushroom-shaped cloud which, slowly descending, completely obscured that section of the globe. It might have been a red fog. This must have had some effect on the upper atmosphere, for suddenly it began to pour with rain—red rain, which in a moment had painted the *Tavona* the colour of blood. Gator did not wait, but sent the ship rocketing up until it was above this sinister storm.

From this safe position the Professor offered his opinion of the phenomenon. The planet was volcanic. The soil, or the subsoil, was red, probably a metallic oxide such as bauxite, which occurs in places on Earth and from which aluminium is derived.

Such eruptions as the one they had seen were evidently of frequent occurrence. The effect was to hurl into the air a quantity of the red dust which, when it subsided, would inevitably cover the ground with a layer of the stuff. This must have been going on for some time, with the result that had been observed from a distance. What caused the rain to fall was not so clear. The explosion might have produced a sudden change of temperature. Anyway, as it seemed impossible that any form of life could survive in such conditions the voyagers, having no farther interest, went on their way.[9]

[9] When in 1883 the Island of Krakatoa in the East Indies, exploded with a roar that was heard three thousand miles away, it flung a mass of dust so high into the air that it took about three years to settle. During that period, as the cloud was wafted round the world, many countries, including Great Britain, were treated to spectacular sunsets. Similarly, when the first American atomic bomb was exploded, sending sand into the upper atmosphere, people in the Highlands of Scotland—which included the author—were astonished to see the sun turn blue, light and dark in turn according to the density of the dust. Some readers may remember this.

Then there was the world of spiders, this form of life having for some reason become dominant. On this occasion the *Tavona* had landed to inspect a minor planet which from an altitude appeared to be perfectly normal, with hills, plains, rivers, lakes, forests and other forms of vegetation. Tests having shown that the atmosphere was breathable, if somewhat thin, at the Professor's request the ship was put down on a convenient grassy area so that a survey could be made at leisure. Nothing to indicate the presence of human beings had been observed from above, so it could safely be concluded there was none.

The presence of large numbers of spiders was apparent even before the doors were opened, for their webs were everywhere, as they may sometimes be seen in Britain on a frosty morning when dew or hoar frost settles on them. The spiders that spin these webs are of course quite harmless, but that is not the case everywhere. California has the dreaded "Black Widow" spider, the bite of which is usually fatal.[10] South Africa has the "Button" spider, which can also be deadly. And there is of course the large, hairy tarantula of tropical America, which can inflict an extremely painful wound.

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[10] On the declaration of war it was reported that those in the London Zoo were instantly destroyed, for fear the explosion of a bomb might enable them to escape.

The Professor may have had these venomous species in mind when, on the doors being opened, he said: "I think we should be careful. These insects may be poisonous."

"How are we going to find out?" inquired Toby.

“That is the question,” returned the Professor. “This species will almost certainly be new to us, and I can think of no way of finding out whether or not they are dangerous except by allowing oneself to be bitten.”

“Any volunteers?” said Tiger, whimsically.

The Professor answered: “If they are dangerous the chances are that confident of their power they will attack us. If they are not they will do their best to avoid being trodden on.” And with that he went down the steps and very cautiously put a foot on the ground.

Up to this moment no spiders had been seen, so it was not known whether they were large or small. But now they appeared, and there was general relief when it was seen they were very small indeed. Moreover, they retired from the Professor’s feet with wonderful alacrity, running over the grass which nowhere was more than six or eight inches high. Their colour was dark brown.

“I think they are harmless,” said the Professor, and the others followed him out.

It seemed that he was right. At all events, nothing untoward happened. The spiders might not have existed for all the trouble they gave. The only thing remarkable about them was their number.

Then a curious thing happened. They were all walking slowly towards the edge of the nearest jungle, a medium high belt of tropical-looking trees with thick undergrowth, to see if it presented anything new in the way of flowers and fruit, when Tiger remarked that the spiders had vanished. That is to say, suddenly there were no more of them. It was as if they had their own particular territory, with a clear line of demarcation, beyond which they would not go. Anyway, none could be seen.

It was Toby who pointed out the possible reason when, a minute or two later, at a place where the ground became rocky, attention was called to a different type of spider. Red in colour, and larger, they were not as numerous as the darker ones. They did not move, but remained still, some on the rocks, some on the herbage, looking like small red flowers about the size of a dandelion. They were so still, in attitudes so attentive, that Rex had an uncomfortable feeling they were looking at him.

“A different species,” observed the Professor, adjusting his glasses to inspect them. He picked up a piece of stick and touched one of them. Instantly it ran up the stick at such surprising speed that he dropped it hurriedly, saying: “Did you see that? I believe the little rascal would have bitten me.”

“Be careful,” warned Vargo. “Here we have something we know nothing about.”

“What do they live on?” queried Rex. “I can’t see any flies about, or any other insects. They seem to have the place to themselves.”

No one had an explanation to offer. Everyone stood still, as if in doubt whether to go on or back.

It was at this juncture, with his interest divided between the creatures at his feet, and the jungle towards which they had been making their way, that Rex noticed something for which he could not account. Actually, he had already seen it and had taken it to be the remains of a fallen tree, long dead. Now he was not so sure. There was something about its shape, the arrangement of what he had taken to be branches, that seemed odd, unusual, if not quite wrong.

“What’s that thing lying over there?” he asked curiously.

“I was just looking at it,” answered Toby. “It looks uncommonly like a skeleton.”

“If you’re right, Doctor, it must have been a big beast. A reptile, I would say, from its shape. Let us have a look at it.”

They were walking slowly towards it when Tiger said, in a strange voice: “Look behind. We’re being followed.”

Everyone stopped and turned. Close behind them on the ground was a wide red band, like a miniature wave. It stopped instantly when they turned. There was no need to ask what it was. The red spiders. A host of them.

“I don’t know that I care much for this,” said Toby, looking at the skeleton and then back at the spiders. “I wonder if they had anything to do with that?” He jabbed a thumb at the skeleton.

“They may have eaten it, but it would be preposterous to suppose that those little creatures could have killed a beast that size,” declared the Professor.

“Why are they following us?” asked Rex, a little fearfully.

“Curiosity, perhaps,” suggested the Professor, without much confidence. “So far they haven’t attempted to attack us so I don’t see any reason to be afraid of them.”

“I’m jolly glad they haven’t,” said Tiger, shortly. “We’d be in a nice mess if they did.”

“They are probably no more than scavengers, living on carrion,” rejoined the Professor.

“I hope you’re right,” returned Tiger.

“I wonder what lives in those trees,” put in Rex, again turning his attention to the jungle. They were now close to it, and for the first time it struck him there was something strange about it, although he couldn’t make out what it was. The branches seemed to be draped in semi-transparent gauze, in the manner of butter muslin but grey in colour. It blurred the outlines of the foliage.

“What’s that stuff hanging on the trees?” he questioned.

They all looked and took a few steps nearer to it.

“Cobwebs,” said Tiger.

“If the spiders that spun those webs are anything like in proportion, then they must be some spiders,” declared Toby.

“We’ll see,” said the Professor with a chuckle. Again he picked up a stick. He did not actually touch the stuff but tossed it into the middle of the nearest web. The effect was instantaneous—not to say alarming. From some unseen hiding place there rushed out a creature of such size, so horrible, so loathsome, that Rex fell back with a cry of horror. It was a spider. Of that there was no doubt whatever; but with a bloated body the size of a football, covered with bristling black hair, it was more a creature of a nightmare than living reality. Its sprawling legs, bent at the knees in the usual manner, ended in shining pincers. Its numerous eyes flashed like tiny diamonds. As it ran out it made a brittle chattering noise, which was taken up by others that now made darting sorties from their lairs. The sound was evidently a signal, for in a few seconds the whole side of the forest was rattling like a thousand castanets.

Rex began to back away, as did the others.

“Let’s get out of this,” said Tiger tersely, with a glance over his shoulder towards the ship, as if to judge their distance from it.

Rex needed no second invitation. He broke into a run that became a sprint. He could hear the others pelting along behind him, and it was not until he was within a few yards of the safety of the ship that he slowed down and looked behind him.

The sight that met his eyes gave him such a shock that his mouth went dry and for a moment he became unconscious of his limbs. The ground was black. Black with spiders that rolled forward like a wave on a sandy shore. With a gasp of horror he ran on and took a flying leap into the *Tavona*.

The others jumped in after him, and one of the crew who from the doors must have seen what was happening, slammed them shut. He was only just in time. Tiger was the last in, and so close to his heels were the nearest spiders that one or two of them were crushed to death as the heavy doors

closed on them. Others swarmed all over the ship in numbers that could be judged by those crossing the observation windows, partly blotting out the light.

Gator did not wait for instructions. He reached for the controls. The jets whined, and the ground fell away below as the spaceship rocketed skyward, shedding its unwelcome boarders like a hideous black rain.

The Professor, who was sitting on the floor where he had fallen, picked up his glasses and put them on. Looking at the others with a rather sickly smile he said: "I don't think that place would suit us."

"I wouldn't exactly call it perfect," returned Tiger, with biting sarcasm.

There was one other planet, again a minor one, that deserves mention, if only because it illustrates the strange diversity of conditions that can occur on celestial bodies of the same galaxy.

The *Tavona*, with the caution demanded, had passed through a veritable archipelago of small worlds, all apparently lifeless, without landing. Most of them, with no sign of water, were sheer desert; but there was one of this group, also with practically no vegetation, that differed from the others in that from certain angles, as they passed close to it, it reflected a glitter that defied explanation. That is to say, there were places that appeared to have been sprinkled with the sort of material, representing frost, that is used to decorate Christmas trees, holly and the like, at Christmas time. The colours varied, and had a curious way of changing.

There seemed to be no reason why the ship should not land, so it went down on one of the bare areas of ground where the glitter was most conspicuous. As soon as the explorers stepped out the explanation was there under their feet. The glitter was caused by countless crystals, large and small, shaded in streaks with all the colours of the spectrum. As the Professor remarked with a smile, the place was a natural kaleidoscope. The stones, some lying loose and others half buried in rock, were, he thought, ordinary semi-precious rock crystals such as amethysts, sapphires, beryl, tourmalines, jasper and garnet, which are fairly common in certain places on Earth, notably desert areas of Australia.

When the stones were whole they might have been glass marbles, but when they had been broken, either by pressure at some period of their existence or split by alternate heat and cold, the exposed facets flashed like diamonds, emeralds and rubies. The effect was pretty, but that was about all that could be said for it. Even if the stones had been precious, in the sense that they are valuable on Earth, they would have had no use for them; for, as they all realized, to arrive home with a load of them would flood the market

and destroy the value of gems already there. The stones had obviously been produced in the same way as they are created on Earth, by the tremendous heat when the planet was newly born. The only really remarkable thing about this jeweller's shop, as Tiger called it, was the number and variety of the stones it had produced.

CHAPTER XII

THE WORLD OF GHOSTS

"It seems to me," said Tiger, "that we're getting so far from home that even if we did find the perfect planet it wouldn't be much use to us."

"Indeed, and why not?" inquired the Professor, looking at him over his spectacles.

"It would take so long to do the round trip between it and Earth that we would all have died of old age before we had transported a reasonable number of emigrants."

"Rex could carry on," averred the Professor, calmly. "For such a great and important task he should be prepared to dedicate the rest of his days to it."

Rex was not so sure of this. He did not share the Professor's enthusiasm. The truth of the matter was, he was getting a little tired of living on concentrated food, as was of course inevitable in the ship.

There was often food, or what looked like food, fruit, berries, seeds, fish and even eggs, on some of the planets on which they had landed; but these they dare not touch because they were unknown to them, and for all they knew they might be deadly poison. There was no way of putting them to the test except by practical experiment, and to this the crew of the ship, as a result of experience, was opposed. More than one voyager, Vargo said, succumbing to temptation had tried this, to become desperately ill, and on occasion had died. Nothing was safe.

Rex did once very cautiously sink his teeth into a luscious-looking fruit like a peach, only to find the juice so bitter and astringent that it nearly skinned his lips.

Joining in the conversation he agreed with his father on this matter of distance from home, pointing out that they already knew of some delightful, highly civilized worlds where he was sure visitors would be welcome—Mino, Lentos, Ando and Terromagna among others.

"They are already occupied," said the Professor shortly.

"Any planet where conditions are anything like those of Earth is almost certain to be occupied," argued Tiger. "Anyhow, that has been our experience so far."

The Professor shook his head. "Such a planet would be useless for my purpose."

"Why?"

"As I told you at the outset of this voyage, to transplant people of Earth to another planet already occupied would inevitably end in trouble."

"I don't see why it should be so."

"By the very nature of people. Each party would covet what the other had, and that eventually would lead to war. It happens now between different races on Earth. I could also think of other reasons."

"Such as?"

"You could not move people from Earth without taking with them the germs of their infectious diseases. The common cold and influenza, for example. These might prove fatal to people unaccustomed to them. You may be sure they would not thank newcomers for introducing them. That would lead to bad feeling. No. The ideal thing would be to find an unoccupied planet, large or small, with comfortable conditions, and that is what I set out to find. Then it wouldn't matter what the new arrivals did. They could only hurt themselves. But we have been over all this before."

The *Tavona* was now approaching the constellation of Ledon, the system with five suns into which the planet Zora Ten would have passed had it not been directed into the galaxy of Thenus, where it had remained.

The effect of the several suns, almost evenly distributed, could be seen from a distance, for the planets which could never know darkness shone with a gleaming whiteness never observed elsewhere. So bright was the light that to look in that direction hurt the eyes.

Where there was so much light there would also, for the same reason, be excessive heat, thought Gator, so it would be useless to continue in that

direction. It was extremely unlikely that any living thing could survive in such conditions. Certainly they themselves would not be able to endure them. They would be well advised to keep clear. Vargo supported this view.

Reluctantly the Professor agreed.

"If there are any human types in that constellation they will either be covered with hair or their skins will be as black as soot," he declared. "It would need a lot of pigmentation, even more than that of our own African negroes, to protect them from the glare of those suns. Without some protection from the ultra violet rays, we, with our white skins, would be flayed alive."

As they were about to alter course Rex noticed a faint blur of light on the extreme outer edge of the constellation. It seemed to him that it could only be a planet, and at such a distance from the centre of the system, with the light of all five suns coming from one direction, it was unlikely to be affected by heat and glare to the same extent as the others. He called attention to it.

It was unknown to Borron, the navigator. It was not on his chart of the region, therefore it had no name. He thought it could be another wanderer, like Zora Ten, a planet that had broken away from its own system or one that had a tremendous orbit, perhaps taking ages of time to complete.

"It might be worth having a look at," suggested the Professor. "The conditions there would certainly be remarkable, if not unique."

It was conceded that this might well be so, and the *Tavona* was turned towards it.

It proved to be a long trip because, rather than risk being scorched by passing between the suns, the ship had to make a wide detour round them. Eyes were on the objective all the time, and for that reason, as they approached, it was observed there was something peculiar about it. One side, the side facing them, was a blaze of light. The other side, part of which could now be seen, was in utter darkness. There was nothing strange about that, of course. It is a condition common to all planets that have only one source of light. Earth, for example, with its sun, although the darkness can be relieved by the reflected light of the moon. The queer thing about the unknown planet was this; the light and dark areas did not change places as normally they would as each hemisphere faced in turn the direction of the light. There could be only one explanation.

"That planet is not revolving," asserted the Professor. "While it may be moving bodily along a fixed track it is not turning on its axis."

“That is the answer,” agreed Vargo. “The reason is plain. The combined attraction of the five suns, with the planets that make up the system, is holding the outsider in the position in which we now see it. The same face is always turned towards the centre of attraction. Gravity has it in its grip.”

“In the same way that our moon always shows the same face to Earth,” said Rex.

“Yes. For the same reason.”

“But surely it couldn’t always have been like that?”

“No. At a much greater distance it would be free.”

“The change would be slow,” said Borron. “A planet cannot stop abruptly. If it did the consequences would be beyond imagination. The one we are looking at, as it drew nearer to the constellation and came within the influence of its tremendous gravitational attraction, would find it more and more difficult to turn, until at last there would come a time when it would be held fast, always with the same area facing its masters. That is the state in which we see it now.”

“And what would be the effect of that?” asked Rex.

“Much the same as on your moon, I imagine. It would be hot on one side and freezing cold on the other.”

“Suppose there had been a human population on the planet, what would have happened to them?”

The Professor replied. “If the people were intelligent, as their world began to slow down—”

“But how would they know that?”

“The days and nights would become longer, and the seasons more protracted. Sensible people, realizing there could be only one way to account for that, would start to move into the area where there was light and warmth. With a few rare exceptions both are essential to life.”

“Do you mean there are exceptions,” queried Rex.

“Yes. We may find the same peculiarity here, on the dark side, if Gator will be kind enough to take us there.”

“You appear to have overlooked something,” said Gator a note of warning in his voice.

“Indeed? And what is that?”

“As the planet draws nearer to the main constellation, and the magnetic influence increases, as it is bound to, the forward momentum will also increase. You realize how that is likely to end.”

“Do you mean it will eventually collide with one of the bodies in the constellation?” inquired Rex, with some anxiety.

“Not necessarily. But it might. One factor might prevent it.”

“What’s that?”

“When it is close, and the pull on it is exerted more from one side than another, it may start to spin again. It might then take up an orbit of its own within the galaxy. That is what happened in the case of Zora Ten, when it arrived in the system of Thenus.”

“We must watch to see what happens,” declared the Professor.

Vargo smiled sadly. “I doubt if that will be possible. The planet still has an astronomical distance to travel, and is likely to take more than your lifetime to reach its destiny.”

“That’s no reason why we shouldn’t go on and have a look at it.”

“Are you suggesting that we land on it?” said Gator.

“Yes. Have you any objection?”

Gator shrugged. “I am willing, if you are prepared to take the risks. You should know by now the dangers of entering conditions that are unknown to us, even when they appear to be normal. In this case, as we can see from here, the conditions are abnormal.”

“We can make our approach slowly and carefully, and at the first sign of danger turn away.”

“I have heard you say that before,” returned Gator, dryly.

“Explorers should be prepared to accept risks.”

“I have heard you say that before, too. You are not on Earth, my friend. In space disaster can happen before the danger is apparent. However, we will proceed, as you suggest, in the hope that we may have warning of trouble before it is too late.”

Silence fell. All eyes were on the planet which, for some reason that would never be known, had strayed from its own system. Interest mounted as it grew larger, or appeared to grow larger, as the *Tavona*, in free fall, its jet brakes now in action, made a cautious approach. The planet, it was agreed, was a little larger than Earth.

Another odd thing could be observed. The dividing line between light and dark, black and white, between perpetual daylight and perpetual night, was sharply defined in a manner that did not seem natural. For day and night do not meet as if they were two solids. They blend, forming a band of twilight. Here they did not merge, or if they did the belt of twilight was curiously narrow.

The reason for this was discovered by the Professor, who was using his long distance telescope. He passed on the information. By what may have been pure chance, or possibly the effect of gravity, there was a division, a dividing line, on the planet itself. It consisted of a range of precipitous mountains that rose from level ground to form a barrier which held back the light as a dam holds back water. The source of light being low, as a result of distance, one side of the mountains was in sunshine, the other, which the light could not reach, was deep night. Wherefore the girdle of twilight, if there was one at all, was very narrow.

Gator was making his approach from the sunny side, and as the ship went on the combined heat of the five suns became noticeable. Before long it was uncomfortably hot, and Gator predicted that if they held on their present course the heat was likely to become unbearable. No clouds that might filter the direct rays could be seen, but there were signs that the planet had an atmosphere, although of what this was composed could not yet be determined.

"I don't think there would be any point in going on, anyway," said Vargo. "I'm afraid, Professor, that you were mistaken when you said any human beings on the planet would have to move to the bright side. As I see it from here the sunny side has been scorched to bare ground. Sheer desert. No water. That will of course have been evaporated."

"I thought I could see some trees, some woods," said Rex.

"There were trees, forests of them, at one time," returned the Professor. "Now they are only skeletons. There isn't a blade of grass to be seen, much less a leaf on the trees. They have been parched out of existence. The heat on that barren ground must be awful. We should have expected that."

"Then that settles the question of anyone living there."

"On the side facing the suns, certainly."

"Surely it's just as unlikely that people would spend their entire lives in the dark, where it must be just as cold as the other side is hot."

"There must be a margin of twilight," put in Toby. "Some form of life might exist there."

Said Tiger: "The margin of twilight, as you call it, falls along the tops of the mountains, and even if we could reach it it probably occurs in patches, according to the height of the peaks."

"Then let us have a look at the dark side," requested the Professor. "As we are practically there we might as well."

Gator turned the ship away from the direct rays of the suns and almost at once the heat began to diminish. The moment the planet was between it and

the suns there was a big drop in temperature.

"You are going to find it very cold down there," Borron told the Professor, with a cheerful smile.

"If it is as cold as that I shall not stay very long, you may be sure."

"Then you would really like to land?" questioned Gator.

"I would like very much to see if any form of life can exist in such uncomfortable conditions. I shall not go far from the ship."

"Very well," agreed Gator. "We will try it, but if the ship becomes dangerously cold we shall have to get away quickly."

They were now well within the atmosphere and the customary tests were made. The results were not good, but they might have been worse. Gravity was high, as they knew it must be. Density and temperature were low, and humidity practically nil. The air had a high nitrogen content, with traces of helium, but Vargo thought it would support life without space suits if not taken in too great a quantity. If they experienced any difficulty in breathing they would be wise to return at once to the ship.

The *Tavona* felt its way down, very slowly. Nothing immediately below, on the dark side of the mountains, could be seen, although the peaks, outlined in silver where the light caught them, presented a startling picture—rather like the silver lining of a black thunder cloud. This ridge did give a certain amount of light, but it was negligible, and for all practical purposes they might have been dropping into a pit.

Suddenly there was a bump, and the landing legs scraped.

"That's it," said Gator. "We're down." He looked at the Professor. "I hope you enjoy the view. Are you going out?"

"Most certainly."

"The temperature is freezing."

"I shan't be outside long enough to feel it."

"Very well."

Rex was standing by the doors.

"Are you going out too?" asked Tiger.

"Just long enough to stretch my legs."

"Mind you don't get lost."

"I shall always be able to see the lighted portholes of the ship."

Rex put on the duffle coat and woollen helmet he kept for cold climates and put a torch in his pocket. The inner door was opened and he stepped into

the exit chamber, where the Professor joined him. The outer door was opened and they stepped out.

After the comparative warmth of the ship the intense cold struck Rex like a blow. He peered into the gloom. At first he could see nothing at all, but as his eyes became accustomed to the darkness he could make out a few indistinct objects.

The first thing he noticed was the ground was not bare, as he had supposed it would be. It was well covered with what seemed to be a short feathery fern. It had a curious pallid appearance which he took to be hoar frost until the torch revealed that pale grey was the actual colour of the growth. He turned to speak to the Professor about it, to find he was no longer with him, apparently having gone on alone.

Another object claimed his attention. It was a small white creature that wheeled around him in erratic flight in the manner of a bat. Another joined it, and the way they tried to keep in the beam of his torch suggested they had been attracted by the light. Anyway, as they seemed harmless Rex went on a little way.

Another object, a short distance in front, made him pause. He made it out to be a tree, or a small group of trees. But they were not ordinary trees. Not only were they a ghastly white but they seemed to shine with a faint luminosity. For a moment or two, as he walked on, he thought this might be due to the reflection of shining peaks high above him. Again, when he had nearly reached them, it was the torch that proclaimed the truth. They *were* white. They might have been sprayed with white paint. Not only were the trunks and branches white, but the leaves as well.

Knowing that this weird phenomenon would fascinate the Professor he again looked around for him. He could not see him, but presently he thought he could hear him calling from the direction of the ship, so he decided to return.

He was taking a last look at the uncanny spectacle before him when a movement caught his eyes. Impossible though it seemed one of the branches was moving. At all events he took it to be a branch. It was white, and it did not occur to him that it could be anything else. But when it dropped to the ground and came slithering towards him he realized his mistake. It was a snake. A white snake. This was too much. With a gasp of horror he spun round and made for the ship.

A few seconds later a creature like a large lizard rose up almost at his feet. It, too, was white. Hideous. But it was solid enough. Unable to stop in time he fell over it, dropping his torch. He did not wait to pick it up. Spurred

on by panic he scrambled to his feet and raced on towards the friendly lights of the porthole windows.

When he reached the ship it was to find the door shut. As he beat on it with his fists shouting "Let me in" he snatched a fearful glance over his shoulder to see a chalky object the size of a pig lumbering towards him. Then the door was opened and he literally fell inside, crying, "Shut the door."

Tiger had the rifle in his hand. "I was just coming to look for you. The Professor said—"

"Is he back?"

"Yes. There he is. He said he didn't think you'd like it out there. He didn't care much for it himself."

Rex shuddered. "It's horrible. Nothing but ghosts."

The Professor smiled. "They may look like ghosts but they have plenty of life in them."

"Have you seen all you want?" inquired Gator, from the controls.

"More than enough," declared Rex grimly.

"Then we'll be on our way." The *Tavona* began to rise.

Rex described what he had seen.

"I was prepared for something of the sort," said the Professor. "In fact, my real purpose in going out was to confirm a theory. You may remember I said I had a purpose in landing."

"You didn't tell us what it was."

"I would have done so had not someone interrupted me."

"But how could you have expected anything like that," said Tiger sceptically.

"Because there is at least one example of the same sort of thing on Earth. I have never seen it myself, but I have been told that in Malaya there is a deep cave in which, although the light of day never penetrates, there are certain forms of life, both animal and vegetable. They are all white—small reptiles, insects and even plants. This is the result of the absence of sunlight. As the spot where we landed was subject to that same condition I thought we might find a similar result, as in fact we did."

"But why should that be?" asked Rex.

"In the simplest possible terms, because it is sunlight that makes colour. The agent responsible is a substance called chlorophyll. I won't go into the chemical composition, which is extremely complicated, but chlorophyll is the green colouring matter in plants. The development of it depends on

certain conditions of temperature and light. Deprived of light plants remain white. You may recall that gardeners cover certain vegetables, such as celery, to blanch them. Actually, the function of chlorophyll is to help nourish the plant by absorbing carbon dioxide from the atmosphere. It also has the power of absorbing radiant energy from sun rays by which the chemical changes are brought about. Now you will understand why I was not surprised by what we found below. Need I say more? You follow me?"

"Er—more or less," answered Rex.

The *Tavona* continued its journey through space.

"Do you still want to go to Zora Ten?" Gator asked the Professor.

"I would very much like to see it."

"As you wish, although I doubt if it will suit your purpose. It must be our last call, for all stores are running low and it is time we went home."

Rex said nothing, but he couldn't have agreed more.

CHAPTER XIII

INTO THE UNKNOWN

THE distance to the System of Thenus, to which the mystery planet Zora Ten had attached itself, in the Minoan Third Region, was not great, and it quickly became more clearly defined.

From far away there appeared to be nothing remarkable about the constellation, a normal formation of planets set about a central sun. Some of them had one or more satellites. What offered an interesting field for speculation was that Zora Ten, in its long journey through space, must have passed through conditions in which it seemed hardly possible any form of life, animal or vegetable, could have survived. Now that it was again in a position to support life—as far as could be ascertained—had life returned, and in what form? What relics of the original population, if there had been one, remained? These, of course, were questions that could only be answered by close investigation.

The Professor agreed with Vargo, and other members of the crew with long experience, that it was extremely unlikely that the planet would be suitable for his purpose, it was really no more than curiosity that prompted the visit. This was not shared by Vargo, Gator or the old navigator Borron,

all of whom had seen so many incredible things that they had lost the faculty of surprise.

The Professor had not lost hope. “When I have found a world where men can live in peace I shall be content,” he said.

“It is doubtful if such a place exists,” replied Vargo. “It seems part of the natural order of things that every living creature must prey on something else. Many have no alternative if they are to live. Large insects prey on smaller ones. Birds prey on insects, and again, we find larger birds preying on smaller ones. Animals and reptiles prey on the birds. And so it goes on. It is a strange thought that the human type, having exterminated what you call the prehistoric monsters, must now carry on constant war against microbes, the most minute form of life.”

“I am only concerned with men—man against man,” returned the Professor. “Having succeeded in making himself master of the animal world he has developed on such lines that he will either have to curb his destructive instinct or destroy himself.”

“You are thinking particularly of Earth,” said Vargo.

“Naturally. My home planet. As Rolto is only too well aware, one of the chief preoccupations of our leading scientists and engineers is to devise ever more deadly weapons, in the absurd belief that by this means wars will be prevented. The manufacture of instruments of death will not alter man’s nature. But we have talked of this before. Let it suffice that there are many sane people on Earth who, seeing the danger they are in, would escape, if they could, before it is too late.”

Vargo resumed. “I see no reason why you should put all your eggs in one basket—to employ an expression I have sometimes heard you use. Why not put a few people on each of the several pleasant worlds we could name? As you know, the transfer of people from one world to another is not without precedent.”[11]

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[11] See *To Worlds Unknown*.

“I would prefer to put my people on a world of their own, where their fate would be in their own hands.”

“Very well,” answered Vargo. “I will say no more, except that in my opinion I think it is unlikely you will succeed in finding what you want.”

Attention was now focused on Zora Ten, and as the *Tavona* drew nearer the first fact to become apparent was that the planet was a good deal larger than had been supposed. The Professor voiced an opinion that it might have a diameter, expressed in Earthly terms, of twenty thousand miles, as compared with Earth's 7,900 miles. The next fact to emerge was that it had no satellite moons, which was unusual for a planet of such a size. (In the Solar System the planet Jupiter has eleven moons, and Saturn ten.)

From a still closer view certain behaviour of the planet gave rise to speculation and conjecture. In fact, as Rex presently remarked, everything about it seemed eccentric. Shadows, and the movement of the snow-capped Pole which they could see, showed that Zora had a high orbital velocity and a very fast period of rotation. (For comparison, Earth moves along its orbit at 18.5 miles per second, and rotates once in every twenty-four hours—one day.)

What effect this would have on the surface of the planet was a matter for surmise.

As far as having no moons was concerned, Gator said it might have had one or more when it left its own system, but would lose them, or throw them off, when it spun away into space. Strange and terrible things could happen, he asserted, when a planet changed its position, an event which was not uncommon in the Universe. Zora might also have lost its atmosphere, but the existence of a polar ice cap, which could only result from humidity, suggested that it had at least kept some.

Borron observed that Zora's inclination of equator to orbit appeared to be very high. A low albedo suggested much vegetation.

This provided further grounds for guesswork as to what the result of this would be, and the matter was still under discussion when the proximity of the objective changed the subject. Dark patches had appeared, suggesting vegetation, which everyone agreed was a good sign. For the rest, the surface appeared to be flat, with large barren areas.

"From this distance Zora reminds me somewhat of Mars, on the occasion of my first visit," said the Professor.

"The conditions we shall find may well be similar," answered Vargo. "As you now know, the surface of Mars was stripped almost clear by blast from the exploding planet Kraka. We do not know to what forces Zora has been subjected, but its change of movement would almost certainly cause winds of unimaginable velocity."

"We should soon be able to settle that," returned the Professor, cheerfully, as the *Tavona*, with its brakes in action, dropped to within a few

thousand feet of the big planet.

Rex watched. He could see no sign of movement, or smoke, to suggest a human population.

Silence fell again as everyone stared at the scene below, with the exception of Borron, who was now busy making the usual tests for atmospheric and other conditions.

"Surely that's a town I can see, and a big one, too," said Rex, after a minute or two.

"It looks to me more like a jumble of rock," replied Tiger.

"The rocks look to me more like ruined buildings," put in Toby. "I can see the remains of walls—or that's my impression."

"I'll tell you this; it's getting chilly," said Rex.

"One would expect that, at such a distance from the only sun in the system," the Professor pointed out.

"There is a fair atmosphere, thin but safe," reported Borron. "The gravity is likely to make movement an effort."

"No matter. Let us go down," requested the Professor. "There is no dearth of places where we might land. I see one quite close to the town, rocks, ruins, or whatever that area may turn out to be."

"That open space you're talking about looks to me as if at one time it might have been an airfield," observed Tiger. "Notice it is almost exactly circular. That could be natural, but it strikes me as being artificial."

"Carry on, Gator," requested the Professor. "Let us have a good look at things before we jump to wrong conclusions."

From a low altitude, sometimes only a few feet above the ground, the *Tavona* made a fairly extensive reconnaissance, but without result. The watchers saw several of the problematical heaps of rocks, which from their shape and position supported the belief that they were ruins. For the rest, the planet was covered by a dense cloak of vegetation which concealed everything except some large sheets of water. There was no indication of life, intelligent or otherwise.

"If there were people here there would be boats on the water," declared Tiger, practically. "Even the most primitive savages have always managed to make a water craft of some sort."

"True," answered the Professor. "I have a feeling that the world below us has been subject to an overwhelming disaster, or surely it would carry a thriving population. Let us go down. We may be able to discover what happened."

"If there was such a disaster it must have been a long time ago, judging from the way the forests have taken possession," returned Tiger. "What puzzles me is why nothing seems to be growing on what I thought might have been an airfield."

"We should soon be able to work out the answer to that," opined Vargo.

The *Tavona* was brought round and presently made its landing on the area under discussion. The legs scraped on something hard. Movement ceased. The doors were opened. One by one the explorers stepped out and looked about them, Rex conscious of the increased weight of his body. There was no sound. No movement. There was not a bird, an animal or an insect in sight. A breathless silence reigned.

"The place is dead," decided Toby.

"I would have been surprised had it been otherwise," replied Vargo.

"What have we landed on?" inquired Rex, scraping with the heel of his shoe. "It seems to be a queer sort of stone."

"More like concrete," said Tiger. "It's artificial, anyway. Covering the area it does it could only have been a landing ground for aircraft of some description."

"Then why is it all ridged and buckled as it is? I'd be sorry to try to land a conventional aircraft on it."

Now they were standing on it, it could be seen that what from the air had appeared to be a perfectly flat expanse, was by no means level. It had bumps, and corrugations running across it like the swell of a slight sea. This, of course, had not affected the landing of the *Tavona*, which needed no "run" to get down.

"We may find the answer over there," put in Vargo, pointing towards a certain spot on the boundary.

Tiger frowned. "What the dickens is it?"

"Let's go and look," suggested the Professor. "No need to waste time guessing."

Interest became speechless curiosity as, under a pale blue sky flecked with fleecy clouds, they drew near the place Vargo had indicated and saw more clearly what appeared to be a long, tangled mass of metal, multi-coloured with the rust of ages. Indeed, much of it was crumbling. Reaching it they stopped, staring.

"Spaceships," breathed the Professor, pushing up his glasses.

Tiger spoke. "What a mess! There must have been five or six of them involved in a wholesale crash. How could they have got piled up like this,

one on top of the other?"

"Wind," guessed Vargo. "If you're asking my opinion I would say these ships were standing here when they were hurled into the position in which we now see them by a great wind."

"If you're right it must have been the grandfather of all gales."

"It would be, if the planet suddenly changed its motion, its orbit or its rate of revolution. Whether it revolved faster or more slowly the effect would be the same. The atmosphere would either lag behind or overtake the solid ground, resulting in a wind of sufficient violence to throw everything flat. The atmosphere might even be dragged off altogether, some to be picked up again later. Try to imagine what would happen on Earth if it suddenly began to spin faster, or to slow up."

"It may in fact have done that more than once in the far distant past," stated the Professor, soberly, nodding his head. "Certainly it must have changed its angle of inclination to the sun, for how else are we to account for the glacial periods, when what are now the torrid zones became icebound, and, conversely, the vegetation at the Poles was tropical."

Borron stepped in. "This planet still has an eccentric motion. We knew from our own observations that it had moved its position from one constellation to another, and it was hard to see how that could happen without effects that could not be less than catastrophic for anyone on it. Even now Zora Ten may not have settled down in its final position."

"Then why is there no wind?" asked Rex.

"Possibly because the atmosphere is again in accord with the movement of the planet. That is to say, both are travelling at the same velocity. There may still be gales at intervals, of course, as happens elsewhere—on Earth, for instance."

"There must have been a very advanced civilization here if it had reached the Age of Spaceships," observed Tiger.

"One would expect that on a planet of this age and size."

"How frightful for the people," said Rex, gloomily. "I wonder what became of them."

"Here we are able to confirm what from Mino was only conjecture," answered Vargo. "Inevitably the entire population would be wiped out of existence. At least, it is not easy to see how anyone could have survived."

"But if they had reached the Space Age they would be skilful astronomers, in which case they might have foreseen the calamity."

“That would be even more terrible for them, knowing they were doomed. Knowledge of what was going to happen would not prevent it. These disasters occur constantly in the Universe, and clever though man may be he cannot, and never will, control the stupendous forces responsible. What happened here could happen to any of us, at any time. Our entire Solar System could disappear in a flash, and no one be any the wiser. An astronomer in a distant galaxy might see the flash, and make a note of it in his book, just as we observe such things.”

“If men would only keep that in mind they might behave differently,” said the Professor, sadly.

“Well, one thing is quite certain, Professor,” put in Tiger, cheerfully. “This is obviously not your perfect planet so we might as well be on our way.”

“We are in no hurry,” protested the Professor. “Before we leave I would like to look over the ruins of the town in the hope of learning something about the people who once lived here. It’s only a short distance.”

“As you wish,” agreed Gator. “I have looked upon similar scenes before so I will not pretend to be interested. I’ll go back to the ship and bring it closer, so that you will not have so far to walk when you have seen enough.”

“A capital idea,” agreed the Professor.

“I’ll go with Gator,” decided Borron. “I find no pleasure in looking at lost civilizations. Knowing that our own turn may come, they depress me.”

“Why should they?”

“Think of the efforts, the work, the labour, of perhaps millions of years, all ending in oblivion.”

“If you go on like that you’ll have me bursting into tears,” said Toby, with mild sarcasm.

Borron and Gator turned away towards the *Tavona*, leaving the rest of the party to proceed with their exploration of what was left of what might have been the chief city on Zora Ten.

CHAPTER XIV

A WORLD IN CONVULSIONS

On their way to the ruins the party had to pass through a belt of what, from a distance, had looked like large shrubs, but now, at close quarters, turned out to be trees. But they were not ordinary trees. No one had ever seen anything quite like them, so, naturally, they provided further grounds for speculation.

They were short, almost stunted, never more than twenty feet in height, with enormous smooth trunks. What little bark there was might have been polished. The branches were as massive in proportion, and sprang at right angles from the bole. There were no twigs and no foliage in the generally accepted sense of the word. Instead, the branches were thickly covered with stubby, pointed growths, green in colour, in the manner of the trees popularly known on Earth as "monkey-puzzles", but much stouter. Widening at the point where they joined the branch a hatchet would have been necessary to remove one.

"Now against what did these trees have to protect themselves in this curious fashion?" queried the Professor, stopping to look at one. "There must have been a reason, for nature does not work by accident."

“What does it matter. Let’s press on,” prompted Tiger impatiently. “It’s beginning to get dark.”

Rex looked around. “But this is absurd! It was only just getting light when we arrived, less than two hours ago.”

“Don’t forget the planet has a fast rate of rotation,” reminded the Professor.

“It would have to fairly buzz round to give a day of only two hours,” expostulated Rex.

“Agreed. But that is not to say it’s impossible. As I have said often enough, and as you yourself should have realized by now, in the millions of worlds that comprise what we call the Universe nothing is impossible. But let us look at the ruins while there is still enough light to see.”

They hurried on, and were soon standing at the edge of what might best be described as a sea of ruins, a chaos of blocks of stone and pillars of different sizes piled up in fantastic confusion. Not a single building, or even a part of a building, had been left standing. Yet here, beyond all doubt, had once stood a noble city.

Rex climbed on to a mighty block of granite the better to survey the scene, and as his eyes roamed over it, what he saw left him aghast. When he tried to visualize what the place had once looked like it seemed impossible that anything less than a tremendous earthquake could have caused such havoc. One thing was evident. There could be no question of excavating in a search for relics of the lost civilization. Most of the blocks of building material, nearly all of which had remained whole, weighed anything from five to fifty tons. Some were poised precariously, tilted at all sorts of angles, one upon another. Here and there a fluted column projected. Between some of the blocks, too, there were gaps which would obviously make exploration a perilous enterprise.

“Don’t ask me to believe that wind alone, any sort of wind, could do this,” remarked Tiger.

“The people who lived here must have been giants to build on such a scale,” asserted Toby. “I swear some of these blocks of stone must weigh nearly a hundred tons.”

“It would need the biggest crane we have on Earth to move them, so that we could see what’s underneath,” declared Tiger. “A bulldozer wouldn’t be much use here.”

“It doesn’t necessarily follow that the people must have been giants,” argued the Professor. “What about the pyramids and temples of ancient Egypt, or the great walls of the Inca civilization in Central America? The

men who built those were ordinary men like ourselves, although admittedly there were plenty of them."

"Well, what are you going to do?" asked Tiger. "We shan't learn much here."

"I'm afraid I must agree with you," returned the Professor. "How very disappointing."

"It may have been a perfect planet at one time, but one could hardly say that for it now."

Toby chipped in. "I doubt if we'd find anything here even if we started burrowing. Everything under this mess must be as flat as a pancake. That goes for the skeletons of the unlucky people who lost their lives."

Said Tiger, who had joined Rex on his stone for a better view: "I may be mistaken, but judging from the way some of these stones have weathered they have had a shake-up quite recently."

"Let us go on a little way," said the Professor. "One never knows what one might find," he added, hopefully.

"As you say, one never knows," agreed Vargo, meaningly.

Rex knew what he meant. So apparently did the Professor, for he rejoined: "I can't imagine anything here that we need fear, my dear fellow."

"One never can," retorted Vargo, dryly.

Stepping from stone to stone, sometimes with difficulty and not without the risk of a nasty fall, they penetrated a little way into the ruins. The Professor stopped when it became clear they had no hope whatever of learning what was under the enormous rubble. "What a pathetic spectacle," he said heavily. "It is bad enough to think this can happen by accident, but even worse that men themselves, with the dreadful weapons at their command, could produce a similar catastrophe."

It was Rex who, at this juncture, pointed out that darkness was closing in on them at a speed which advised an immediate return to the ship. The wisdom of this was so obvious that no one disputed it, and forthwith they started on their way back.

Although as the day had been of such short duration an equally brief night was to be expected, darkness fell so quickly that, for the first time, Rex experienced a twinge of anxiety. Progress was unavoidably slow, and it was soon evident that nightfall would beat them to the ship. It did. Indeed, they were still not clear of the ruins.

It was the quality of the darkness, which is only a relative term, that shook Rex. It can be dark, yet still light enough to see for a short distance.

Here the darkness was absolute; a complete absence of light; the sort of darkness which usually is only to be found in the deepest recesses of a cave. Rex had never known anything like it, and he realized what it must be like to be blind. So this, he thought, was what darkness would be like on a planet that had no satellite moon, and only a few stars too far distant to afford relief. He picked on one intending to use it as a guide, only to discover, to his consternation, that it was moving. Not literally, of course. He knew it was the planet he was standing on that was moving, revolving at what could only be fantastic speed.

He stopped, feeling sure they would not be able to go on.

Apparently Tiger thought otherwise, for with a sharp note of urgency in his voice he shouted: "Keep together! If anyone falls, cry out, and the rest will stop."

"Did no one think to bring a torch?" came the Professor's voice, from somewhere in the shroud that had enveloped them.

It turned out that no one had a torch.

"We had better stay where we are," advised Toby. "It will only be for two or three hours. If we try to go on, in this unaccustomed gravity we shall break our necks."

Somewhere in the darkness a matchbox rattled. "I have about half a dozen matches," informed Tiger.

"You could use them to light something," said the Professor.

"He could if he could find anything to light," put in Vargo, grimly. "I agree with the Doctor. It would be better to remain where we are."

"If we could only get off these stones it wouldn't be too bad," said Rex, desperately. "We should be able to see the lights of the ship through the trees."

There was some argument about this. It was brought to a stop by a long low rumble.

"Thunder!" exclaimed the Professor. "We're going to have a storm. That should settle any argument about trying to go on."

Rex knew better. He had felt the stone on which he was standing quiver, and tilt slightly, as if it had been struck from below. "That wasn't thunder. It's an earthquake," he cried, in a voice pitched high with fear.

As if in confirmation from somewhere in the ruins came the crash of a falling stone.

"We must press on," said Tiger crisply. "At least we must get clear of the ruins or we've had it. Follow me when I strike a match."

“Wait!” rapped out Rex. “Strike a match to show me where you are so that I can give you my notebook. By lighting the pages one at a time you could make each match last longer.”

A match flared, giving a light which in the utter darkness was almost blinding. Rex stepped across the gap which separated his stone from the one on which his father was now standing. He was just in time. Something that sounded like an express train passed below them and the stone he had a moment earlier vacated fell over sideways. With a thrill of horror he realized that had he still been on it he must have been crushed to death.

He thrust his notebook into Tiger’s hand as the match burnt itself out. “Go on,” he pleaded.

The notebook was a great help, for although Tiger had to stop frequently to light another page it prolonged the life of each match so that they were able to make some progress.

The noise of the subterranean upheaval was repeated, and again came the crash and rumble of the displaced blocks of stone. There was no longer any doubt as to what had brought the buildings to ruin. The ground shook, and Rex’s great fear was that a stone should be thrown against another while he was on it. The whole business was no longer real. It had become a nightmare.

“Are you sure you’re going in the right direction?” Toby asked Tiger, as they stopped while he was lighting another match.

“I can only hope so,” answered Tiger, non-committally.

They went on, the heavy gravity dragging at their legs. In the darkness it seemed to be more pronounced than it had been in the light of day. Rex was also aware that the thin air had become bitterly cold; but this was a minor discomfort. Much worse was the difficulty he was having in supplying his lungs with sufficient oxygen, probably as a result of his exertions.

Haste to get clear of the ruins was vital, yet the greatest care had to be taken at each step to prevent a fall. This often meant stepping across a gap, and the fact that the stones were not always steady did nothing to make the operation easier. Tiger, leading the way, had to stop at such places to see the others safely across, and it was obvious that without his meagre supply of matches their case would have been hopeless.

Stopping sometimes to get together they struggled on until, to the relief of everyone, Tiger shouted that he thought the open ground was just ahead. Breathless, they managed to reach it just as the last match expired.

“You can thank your lucky stars I’m a smoker, or I wouldn’t have had those matches on me,” bantered Tiger, speaking to the Professor.

“I will never again complain about your pipe,” promised the Professor, nearly falling, but recovering himself as the ground seemed to lurch under their feet. “Let us continue. We should be able to grope our way through the trees.”

They went on, feeling their way like blind men in unaccustomed surroundings; but even now they had reason for fear, the ground being constantly shaken by tremors. There is perhaps nothing more terrifying than this, and Rex prayed for a sight of the lights of the ship through the trees. In spite of all the precautions he could take by groping with outstretched arms he more than once bumped into a tree.

“After this,” said Vargo, “I think I shall let you gentlemen do your exploring alone.”

“Where’s the ship?” muttered Tiger. “We should be able to see the lights.”

“In view of what’s happening it may have taken off,” said Toby. “And I wouldn’t blame Gator if he had.”

“He would not go without us,” said Vargo confidently.

“Then why can’t we see the lights?”

“Gator said he would move it, bring it nearer,” reminded Rex.

“No doubt he did. We may not have come out at the right place. After all, we don’t know exactly where we are.”

“I did my best, but it was impossible to keep a straight line in those ruins,” said Tiger. “Once we’re clear of the trees we should be able to see the ship.”

A moment later it seemed to Rex that the Universe was conspiring against them, for a gust of wind nearly bowled him over.

“So now we’re going to have a hurricane,” growled Tiger. “That isn’t going to make life any easier. Talk about finding the perfect planet! Each one we try seems to be worse than the last. I’m beginning to agree with Vargo. There’s no such thing as a perfect planet.”

The last few words were snatched from Tiger’s lips as the full force of a gale of wind struck them.

With the air howling around them and the ground rocking under their feet Rex could not have agreed more. If, he told himself, if he was lucky enough to escape from this demented world he would think twice before he landed on another. At this moment Earth, good old Earth, for all its drawbacks, seemed to be near to paradise.

Colliding with trees and bumping into each other, calling constantly in order to keep in touch, they blundered on until Tiger said he thought they were clear of the timber. This, he admitted, was only because he hadn't felt a tree for a minute or two. It was impossible to see anything, even a silhouette against the sky.

The velocity of the wind was all the while increasing, and it was with a sinking feeling in the stomach that Rex remembered the fate of the crashed and rusting spaceships piled up on the edge of the landing ground. This was no longer a mystery, and if the wind became worse it seemed not unlikely that the *Tavona* would join them. It might already have done so, for he could still see no lights. Had they come out at the right place? He didn't know, and there was no way of finding out.

He was finding it difficult to keep on his feet. The ground continued to rock at intervals. He had read of earthquakes opening cracks in the ground, and the fear that he might fall into one, unseen in the inky blackness, provided yet another horror. The bumps and corrugations, over which he sometimes stumbled, were also explained, and he wondered why he hadn't thought of a solution so obvious. They could only have been the work of an earthquake. No wonder the trees had developed as they had. An ordinary tree would have no chance at all.

Luckily the raging wind came from behind, pushing him forward, so that he had to lean back on it to keep on his feet. He realized dimly that had it been in their faces they would not have been able to advance against it. The noise was indescribable, and it became increasingly difficult to make themselves heard, and this was the only way they could keep together. The air was full of dust. Not only dust but more solid debris. This, travelling on the wind and striking him on the back, stung, even through his clothes.

He bumped into someone, and hung on, who turned out to be Tiger. "Where's the ship?" he yelled.

"Don't know. Stand still. Let's get together." Tiger shouted until the others came up, and there they stood in a huddle for some minutes, helpless. No one had a suggestion to offer. It seemed useless to go on, for had the *Tavona* been there they must have seen it.

At the end it was the ship that came to them. Its lights, blurred by flying dust, appeared suddenly, as if it had come round the corner of the wood. They were moving, making it clear the ship was airborne, although from their height only just off the ground. They dropped a little and stopped not far away, as if the ship had landed. Was Gator, too, in difficulties? thought Rex.

“Steady! Link hands,” shouted Tiger, as there was a general rush towards the lights. On reaching them all they could do was show themselves at the windows; but those inside were on the watch and they were seen instantly. Then, as it would have been impossible to open the doors in the face of the wind, they had to claw their way to the leeward side in order to get in. Once they were inside Gator did not wait for orders to depart.

It was some minutes before anyone spoke. All were content to lie on the floor until the pressure had eased. Then they sat up and looked at each other ruefully.

“Well, did you discover anything of interest?” inquired Gator, with a hint of sarcasm, when they had recovered sufficiently to take their usual seats.

“Enough to show me that Zora Ten was not the sort of planet I was looking for,” answered the Professor. “It is a world in convulsions. I thought we were done for. Where did you go?”

“I brought the ship nearer to the wood, as I promised; but when the ground began to bounce us about I had to rise above it to prevent damage. Then came the wind, which blew us away. In the darkness we could not see you and realized you would have difficulty in finding us. I took the ship a little higher for a wider view in case you were able to show a light. We saw one, the only light in a world of darkness. That is what guided us back to you. You must have had an uncomfortable few minutes.”

“It was a lot worse than uncomfortable,” declared Rex with feeling. “I was never so terrified.”

“Well, you will do these things.”

“Where are you making for now?” asked the Professor.

“Home,” returned Gator, curtly. “And I refuse to stop anywhere on the way. I shall go first to Mino to refit, and then take you straight on to Earth.”

“I promise not to argue about that,” said the Professor, contritely. “One can have too much of a good thing.”

The others agreed.

“Instead of pursuing this difficult quest why not bring your emigrants to Mars?” suggested Gator, when the ship had run clear of atmospheric disturbances. “There would be plenty of room even if all the original Martians, now living on the planetoids, returned; for as you know, the only survivors of the Great Catastrophe were those who were visiting other planets at the time. We have of course increased in numbers since then, but it will be centuries before Mars is once more fully occupied.”

“It may be worth considering,” conceded the Professor.

“Immigrants are badly needed to complete the work of restoration,” stated Borron. “Mars also has this advantage,” he went on. “It is so close to Earth, a next door neighbour in fact, that transportation would be a much more simple matter than it would be should you decide on a planet in one of the outer Regions. Your people could, if they wished, return to Earth occasionally to see their friends.”

“That would mean the exposure of space travel.”

“Why not? It is bound to come, and in the not very distant future. You are very close to it.”

“I will think about it,” concluded the Professor.

The good ship *Tavona* sped on through the great void towards its own Solar System.

TRANSCRIBER NOTES

Misspelled words and printer errors have been corrected. Where multiple spellings occur, majority use has been employed.

Punctuation has been maintained except where obvious printer errors occur.

Illustrations by Leslie Stead. Some illustrations were moved to facilitate page layout.

[The end of *The Quest for the Perfect Planet—A Story of Interplanetary Exploration* by Capt. W. E. (William Earl) Johns.]