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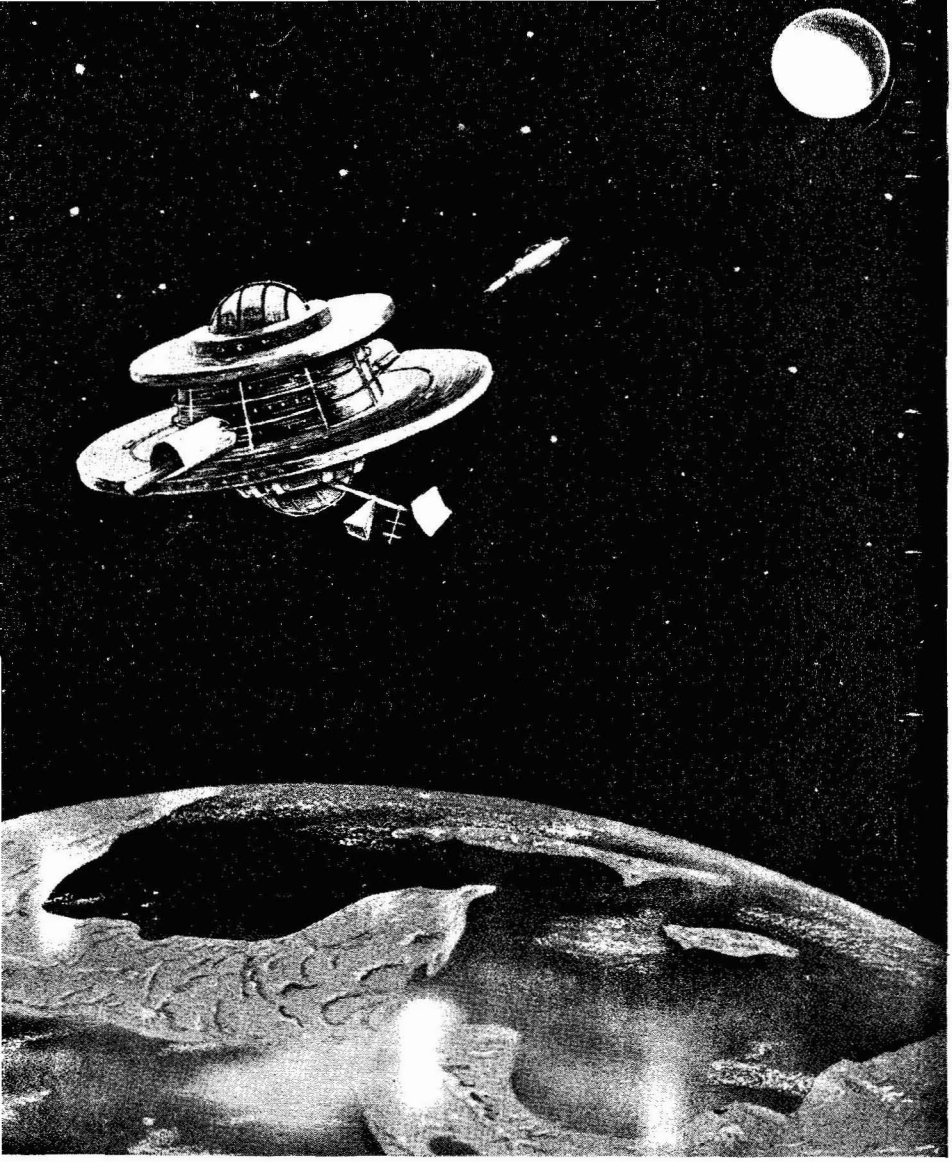
WORLDS of SCIENCE FICTION

NOVEMBER 1952 • 35 CENTS

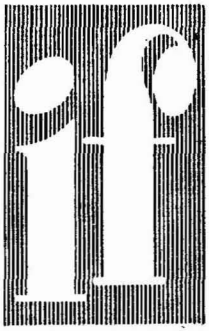
THE IMAGE AND THE LIKENESS

By John Scott Campbell



Hayden Planetarium

ROCKET-LAUNCHING SATELLITE as conceived and presented in "Rocket to the Moon", a space-travel show, at the Hayden Planetarium in New York. Notice that this giant space satellite is spool-like, not wheel-like, and that the receiving and launching points are a continuous tunnel through the middle of the "spool", with observation domes above and below. A lunar ship is now on its way to the moon. For its approach, see third cover.



WORLDS of SCIENCE FICTION

NOVEMBER 1952

All Stories New and Complete

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NOVEL

NOVELETTE

SHORT STORIES

FEATURES

COVER PICTORIAL: Trip to the moon

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A CHAT WITH THE EDITOR

I THINK *homo sapiens* is getting entirely too big for his hat band and that he's due for a long ride, downward very shortly. By very shortly, I don't mean today or tomorrow necessarily. I'm speaking in relation to the long-time cycle in which *shortly* could be fifty or even a hundred years.

But first, do you give two hoots what I think? Well, thank you—thank you very much. Now pull up a chair and I'll go into detail.

Let's take a look, first, at the present-day picture. What do we see? We see Man—who only yesterday, in terms of the historic cycle, learned the startling fact that diseases are caused by little beasties called germs — talking blandly about putting a platform out in space, hopping from there to the moon, and from there to heaven knows where. Man who, a scant five hundred years ago, would take off his jacket and fight you if you told him the world is round.

MOVE up further, and what do we see—vast new knowledge, stupendous scientific progress, most of which has been achieved in the last hundred years. And I think you'll agree that one hundred years, when stacked up against the life and death span of worlds, nay, even empires, is a short time indeed.

What am I getting at? Just this —it has happened too quickly; this progress has come far too fast. One of the basic laws of nature, is that of action and reaction. I saw this law function most perceptibly during the years I made my living as a speculator in the Chicago grain markets. There, you understood the law and functioned in rhythm with it, or you lost all your money and stopped eating. Check any old grain chart and you'll see what I mean. Say that wheat is priced at one dollar a bushel and that the situation justifies its going to three dollars. It doesn't just walk up there overnight. In covering the distance from one dollar to three, the price of wheat goes up and comes back, rams up again, and falls away. Always going higher than it went before and never falling as low as the point from which it started, but conforming, all the way up, to the law of action and reaction, until it arrives at its ultimate price. And, even there, we find the prices as being nothing more than a stopping point in a greater cycle. The prices of living

are an example—a halt or decline here and there, but ever higher through the years.

THIS law underlies almost every visual or abstract interpretation of motion. Rise and fall. Action and reaction. Even in human endeavor, it is apparent. A man begins building a career. That career is made up of a series of successes and failures. It could be charted on a graph as a zigzag line of advances and recessions, but never as a straight line from the bottom to the top.

So, applying the law to current history, we have a graph representing technical, economic, in fact *general* world advancement ramming straight up in a line from 1900 to 1950—a line almost vertical. Any experienced grain speculator would take one look at that line and sell everything but the clothes on his back. Of course his timing could be wrong. No man alive can pick a top and say with authority, *this is it.* Many of them have gone broke trying. But they know the danger signals, and to my way of thinking—I could be very wrong—the signals are flying.

IN OTHER words, we've gone too far too fast and the law of action and reaction has not been repealed. I realize I'm putting myself in the same category as those who started calling the 1929 crash in 1927. They missed a mile, but in the end they were right because they refused to disregard the inexorable law.

I'll probably be accused of shouting gloom from the house tops, but a man has to be honest in his convictions and these are mine.

I think, without being accused of crackpotism, we have a perfect right to view human progress over the broadest area of which we are capable. These cycles certainly go far, far behind our recorded history. Therefore, who can say what peaks of great human progress lie buried in voiceless antiquity. Who can say what knowledge has been gained and lost only to be gained again?

I THINK we have a right to say this, however. That right now, we are at the very peak of all human progress on this planet. But how about the next recession? When it comes, and what form it will take no man can say. Maybe those platforms *will* be built in our life-span; or in that of our children; or our children's children. Or perhaps they will be built by those who must remain unborn for another five thousand years.

Anyhow, it's an interesting field for cogitation. And certainly, no one can call me a Pollyanna.

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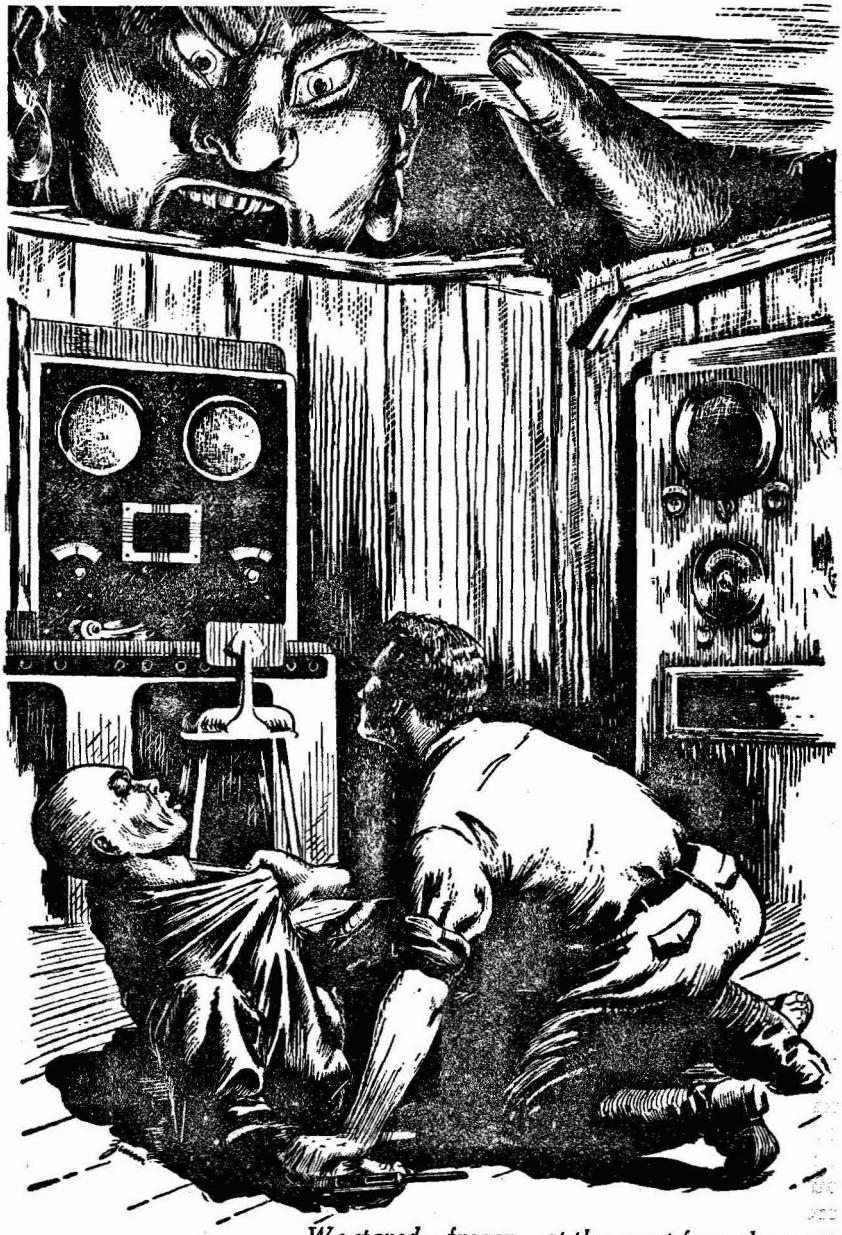


We stared—frozen—at the great face above us.

Up from the horror of Hiroshima came a god. He gave the people hope and for this they killed him—as they have always killed their gods.

THE IMAGE and THE LIKENESS

By John Scott Campbell

SHANGHAI had changed. We sensed that the moment we came ashore. Extraterritoriality was long gone; we had known that, of course. The days of exploitation, of clubs where Chinese and Burmese and Indian servants waited on Britons and Americans were passed. Pan-Asia had seen to that. This was 1965. The white man's burden in the east had been upon brown and yellow shoulders for over sixteen years now, and the Indians and Burmese and Indonesians were ruling themselves, after their fling at communism in the fifties.

The initial bitterness which followed the debacle of 1955 had passed, we were glad to see. Porters no longer spat in the faces of white men. They were polite, but we had not been in the city a half hour before we sensed something else. There was an edge to that politeness. It was as Major Reid had written before we left San Fran-

cisco—a subtle change had come over Asia in the previous few years. They smiled—they waited on us—they bent over backwards to atone for the excesses of the first years of freedom from foreign rule; but through it all was an air of aloofness, of superior knowledge.

Baker put it in his typically blunt British way.

"The blighters have something up their sleeves, all right. The whole crew of them. Did you notice that rickshaw boy? When I said to take us to the hotel, he answered 'Yes, today I take you'. The Major was right—there's something in the wind, and its damned serious."

We were sitting, surrounded by our luggage, in our suite at the New China Hotel. There were four of us: Llewelyn Baker, Walter Chamberlin, Robert Martin, and myself, William Cady. Baker and Martin were anthropologists, and old China hands as well. Chamberlin was a geologist, and I claimed knowledge of zoology. We were here ostensibly as a scientific expedition, and had permission from the Republic of East Asia to do some work on Celebese man, following up the discoveries by Rance of bones and artifacts on that East Indian island in 1961.

We had another reason for coming at this particular time, although this was not mentioned to the authorities. Our real objective was to find out certain things about New Buddhism, the violently nationalistic religion which was sweeping Pan-Asia.

New Buddhism was more than a religion. It was a motivating force of such power that men like Major Reid at the American Embassy were frankly worried, and had communicated their fears to their home governments. The Pan-Asia movement had, at first, been understandable. At first it had been nationalism, pure and simple. The Asiatics were tired of exploitation and western bungling, and wanted to rule themselves. During the communist honeymoon in the early fifties, it was partly underground and partly taken over by the Reds for their own purposes. But through everything it retained a character of its own, and after '55 it reappeared as a growing force which was purely oriental. Or at least so it seemed. Our job was, among other things, to find out if Russian control was really destroyed.

We had already made several observations. The most obvious was the number of priests. Yellow robed Buddhist priests had always been common, begging rice and coppers in the streets, but in 1955 a new kind appeared. He was younger than his predecessors, and was usually an ex-soldier. And his technique was different. He was a salesman. "Rice—rice for Buddha," he would say. "Rice for the Living Buddha, to give him strength. Rice for the Great One, that he may grow mighty. Rice for the strength to cast off our bonds."

And they had organization. This wasn't any hit or miss revival, started by a crackpot, or by some schemer for his own enrichment. There was direction back of it, and very good direction too. We sensed that it had been Japanese, at least

at the start, but with the end of the occupation, we could no longer barge in and investigate officially. Now there were treaties to respect, and diplomatic procedure and all that sort of thing.

Instead, we were here to spy. Unofficially, of course. The ambassador was very explicit on that point. We were strictly on our own. If we were caught, there could be no protection. So here we were. Four scientists investigating Celebese man, and trying to find out, on the side, just what was back of New Buddhism.

We washed up, had dinner, and presently, as we had expected, Major Reid called. After a few jocular references to anthropology, for the benefit of the waiter, he got down to business.

"I'll have to be brief," he said, "because I can't spend too much time with you without stirring up suspicion. You all know the background. They claim that this business is simply a new religion, a revival of Buddhism modeled to fit new conditions. President Tung claims that there is no connection between it and the state. We think differently. We have reason to believe that the direction back of this movement is communism, and that its ultimate object is military attack on the western world. What we don't know is the nature of the proposed attack. Some of us suspect that they are making H-bombs, and have covered up so that we cannot spot them. That's what we must find out.

"The headquarters of New Buddhism is on a small volcanic island called Yat, off the east coast of Celebes. Your job is to reach that island and find out what's going on, and then bring the information back. Clear?"

We nodded. We had received a similar briefing in Washington, and from a far more distinguished personage than Major Reid, but we felt no need of mentioning this. In such a business, gratuitous information, even to friends, serves no useful end.

OUR INFORMANT in Washington had told us a good many other things, too. In the name of New Buddhism, the priests had been collecting immense quantities of supplies, and on an increasing scale. Tons of foodstuffs had been gathered and then shipped off to an unknown destination. Machinery, lumber, structural steel, canvas by the thousands of yards had been purchased, loaded onto ships and barges, and spirited away. It appeared that the New Buddhists were maintaining a standing army, or perhaps a labor force somewhere east of Borneo, but the picture was very incomplete.

Part of the failure of ordinary methods of intelligence may have been due to the supersecrecy of the New Buddhists themselves. It was not difficult to corrupt priests on the lower levels, but all they knew was that certain quotas of food and materials were set for their territory, which were then shipped away to Borneo.

The big break had come only a few months ago. One of the OSS

men got through to a barge captain, who had been to the headquarters itself. He identified the location as an island a few miles off the northeast coast of Celebes. It was, he said, highly mountainous—in fact he believed it to be an extinct volcano, with a water filled crater reached only by a narrow passage from the sea. Boats, he said, could go in and out, but his barge was not among those permitted. He delivered his cargo, three thousand tons of rice and five thousand raw hides, and was then sent on his way. Under questioning, he said that there were many people living on the island—thousands at least. Most of them lived in barracks among the trees fronting the ocean, but some had special privileges and were allowed to go to the top of the crater rim.

Of the activities within the crater our informant knew nothing. At night the clouds were often lit by reflections from there, and once he had heard noises, accompanied by a distinct shaking of the earth, as though blasting were being done at a great depth.

This was the extent of our knowledge. We knew the location, but it was up to us to find out the rest.

Our departure from Shanghai for the great island of Celebes involved the usual exasperation of delay and red tape. The American Embassy did everything possible to expedite matters, and brought a little pressure to bear, I think, on the strength of the then impending American Sixth Loan to China. In any case we were at last cleared, and boarded the plane for Celebes.

We took one of the six place compartments on the upper deck, and presently had company in the form of two yellow-clad New Buddhist priests. Baker, who had the best command of Chinese, engaged them in conversation.

As we had expected, they were very willing to talk, and displayed a lively interest in Celebes man. That they were here to watch us was obvious. Baker bided his time, and then switched the conversation to New Buddhism. On this subject too the priests were anything but reticent. They described with enthusiasm the great spiritual renaissance that was sweeping all Asia "like a wind, the breath of life from the Living Buddha." Baker asked a few questions about the Buddha, since to show no curiosity about such a life subject might excite suspicion. The priests were ready for them, and gave what was evidently the stock answer: the Living Buddha was the very incarnation of Gautama himself, a spiritual leader who was being groomed to take over the guidance of all mankind, in east and west alike.

"Where does the Great One live?" asked Baker, alert for a trap.

"In Celebes, where you are going," was the reply.

"Oh," said Baker innocently, "Then perhaps it could be arranged for us to meet him?"

This, explained the priest, was quite impossible. In due time Buddha would display himself for the world to see and marvel over; meanwhile, while his preparation

was yet incomplete, he must remain in seclusion.

By now convinced that the presence of the priests was no accident, Baker settled down to the sort of verbal sparring match that he enjoyed. He had been speaking in the Cantonese dialect, but now he abruptly switched to English.

"You know," he remarked, "you fellows are using an amazing amount of material at your headquarters. Enough food to keep a good sized standing army."

The two priests, who had professed ignorance of English at the start of the conversation, stiffened visibly. Baker returned to Chinese.

The priests recovered their composure with some effort. The older replied suavely, "Gossip is a creative art. There is a large monastery at our central temple, and much is needed to maintain its activities."

"Truth," said Baker pontifically, "is usually disappointing. The imagination changes a mud hut to a palace, and a sickly priest to a demigod."

The two priests inclined their heads slightly at this. We watched their expressions. If Baker's purposely provoking language brought a reaction, it was not visible. But we had learned one thing: they spoke English but preferred that we did not know it.

OUR ARRIVAL at New Macassar, the Indonesian capital of Celebes, was attended by the usual confusion and delay. Our Buddhist friends vanished with a speed which suggested special consideration, while the man from the American Consulate was still getting our equipment through customs.

This business at length completed, we were escorted to a taxi by the attache and whisked up one of the wide avenues of the city without a question as to where we were to stay. Baker and Martin stared out the window with studied ease—they knew that something was up, but were content to await further developments. Now I noticed something else. The driver of our cab was a European, not a native. I started to frame a question, when, without warning, the car ducked into a side street, swung around two corners and abruptly entered an open doorway in a tall stucco building. Both Walt and I were half out of our seats in alarm, when our guide spoke.

"The American Consulate, gentlemen," he said, with the slightest trace of a diplomatic smile.

The cab had stopped in the ground floor garage of the consulate, and opening the door was the consul himself.

"Good morning, I'm Stimson. Hope Avery didn't give you too wild a ride, but I thought it best not to advertise my interest in you at the front door. Things have changed a bit in the last few days. Well, Avery will show you to your rooms. I'll be in the upstairs study when you're freshened up."

There was little to speculate on as we shaved and changed to less rumpled clothes, but we worked over the available data for what it was worth.

"Consul takes us in tow," remarked Chamberlin. "That isn't in line with the unofficial status so strongly impressed on us at Washington."

"And sneaking us in through the back door isn't according to best diplomatic form, either. Stimson wants to protect us from something, but obviously doesn't want the local constabulary to know." This from Martin.

"It seems to me," I ventured, "that they could check the hotels. It shouldn't take them long to put two and two together when we don't show. I'm blessed if I can see what Stimson has to gain from this maneuver."

Baker turned from the mirror where he had been adjusting his tie. "Suppose we ask him," he commented.

The consul was waiting for us in his study. After the briefest greeting which his official position permitted, he got down to business.

"Gentlemen, I've had to pull a diplomatic boner of the first magnitude. I refer to the cloak and dagger method of getting you here. But believe me, it was the only way. They're onto your scheme. If you went to a hotel in New Macassar, you wouldn't be alive tomorrow morning."

"But, the taxi—" began Martin.

"It gave us a few hours. If I had sent the consulate car, they'd have us sealed off tight right now. I could keep you safe here, or get you on the Shanghai plane, but you couldn't make another move. As it is, we have perhaps two hours—with luck."

The consul settled back in his chair, evidently gathering his thoughts. We waited, more mystified than before, if that were possible. At length Stimson started again.

"You're well briefed on the general situation. Reid gave me the gist of his conversation. But there are some other things that even Reid doesn't know." He opened a folding blotter on his desk and drew out an eight by ten photographic print.

"You're aware of the efforts that have been made to look into the crater on Yat. To date we have not succeeded in getting an eye witness to the rim. We have flown over Yat, of course, and have taken pictures from every altitude from 5,000 to 70,000 feet, but so far they have outsmarted us. They have smoke generators all around the rim, which they fire up night and day whenever the natural clouds lift. We've used every color, including infra red. We've taken stereo pairs, and flash shots at night, but, with one exception, all we've ever gotten are beautiful pictures of clouds and smoke. The exception I have here. It was taken two weeks ago, during a brief break in a heavy storm. Before I say anything more, I'd like to have you look at it and form your own opinions."

He placed the print on the desk, facing us, and leaned back while we four crowded around. My first glimpse was disappointing. Fully two thirds of the picture was occupied by clouds. But gradually I made out the details. There seemed

to be several buildings of uncertain size in the lower part, and a fringe of brush extending up to the left. Half visible through the mist were several structures which seemed to me, in comparison to the larger buildings, like chicken houses or perhaps rabbit hutches. No humans were in sight, evidently because of the storm. But in the center of the picture was the thing which fixed our attention from the first, leaving the other details for later scrutiny. This was an immense human figure, lying on its side with the head pillowed on its hands in the attitude of the colossal figures of the reclining Buddha found in the mountains of China. The body was partly covered by a robe, but whether this was part of the figure or a canvas protection against the rain, was difficult to tell. Only the head, hands and feet showed. The face was partly in shadow, but enough could be seen to identify the typical Buddha countenance: closed eyes and lips curled in an enigmatic smile.

WE STARED at this peculiar picture for a good minute, taking in the details, while Stimson watched us. Then Baker looked up.

"What is it?" he asked.

"Before I tell you our guesses," replied the consul, "I'd like to hear your reactions."

"It would appear that the New Buddhists are doing the obvious—setting up a Buddhist temple. Although, except for the statue, you'd never guess it." This from Chamberlin.

Martin squinted closely at the print. "Yes, the buildings look more like airship hangars than a temple."

Stimson raised his eyebrows slightly. "That's an interesting observation," he commented.

"Wish there were some humans, or something else to give a scale," said Baker. "For all we can tell, it could be anything from doll houses and a life sized statue, all the way up to an air base, and a reclining Buddha to end all reclining Buddhas."

There was an expectant pause. Stimson, seeing that we had nothing more to add, cleared his throat, glanced briefly out of the window behind his chair, and hunched forward.

"This picture was made from an F-180A, modified for photo reconnaissance. The plane was on a routine flight from Singapore to Mindanao, over a solid deck of clouds. The pilot swung south over Yat just out of curiosity. He approached the island at 50,000 feet, using radar, and was about to pass over when he spotted a hole in the overcast. Time was 1800—just sunset—but the edge of the crater was well lighted, although the bottom was in deep shadow. More important, the smoke generators had been turned off. Obviously the clouds had just parted, and would close in again in a minute. The presence of the F-180A at this particular instant was just one of those one in a million lucky breaks. The pilot realized this. He put the ship into a dive and ordered his photographer to ready the cameras.

"The plane approached Yat at

a speed above Mach 1.2, so there was no audible warning, and evidently the island's radar was off, for the surprise was complete. Within 90 seconds the F-180A closed level just over the crater and shot past with only a thin stratus layer between it and ground. Time over the crater was hardly 10 seconds, and neither pilot nor observer saw anything, but the synchronous vertical camera was operating and four flashes were made during the middle four seconds. Then the plane was in the clouds again at a 45 degree climb and a dozen miles towards the Philippines before anyone on Yat could even get outdoors.

"As might be expected there was a considerable protest over this violation of Celebese territory, although oddly, it was based on moral grounds rather than national integrity. The protest was signed by the Lama of Macassar, and demanded neither indemnity nor punishment of the pilot, but asked merely that incense be burned in Washington to appease Buddha. Now of course the Lama isn't that naive, or devout. As you may know, Phobat Rau was educated at Harvard and CIT, and is a thoroughly trained and tough statesman who knows his way around anywhere, and doesn't believe the theological hogwash in Pan-Buddhism any more than I do. So it was a question of getting behind his motives. Of course, it could be a cover, but our final guess was that the protest was really made for the benefit of the faithful in Asia. This opinion was strengthened, at least as far as I am concerned, about a fortnight ago when Rau attended the British Embassy reception for Lord Hayes. He didn't avoid me, but actually seemed to single me out as a foil for some of his witty small talk. Asked if I was much of a student of Buddhist architecture and carvings, and if I had seen the Kyoto Buddha, or the reclining Buddha on the Yangtze. He was fishing, of course, but I played it dumb, and presently he gave up.

"Well, there you have it, at least as far as the picture is concerned. The Buddhists were considerably upset, for they tightened up security all over the islands. And then you came into the scene. Naturally nobody believed that you were just after Celebese man, but the governor granted permission—so easily, in fact, that we got suspicious. Americans are no match for oriental subtlety, but we do have a few tricks, one of whom is a code clerk in the Macassar foreign office, and from her we learned that you were set for the preferred treatment: to be let in easily, and then knocked off in some painless way. Hence the taxi, and the sneak ride here."

He paused. "That's the situation to date, gentlemen. Any questions?"

Martin had been studying the photograph. "At what altitude was this taken?"

The consul shook his head. "The autorecorder was off. The observer forgot to set it, in the rush."

"Well, couldn't they estimate?"

"They did, but it's obviously way off. The pilot swears that he levelled at 9,000, but that would make these buildings a quarter of a mile long, and the Buddha at least five

hundred feet. Unless you want to believe that they have another Willow Run on Yat, you can't take that figure."

Another pause. Finally Baker spoke. "You said you had a guess."

"Yes, I have." Stimson seemed reluctant to speak. "But it sounds so damned fantastic I hate to tell it to you—well, to be short, I don't think that this Buddha is a statue."

We all sat up. "Then what is it?" This from Martin.

"I mean, not a statue of stone or masonry in the usual sense of the term. I think that it is a portable image of Buddha—an inflated gas bag like they use in the Easter parade. I think they intend to float it in the air—perhaps tow it—to impress the faithful. If the thing's really 500 feet long, it may be a blimp or a rigid airship with its own motors. But, whatever the details, I think our mystery is just a piece of propaganda for Neo-Buddhism, although a damned good one, from the native standpoint."

We all relaxed. This was an anticlimax. Stimson had built us up to something—just what, we were not sure—and then had pricked the bubble.

"Well, it sounds reasonable," Baker finally remarked, returning the print to Stimson, "although not particularly dangerous, and certainly not worth risking our necks to spy on. However, I don't think it's good enough to explain all of the supplies that have gone into Yat."

The consul nodded. "Yes, that's the rub. If they hadn't taken such pains to conceal the thing, I'd be inclined to call it just a cover for something else."

"Maybe it still is," said Baker.

Stimson looked at us carefully, as though making up his mind.

"That is where you gentlemen come in," he said finally. "I have reason to believe that our picture has tipped their hand, that they are going ahead with whatever they have planned in the next few days. Someone's got to get to Yat first—someone who can observe intelligently, and speak the language. My staff is all clerical, and there is no chance to get any CIA men now. You're the only ones available."

He paused. We looked at each other, and then at Baker. He cleared his throat a couple of times, took another squint at the photo, and then spoke.

"Speaking for myself, Stimson, when do we leave?"

"That goes for me too," said Martin. Chamberlin and I nodded.

Stimson seemed relieved. "I'd hoped to hear that. In fact, I'd have been considerably embarrassed if you gentlemen hadn't come through, because I have a seaplane waiting right now to take you to Yat."

II

THE NEXT two hours passed swiftly. Once the decision was made, we all became so involved in the details of preparation as to have no more time for reflection, either upon the nature of what we should find on the island of Yat, or the possible personal consequences of our expedition.

First Stimson briefed us on the

geography of our objective. Yat was a volcanic island, one of a group strung across the shallow sea east of Borneo and north of Celebese. It was almost circular, with a diameter of about seven miles, and was entirely covered by a dense tropical forest. The principal feature of the island was an extinct volcanic crater, rising to an altitude of 2,000 feet, at the east end of the island. The crater measured about two miles across, and perhaps a third of its area was filled with water from a narrow channel leading to the sea. Photos taken before the closure of Yat by the Indonesians showed a typical Malay isle: cocoanut and mango plantations, with forests of gum and mahogany climbing and filling most of the crater. The entrance channel was narrow and quite deep and the interior lake constituted an ideally sheltered anchorage. On the east coast the land rose steeply in a series of mossy cliffs over which waterfalls poured, while to the west, away from the volcano, plantations stretched inland from the coral beaches.

As we studied the pictures and charts, Stimson briefed us on the course of action.

"Your first objective is to find out what they're doing in that crater. Are they building some new weapon, or training an army, or what. You'll have Geiger counters and a krypton analyser of course, although the analyser is no guarantee in detecting fissionable material production. Then we want to know what their plans are, particularly in the next few days or weeks. Finally, just who is involved in it? Is New Buddhism entirely Asiatic, as they claim, or has Russia cut herself in too?

"You will be landed on the west coast of the island just after sunset. The east, with its cliff and entrance channel is undoubtedly too well guarded, but on the west side, with four miles of flat country, they may depend on defense in depth, so that you'll have a better chance of getting past the beach. The plane will come in low, make a landing just off the breakers and drop you off in rubber swim suits. It will then taxi to the north of the island and make a fairly long stop, to divert attention, since it will certainly be picked up by radar. Your job will be to swim ashore, bury the rubber suits, and make your way east to the crater. If you reach the rim, see what you can, and report by radio at any hour. If you don't make it to the top, observe as much as possible on the island, make your reports, and rendezvous with the plane at your landing point at 2400 the next day. If you miss that time, a plane will be back daily at the same time for four days. After that, we will assume that you have been caught."

We were driven to the harbor in the same disreputable taxicab which had brought us to the consulate a few hours before. Time was a little past three in the afternoon as the seaplane roared down a lane in the swarm of junks, tramp freighters and warships of the Indonesian state. We hoped that we were not too well observed; there was no way of knowing until we arrived on Yat, and the learning

might not be too pleasant.

The flight northeast from New Macassar was uneventful. We passed over a blue tropical sea, dotted with island jewels. For a time the low coast of the great island of Celebes made a blue haze on the eastern horizon, and then we had the ocean to ourselves. At dusk there were still two hundred miles between us and Yat, a flight of about forty minutes. Pulling down the shades, lest the cabin lights reveal us to a chance Indonesian patrol, we busied ourselves with packing the portable radio equipment and putting on our watertight clothing.

The last fifty miles were made on the deck—in fact, once or twice the hull actually touched a wave-top. The pilot extinguished the cabin lights and we peered ahead for a first glimpse of our objective. The sky was clear, but the moon would not rise until nine, so that the only indication we had that Yat was at hand was a slight deepening in the tropic night ahead and to the right, which the pilot said marked Mount Kosan, the ancient crater. But no sooner had we gotten this vaguely orienting information, than the flaps were lowered, the plane slowed to under 100 miles per hour, and we touched the water. The co-pilot opened the side door, and we crouched together peering out. The plane taxied over a choppy cross sea toward the shadow of the island, while we squinted through the salt spray. Presently the engines dropped to idle, and the rumble of surf became audible.

"Practically dead calm tonight," said the co-pilot reassuringly. "Wind usually dies out at sunset. You won't have any trouble getting through. Just watch your step when you're ashore."

"That's always good advice for sailors," remarked Baker.

As the plane lost headway, the white line of surf and the silhouettes of cocoa palms took shape. Evidently the plantations came right to the water's edge at this point, a circumstance for which we were all thankful. I was just turning to Martin with some remark about this when the pilot called softly and urgently. "We're as close as we can drift safely. Jump, and good luck."

"Righto, and thanks," came Baker's voice, and then a splash. I was next. I took a deep breath, and clutched my rubber covered bundle of radio gear. I leaped out into darkness. An instant later I was gasping for air beside Baker. Two more splashes in quick succession and then the engines picked up speed, the dark shape of the wing overhead moved off, and we were alone.

FOR A moment we swam in circles, getting our bearings. Baker had removed his glasses for the jump, and so we depended mainly on Martin for directions. There was really no need for worry, however, for it soon became apparent that a strong onshore current was bringing us in to the breakers at a good clip. The line of phosphorescence marking their

crests was now hardly a hundred yards away.

With Martin in the lead we began to swim. Presently one of the swells picked us up quite gently, moved us forward, and then suddenly exploded into a foamy torrent which tossed us head over heels and left us gasping and spitting sand on the beach.

As quickly as possible we got into the shelter of the first ranks of trees. Here we dug a hole at the base of a great cocoanut palm and buried the rubber suits and cases of radio gear, along with a small vial of radium D. This had been provided for us, along with the Geiger counter, by the thorough Mr. Stimson as a means for locating our cache when we returned, if we should miss our bearings.

It was 7:45 when this chore was completed. We had an hour and twenty-three minutes to moonrise.

Turning inland, we walked in silence through the grove for a few hundred yards, and then came upon a road. This we recognized, from our map study, as the main coastal highway. We hurried across, rather elated at the progress we were making and a little surprised at the lack of fences or other protective devices on the island. Things seemed just too easy.

On the other side of the road we encountered a rice paddy, which made the going a good deal more difficult. But after about ten minutes of sloshing through this, we came to a diagonal road, or rather path which seemed to be going our way. Thanks to this, by 8:45 we felt the ground rising underfoot and sensed a darker bulk in the shadows ahead, which could only be Mount Kosan itself. Here we came to our first fence, and affair of steel posts and barbed wire, which appeared to be a guard against cattle, but hardly more. After inspecting one of the posts for signs of electrification, we crawled under the bottom wire and started up the slope.

"Are you sure we're on the right island?" asked Chamberlin. "From the security measures I don't think we're going to find anything more secret than a copra plantation."

Baker shushed him, and whispered back, "We're on the right island, but that's the only thing that's right. This is simply too easy to be true."

"Well," said Martin, "Stimson could be all wet. Maybe they're just sculping a king sized Buddha after all."

The slope had now steepened considerably, and further conversation died out in the effort of climbing. The volcano was heavily forested all the way up with mahogany and gum trees, and a dense undergrowth of vines and ferns entangled our feet. Twice we came upon rapidly flowing streams.

We were perhaps two thirds of the way up when the moon appeared. Its light didn't penetrate very far into the dense foliage, but it did enable us to make out the top of the mountain, which took the form of a vine covered outcrop of lava. We altered our course slightly, and at 9:50 P.M. the forest fell away and we faced a rough wall of rock some two hundred feet in height.

Before tackling this last obstacle, we paused for a rest and some hot coffee from the thermos which was included in our equipment. Then, at five minutes past ten, we started the final ascent.

The cliff proved to be more of a climb than we had anticipated, and the time was close to eleven before we pulled ourselves up over the last boulder and could look across the crater to the other rim.

The last few feet we negotiated with the greatest caution. Martin, I think, was first, and he pulled himself on his belly across to the beginning of the inner slope. He lay quietly for a half minute, then muttered something under his breath which sounded vaguely like "I'll be damned", and made way for Baker, who was next. I squeezed in beside him, and so we got a look into the crater at the same time. Baker, being a very self-contained man, made no audible comment, but I must have, for the sight which met our eyes was certainly the last thing I had expected to see.

The crater of Mount Kosan was filled with steel and concrete structures of gargantuan size, and of the most amazing shapes I had ever seen. I say amazing, but I do not mean in the sense of unfamiliar, on the contrary these incredible objects had the commonest shapes. Had it not been for trees and normal buildings to give the scene a scale, I would have sworn that we were looking into a picnic grounds a hundred feet across instead of a two mile diameter plain ringed by mountains 2,000 feet high. The buildings seen in the aerial photo occupied only a small part of the crater—all of the other structures must have been concealed by clouds.

DIRECTLY below our perch the rim dropped vertically into deep shadows, as the moonlight reached but half the crater. A thousand yards west of us, where the light first touched the floor, we could make out several clumps of brush or small trees, among which was set a rectangular concrete surface measuring perhaps four hundred feet square, and resting on hundred foot steel columns. Near this, and partly supported by the side of the mountain was what appeared to be a great table, of roughly the same area, but standing on trussed columns the height of a thirty story building. In front of this was a chair, if by chair you understand me to mean a boxlike building twenty stories high, with a braced back rising as far again. A half mile along the rim was an even larger structure whose dimensions could only be measured in fractions of miles, which resembled nothing more than a vast shed built against the cliff.

Next my attention was attracted to a number of objects lying upon the platform immediately west of us. One of these appeared to be a steel bowl-like container some thirty feet deep and a hundred in diameter, like the storage tanks used in oil fields. Nearby was an open tank measuring perhaps fifty feet in each dimension, and beside this were the most startling of all—several hun-

dred foot pieces of built-up structural steel resembling knife, fork and spoon.

In retrospect, the deduction from this evidence was obvious, but as we stared down at this spectacle, a sort of numbness took hold of our minds. As a later comparison of impressions verified, none of us came remotely near guessing the truth in those incredible seconds. For what seemed like minutes we just stared, and then the spell was broken. Walt had squeezed in beside me, where he gave vent to a low whistle of amazement. Baker shushed him, and then shifted to a better position, in so doing knocking a rock from the ledge. This started a small avalanche which went clattering down the cliff with a sound, to our hypersensitive ears, like thunder. We all froze in our places, abruptly aware that the moon illuminated us like actors in a spotlight. For a good minute we waited tense, and then gradually relaxed. Baker started to say something when without warning the ground beneath us shook, starting a score of rockslides. We recoiled from the edge and braced for a stronger earthquake shock. Then suddenly Baker uttered a hoarse cry. He was pointing—pointing down into the blackness at our feet where our eyes had as yet been unable to penetrate. Something was there, something vast and dim and shapeless like a half inflated airship. Then a part of it was detached and came up almost to our level. It moved too rapidly for any detail to be seen—our only impression was of a vast white column large as the Washington monument which swung up into the moonlight and then was withdrawn. At the same time the ground quivered anew, starting fresh slides.

We blinked stupidly for several seconds, and then became conscious for the first time of the sound. It was like a vast cavernous wheeze at first, and then a series of distinct wet thuds followed by a prolonged gurgling rumble. If these descriptive phrases sound strange and awkward, let me give assurance that they are as nothing to the eerie quality of the noises themselves. We lay glued to our rocky perch, hardly daring to breathe, until the last windy sigh had died away.

Baker found his voice first. "Good God, it's something alive!"

Chamberlin tried to reason. "It can't be—why, it's two hundred feet high—it's just a gas bag, like Stimson said. It's—"

He stopped. The thing had moved again, more rapidly and with purpose. The great column rose, then pressed down into the ground and pushed the main bulk up out of the shadows. There was a moment of confusion while our senses tried to grasp shape and scale at the same time, and then it all came into focus as the thing arose into the light. At one instant we were sane humans, trying to make out a great billowy form wallowing in the darkness below. In the next instant we were madmen, staring into a human face a hundred feet wide, that peered back at us from the level of the clifftop! For a second we were all still—we four, and that titanic placid oriental face

hanging before us in the moonlight. Then the great eyes blinked sleepily and the thing started to move toward us.

I cannot recall in detail what happened. I remember someone screamed, an animal cry of pure terror. It may have been me, although Baker claims to be the guilty one. In any case the four of us arose as one and plunged headfirst off our rock into the tangle of brush at the top of the cliff. I think that only the vines saved us from certain death in that first mad instant. I know that we were wrestling with them for what seemed like an eternity. They wrapped around my legs, tangled in my arms. They were like clutching hands, holding me back in a nightmare-like struggle, while the thing in the crater came closer. Then abruptly I realized that they *were* hands, human hands seizing us, pulling us back from the cliff and then skillfully tieing us up.

It was all over in a moment. The madness was ended. We were once more rational humans, tied hand and foot, and propped against the rocky ledge in front of a dozen yellow-robed men. For a time we just breathed heavily—ourselves and our brown skinned captors alike. Then one of the latter spoke.

"You can stand now, yes?"

Baker struggled to his feet in reply. The rest of us did likewise, aided not unkindly, by the yellow-robed men. Baker found his voice.

"Thank you," he said. In the brightening moonlight we looked more carefully at our captors. They were of small stature, evidently Japanese, and, by their costume, all priests.

Baker laughed briefly and glanced at the rest of us. "It would appear," he said dryly, "that we have been taken."

III

THE LEADER of the priests indicated by a gesture that he wished us to move along a narrow trail cut in the vines along the rim. I attempted to get another look at the horror within the crater, but the ledge of rock down which we had just fallen stood in the way. We were guided into a pitch black trail which descended steeply into the forest on the outer slope of Mount Kosan.

I lost track of direction almost at once. The trail zigzagged a couple of times, and then I sensed that we were in a covered passage. After a few more steps and a turn, a light appeared ahead, to show we were walking in a concrete lined tunnel. Our captors had split themselves into two groups, a half dozen ahead and an equal number behind. Soon there appeared a metal door in one wall, which proved to be the entrance to an elevator. We all squeezed in, and were taken down a distance which surely must have brought us near to the crater floor itself. The door then opened, and again we were escorted along a concrete passage. There were many turns. Our captors paused before a narrow door with a tiny barred window. This was unlocked, we were directed to enter, and the door clanked shut behind us.

For the first few minutes no one

had anything to say. We examined the interior of our cell, but found nothing more remarkable than concrete, a small ventilator hole near the ceiling, and a wooden bench along the wall opposite the door.

Martin found his voice first. "A human being," he said slowly, "as big as the Woolworth Building!"

Chamberlin, apparently still involved in his last abortive try at reason said, "But it's impossible. The laws of mechanics—why the biggest dinosaurs were only eighty feet long, and they had to be supported by water. It's a mechanical device, I tell you."

"It could have been an illusion," I ventured. "Perhaps an image projected on a fog bank, or something similar—" Neither Walt nor I were very convincing—not with the memory of that face fresh in our minds. We all fell silent again.

Several minutes passed, when abruptly we became conscious of a movement of the floor, slight but repeated with regularity. A shake, a pause of six or eight seconds, then another shake. Baker stood on the bench and put his ear to the ventilator. He heard nothing. The movement came again. Shake, pause, shake, pause, like some distant and monstrous machine. I was reminded of the small earthquakes felt in the vicinity of a heavy drop hammer. Shake, pause, shake, pause, and then a heavier jolt accompanied by a distinct thud. After that, quiet.

"Obviously," Baker said, "they knew all about us." He was evidently thinking out loud. "Probably picked us up on the beach, and then just let us go on, clearing out the guards ahead, and keeping near enough to see that we didn't use the radio. Why? Maybe to find out how much we knew about the place already. I daresay they know one thing now: we never expected to find—what we did. Which brings us to our Buddha. The big question is, is it mechanical or—alive? He paused. "I don't know—none of us can know yet—but, I'm inclined to believe the latter. Cady, what's your opinion?"

I had forgotten for the moment that I was a zoologist. To tell the truth, the whole thing had been a little outside of the type of specimen I was familiar with.

"Its movements were lifelike," I replied. "They suggest muscular action rather than mechanical drive. But, as Walt says, it's just not possible. Nature has placed a limit on the size of living creatures. The strength of bones, the energy requirements, the osmotic pressures needed to move fluids through tissue. Besides, where could it come from? There have been giants—eight, ten, maybe up to twelve feet—but this thing is of a different order of magnitude. It must weigh millions of pounds. As a zoologist, I can't believe that it's alive."

Martin and Chamberlin had a few more remarks of the same nature, and then the conversation died away. We waited. Eventually they would come—the yellow-robed ones. When they did, we might learn more. I had little doubt as to our ultimate fate, but in the dulled condition of my senses, I didn't seem particularly to care.

My watch had been smashed in the struggle, so that I had no idea of how long they kept us in the cell. It could not have been too many hours, for the elementary needs of nature had only begun to assert themselves when the sound of a key came from the door. We all stood up. It was our conductor of last night, the one who spoke pidgin English.

"Good morning, gentlemens," he said with a bow. "You spend nice night, yes? Get plenty sleep?"

We did not reply. Still smiling politely, he beckoned. "Now please to come with me. Head Lama talk to you now."

ONCE MORE we traversed the interminable concrete corridors of that subterranean city, but this time we came out into a hall illuminated by natural daylight. The walls here were neatly plastered, and the doors more ornamental.

"Getting near the high brass," murmured Chamberlin.

The last hall was terminated by a window and balcony, beyond which the green of a distant hillside could be seen. Before we reached this, however, our guide stopped at a heavy aluminum door and directed us into a sort of anteroom, occupied by uniformed guards and a male receptionist. A few words were exchanged in Japanese, and the guards quickly and expertly frisked us, although this had already been done once. This ceremony over, another door was opened and we were admitted to a large and sunny office, whose big windows gave a panoramic view of the whole crater.

Our eyes were so dazzled by the sudden burst of light, and our curiosity was so great to see that fantastic place by daylight, that we did not at once see the man who sat behind a desk opposite the windows, watching us with an expression of high amusement. Baker first noticed him.

"Phobat Rau! So you're back of this, after all!"

The other stood up. He was a short man, evidently Burmese, and wore a tan military uniform. His smile revealed a bonanza of gold teeth, while his thick lensed spectacles glittered in the brilliant sunshine streaming in through the windows.

"It is a great pleasure to have you here, Professor Baker, although there is in the circumstances some cause for regret. But all that in its time. What do you think of our Buddha?"

As he spoke, Baker was glancing about the room, and I saw that his eye had alighted upon an instrument just behind Rau's desk. A second look showed it to be a tape recorder, with the operating lamp on.

"Until we have more data," replied Baker, "our views are still as you have them recorded."

Phobat Rau laughed delightedly. "You're a good observer, Professor. Yes, I must confess I was curious about your reactions to our charge. So you doubt that he is alive?"

Baker nodded. "Under the circumstances last night, there was every chance for a mistake, or a hoax."

"In that case, perhaps you would like a second look. He's right across the valley now, having his breakfast."

We hastened to the window. Rau's office, we found, was in a sort of cliff house perched half way up the northern side of the crater, and commanded a view of the entire area, now brightly illuminated by the morning sunlight. We easily identified the enormous furniture of last night, against the west cliff about a mile away. But we had little interest in these structures, monstrous as they were. For, sitting cross-legged on the ground before the low table, was the giant. At that distance he did not look so huge—in fact, with an effort we could almost ignore scale and perspective and imagine that he was a normal human fifty feet distant. He appeared a typical young Japanese, his hair cut long in the old style, and wearing a sleeveless tunic like the statues of Buddha. His face was smooth and serene, and he was eating a white pasty looking substance from his great steel dish, using a big spoon. Even as we watched, he finished the meal and stood up, causing the whole building to sway slightly. He glanced about for a moment, his eye lingering briefly in our direction, and then he walked in a leisurely way to the lagoon, where he bent over and rinsed out his utensils. Returning to the table, he placed them carefully in the position we had noted last night. He then straightened to his full height, raised his great arms far up into the morning air and began a series of earth shaking calisthenics. After about ten minutes of this he walked over to the leanto structure, entered and closed a curtain behind him.

Rau, who had been watching us with great amusement, offered an explanation.

"His reading room. Books on his scale would be a bit difficult to make, so he uses microfilm and a projector. The microfilm," he added, "is on eight by ten plates, and the screen is two hundred feet square."

We returned to the desk and took the seats Rau indicated.

"So now," said our host, "you would like to hear a word of explanation, perhaps?"

"Several, if you can spare the time," answered Baker with a dryness equal to Rau's.

"It all began," began Phobat Rau, "on a beautiful summer's day in 1945, August 6, I believe, was the exact date. Perhaps you recall what happened on that day, in the city of Hiroshima. If not, I will refresh your memories. A bomb was dropped on that day, a new type of bomb. It caused a great deal of destruction, and killed tens of thousands of people. Some died at once from the blast and heat, but many more, who had escaped apparently uninjured, developed serious illness days later and died. The cause you know, of course. It was called radiation injury, the internal destruction of cell structure by gamma rays emitted by the bomb.

"Many strange things happened in that blast. In some, injury was confined to particular parts of the body, as the hair. Others were made sterile, in fact, the reproductive

function and apparatus seemed particularly susceptible to the rays. In many cases, the genes —those vital units within the cell which determine growth and structure and all physical and mental characteristics—the genes were altered, so that children grew abnormally, with deformities or mental sickness.

"But these things you well know. Afterwards biologists and physicians and geneticists came from all parts of the world to study the effects of the atomic bomb, and the flow of learned papers on this subject is not ended even now."

THE SPEAKER paused, as if inviting some comment or question. Seeing that we intended to remain silent, he resumed.

"There was one case, however, which was not studied by western scientists. In many respects, it was the most interesting of all, for the bomb blast and the accompanying deluge of gamma radiation occurred just at the instant of conception. As usual, damage was sustained by the genes, but this damage was of a peculiar and highly special sort. The only gene affected, apparently, was the one controlling growth, although, as you will see presently, other structural and chemical changes took place without which the growth could never have occurred.

"The infant involved was a male, named Kazu Takahashi. He was born prematurely on March 26, 1946, with a weight of fourteen pounds six ounces. The parents were well to do, and the infant was given the best of care, first in a private hospital, and later in its own home.

"During the first few days of life, little Kazu was apparently normal, except for his prematureness and a rather great weight for a seven-month infant. And then the change began. His nurse first noticed an increasing appetite. He cried constantly and would be silent only when feeding. He emptied nursing bottles in a few seconds, after he learned to pull off the nipple, and was soon consuming a quart of milk every hour. The nurse humored him, in order to keep him quiet, and presently became afraid to tell either the parents or the doctor just how much milk her charge was drinking. As the days passed and no ill effects developed, she became less worried, although the daily milk ration had to be increased twice, to 23 quarts a day on the sixth day.

"Kazu doubled his weight in the first eleven days, and at the end of two weeks tipped the scales at 39 pounds. His pink tender skin was now rapidly becoming normal in color and texture, and he was behaving more and more like an ordinary child, although already of startling size. By the fourth week he was drinking 59 quarts of milk a day and weighed 145 pounds. The parents — by now thoroughly alarmed—called in the doctor, who at once realized the cause of the abnormality. He could offer no suggestions, however, save to continue feeding at a rate to keep the child quiet. This, by the sixth week,

soared to the incredible figure of 130 quarts a day to feed a baby now five feet tall and weighing 290 pounds. At this point the Takahashi family felt that their problem was getting beyond them, and being Buddhists, they appealed to the local temple—it was not in Hiroshima, but at a nearby town—for assistance. The priests took the child in, after a generous contribution had been made by father Takahashi, and for a time the embarrassing matter seemed solved. The Takahashis went on a three weeks vacation to the south coast of Honshu, and all was peaceful, externally at least.

"When the family returned, they found a note under the door urgently requesting their presence at the temple. When they arrived, they were met by a highly agitated chief priest. Something had to be done, he said. Things were getting out of hand. He then took them to the nursery. Here they beheld a baby that would have been seven feet eight inches tall if it could stand, and which had weighed in that morning on the platform scales in the temple kitchen, at 670 pounds. After hearing the details of the milk bill, father Takahashi wrote out another check and departed hurriedly.

"After the passage of three more weeks, a delegation from the temple again waited upon Mr. Takahashi, with the news that his son now measured 9 feet 3 inches in length, weighed 1175 pounds, and consumed the entire output of a local dairy. They politely requested that he take care of his own infant. Mr. Takahashi as politely refused, and at this point bowed out of our story completely."

Phobat Rau hesitated again and inquired if his statistics were boring us. Baker glanced out of the window and replied that while he ordinarily did not have much appreciation of figures of this kind, under the circumstances they had a certain interest. Rau smiled briefly and continued.

"The summer of 1946 was one of increasing difficulty for the temple. By the beginning of July Kazu weighed 1600 pounds and cried with a voice like a wounded bull. A number of trustworthy medical men examined him, and concurred that his only abnormality was size. In bodily proportions he was quite ordinary, and, for a 3½ month baby, his mental development was, if anything, a bit ahead of normal. The priests took in their belts, appointed eight of the strongest as nursemaids, and wondered where it would all end.

"It was at this point that a member of the Buddhist priesthood from Burma happened to pass through the neighborhood and heard of the infant. After being sworn to secrecy; even from other members of his order, he was allowed to view little Kazu. Now this priest, whose name I might as well admit was Phobat Rau, had perhaps a bit more imagination than some others, and when he looked upon the little monster, he was struck by an idea which was to grow like Kazu himself."

"The Living Buddha," murmured Baker, "Ye Gods, what a symbol."

Rau nodded like a schoolteacher. "A symbol, and more. A machine to rebuild the world, or conquer it!"

BAKER chose to ignore this leading remark. He wanted more of the story.

"So you took him over?"

"Well, it was not so easy as that. You see, I was only a young priest then, and had no resources to undertake such a project. But the more I thought of the possibilities, the more sure I was. But first I had to convince others, and time was short. The priests were near to their limit, and were about to appeal to the Americans. I secured their promise to wait until I could return to Burma, and then I flew to Bangkok, to Rangoon, to every center of Buddhism where I was known. It was a sales trip, you might say, and for a time I thought that I had failed. But there were also forces working for me. The world was uncertain. The communists were at the start of their triumphal sweep over Asia, and the leaders of our faith foresaw what lay ahead. On the first of August, 1946, a delegation of priests from eight Buddhist countries journeyed to Japan to view Kazu, who was now a lusty 4½ months old, 12½ feet long and of 2914 pounds weight. He was in fine health, and when he slept the resemblance to the infant Buddha was startling. You gentlemen are worldly men, and I pride myself upon freedom from the more naive illusions of my faith, but perhaps you can try to imagine that our feelings were not entirely those of ambitious schemers—that perhaps within us was some higher motive for the step we took. Our poor suffering Asia was in deeper misery than ever before, for atop her own famine and war had come also the troubles of the west. Under the Red flag millions of our deluded countrymen were taking arms against their brothers. Confused by a glib ideology, they were daily turning more from the religion of their fathers. Although we did not speak it, we all felt inwardly that perhaps there was a purpose in this great infant—that, though we made promises with tongue in cheek, perhaps a miracle would occur to fulfill them.

"And so we arranged to transport Kazu Takahashi from Japan to a safe location where he might grow to manhood, where he might be suitably educated to take the place that we would prepare for him. The details of this move were not difficult to arrange. A special traveling crib 20 feet long was built, and in this by truck, lighter and motor junk he was carried by easy stages to this island. Here we established a great monastery, surrounded by rice and fruit plantations. Here we brought physicians and scholars to care for him and plan his education, and we built a nursery to accommodate his increasing bulk.

"We did not know, of course, what his final size would be. We kept careful records of his growth, but even after the first year he was not more than ten times the normal height. But year by year we had to

revise our estimates, for his growth soon accelerated beyond our wildest expectations. For a time indeed we feared that it would never stop and that he would die of starvation when the world could no longer feed him. For a time also we were sure that he would never be able to stand, through the action of simple mechanical laws relating to weight and the size of bones, but apparently nature has provided a marvelous compensation, for his bones, as revealed by X-rays, are of a density and strength equal to that of steel.

"His feeding was always a problem, although fortunately its increase was not beyond our ability to organize and plan. At first we supplied him from plantations on Yat and on neighboring islands. Then we were forced to organize Neo-Buddhism as an implement to solicit contributions of food and money. Perforce we took many into partial confidence, but the complete story was known only to those on Yat.

"On his first birthday Kazu was 29½ feet long and weighed 30,100 pounds. By his second birthday he could walk, and now surpassed all land animals save the monsters of the Jurassic age, with a height to 51 feet and a weight of 158,000 pounds. During 1949, while the communists were overrunning China, our Buddha grew from 70 to 82 feet. In June of 1950, while the world watched the flames of war kindle in Korea, we saw him exceed the capacity of our million pound scale. In the year of 1950 also we built his first schoolroom and developed the system of projected pictures and letters used in his education.

"In 1951, Buddha's increasing appetite combined with the inroads made by the communists upon our territory brought a crisis. He was now 200 feet tall, weighed seven million pounds and ate as much as 75,000 men. In spite of all our efforts, his food supply was dwindling and, worse, the communists were becoming suspicious. And so we were forced to a decision. We had to appeal to the western world. But to whom? To America, or to Russia? You all know the situation in 1952, the time of the false peace. We turned to Russia. They sent a commission to investigate, and then acted with dispatch. Russia would feed our Buddha, but on a condition: Neo-Buddhism must sponsor communism.

"We had no choice. Now that the secret was out, Russia had Yat at its mercy. So we agreed, but with one reservation. We alone should direct the education of Kazu. To this Russia agreed. Perhaps they considered that it was unimportant. Perhaps they thought that Kazu was an idiot, useful only as a symbol. But they agreed, and so his education continued in the tradition of Buddhist scholarship. He is well read, gentlemen. He knows the classics of China, and of India, and of the west also. I myself taught him English. At the request of our sponsors, he has studied Russian. He is still young, but he has an inquiring mind. When he takes his true place in the world, he may not always be the tool of the Kremlin.

But of these things even I am not given to know."

Rau paused, and indicated the window. Buddha was emerging from his leanto.

"Look well, gentlemen. There stands the hope of Asia. There is the Living Buddha himself. He is only 19 years of age, but he stands 590 feet high, and weighs 198,000,000 pounds. At first he will be but a symbol, but soon he will be much more. The time of compromise, I promise you, will not last forever."

Rau stopped. We waited for him to resume, but instead, he pressed a button on his desk. Immediately several members of the guard entered. Rau now addressed us in a new voice.

"Gentlemen, you probably wonder why I have spoken so frankly of all of this. To be candid, to a certain extent I wonder also. Perhaps it is to get it off my chest, as you say. Perhaps it is just pride in what I have done. But whatever the reason, the consequences for you are regrettable. Your spying trip to Yat alone is sufficient for death; what I have told you makes your return a complete impossibility. I am sorry, particularly for you, Baker. We shall do it as humanely as possible. Good day."

The guards, as upon a signal, closed in on us. For a second I thought insanely of flight, or a plunge through the great windows to certain death on the crags below. But there was no chance. Before any thought could be translated into action we were back in the corridor, escorted by an augmented guard of priests, on our way back to our cell, and death. A death that would be—as "humane as possible".

IV

IT WAS not until some minutes after the steel door had clicked shut that the full realization of our predicament came to us. Rau's story had been so fascinating, and his manner so rational and civilized that we all had forgotten that he was of a race and ideology opposed to all that we stood for, and that we were spies caught red-handed in the innermost shrine of Neo-Buddhism. Even after twenty years of cold war, all of our civilized instincts rose against the idea that a suave brilliant intellectual like Phobat Rau could so cold bloodedly order our deaths.

But the awakening was at hand. If we doubted Rau's intentions, one look at the cold Mongol faces of the guards was enough to dispel any hope. Baker tried to sum it up.

"No use trying to argue with him. Fact is, we won't even see Rau again. We could, of course, simply call it quits and wait for them, but I'd rather fight it out. Anyone have an idea?"

Martin hopped up on the bench and studied the ventilator. He reached one arm in as far as possible, and reported that there was a bend about a foot in. While he was doing this, Chamberlin made a minute investigation of the door, but found that neither hinges nor lock were accessible. There were no other openings into the chamber

save the electric conduit which presumably entered above the electric fixture in the ceiling. Finally Baker spoke.

"Nothing we can do until they come for us. We'd better plan towards that, unless they're going to gas us through the ventilator."

This unpleasant thought had not occurred to the rest of us before. Martin returned to the opening and sniffed, and then with happy inspiration, he rolled up his jacket and stuffed it in. Baker nodded approval.

So the time passed. We listened at the door for footsteps but none came. Presently we became aware of a now familiar sensation. The floor commenced to shake gently and regularly. We counted the steps. There were twelve, and then they stopped. Chamberlin calculated mentally.

"Say, about 250 feet per step. That would be three thousand feet —six tenths of a mile. Wonder where—"

Martin, still near the ventilator, shushed him, and pulled the coat out. Through the small hole we heard a deep sound, a sort of low pitched irregular rumble. Baker suddenly jumped up and listened at the opening. After a bit the sound stopped. Baker became excited.

"It was a voice," he explained. "I think it was *his* voice. It was speaking Japanese. I couldn't catch many words, but I think he was talking about us."

Now the rumble came again, and louder. A few words, a pause, and then more words, as though he was in conversation with someone whom we could not hear. Baker listened intently, but he could catch only fragments, owing to his small knowledge of Japanese and the extremely low pitched articulation of the giant. Presently the voice rose to a volume which literally made the mountain tremble, and then it stopped.

Baker shook his head. "Couldn't make it out. I think he was inquiring where we were, but it was too idiomatic. I think he became excited or angry at the last."

"Fee, fi, fo, fum," said Chamberlin. "Now wouldn't *that* be an interesting end?"

Martin laughed. "We wouldn't even be enough to taste."

As no one else seemed anxious to pursue this subject further, we subsided into a sort of lethargy. Even plans for what we should do when the guards came were forgotten. And then, suddenly, the door was opened.

We all sprang to our feet. A priest—in fact, the same one who had brought us here originally—came in. A squad of guards stood outside.

"Good afternoon, how are you? Chief Priest ask me to tell you, Buddha wish to see you. Please you come with me." He politely indicated the door.

With a shrug Baker complied, and the rest of us followed. Down the hall we marched again, through all of the turns of the morning and so at last into the corridor which ended in a window. This time we passed the aluminum door and continued right to the end. The window, we now saw, was really a

French door which opened to a small balcony. Our guide opened the door and pushed us out. The balcony, we found, was about four hundred feet above the valley floor, but we did not spend much time enjoying the view.

Scarcely fifty feet in front of us stood the Living Buddha!

For a full minute we stared at each other, and then I began to realize that he was embarrassed! A wrinkle appeared between his eyes and he swallowed a couple of times. Then he spoke.

"Good afternoon, Professor Baker and party. I am happy to meet you."

The voice, and particularly the language, so startled us that for a moment nobody could think of a reply. The voice was a deep pulsing rumble, like the tone of the biggest pipes of an organ, and filled with a variety of glottal wheezings and windy overtones. I think it was through these additional sounds rather than the actual tones that we could understand him at all, for the fundamentals were surely below the ordinary limits of human audibility. What we heard and could translate into articulate words was hardly more than a cavernous whisper. The important thing was that we could understand him, and, more than that, that he was friendly. Baker made reply at last.

"Good afternoon. We also are happy, and most honored. How should we address you?"

"My name is Kazu Takahashi, but I am told that I am also Buddha. This I would like to discuss with you, if you have time."

"We have time for nothing else," said Baker.

Buddha's eyebrows raised slightly. "So I was right. They are going to kill you."

Baker glanced at us meaningfully. This giant was no fool. Suddenly there came over me a little thrill of hope. Maybe—but he was speaking again.

"I have not before had opportunity to talk to men from west. Only from China, Japan, Soviet State. You will tell me of rest of world?"

"With pleasure," said Baker.

I became conscious that the door behind us was opening. I glanced back, and saw Phobat Rau, surrounded by guards and priests. He gestured to us to come in. Baker turned, while Buddha bent his head closer to see also.

Rau came to the door. "Come back," he called urgently. "You are in grave danger. You must come in."

QUITE definitely I had no desire to go in. Neither did Baker, for he shook his head and moved away from the door. Rau's face was suddenly enraged. He made a quick motion to the guards, and then held them back. With an evident effort he calmed himself and called again, softly.

"Please come in. I was hasty this morning. I am sorry. I think now I see a way for you to return safely, if you will come in."

For reply, Baker turned to the giant. He climbed upon the rail of the balcony.

"Take us away from here, if you wish to hear what we have to say. Take us, or they will kill us!"

In answer, Buddha extended one hand, palm up, so that it was level with the balcony. For an instant I hesitated at the sight of that irregular rough surface, big as a city block, and then I heard steps behind us and a click. With one accord we leaped over the parapet just as a scattered volley of pistol shots rang out. We tumbled head over heels down a rough leathery slope into a hollow, and then the platform lifted like a roller coaster. In a second the balcony, the whole hillside vanished and we went rocketing up into the blue sky. A gale of wind blew past, almost carrying us with it, and then a portion of the surface rose and became thirty foot tree trunks which curled incredibly over and around us, forming a small cavern which shut out the wind and held us securely against falling.

Buddha had closed his fist.

For a breathless fifteen seconds we were carried in darkness, and then the great hand unfolded. It was lying flat on an immense smooth area of concrete, which we presently identified as the higher of the two tables. We got to our feet and staggered to the edge of the palm. Here we met another problem, in the form of a rounded ten foot drop-off to the concrete table. As we stood looking down in dismay, the other vast hand came up from below, carrying a heavy sheet of metal. This was carefully placed with one edge on the hand and the other on the table, forming a ramp. Holding onto each other for mutual support, we made our way to the table and there literally collapsed. Chamberlin became violently sick, and none of the rest of us felt much better. The giant carefully withdrew both hands and watched us from a distance of a hundred yards, with only the head and upper part of his body visible.

From our position on the concrete platform I now looked closely at Kazu for the first time. My first impression was not so much one of size, as of an incredible richness of detail. It was like examining a normal human through a powerful microscope, except here the whole was visible at once. Even at a distance of two hundred feet, the hair, the eyelashes, the pores of the skin showed up with a texture and form which I had never noted before, even in my studies as a biologist. The general effect was most confusing, for I would lose and regain the sense of scale, first thinking of him as an ordinary man, and then realizing the proportion. The nearest comparison that I can think of is the sensation when standing very close to a large motion picture screen, but here the image is blurry whereas I saw with a clarity and sharpness that was simply unbelievable.

Buddha seemed to realize our condition, for he smiled sympathetically, and waited until poor Walt had recovered somewhat from his nausea. Baker, as spokesman, renewed the conversation. Walking a few steps toward the front of the enormous desk, he spoke in a loud clear voice.

"You have saved our lives. We thank you."

The great head nodded benignly, and after a thoughtful pause, that strange voice began.

"My teachers have brought others before me to lecture, but always I know that they speak only as they are told to speak. You are different. I am glad that I saw you last night, or I would never know that you had come."

He paused, evidently gathering his thoughts for the next foray into an unfamiliar language. Then he leaned closer.

"Phobat Rau has spoken to you of my birth and life here?"

Baker nodded, and then, realizing that Kazu could not see such a microscopic movement, he replied orally.

"He has told us your story in detail. It is a marvel which we can yet scarcely believe. But the greatest marvel of all is that you speak our language, and comprehend so quickly."

Kazu thought of this for a moment.

"Yes, my teachers have done well, I think. I have studied the writings of many great men, but there is yet much that I do not understand. I think it is important that I understand, because I am so strong. I do not wish to use this strength for evil, and I am not sure that those whom my teachers serve are good. I have studied the words of the great Buddha, but now my teachers say that I am to appear as if I were Buddha. But that is an untruth, and untruth is evil. So now I hope that you will tell me the whole truth."

Kazu stepped back a quarter of a mile, and then reappeared, dragging his four hundred foot chair. Sitting on this, he crouched forward until his face was hardly a hundred feet before us, and his warm humid breath swept over us like wind from some exotic jungle. Baker took a moment to marshal his thoughts, and then came forward, threw out his chest and began speaking as though addressing an outdoor political meeting.

How long Baker spoke I do not know. He began by outlining history, contrasting the ideals of Buddha and other great religious leaders with the dark record of human oppression and cruelty. Kazu's vast face proved most expressive of his feelings as he listened intently. When Baker came to the subject of communism, he leaned over so far backward in his effort to be fair that I feared that he was overdoing it, and would convince the giant in the wrong direction.

WHEN Baker as only partway through his lecture, he remarked that some point in geography could be better explained by a drawing, but that obviously he could not make one large enough for Kazu to see. At this the giant laughed and pointed to his big leanto.

"Come," he said, "you shall draw on a piece of glass and the light will make it great that I may see."

We were thereupon transferred the mile distance to the building by a reversal of our previous route:

up the ramp to Kazu's ample palm, a series of breathtaking swoops through space, and we were in the vast interior of the leanto.

The furnishings of this study room consisted of a chair, a sloping writing desk and a screen fully two hundred feet square on the wall opposite the chair. Beside the chair was a sort of bracket on the wall which supported the projection room. Kazu placed his hand level with an elevated balcony leading to this and we scrambled off. With Baker in the lead, we opened the door and entered the projection room. It was larger than we had estimated from outside, when we had the immense furniture for comparison. The dimensions were perhaps forty feet on the side, and most of the interior was taken up by shelves on which were stored thousands of films of book pages, maps, photographs and diagrams of all kinds. In the side facing the screen were a number of ports and a battery of movie and still projectors. One of the latter was, we saw, adapted for writing or drawing on the glass slide while it was being projected. We studied this for a moment, located the special marking pencil, and then I called out of the door that we were ready.

"Look also," replied Kazu, "you will find device which magnify voice. My teachers use this always."

A further search disclosed a microphone and the switch for a public address amplifier. Baker settled down to his now illustrated lecture.

After he had talked himself hoarse, Baker asked each of the rest of us to speak briefly on our own specialties. I was the last, and I was practically through when I became aware that we were not alone in the room. I gave Martin a nudge, and turned from the microphone to face eight of the uniformed guards, led by our friendly yellow-robed priest. Only now he wasn't friendly, and he carried a heavy automatic which was carefully aimed right at us.

"Very clever, gentlemen," he said. "You took good advantage of your chance with our simple giant, did you not? Tried your best to ruin the whole work of Pan-Asia just to save your miserable skins. Well, you shall not—"

He was interrupted by the thunder of Kazu's voice.

"Please continue, Mr. Cady. I find it most interesting. Why do you stop?"

I took a step toward the microphone, but a menacing gesture with the gun stopped me. I looked from yellow-robe to Baker. After a moment's hesitation, the latter spoke.

"I'm afraid, my friend, that you have misjudged the situation. I admit that we jumped into Buddha's hand to escape from Phobat Rau, but if you are familiar with the expression, our leap was from the frying pan into the fire. Your giant is holding us prisoner, and even now forces us to tell him things on pain of death."

The priest looked astonished, and the gun barrel dropped slightly.

"No one," continued Baker in a sincere tone, "could have been more welcome than you. But"—his voice dropped and he took a step

toward the other—"we must be careful. If he should even suspect that you are here to rescue us, he would crush this room like an egg!"

The priest, now thoroughly alarmed, glanced about nervously, his automatic pointing at the floor. The guards, who knew no English, looked at each other in surprise.

Baker took quick advantage of the confusion.

"We must not allow him to become suspicious. I will continue talking over the microphone while your guards take my friends to safety."

With this he stepped to the microphone and projector. The priest seemed for an instant about to stop him, and then he turned to the guards and gave a series of rapid orders. They advanced and surrounded Martin, Walt and me, and indicated by gesture that we were to go with them to the walkway which led to the wall of the great room. In panic I looked at Baker, but he was bent over the glass plate of the projector, drawing something and speaking in his precise clipped voice.

"I shall now show you a map of the United States and indicate the principal cities. First, on the Atlantic coast we have New York . . ."

We were out of the room and on the gallery. For a moment I thought that Kazu might see us, and then I realized that the whole place was dark and that he was concentrating on Baker's silly map. Briefly I wondered what Baker was up to anyway, but this sudden terrible turn of events made any kind of calm reasoning very difficult.

Outside the projection room, Baker's voice came booming over the loudspeakers

"Chicago is located at the southern end of Lake Michigan, just west of Detroit, while St. Louis—"

SUDDENLY the room lights came on, and the whole structure of the bridge shook as from an earthquake. The guards ahead abruptly turned and scrambled back, knocking us over in their haste. I grabbed the handrail for support, and then became aware of a vast blurry shape looming above and of a hand as large as a building that reached down toward the guards, now halfway back to the projection room. In a sort of hypnotic horror I watched the thumb and forefinger snap them and a thirty foot section of railing off into space. Then, very gently the hand plucked the roof from the projection room, exposing Baker and the priest. Yellow-robe dropped his gun and ran towards a corner, but Baker neatly tripped him and then stepped back for Kazu to finish the job.

A moment later Baker came out onto the bridge. Martin tried to frame a question.

"What—how did he—?"

Baker grinned and pointed silently at the screen. We looked and understood. Where a map of the United States should have been was a scrawled message in English: "Priests here taking us captive."

We returned to our lecturing, but after what had happened neither

we nor Kazu felt much like concentrating on geographical or other general facts. We all knew that Rau had not given up. For the moment we were protected by Kazu's immense power, but there were some doubts in our minds as to how long this might last. After all, Rau was his lifelong mentor and protector. For the moment the young giant seemed to have taken a liking to us, but perhaps it was only a passing whim. Presently Rau would assert his authority and Kazu, his curiosity satisfied, would hand us over—in exchange, perhaps, for supper.

After about fifteen minutes more of lecturing, Kazu interrupted.

"Soon will be sunset. Suggest we return to privacy of high table to discuss next move."

The transfer took less than a minute. The afternoon, we saw, was indeed far gone. None of us had realized how long we had been in the projection room. Once we were safely back on the table, Kazu addressed us, using his softest voice, which was a hurricane-like whisper.

"Phobat Rau plans for me to go soon to head armies of Asia in fight against west. My study of history has raised doubts of rightness of such war, and what you say strengthen these. Now I must see for myself, without guidance or interference from Rau. But I need assistance, to direct me how I shall go. I believe you will be fair. Will you help me?"

For a moment the incongruity of that last question prevented our grasping the full implication of Kazu's statement. Then Baker, evidently realizing that this was no time for philosophic quibbling, signified our assent. Kazu proceeded at once to practical plans.

"Tonight I sleep in usual place, where you disturbed me with small rock slide. But you must stay awake by turns to guard against capture. In morning you direct my steps away from Yat to mainland of Asia, where—"

He stopped. Seeing the direction he was looking, we hastened to the edge of the table. Far below, on the ground, was a railroad train surrounded by a small crowd of priests. For a moment we were puzzled, and then we saw that the train was made up entirely of gondola cars such as are used to carry coal and other bulk cargo. But these cars, a dozen in number, contained a white substance which steamed. We did not require more than one guess. The train brought Kazu's supper.

The giant made a slight bow of thanks to the delegation at his feet, and proceeded carefully to empty the cars into his dish. Then, instead of squatting at his low eating table, he brought the dish and other utensils up to our level and dumped a ton or so of steaming rice at our feet. Evidently he wished us to share his supper. We had no tools other than our hands, but since we had not eaten in almost twenty-four hours, we did not stop for the conventions. Scooping up double handfulls of the unseasoned stuff, we fell to even before Kazu had gotten his ponderous spoon into position. Suddenly, Baker yelled at us.

"Hold it!" He turned to Kazu

who had a spoonful poised halfway to his mouth. "Kazu, don't eat. This rice is doped!"

I took a mouthful of the rice. There was not much flavor—only a little salt which I guessed came from seawater. I explored the stuff with my tongue, and presently noticed a familiar taste. It took me a moment to place it. Yes, that was it. Barbiturate. The stuff in sleeping pills.

Kazu bent his great face over us. Baker briefly explained. Kazu appeared at first puzzled. He dropped the spoon into the dish and pushed it away from him. His brow wrinkled, and he glanced down at the ground. Walking to the edge, we saw that the group of priests were standing quietly around the engine, as though waiting for something. What they were waiting for evidently struck Kazu and us at the same time. Kazu leaned toward them and spoke in Japanese. His voice was angry. Baker tried to translate.

"He says, 'how dare you poison Buddha'—Look, they're running off—"

The next second things happened too rapidly for translation or even immediate interpretation. Kazu spoke again, his voice rising to an earth shaking roar at the end. The little men below were scattering in all directions, and the train started to back off down its track. Suddenly Kazu turned and picked up his hundred foot steel dish. He swept it across the table and then down in a long curving arc. There was an earth shaking thud and where the running figures and the train had been was now only the upturned bottom of the immense dish. Priests and cars alike were entombed in a thousand tons of hot rice!

Kazu now turned to us. "Come," he said, "Yat is not safe, even for Buddha. Now we must leave here at once."

He extended his hand towards us, and then, with another thought, turned and strode to the leanto. In a moment he returned carrying the projection room, with a tail of structural steel and electric cables hanging below. This he placed on the table and indicated that we were to enter. As soon as we were inside, Kazu clapped on the roof and picked up the stout steel box. We clung to the frame supporting the projectors, while a mass of slides, film cans and other debris battered us with every swooping motion. We could not see what was going on outside, but the giant seemed to be picking up a number of things from the ground and from inside the leanto. Then he commenced a regular stride across the crater floor. Now at last we got to a window, just in time to glimpse the nearby cliff. On the rim, some hundreds of feet above I saw a group of uniformed men clustered about some device. Then we were closer and I saw that it was an anti-aircraft gun, which they were trying to direct at us. I think Kazu must have seen it at the same moment, for abruptly he scrambled up the steep hillside and pulverized gun, crew and the whole crater rim with one tremendous blow of his fist.

I got a brief aerial view of the whole island as Kazu balanced mo-

mentarily on the rim, and then we were all thrown to the floor as he stumbled and slid down the hillside to the level country outside of the crater.

V

UP UNTIL this moment we had been engaged in an essentially personal enterprise, even though its object was to secure information vital to the United Nations. From this time on, however, the personal element was to become almost completely subordinate to the vast problems of humanity itself, for, as we were to soon find, we had tied ourselves to a symbol that was determined to live up to all that was claimed or expected of him, and further, who depended upon our advice. The situation for us was made much worse because at first we doubted both his sincerity and good sense—in fact, it was not until after the Wagnerian climax of the whole thing that we at last realized, along with the rest of the world, exactly what Kazu Takahashi believed in.

Kazu crossed the flat eastern half of Yat in less than a minute, evidently wishing to get out of range of Rau's artillery as quickly as possible. His feet tore through the groves as a normal man's might through a field of clover; indeed, he experienced more trouble from the softness of the ground than from any vegetation. As we were soon to learn, one of the disadvantages of Kazu's size lay in the mechanical properties of the world as experienced by him. Kazu stood almost 600 feet high, or roughly 100 times the linear dimensions of a normal man. From the simple laws of geometry, this increased his weight by 100^3 or 1 million times. But the area of his body, including the soles of his feet which had to support this gigantic load, had increased by but 100^2, or ten thousand times. The ground pressure under his feet was thus 100 times greater, for each square inch, than for a normal man. The result was that Kazu sank into the ground at each step until he reached bedrock, or soil strong enough to carry the load.

At the beach he hesitated briefly, as though getting his bearings, and then waded into the ocean. The surf which had used us so violently was to him only a half inch ripple. He strode through the shallows and past the reef in a matter of seconds, and then plunged into deeper water. From our dizzy perch, now carried at hip height, we watched the great feet drive down into the sea, leaving green walls of solid water about them.

Although we did not realize it at the time, we later learned that Kazu's wading forays were attended by tidal waves which inundated islands up to a hundred miles away. This trip across a twenty mile strait swamped a dozen native fishing craft, flooded out four villages and killed some hundreds of people.

We fared better than some of these innocent bystanders, for Kazu carefully held our steel box above the sea, and presently lurched through shallow water to the dry land.

The new island was larger than

Yat, and entirely given over to rice growing for Kazu's food supply. He threaded his way easily among the paddies, up through some low hills, and then down a narrow gorge into the sea again.

Ahead lay a much more extensive body of water. The sun was now hardly fifteen degrees above the horizon, and its glare plus a bank of clouds made it difficult to see the distant land. Kazu raised our room to the level of his face.

"Is that Island of Celebes?"

Baker started to pick up the microphone, and then abruptly realizing that it was dead, he shouted back from the projection port.

"I think it is. Let me look for a chart."

Kazu waited patiently while we searched, placing the room on a hilltop to give us a steadier platform. We all began a mad scramble in the mass of debris. Kazu removed the roof to give more light, but it soon became clear that there wasn't much hope. All that we could find were thousands of slides of the Chinese classics. At last we gave up. When we told Kazu this, he looked across the water and wrinkled his brow. We could sense the reason for his anxiety, for the distant shore could hardly be less than seventy miles away. Mentally I reduced this to terms I could understand. Seven tenths of a mile, of which an unknown percentage might be swimming.

Kazu's voice rumbled down to us. "I would prefer to wade. I cannot swim well." He peered down into our roofless box anxiously.

"If we only had one chart," began Baker, when Walt, who had been rummaging near the projector window, called to us.

"Take a look over there, just around the point."

We saw the prow of a ship. There was a moment of terror lest it be an Indonesian coast patrol, and then we saw that it was just a small island steamer of a thousand tons or so, chugging along less than two miles offshore.

I THINK that the idea hit us all at the same instant. Baker, as spokesman, called to Kazu. The giant, for the first time, grinned at us. Then he picked up our box and waded into the ocean.

I don't think the people in the little ship even saw us until we were practically upon them, because of the mist and sunset glare. What they thought I can only imagine, for the water was little more than knee deep and Kazu towered fully four hundred feet above it. Then a hand as big as the foredeck reached down and gently stopped them by the simple expedient of forming a V between thumb and fingers into which the prow pushed. I heard the sound of bells and saw tiny figures scurrying about on the deck. On the opposite side a number of white specks appeared in the water as crewmen dove overboard. Our box was now lowered until its door was next to the bridge. We leaped aboard, under cover of a great hand which obligingly plucked away the near wall of the pilot house. We entered the house just as the cap-

tain beat a precipitate retreat out the other side, and after a moment in the chartroom we found what we wanted. While Martin stood watch at the far door, we took advantage of the electric lights to examine the chart of the east coast of Celebes. That island, we found, was only sixty miles away and the deepest sounding was less than six hundred feet. Kazu could wade the whole distance.

THE nautical charts did not show much detail for the interior of Celebes, but from our elevation we could see enough of the terrain to guide Kazu quite well. The course which Baker plotted took us across the northern part of the big island, and far enough inland to avoid easy detection from the sea. As the day progressed, the sky gradually filled with clouds, promising more rain, so that I doubt if many people saw us. Those who did, I suspect, were more interested in taking cover than in interfering with Kazu's progress.

The journey across Celebes took only a couple of hours, and so, by noon, we stood on the shore of the strait of Macassar, looking across seventy-five miles of blue water to the mountains of Borneo.

It was not until now that Baker explained what he had in mind in choosing this particular route.

"We're going to Singapore," he said. "Get under the protection of the Royal Navy and Air Force before the commies spot us and start dropping bombs and rockets. If Buddha wants to see the world, he'd better start by getting a good bodyguard."

Kazu seemed agreeable when appraised of this plan, and so we began to plot a more detailed route over the 1,100 miles between us and the British crown colony. We stood at the narrowest part of the strait, but unfortunately most of it was too deep for Kazu to wade. Reference to the charts showed that by going 250 miles south, we would reduce the swim to about 30 miles, or the equivalent of some 500 yards for a normal man. To this was added a wade of 120 miles through shallows and over the many small Balabalagan Islands.

Suddenly Kazu's hand swept down and came up with a 60-foot whale, which he devoured in great gory bites. After this midocean lunch, Kazu resumed his wading. In the middle of the strait the depth exceeded five thousand feet, and he had to swim for a time, after fastening our box to his head by means of the trailing cables.

At length the sea became shallow once more, Kazu's feet crunched through coral, and the coast of Borneo appeared dimly ahead. We were all taking time for the luxury of a sigh of relief when Chamberlin screamed a warning.

"Planes! Coming in low at three o'clock!"

Fortunately Kazu heard this also, although the language confused him. Precious seconds were wasted while he held the box up to his face for more explicit directions. The planes, a flight of six, were streaking towards us just above the wavetops. We could see that they carried tor-

pedoes, and it was not difficult to guess their intentions.

"Go sideways!" Baker yelled, but Kazu did not move. He simply stood facing the oncoming aircraft, our box held in his left hand at head level, and his right arm hanging at his side, half submerged. Either Kazu was too frightened to move, or he did not understand the danger. The planes were hardly a half mile away now, evidently holding their fire until the last moment to insure a hit. What even one torpedo could do I didn't dare to contemplate, and here were twelve possible strikes. After all, Kazu was made of flesh, and after having seen the effect of TNT on the steel side of a ship, I had little doubt as to what would happen to him.

Now the last seconds were at hand. The planes were closing at five hundred yards, the torpedoes would drop in a second . . . But suddenly Kazu moved. His whole body swung abruptly to the left and at the same time the right hand came up through the water. We, of course, were pitched headlong, but we did briefly glimpse a tremendous fan of solid green water rising up to meet the planes. They tried to dodge but it was too late. Into the waterspout they flew, all six with their torpedoes still attached, and down into the ocean they fell, broken and sinking. It was all over in a moment. We were so amazed it was moments before we could move.

Kazu turned and resumed his stroll toward Borneo without a single backward glance at the havoc wrought by his splash.

AS WE entered the foothills I became conscious for the first time of a curious change. It was a psychological change in me, a change in my sense of scale. We had been carried so long at Kazu's shoulder level, and had grown so accustomed to looking out along his arms from almost the same viewpoint as his, that we were now estimating the size of the mountains as though we were as large as Kazu! It is difficult to express just how I felt, and now that it is all over, the memory has become so tenuous and subtle that I fear I will never be able to explain it so that anyone but my three companions could understand. But this was the first moment that I noticed the effect. The mountains were suddenly no longer 4,000 foot peaks viewed from a plane 500 feet above ground level, but were forty foot mounds with a six inch cover of mossy brush, and I was walking up their sides as a normal human being! The change was, as nearly as I can express it, from the viewpoint of a normal human being under extraordinary circumstances to that of an ordinary man visiting a miniature world. The whale to me was now a fat jellyfish seven inches long, the Chinese warplanes were toys with an eight inch wingspread, the little steamer of yesterday was a flimsy toy built of cardboard and tinfoil. We had, in effect, identified ourselves completely with Kazu.

And so we climbed dripping from the Straits of Macassar, and entered the mists and jungles of Borneo.

Our course toward Singapore carried us across the full width of

southern Borneo, a distance, from a point north of Kotabaroe to Cape Datu, of almost six hundred miles.

After about an hour, the blue outlines of the Schwanner Mountains appeared ahead and presently we passed quite close to Mt. Raya, which at 7,500 feet was the greatest mountain Kazu had ever seen. Then, dropping into another valley, we followed the course of the Kapuas River for a time, and finally turned west again through an area of plantations. Here Kazu made an effort to secure food by plucking and eating fruit and treetops together. The result was unsatisfactory, but presently we came upon a granary containing thousands of sacks of rice. The workmen, warned by our earthquake approach, fled long before we reached it. Kazu carefully removed the corrugated iron roof and ate the whole contents of the warehouse, which amounted to about a handful. The sacks appeared about a quarter of an inch in length, and seemed to be filled with a fine white powder.

Following this meal, Kazu drained a small lake, getting incidentally a goodly catch of carp, although he could not even taste them. Then, since it was now late in the afternoon, he turned northwest to the hills to spend the night.

The last part of the journey was almost entirely through shallow water—three hundred miles of the warm South China Sea. Baker planned to make a before dawn start, so that we might be close to the Malay Peninsula before daylight could expose us to further attack. Kazu suggested pushing on at once, but Baker did not think it wise to approach the formidable defenses of Singapore by night. And so for a second time we sought out an isolated valley where Kazu could snuggle between two soft hills, and we could get what sleep was possible in the wreckage of the projection room.

The China Sea passage was made without incident. We started at three A.M. in a downpour of rain, and by six, at dawn, the low outline of the Malay Peninsula came into sight. We made our landfall some forty miles north of Singapore, and at once cut across country toward Johore Bahru and the great British crown colony.

The rice paddies, roads and other signs of civilization were a welcome sight, and I was already relaxing, mentally, in a hot tub at the officers club when the awakening came. It came in the form of a squadron of fighter planes carrying British markings which roared out of the south without warning and passed Kazu's head with all their guns firing. Fortunately neither his eyes nor our thin shelled box was hit, but Kazu felt the tiny projectiles which penetrated even his twelve inch hide. As the planes wheeled for another pass he called out in English that he was a friend, but of course the pilots could not hear above the roar of their jets. On the second try two of the planes released rockets, which fortunately missed, but this put a different light on the whole thing. A direct hit with a ten inch rocket would be as dangerous as a torpedo. Baker tried to yell some advice, but there was no chance

before the planes came in again. This time Kazu waved, and finally threw a handful of earth and trees at them. The whole squadron zoomed upwards like a covey of startled birds.

By the time we had reached a temporary haven, Kazu was thoroughly winded, and we were battered nearly insensible. Baker, in fact, was out cold. Kazu slowed down, and then finding no directions or advice forthcoming, he resumed a steady dogtrot to the north. Martin and I tried to draw Baker to a safer position beside the projector, but in the process one of the steel shelves collapsed, adding Martin to the casualty list. Walt and I then attempted to drag the two of them to safety, but in the midst of these efforts a particularly hard lurch sent me headfirst into the projector, and my interest in proceedings thereupon became nil. Walt, battered and seasick, gave up and collapsed with the rest of us. Further efforts at communication by Kazu proved fruitless. Buddha was on his own.

VI

I AWOKE with a throbbing headache to find the steel room motionless, and warm sunshine streaming into my face. Looking around, I saw that my three companions were all up and apparently in good shape. Baker was the first to notice that I was awake, and he came over immediately.

"Feel better?" he inquired cheerfully.

He helped me up and I staggered to the window. The room was perched, as usual, on a hilltop, but the vegetation around was not tropical jungle. I turned to the others, noting as I did that the room was cleaned up.

"Where—" I started, with a gesture outside. Baker stopped me and led me to an improvised canvas hammock.

"You really got a nasty one," he said. "You've been out two days."

"Two days!" I tried to rise, but the effort so increased the headache that I gave up and collapsed into the hammock.

"Just lie quiet and I'll bring you up to date." Baker drew up an empty film box for a seat. "I was knocked about a bit myself, you know, and by the time I came around, our friend had trotted the whole length of the Malay Peninsula and was halfway across Burma."

"But the people at Singapore," I began, "Don't those fools know yet—"

"Things have changed," said Baker. "The biggest change has been in Buddha's mind. He took our advice and almost got killed for his pains. Now he's on his own."

I tried to look through the open door. Baker shook his head.

"He's not here. No—" this in answer to my startled look, "just off for a stroll, towards China this time, I think. Yesterday he visited Lhasa. Said it's quite a place. Talked to the Lamas in Tibetan, and they understood him. He calls it playing Buddha."

Baker got up and searched among the maps, finally finding one

of southeast Asia. He spread it out before me, and placed a finger rather vaguely on the great Yunnan Plateau between Burma and China.

"We're here, somewhere. Buddha doesn't know exactly, himself. He made it to Lhasa by following the Himalayas, and watching for the Potala. I hope he'll find his way back this time—be a bit awkward for us if he doesn't."

He stepped outside and brought in some cold cooked rice and meat.

"Kazu brought us a handful of cows yesterday. They were practically mashed into hamburger. I guess you'd call this pounded steak."

I ate some of the meat and settled back to rest again. Presently I dozed off.

When I awakened it was dark and Kazu was back. Martin had started a big campfire outside, evidently with Kazu's aid, for it was stoked with several logs fully eight feet in diameter and was sending flames fifty feet into the sky. Kazu himself was squatting directly over it, staring down at us. When I came to the door, he spoke.

"Ah, little brother Bill. I am so sorry that you were hurt. I am afraid I forgot to be gentle, and that is not forgiveable in Buddha."

I made an appropriate reply, and then waited. Evidently he had as yet told nothing of his day's expedition. Finally he plucked a roasted bullock from the fire and popped it into his mouth like a nut.

"Today," he said, "I visit Chungking, Nanking, Peking. I think I see hundred million Chinese. I know more than that see me. Also I talk to them. They understand, for miles. They expected me. As you say, brother Llewelyn, Rau has excellent propaganda machine. Everywhere they hail me as Buddha, come to save them from war and disease and western imperialism. I speak to them as Buddha; today, I am Buddha."

Baker glanced at us meaningfully and murmured, "I was afraid of this." But Kazu continued.

"Today all of China believes I am Buddha. Only you and I know this is not so, but we can fight best if they believe."

"Have you eaten?" inquired Martin. Kazu nodded.

"At every temple they collect rice for Buddha. Many small meals make full belly. But," his face wrinkled with concern, "many thousands could live on what I eat today. China is so poor. So many people, so little food. I must find ways to help them." He paused, and then resumed in a firmer tone.

"But not in communist way. Rau was right about western imperialists, but he named wrong country. Russian imperialists have enslaved China. First we must drive communists from China. Then I can help."

"Amen," said Baker softly. Then, to Kazu . . .

"We've been trying to do just that for years. But how can you fight seven hundred million people?"

"Don't fight—lead them."

It sounded so simple, the way he said it. Well, maybe he could. But now Baker had more practical questions.

"What does the rest of the world think about all this? Have you talked to any Europeans, or heard a radio?"

Kazu shook his head. "But I caught communist General. He tell me Russia sending army to capture me. He say only hope is for me to surrender, or Russian drop atom bomb on me. Then I eat him."

We must have showed our startled reaction, for Kazu laughed.

"Not much nourishment in communist. I eat him for propaganda —many people see me do it. Effect very good." He paused. "Not tasty, but symbolic meal. China is like Buddha, giant who can eat up enemies."

"What are you going to do next?" asked Baker.

"That is question. I need more information. Where is leadership in China I can trust? What will Russians do? How long for British and Americans to wake up?"

"You're not the only one asking these questions," said Baker. "But maybe you can get some answers."

BEFORE Kazu could continue, Chamberlin held up his hand for silence. We listened, and presently heard above the crackle of the great bonfire, the throb of an airplane engine. Kazu heard it too, for he suddenly arose and stepped back out of the light. We four also hastened into the shadows and peered into the dark sky. The approaching aircraft displayed no lights, but presently we saw it in the firelight—a multi-jet bomber bearing American markings. We rushed back into the illuminated area and danced up and down, waving our arms. The huge plane swung in a wide circle and came in less than five hundred feet above the hilltop. I could make out faces peering down at us from the glassed greenhouse in front. As it roared past, one wing tipped slightly in the updraft from the fire, and then suddenly the plane stopped dead in its tracks. The jets roared a deeper note as they bit into still air, and then very slowly and gently the great ship moved back and down until it rested on its belly beside our steel box. Not until it was quite safe on the ground did Kazu's hands release their hold on the wings, where he had caught it in midair.

The eleven crew men from the B125 came out with their hands in the air, but their expressions were more incredulous than frightened. Baker added to the unreality of the situation by his greeting, done in the best "Dr. Livingstone-I-presume" manner.

"Welcome to Camp Yunnan. Sorry we had to be so abrupt. I'm Baker, these are Chamberlin, Martin, Cady."

"I'm Faulkner," replied the leader of the Americans automatically, and then he abruptly sat down and was violently sick. We waited patiently until he could speak again.

"My God, I didn't believe it when we heard." He was talking to no-one in particular. "One minute we're flying at 450 miles per hour, the next we're picked out of the air like a—like a—"

He gave up. Kazu came into the

firelight and squatted down, quite slowly. Baker introduced him.

"Colonel, I'd like you to meet Kazu Takahashi." The American arose and extended his hand, and then dropped it abruptly to his side. Kazu emitted a thunderous chuckle.

"Handshake is, I fear, formality I must always pass up, even at risk of impoliteness."

I think that the language, and particularly the phrasing, jolted the airmen even more than the actual capture. Colonel Faulkner kept shaking his head and murmuring "My God!" for several moments, and then pulled himself together. "So the story's really true after all," he finally said. "We got it on the radio day before yesterday at Manila. It was so garbled at first that nobody could make any sense. Ships reported thousand foot men wading in the ocean. New Macassar radio reported that Buddha was reincarnated, and then denied the story. Announcements of a pitched battle at Singapore, and frantic reports from every town on the peninsula. Then a statement by some Lama on Macassar that the British had kidnaped Buddha, had him hypnotized or doped, and were using him to exterminate China."

He paused and looked up at Kazu, who had bent down until his face was only a hundred feet above us.

"Part of it is true," said Baker. "There was a giant wading in the ocean. As to the rest, I fear we have caught the red radio without a script. I'll tell you the story presently, but just now there are more urgent things to do. Is your radio working?"

Faulkner nodded and led us towards the plane. Baker continued.

"Briefly, Kazu is a mutation produced by the Hiroshima bomb. He's been groomed for twenty years to take over as the world's largest puppet, but it turns out he has a mind of his own. We just happened along, and are going on for the ride. Want to join the party?"

The Colonel grinned for the first time as we all squeezed into the radio compartment of the plane.

"I like travel," he said. "It's so broadening."

The radio was not only operative, but proved most informative as well. Every transmitter on earth, it seemed, was talking about the giant. In the course of an hour we listened to a dozen major stations and got as many versions of the story. The communist propaganda factory had obviously been caught flat footed, for their broadcasts were a hopeless mixture of releases evidently prepared for the planned introduction of Buddha to the world, and hastily assembled diatribes against the capitalist imperialists who had so foully captured him. Some of the Russians apparently were not in on the secret of Buddha's dimensions, for they described in detail how a raiding party of eighty American commando-gangsters had landed by parachute on Yat, seized Buddha, and taken him away in a seaplane.

Before we went to sleep that night, Kazu extinguished the fire so that no one else would be attracted as the Colonel had been.

NEXT morning the first question concerned transportation. Colonel Faulkner naturally did not want to leave his plane, particularly since it was undamaged, but a takeoff from our narrow mountain ledge was obviously impossible, so he regretfully ordered his crew to unload their personal effects for transfer to our box. At this point Kazu stepped in.

"If you will enter your airplane and start jets," he said, "Buddha will serve as launching mechanism."

Before the takeoff, the Colonel transferred his spare radio gear to our box, along with an auxiliary generator, and we agreed on a schedule to keep in touch. Then Kazu gently picked up the bomber, raised it high above his head and sent it gliding off to the north. The engines coughed a couple of times and then caught with a roar. Colonel Faulkner wagged his wings and vanished into the haze.

Our plan was to follow the plane east to the Wu River, and then north to its meeting with the Yangtze, which occurs some seventy five miles below Chungking. While the B125 cruised around us in a great circle, we loaded our belongings into the box, and Kazu picked us up and signalled the plane that we were ready. Colonel Faulkner's intention had been to circle us rather than leave us behind with his superior speed, but in a moment it became clear that this would not be necessary. Kazu set off down the canyon at a pace better than three hundred miles per hour, and the Colonel had to gun his motors to keep up.

We passed only a few small towns on the Wu. Kazu had been here before, and had evidently stopped to talk and make friends, for we observed none of the fright which had formerly greeted his advent. Instead, crowds ran out to meet us, waving the forbidden Nationalist flag and shooting off firecrackers. Kazu spoke briefly in Cantonese to each group, and then hurried on. Baker explained that he was giving them formal blessings, in the name of Buddha.

An hour's time brought us to Fowchow, on the mighty Yangtze Kiang. Here Kazu turned left, wading in the stream, and negotiated the seventy odd miles to Chungking in fifteen minutes.

The distance from Chungking to Hankow is somewhat more than five hundred miles. For much of this distance the Yangtze is bounded by mountains and rocky gorges, but in the final 150 miles, the hills drop away and the river winds slowly through China's lake country. Kazu made good time in the gorge, but his feet sank a hundred feet into the soft alluvial soil of the lowlands and he had constantly to watch out for villages and farms.

Buddha had not visited Hankow before, but he was expected. Even before the city came into view, the roads were lined with people and the canals and lakes jammed with sampans. Just outside of the city we noticed a small group of men in military uniform under a white flag. We guessed that they represented the commu-

nist city government, and so did Kazu, for he set our box beside the group and ordered the spokesman to come in for a parlay. The unfortunate officer who was picked obviously did not relish the idea, particularly after Martin cracked in English, "He doesn't look fat enough." Giving Martin a glare, he drew himself up stiffly and said, "General Soo prepared to die, if necessary for people of China."

The communist General showed somewhat less bravado after the stomach turning ascent to the six hundred foot level, but he managed to get off a speech in answer to Kazu's question. As before, Baker gave us a running translation.

"He says welcome to Hankow. The people's government, ever responsive to the will of the citizens, joins with all faithful Buddhists in welcoming Buddha, and in expressing heartfelt thanksgiving that rumors claiming Buddha to be a puppet of western imperialists are all false. Now he's saying that there is to be a big party—a banquet—for Buddha, in the central square. Rice has been collected and cooked, and a thousand sheep slaughtered to feed hungry Buddha."

Kazu replied formally that while he appreciated the hospitality of the people of Hankow, he could not accept food from the enemies of China. These words, which were clearly audible to the entire city, were greeted with cheers by the throng below. The General took them in, thought about it a moment, and then made a neat about face.

"General Soo," said he stoutly, "was communist when he believed communism only hope for China. You have changed everything. General Soo now faithful Buddist!"

"May I," said Baker with a grin, "be the first to congratulate General Soo on his perspicacity."

AS THE General had promised, there was a great banquet spread. In spite of Soo's protestations, Baker insisted on sampling each course rather extensively for sleeping potions or poison, but either the idea had not occurred to the communists, or there hadn't been enough time, or poison available.

For the most part the civil government of Hankow joined with General Soo in a loudly declared conversion to Buddhism without communist trappings. In spite of Baker's skepticism, I believed that most of them were quite sincere. At least, they sincerely wanted to be on the side with the most power, and for the time being at least, Kazu seemed an easy winner. General Soo, in particular, insisted on making a long speech in which he declared the Russians to be the true "western imperialists", now unmasked, who since the days of the first Stalin had sought to enslave China with lies and trickery. Baker shook his head over this, and privately opined that Soo was a very poor fence straddler: such remarks went beyond the needs of expediency, and would probably completely alienate him from the Kremlin. However, the crowd

thought it was all fine.

Kazu replied with a short, and generally well planned statement of his policy.

"Those who follow me," he concluded, "have no easy path. They must be strong, to throw off the yoke of those who would enslave them, but they must be merciful to their enemies in defeat, even to those who but a moment before were at their throats. For though we win the war, if we at the same time forget what we have fought for, then we have indeed lost all. I proclaim to all China, and to her enemies both within and without our borders, that the faith of Buddha has returned, and that interference in China's affairs by any other nation will not be tolerated."

Colonel Faulkner had landed at the Hankow airport and now, with his crew, shared our private banquet on the terrace of the city's largest hotel, only a few hundred feet from where Kazu squatted. Under cover of the cheering and speechmaking, he relayed to us some news which he had heard on the radio, which was not quite so rosy.

It seemed, first, that the Chinese III Army, under General Wu, had declared itself for Buddha, and was engaged in a pitched battle with the Manchurian First Army north of Tientsin. The communist garrison at Shanghai, where there was a large population of Russian "colonists", had holed in, awaiting attack by a Buddhist Peoples Army assembled from revolting elements of the II and VII Corps at Nanking. A revolt at Canton, far to the south, had been put down by the communists with the aid of air support coming directly from Russia. The most ominous note, however, was a veiled threat by old Mao himself that if mutinous elements did not submit, he might call upon his great ally to the east to use the atomic bomb. Mao spoke apparently from near Peking, where he was assembling the I and V Armies.

We digested this news while Kazu finished the last of his 1000 sheep. We all cast anxious glances into the sky. Soviet planes at Canton meant that they could be here also, and Buddha, squatting in a glare of light in the midst of Hankow, was a sitting duck for a bombing attack.

As soon as the main part of the formalities were over, Baker managed to get Kazu's attention, and informed him of the situation. Kazu's reaction was immediate and to the point.

"We do not await attack. We go north to free our brothers, and to instruct our errant General Mao in Buddha's truth."

By the time we were packed and in our travelling box, the time was eight-thirty. Reference to our map showed the airline distance from Hankow to Peking to be about 630 miles, and Buddha, greatly refreshed by the food and rest, promised to reach the capital by eleven.

To make walking easier, Baker plotted a route which avoided the lowlands, particularly the valley of the Yellow River, in favor of a slightly longer course through the mountains to the east. We started

northwest, splashing through the swamps and lakes around Hankow at first, and presently reached firmer ground in the Hawiyang Shan. We followed the ridge of these mountains for a time, and then dropped to the hilly country of Honan Province. At first the night was very dark, but presently the light of a waning moon made an occasional fix possible, although navigation was confusing and uncertain at best.

We splashed across the Yellow River at ten o'clock, somewhere east of Kaifeng, and for a time were greatly slowed by what appeared to be thick gumbo.

Our speed improved once we got up into the rugged Taihang Mountains. Here also we felt safer from air observation or attack, although Kazu was soon panting from the exertion of crossing an endless succession of fifteen to thirty foot ridges. This was indeed rough country, terrain which had protected the lush plains of China for centuries against the Mongols. Here the great wall had been built, and presently, in the moonlight, we saw its trace, winding serpentlike over the mountains.

We followed the Wall for almost two hundred miles—all the way, in fact, to the latitude of Peking—before we swung east again for the final lap to Mao's capital.

DURING the last hour we trailed an antenna and listened in on the world of radio. The news was not good. The Shanghai garrison had sprung a trap on their disorganized attackers, and were marching on Nanking. Mao's armies were closing the southern half of a great pincers on Wu's troops, and only awaited the dawn to launch the final assault. Worst of all, there had been reports of increasing Soviet air activity over the area; a major air strike also apparently would come with daylight.

We were scarcely halfway from the edge of the city to the moated summer palace when a small hell of gunfire broke out around Kazu's feet. He jumped, with a roar of pain, and then lashed out with one foot, sweeping away a whole city block and demolishing the ambush. Limping slightly, he made the remaining distance by a less direct route and at last stood at the moat before the palace. The ancient building, and, indeed, everything about, was quite dark. Kazu peered about uncertainly, and then raised our box to ask for advice. Baker was pessimistic.

"I don't think you'll find General Mao here. But at this stage of things, I don't believe it would matter if you did. The decision will be made tomorrow by the armies."

Kazu stepped carefully over the moat and wall, and sat down wearily in the gardens of the summer palace. We peered with interest at the foliage, marble bridges and the graceful buildings, illuminated only by ghostly moonlight. With Kazu squatting among them, they looked like models, a toy village out of ancient China. I wished that a picture might be taken, for surely never before had Buddha

been in so appropriate a setting.

While Kazu rested, we examined his feet. A number of machine gun bullets had entered his foot thick hide, and there was one wound a yard long from which oozed a sticky gelatinous blood. There did not appear to be any serious damage, although the chances of infection worried us. In any event, there was nothing we could do except douse it with buckets of water from the moat. Kazu thanked us formally, as befitted a deity, and added, as though talking to himself,

"Now is the most difficult time. How can I bring peace without the use of violence? I can appear before these armies and command them to stop. But what if they do not obey? Should I use force? Oh, that I were really the Great Lord Buddha—then I would have the wisdom, the knowledge that is a thousand times more potent than giant size. Oh Buddha, grant me wisdom, if only for a moment, that I may act rightly."

Presently the giant stretched out full length in the garden and, while we kept guard, slept for a time.

The first pale glow of dawn appeared soon after five, and we were preparing to awaken Kazu when Martin held up a warning hand. We listened. At first we heard nothing, and then there came a deep drone of jets. Not a single plane, not even a squadron. Nothing less than a great fleet of heavy aircraft was approaching Peking from the west. Baker fired his automatic repeatedly near Kazu's ear, and presently his rumbly breathing changed and he opened his eyes.

"Planes," said Baker briefly. "It's not safe here. Better get moving."

Kazu sat up, yawning, and we climbed into the box. The giant took a long draught from the nearest fishpond and tied our cage to his neck and shoulder so that both of his hands would be free.

By this time the noise of the planes had increased to a roar, which echoed through the silent city. Kazu arose to his full height and waited. A pinkish line of light had now appeared along the eastern horizon which, I realized with consternation, must silhouette the mighty tower of Kazu's body to whomever was coming out of the western shadows.

AND THEN we saw them. A great fleet of heavy bombers, flying high, far beyond even Kazu's reach. Baker seized the glasses to look, and then gave a cry of warning. The leading plane had dropped something — a black spherical object above which blossomed a parachute. I think that Kazu realized what it was as soon as we, but he still stood quietly. Baker lost whatever calm he had left and screamed, "Run, run—it's the H-bomb!" but still Kazu did not move. In a moment another of the deadly spheres appeared, directly over us, and then a third. Now at last Kazu moved, but not toward safety. He walked slowly until he was directly beneath the first bomb, and reached up, until his hand was a thousand feet in the air. Down came the bomb, quite rapidly, for the parachute was not

very large.

"What's the matter with the fool," yelled Martin. But now Baker seemed to get Kazu's idea.

"It has barometric fusing—it's set to detonate at a certain altitude. If that's below a thousand feet, and Kazu can catch it, it won't go off!"

Martin started something about detonation at two thousand feet, when Kazu gave a slight jump and his hand closed about the deadly thing, as though he had caught a fly. We cowered, expecting the flash that would mean the end, but nothing happened. In Kazu's crushing grip the firing mechanism was reduced to wreckage before it could act. When Buddha opened his palm, it contained only a wad of crumpled metal inside of which was a now harmless sphere of plutonium.

In quick succession Kazu repeated this performance with the other two bombs, wadded the whole together and flung it to the ground. Then he turned to the north.

By the time we had cleared the city, it was quite light, and we could see a dark pall of smoke in the northeast. The armies which had been poised last night had finally met, and a great battle was underway. Kazu hurried towards it, and presently we could hear the crackle of small arms fire and the heavier explosions of mortars and rockets. It took a moment or so for Kazu to get his bearings. Evidently we were approaching Mao's legions from the rear. Still keeping from the roads to avoid killing anyone, Kazu advanced to near the battle line, and there stopped.

"My brothers," his voice thundered above the heaviest cannon, "my poor brothers on both sides, listen to me. Stop this killing. Stop this useless slaughter. No one can win, and all will—"

Suddenly there was a blinding flash of light, a thousand times brighter than the newly appeared sun. It came from behind us, and in the terrible instant that it remained we could see Buddha's enormous shadow stretching out across the battlefield. Kazu stopped speaking and braced his shoulders for the blast. Subconsciously I was counting seconds. Four, five, six, seven—A sudden, insane hope gripped me. If we were far enough from the burst—and then the blast hit us, and with it, the sound. Kazu pitched forward a hundred yards, and stumbled on as far again. Then he recovered. One hand reached behind him, to the back that had taken the full brunt of heat and gamma radiation, and a half animal cry escaped from his lips. Over his shoulder we got a glimpse of the fireball, of the fountain of color which would presently form the terrible mushroom cloud. The thunder of the explosion reverberated, and was replaced by silence. The crackle of rifles, the thud of field pieces had ceased. From our perch we looked down at a scene straight from Dante's Inferno. About Kazu's feet was a shallow ravine in which a thousand or so communist troops had taken cover. These were now scrambling and clawing at the sides like ants trying to get away. Vehicles were aban-

doned, rifles thrown away. A few had been burned, but it seemed that for the most part the soldiers had been sheltered from direct radiation by the wall of their canyon, and by Kazu's great shadow.

For an eternity, it seemed, Kazu stood there, swaying slightly, one hand still pressed against his back, while the little men writhed about his ankles. Then, quite slowly, he raised one foot. I thought that he was going to walk away, but instead, the foot moved deliberately until it was directly over the ravine, and then, like a tremendous pile driver, it descended. A faint and hideous screaming came up to us, which abruptly ended. The foot came up, and again descended, turning back and forth in the yielding earth. Slowly Kazu brought his hand up, and lifted our box so that he could look at us. As he did so, I saw that half of his hand was the color of charcoal, and I smelled a horrible odor of tons of burnt flesh. Now at last he spoke, in a voice that we could scarcely understand.

"Guide me," he said, "Guide me, Baker. Guide me to Moscow!"

VII

KAZU walked quite slowly from the battlefield. His gait was unsteady, and at first we feared that he would collapse. We could not tell how deep the burns were, nor whether he was internally hurt by the blast. He appeared to be suffering from some kind of shock, for he did not speak again for a long time. But gradually he seemed to gather himself together, and we became almost convinced that the shock was more psychological than physical, and that even the atom bomb was powerless against his might.

We did not remain to see the outcome of the battle, but presently Martin turned the radio on. The news at first was fragmentary. Word that a Russian plane had atom bombed the new Buddha spread across China, and with it ended the last shreds of communist prestige. The armies which had been pro-communist turned on their officers. Mao himself was murdered on the battlefield before Kazu was out of sight. The former red defenders of Shanghai massacred twenty thousand hapless Russian emigrants. All across Asia the story was the same, a terrible revulsion. At first it was believed that Buddha had died instantly; later rumor had it that he had crawled off to Mongolia to die.

Radio Moscow at first was silent. The horror of what had been done was too much even for that well oiled propaganda machine. At last a line was patched together: the bomb had been dropped by an American plane, bearing Russian markings. Then Radio Peking announced that Chinese fighters had shot it down and that the crew was Russian. To this Moscow could think of only one reply: Radio Peking was lying; the station had been taken over by the Americans! A little later another Moscow broadcast announced solemnly that the whole story was wrong—Buddha hadn't been there at all!

All the time that this confused

flood of talk was circling the globe, Kazu Takahashi, still clinging to the battered steel projection room, was striding across Siberia, staggering now and then, but still maintaining a pace of better than three hundred miles per hour.

At first he simply walked westward without any directions from us. By ten o'clock he had put a thousand miles between him and the coast and was well across the southern Gobi desert. Now Baker, who had been almost as stunned as Kazu, began to look into his maps. He had nothing for central Asia as detailed as the charts we had used in Borneo and Celebes, but he presently found a small scale map that would do. With this he identified the snowy range of mountains now towering on our left as the Nan Shan, northernmost bastion of Tibet. He hurriedly called to Kazu to turn northwest before he entered the great Tarim Basin, for the western side of that vast desert was closed by a range of mountains 20,000 feet high. Even with the new course, our altitude would be above six thousand feet for many miles.

At noon we were paralleling another mighty range, the little known Altai Mountains, and at one o'clock we passed the Zaisan Nor, the great lake which forms the headwaters for the Irtysh River. Here Kazu paused for a drink, and to rinse his burns with fresh water. Then we were away again, this time due west over more mountain tops, avoiding the inhabited lowlands. At three-thirty the hills dropped away and there appeared ahead the infinite green carpet of the Siberian forest. Kazu stopped again at another lake, which Baker guessed might be Dengiz. At four-thirty we crossed a wide river which we could not identify, and then at last commenced to climb into the foothills of the southern Urals. Just in time Baker discovered that Kazu's course was taking him straight toward the industrial city of Magnetogorsk. We veered north again into the higher mountains and then turned east to the forests.

We were sure now that Kazu must be delirious, but after a while he stopped at the edge of a lake.

"How far are we from Moscow?" he asked.

"Twelve hundred miles, more or less," said Baker. "You can make it by nine, maybe ten, tonight."

Kazu shook his head.

"No. Tonight I must rest, gather strength. We start two AM, arrive Kremlin at sunrise. We catch them same time they catch me. No warning whatever."

Kazu lay down on the swampy lake bottom while we huddled on the floor of the box, courting sleep which never came.

At one o'clock we at last gave it up, and Baker fired his pistol until Kazu stirred. While he was awakening we listened to the radio. Things had calmed down quite a bit, and as we pieced the various broadcasts together, an amazing realization came over us. Everyone believed that Kazu was dead! Evidently no word of our trip across all of central Asia had been received! Search planes, both Soviet and Chinese, were combing the

eastern Gobi for the body.

OTHER news included a war declaration by China upon the Soviet Union, and the announcement that the Russian Politbureau had scheduled a meeting in the Kremlin to consider the emergency.

We passed all of this on to Kazu, whose grim face relaxed for the first time in a fleeting grin.

"Good reporters. Know what are most savory items. Now guide me well, and away from towns until we reach it."

The trip across the Urals and the plains of European Russia retains a nightmare quality in my mind, comparable only with that first night on Yat. Even Baker, who plotted the course, can remember it little better. Now and again we caught glimpses of the dim lights in farms, and once we saw the old moon reflected in the Volga. Much of the low country was covered with ground fog, which reached to Kazu's waist; this, combined with the blackout which had been ordered in every town, made observation by us or the Russians either way difficult. A few people saw Kazu, and their reports reflect a surrealist madness; those who had the horrifying experience of suddenly meeting Buddha in the early morning mists were universally incapable of making any coherent report to the authorities.

And then, just as the ghostly false dawn turned the night into a misty gray, we saw ahead the towers of Moscow. Now Kazu increased his speed. Concealment was no longer possible; he must reach the Kremlin ahead of the warning.

At 500 miles per hour Buddha descended upon Moscow. His plunging feet reduced block after block of stores and apartment houses to dust, and the sky behind us was lighted more brightly by the fires he started than by the dull red of the still unrisen sun. Now at last I heard the tardy wail of a siren and saw armored cars darting through the streets. On the roof of an apartment house I glimpsed a crew trying to unlimber an antiaircraft gun, but Kazu saw it also, and smashed the building to rubble with a passing kick.

And then we were at the Red Square. St. Basils at one end, the fifty foot stone walls of the Kremlin along one side and Lenin's Tomb like a pile of red children's blocks. Kazu stood for a moment surveying this famous scene, his feet sunk to the ankle in a collapsed subway. It was my first view of the Red Square, and somehow I knew that it would be the last, for anyone. Then Kazu slowly walked to the Kremlin and looked down into it. I remember how suddenly absurd it all seemed. The Kremlin walls, the very symbol of the iron curtain, were scarcely six inches high! The whole thing was only a child's playpen.

But now Kazu had found what he wanted. Without bothering to lift his feet, he crushed through the walls, reached down and pulled the roof from one of the buildings. He uncovered a brightly lighted ant-

hill. Like a dollhouse exposed, he revealed rooms and corridors along which men were running. Kazu dropped to his knees and held our box up so that we might also see.

"Are these the men?" he asked. Baker replied in the negative.

Kazu abruptly pressed his hand into the building, crushing masonry and timbers and humans all into a heap of dust, and turned to a larger building. As he did, something about it seemed familiar to me. Yes, I had seen it before, in newsreels. It was—

But again Kazu's fingers were at work. Lifting at the eaves, he carefully took off the whole roof. Through a window we saw figures hurrying toward a covered bridge connecting this building with another. At Baker's warning, Kazu demolished the bridge, and then gently began picking the structure to pieces. In a moment we saw what we were after. A wall was pulled down, exposing a great room with oil paintings of Lenin and Stalin on the wall and a long conference table in the center. And clustered between the table and the far wall were a score of men. Anyone would have recognized them, for their faces had gone round the world in posters, magazines and newsreels. They were the men of the Politbureau. They were Red Russia's rulers.

There was an instant of silent mutual recognition, and then Kazu spoke to them. As befitting a god, he spoke in their own tongue. Exactly what he said I do not know, but after a little hesitation they came around the table to the precarious edge of the room where the outer wall had been. Kazu gave further directions and held up our steel box. Fearfully they came forward and jumped the gap into our door. One by one they made the leap, some dressed in the bemedalled uniforms of marshals, others in the semi-military tunics affected by civilian ministers. The last was the man who had succeeded Stalin on his death, and who had taken for himself the same name, as though it were a title.

As he entered our room, we saw that he even looked like the first Stalin, clipped hair, moustache and all. He was a brilliant man, we knew. Brilliant and ruthless. He had grown up through the purges, in a world which knew no mercy, where only the fittest, by communist standards, survived. He had survived, because he was merciless and efficient and because he hated the free west with a hatred that was deadly and implacable.

I OFTEN wonder what his thoughts were at that moment. He came because he was ordered to and because he knew the alternative. He knew he was to die, but he obeyed because by so doing he could prolong life a little, and because there was always a chance.

At that moment I deeply regretted knowing no Russian. The twenty one who came in talked among themselves in short sentences. They saw us, but ignored us. Baker spoke, first in English and then in German. The one called Stalin understood the German, for

he looked at Baker searchingly for a moment, and then turned away. Only one of them replied. This was Malik, the man who wrecked the old United Nations and then became Foreign Minister after Vishinsky was murdered. He ignored the German and spat out his reply in English.

"You will not live to gloat over us. He will kill you too, all of you!"

We can never be sure of what Kazu planned, because now—and of this I am certain—his plans changed. There was suddenly a stillness. We waited. Then I ran to the window and looked upward into the great face.

It had changed. A deep weariness and a bewilderment was upon it—as though Kazu had suddenly sickened of destruction and slaughter. His whispering was the roaring of winds as he said, "No—no. This is not the way—not Buddha's way. They must talk. They must understand each other. They must sit at tables and settle their differences, that is my mission."

Kazu took five steps. Below us was an airfield.

"Can you fly?" he asked us. Chamberlin had been an army pilot in the fifties. Kazu pushed the box up to a transport, an American DC8.

"Go in this," he said quite clearly. "Go in this plane until you are in Washington. Tell America about me. Tell America I am coming—that I am bringing—*them*. Tell America there must be—peace."

We scrambled out of the steel box, leaving the Russians in a miserable heap in one corner.

He arose to his full height and carefully adjusted the cables around his neck. I noticed that his fingers fumbled awkwardly, and that he staggered slightly. Then he spoke once more.

"I cannot cross Atlantic. Only route for Buddha is Siberia, Bering Straight, Alaska. But this not take long. You better hurry or I get to Washington first!"

He turned on his heel and walked a few steps to the end of the runway.

"Now get in plane. I give little help in takeoff!"

We climbed into the familiar interior of the big American transport. A moment later it arose silently, vertically like an elevator. Chamberlin, in the pilot's seat, hurriedly started the engines. He leaned from a window and waved his arm, and we shot forward and upward. For a moment the plane wavered and dipped, taking all of Walt's ability to recover. Then with a powerful roar, the big DC8 zoomed over the flames of Moscow toward the west.

THE FLIGHT to London and the Atlantic crossing seemed unreal. We lived beside the radio. War and revolt against the Soviets had broken out everywhere. With the directing power in the Kremlin gone, the top-heavy Soviet bureaucracy was paralyzed. The Yugoslavs marched into the Ukraine, Chinese armies occupied Irkutsk and were pressing across Siberia. Internal revolution broke out at a hundred points once it was learned that

Moscow was no more.

Eagerly we listened to every report for word of Kazu. At first there was nothing, and then a Chinese plane reported seeing him crossing the Ob River, near the Arctic Circle. They said that he carried a box in his hand and appeared to be talking to it. Then news from the tiny river settlement of Zhigansk on the Lena that he had passed, but that he limped and staggered as he climbed the mountains beyond.

After that, silence.

Planes swarmed over eastern Siberia, the Arctic Coast and Alaska, but found nothing. Five hundred tons of C ration were rushed to Fairbanks, and tons of medical supplies for burns and possible illness were readied, but no patient appeared. At first we were hopeful, knowing Kazu's powers. Perhaps he had lost his way, without Baker and the maps, but surely he could not vanish. As the days passed Baker became more worried.

"It's the radiation," he explained. "He took the full dose of gamma rays right in his back. He might go on for days, and then suddenly keel over. He's had a bad burn outside, but it's nothing to what it did to him internally."

So the days passed, and so gradually hope died. And then, at last, there was news. It came, belatedly, from an eskimo hunter on the Pribolof Islands, in Bering Sea. He reported that a great sea god had come out of the waters, so tall that his head vanished into the clouds. But, he was a sick god, for he could hardly stand, and soon crawled on his hands. Around his neck, said the eskimo, he carried a charm, and he spoke words to this in a strange tongue. And the charm answered him in the same tongue, and with the voice of a man. And the two spoke to each other for a time and then the great one arose and walked off of the island and into the fog and the ocean.

Questioned, the man was somewhat vague as to the exact direction taken, although it seemed clear that Kazu had headed south. When Baker examined his chart of Bering Sea, he found that the ocean to the north and west, towards Siberia, was shallow—less than five hundred feet. But the Pribolofs stood on the edge of a great deep. Only twenty miles south of the islands, the ocean floor dropped off to more than ten thousand feet, for three hundred miles of icy fog shrouded ocean, before the bleak Aleutians arose out of the mists. This desolate area was searched for months by ships and planes, but no trace ever appeared from the treacherous currents of the stormy sea. Kazu had vanished.

So here ended the story of Kazu Takahashi, who was born in the days of the first bomb, and who died by the last ever to sear the world. He was believed by millions to be the incarnation of the Lord Buddha, but to four men he was known not as a god but as a great and good man.

THE END

The dawning of intelligence is sometimes the greatest tragedy of all.

BROTHER to the MACHINE

By Richard Matheson

HE STEPPED into the sunlight and walked among the people. His feet carried him away from the black tube depths. The distant roar of underground machinery left his brain to be replaced by myriad whispers of the city.

Now he was walking the main street. Men of flesh and men of steel passed him by, coming and going. His legs moved slowly and his footsteps were lost in a thousand footsteps.

He passed a building that had died in the last war. There were scurrying men and robots pulling off the rubble to build again. Over their heads hung the control ship and he saw men looking down to see that work was done properly.

He slipped in and out among the crowd. No fear of being seen. Only inside of him was there a difference. Eyes would never know it. Visio-poles set at every corner could not glean the change. In form and visage he was just like all the rest.

He looked at the sky. He was the only one. The others didn't know about the sky. It was only when you broke away that you could see. He saw a rocket ship flashing across the sun and control ships hovering in a sky rich with blue and fluffy clouds.

The dull-eyed people glanced at him suspiciously and hurried on. The blank-faced robots made no sign. They clanked on past, holding their envelopes and their packages

in long metal arms.

He lowered his eyes and kept walking. A man cannot look at the sky, he thought. It is suspect to look at the sky.

"Would you help a buddy?"

He paused and his eyes flicked down to the card on the man's chest.

Ex-Space Pilot. Blind. Legalized Beggar.

Signed by the stamp of the Control Commissioner. He put his hand on the blind man's shoulder. The man did not speak but passed by and moved on, his cane clacking on the sidewalk until he had disappeared. It was not allowed to beg in this district. They would find him soon.

He turned from watching and strode on. The visio-poles had seen him pause and touch the blind man. It was not permitted to pause on business streets; to touch another.

He passed a metal news dispenser and, brushing by, pulled out a sheet. He continued on and held it up before his eyes.

Income Taxes Raised. Military Draft Raised. Prices Raised.

Those were the story heads. He turned it over. On the back was an editorial that told why Earth forces had been compelled to destroy all the Martians.

Something clicked in his mind and his fingers closed slowly into a tight fist.

He passed his people, men and robots both. What distinction now? he asked himself. The common slaves did the same work as the robots. Together they walked or drove through the streets carrying and delivering.

To be a man, he thought. No longer is it a blessing, a pride, a gift. To be brother to the machine, used and broken by invisible men who kept their eyes on poles and their fists bunched in ships that hung over all their heads, waiting to strike at opposition.

When it came to you one day that this was so, you saw there was no reason to go on with it.

HE STOPPED in the shade and his eyes blinked. He looked in the shop window. There were tiny baby creatures in a cage.

Buy a Venus Baby For Your Child, said the card.

He looked into the eyes of the small tentacled things and saw there intelligence and pleading misery. And he passed on, ashamed of what one people can do to another people.

Something stirred within his body. He lurched a little and pressed his hand against his head. His shoulders twitched. When a man is sick, he thought, he cannot work. And when a man cannot work, he is not wanted.

He stepped into the street and a huge Control truck ground to a stop inches before him.

He walked away jerkily, leaped upon the sidewalk. Someone shouted and he ran. Now the photo-cells would follow him. He tried to lose himself in the moving crowds. People whirled by, an endless blur of faces and bodies.

They would be searching now.

When a man stepped in front of a vehicle he was suspect. To wish death was not allowed. He had to escape before they caught him and took him to the Adjustment Center. He couldn't bear that.

People and robots rushed past him, messengers, delivery boys, the bottom level of an era. All going somewhere. In all these scurrying thousands, only he had no place to go, no bundle to deliver, no slavish duty to perform. He was adrift.

Street after street, block on block. He felt his body weaving. He was going to collapse soon, he felt. He was weak. He wanted to stop. But he couldn't stop. Not now. If he paused—sat down to rest—they would come for him and take him to the Adjustment Center. He didn't want to be adjusted. He didn't want to be made once more into a stupid shuffling machine. It was better to be in anguish and to understand.

He stumbled on. Bleating horns tore at his brain. Neon eyes blinked down at him as he walked.

He tried to walk straight but his system was giving way. Were they following? He would have to be careful. He kept his face blank and he walked as steadily as he could.

His knee-joint stiffened and, as he bent to rub it in his hands, a wave of darkness leaped from the ground and clawed at him. He staggered against a plate glass window.

He shook his head and saw a man staring from inside. He pushed away. The man came out and stared at him in fear. The photo-cells picked him up and followed him. He had to hurry. He couldn't be brought back to start all over again. He'd rather be dead.

A sudden idea. Cold water. Only to drink?

I'm going to die, he thought. But I will know why I am dying and that will be different. I have left the laboratory where, daily, I was sated with calculations for bombs and gases and bacterial sprays.

All through those long days and nights of plotting destruction, the truth was growing in my brain. Connections were weakening, indoctrinations faltering as effort fought with apathy.

And, finally, something gave, and all that was left was weariness and truth and a great desire to be at peace.

And now he had escaped and he would never go back. His brain had snapped forever and they would never adjust him again.

He came to the citizen's park, last outpost for the old, the crippled, the useless. Where they could hide away and rest and wait for death.

He entered through the wide gate and looked at the high walls which stretched beyond eye. The walls that hid the ugliness from outside eyes. It was safe here. They did not care if a man died inside the citizen's park.

This is my island, he thought. I have found a silent place. There are no probing photo-cells here and no ears listening. A person can be free here.

His legs felt suddenly weak and he leaned against a blackened dead tree and sank down into the mouldy

leaves lying deep on the ground.

An old man came by and stared at him suspiciously. The old man walked on. He could not stop to talk for minds were still the same even when the shackles had been burst.

Two old ladies passed him by. They looked at him and whispered to one another. He was not an old person. He was not allowed in the citizen's park. The Control Police might follow him. There was danger and they hurried on, casting frightened glances over their lean shoulders. When he came near they scurried over the hill.

He walked. Far off he heard a siren. The high, screeching siren of the Control Police cars. Were they after him? Did they know he was there? He hurried on, his body twitching as he loped up a sun-baked hill and down the other side. The lake, he thought, I am looking for the lake.

He saw a fountain and stepped down the slope and stood by it. There was an old man bent over it. It was the man who had passed him. The old man's lips enveloped the thin stream of water.

He stood there quietly, shaking. The old man did not know he was there. He drank and drank. The water dashed and sparkled in the sun. His hands reached out for the old man. The old man felt his touch and jerked away, water running across his gray bearded chin. He backed away, staring open-mouthed. He turned quickly and hobbled away.

He saw the old man run. Then he bent over the fountain. The water gurgled into his mouth. It ran down and up into his mouth and poured out again, tastelessly.

HE STRAIGHTENED up suddenly, a sick burning in his chest. The sun faded to his eye, the sky became black. He stumbled about on the pavement, his mouth opening and closing. He tripped over the edge of the walk and fell to his knees on the dry ground.

He crawled in on the dead grass and fell on his back, his stomach grinding, water running over his chin.

He lay there with the sun shining on his face and he looked at it without blinking. Then he raised his hands and put them over his eyes.

An ant crawled across his wrist. He looked at it stupidly. Then he put the ant between two fingers and squashed it to a pulp.

He sat up. He couldn't stay where he was. Already they might be searching the park, their cold eyes scanning the hills, moving like a horrible tide through this last outpost where old people were allowed to think if they were able to.

He got up and staggered around clumsily and started up the path, stiff-legged, looking for the lake.

He turned a bend and walked in a weaving line. He heard whistles. He heard a distant shout. They *were* looking for him. Even here in the citizen's park where he thought he could escape. And find the lake in peace.

He passed an old shut down merry-go-round. He saw the little wooden horses in gay poses, gallop-

ing high and motionless, caught fast in time. Green and orange with heavy tassels, all thick-covered with dust.

He reached a sunken walk and started down it. There were gray stone walls on both sides. Sirens were all around in the air. They knew he was loose and they were coming to get him now. A man could not escape. It was not done.

He shuffled across the road and moved up the path. Turning, he saw, far off, men running. They wore black uniforms and they were waving at him. He hurried on, his feet thudding endlessly on the concrete walk.

He ran off the path and up a hill and tumbled in the grass. He crawled into scarlet-leaved bushes and watched through waves of dizziness as the men of the Control Police dashed by.

Then he got up and started off, limping, his eyes staring ahead.

At last. The shifting, dull glitter of the lake. He hurried on now, stumbling and tripping. Only a little way. He lurched across a field. The air was thick with the smell of rotting grass. He crashed through the bushes and there were shouts and someone fired a gun. He looked back stiffly to see the men running after him.

He plunged into the water, flopping on his chest with a great splash. He struggled forward, walking on the bottom until the water had flooded over his chest, his shoulders, his head. Still walking while it washed into his mouth and filled his throat and weighted his body, dragging him down.

His eyes were wide and staring as he slid gently forward onto his face on the bottom. His fingers closed in the silt and he made no move.

LATER, the Control Police dragged him out and threw him in the black truck and drove off.

And, inside, the technician tore off the sheeting and shook his head at the sight of tangled coils and water-soaked machinery.

"They go bad," he muttered as he probed with pliers and picks, "They crack up and think they are men and go wandering. Too bad they don't work as good as people."

THE END

The fiery liquid burned into the wound.

The bombs fell down from a steel-blue sky,
And the long, long night began
Where hellhounds ran with eerie cries
And the beastling—chained—was man.

—BALLAD OF THE BLACK YEARS

The Running Hounds

By John W. Jakes

JORDAN drained the last of the wine and set the mug down carefully on the scarred wooden table. The old woman hummed softly to herself as she stirred the great black kettle that boiled in the fireplace. Outside the window, Jordan could see night creeping down the orange sky. The hills were endless rolls of thatched shadow. In the courtyard, the dogs bayed and snuffled hungrily over the meat scraps he had bought for them.

The other two travelers were watching him. They had been watching him since his arrival. One leaned back against the wall in a chair, idly strumming a guitar. Dirty hair matted his forehead. His chubby face was a mask of innocence. Jordan catalogued him, from his clothing, as a migratory worker. But if you judged by the pistols in his belt and the expression on his face, then the appraisal was disturbing.

The second man was near fifty, tall and stooping. His suit was of black rough cloth. A wide black hat sat on his angular head, throwing shadow on his forehead and hooking nose—his narrow lips and filthy chin stubble.

Jordan decided it was time to

move on. These two might be growing suspicious. There were many suspicious people in the world now and the only way to escape them was to keep running. And all because you were branded with a sign of hate. Jordan sighed and stared back into the wine cup. He was tired of running.

But he prepared to rise, hitching up the belt about his waist, making certain his knife was secure.

The tall stooped man chewed from a meat bone, wiped grease from his lips, and walked over to Jordan's table. "You a stranger in this territory?"

"That's right—I am."

"Those your dogs out there—they yours?"

"Yes, they're mine."

"What business you in?" The man's tone was persistent.

Jordan breathed heavily. "I hunt," he replied, looking at the dusty spinning wheel in one corner, at the lantern spilling yellow light from the ceiling; at anything but the hunched man. "I hunt and sell the skins."

The hunched man brushed back the edges of his coat. Two pistol butts thrust forward as he sat down. "And I suppose you travel," he said with feigned friendliness. "Risky, traveling. Never do it, if I can help it. Never can tell when somebody you meet might be a—" He paused and tapped his fingers on the table. "... a sorcerer."

Jordan stiffened, then hoped the other hadn't noticed. Sorcerer. That meant scientist. His father had been a scientist, far back in a dim time when all he remembered were bright blue mornings and silver buildings in the sun. Then great blooming clouds, and noise, and no more buildings. He had never known his father. But the black question mark burned into the small of his back at the prison camp, years before, told him that someone had known his father was a scientist.

"I hate sorcerers," the man against the wall said. "I hate 'em so much, I kill 'em. I like to kill 'em. I like to kill anybody, only nobody hates anybody but sorcerers, so I kill 'em." He tittered loudly, fingering the guitar.

Jordan felt the anger rising in him, but he kept quiet.

"I hate them, too," the man in black said, "because they killed my wife and my children. When the blowups came, somebody exploded the factory in our town. I was away when it happened, that's why I'm here. The whole world got blown up, I didn't mind that. But our town, and my folks—"

Jordan could see a different kind of madness in this stranger. Vengeful, misguided. He wondered how long he would have to sit and talk.

"Now," said the tall man, "they call me Red Henry, the witch killer." One long knotty hand constricted. "An eye for an eye."

THE instinct for safety was strong in Jordan, but this man stirred him deeply. "I think you're wrong. A lot of people are wrong. The science men aren't devils. They didn't cause the blowups. A few wanting power took the weapons

the science men made. They caused the blowups."

Red Henry was staring into space. He didn't seem to hear.

"We'll get 'em," the man against the wall said. "We'll get 'em, wherever they are. Still lots of 'em running around, hidin' in thickets, crawlin' out at night, but we'll get 'em!" He giggled once more.

"If you do," Jordan replied quickly, "you'll wipe out the only chance we have to survive. Those men made progress. When others—bad men—took the progress and used it for themselves, then came the darkness."

"I don't like those words," Red Henry said, blinking.

The other man was on his feet. In his hand was a pistol. He pointed it at Jordan. Lamplight winked off its barrel, and the old woman wasn't stirring her kettle any more.

"I don't want any trouble, Lukey," she said. "My inn's got a reputation for no trouble."

"He sounds like a sorcerer," Lukey replied, walking to the table. "He sure enough sounds like a sorcerer, and you know what we do with them."

Tensing Jordan darted his eyes around the room. Night had closed in over the courtyard, and his dogs were silent.

Lukey stopped in front of the table and drew his other gun. He thumbed back the hammers with little snicking sounds. The woman watched fearfully, knotting up her plaid apron.

"Move out of the way, Henry," Lukey cackled. "I want to make this clean and nice."

Red Henry waved a hand. "First we find out if he's one of them. Then we fix him. Only we do it my way. We don't make it nice and clean. We make it long. Stand up, stranger, and take off your shirt."

Jordan pushed back the bench and got to his feet. Four blue gun snouts were aimed at him.

"Drop the knife on the table," Red Henry ordered.

Jordan pulled it from the sheath and let it fall. The black kettle hissed and ran over, but the woman paid no attention.

"Hurry him up," Lukey laughed. "We ain't had a witch man for a long time."

"We got plenty of time," Red Henry stated flatly. Jordan's belly felt cold. Mechanically, he slipped his hands under the edge of his tunic, pulling it upward and off his head.

"Now," said Red Henry, "turn around."

Jordan turned, and stopped breathing. The room was very quiet for a moment, and then Lukey's giggle came bubbling up.

"There it is, all right! Let me put a bullet there, Henry!"

"The mark," came the other's sonorous voice. "The sign of those who sought the dark mysteries no man should know." Jordan heard a grunt, and a gun barrel raked along his back, leaving a stinging trail of pain.

"A family," Red Henry said heavily. "A whole family killed, because of you and your kind. The whole world blown up in a devil's war. Well, this is one more we'll repay. You've got the sign that

can't be taken off—you're one of them."

"Yes," Jordan said, "I am one of them. My father was a scientist, and I'm glad of that."

"Fine," Red Henry muttered, *"just fine. . . ."*

"Please," came the voice of the woman, "not in here, Henry. Take him outside. Don't do anything in here."

Jordan stared at the rough plank wall. Red Henry said, "Turn around again."

Red Henry kept watching him as he said to the woman, "You got a whip around here?"

"In the shed."

"Get it, Lukey."

Reluctantly, Lukey put away his guns and vanished through a back room. He returned shortly with a long stretch of rawhide. Henry stuck one gun in his belt and hefted the whip. Ordering Lukey to take the lantern, he motioned Jordan to the front door.

They stepped out into the courtyard. Jordan's dogs, three lean and dirty gray wolfhounds, jumped at his legs, pink tongues lapping his boots. "Down," Jordan ordered harshly, "down!"

They slunk back, out of the circle of lantern light, and watched, tongues lolling, animal eyes alight.

The evening wind ran over Jordan with cold hands, and the dark trees rustled softly. Beyond the hills, the sky was a pale bowl of small glittering lights.

"Put your hands in back of your head," Red Henry said, going around behind him. Lukey stood in front of him, guns trained on his stomach, joyously anticipating the spectacle.

JORDAN heard Red Henry's footsteps retreating. He heard the flat sliding of a whip laid out along the ground. He tensed, seeing his dogs crouching lean, deadly and wolf-like, near the wall. Now he would find out just how good they were.

"An eye," breathed Red Henry somewhere, "for an eye. . . ."

Coils of fire lashed around Jordan's body. Simultaneously, he screamed orders to the dogs and grabbed the whip. He dived for the ground, pulling on the lash, and went tumbling over and over in the dirt. A gun exploded over his head and there was a groan.

The dogs were on Lukey, biting and tearing at him. Fangs flashed and came away red and sticky. Lukey squalled.

Jordan rolled over quickly. Red Henry was clutching his side. Lukey's shot—missing Jordan—had struck him.

Jordan got to his feet, catching up the whip from where it had fallen from Henry's lax hands. He unwound it as he ran.

Lukey clubbed feebly at the dogs. Jordan ran across the yard, scooping up a pistol from the dust. There was another explosion, whirling him around. His arm throbbed abruptly and became wet. Blue smoke curled from Red Henry's gun.

Jordan struck the gun away. Henry glared, holding his side—panting. "Kill me, devil," he whis-

pered. "Add another link to the chains tying you up in hell."

Jordan's finger tightened on the trigger. Sweat and blood ran down his other arm. He felt the muscles tightening and tightening—

Doubt welled up. Abruptly, he turned away, calling off the dogs. Lukey was a sodden mass in the dirt. Jordan touched him with his boot. There was a faint moan from the ragged throat.

The dogs snuffled, rubbing against Jordan's legs. He patted them, even as he began running toward the dark hills. His arm burned hanging loose beside him. He raced up the hill, the dogs running near him. At the crest of the slope, he turned and glanced down at the inn yard.

The woman was in the doorway, shaking a charm bag to ward off demons.

Red Henry stood near Lukey's corpse, eyes searching the night. One arm was clutched to his body, and was black with blood. The other held the lantern high. He was like some stooped malignant god. His mouth moved, and the words were carried to Jordan by the wind. *" . . . I'll find you . . . you can't run far . . . I'll find you . . . witch hunt . . ."*

A prophet, thought Jordan, standing on the hill with the wind rushing by. A prophet of ignorance, turning the world into a black land of superstition and fear, and vengeance. But we can rebuild—we must rebuild! We won't be outcasts forever!

But now, there was the necessity of escape. The country was unfamiliar, as was all the country he had traveled through. It was hostile, and every person and every building might be deadly. Henry and Lukey and the inn had been deadly.

Jordan's arm hurt. "Run," he whispered to the dogs.

They ran across the open country. The dogs whined. He stumbled up one dark hill, down, and up another. A thousand hills—unfriendly—each one higher and steeper than the last. The stars peered down. The wind was hot. He ran in a churning sea of liquid.

He staggered to the top of another hill and paused. He called the dogs to a stop. He tried to move forward again and stumbled. His knees fell away under him and he rolled down the hill, bumping his arm and feeling fresh pieces of fire in him.

At last, he came to a stop in the grass at the hill bottom. The dogs lapped his face with their warm tongues. The winds whispered telling him that far back in the night a great devil hunt was beginning.

The dogs whimpered but he did not hear . . .

THE FIRST sensation was one of heat. His back was covered with warmth.

Next, he became aware of the grass under his stomach. It was scratching his skin. He opened one eye, then the other.

He waited for feeling to take hold thoroughly. It moved quickly along his nerves, filling his shoulders, his legs, his arms. The pain

from the wound had been reduced to a steady ache.

He turned over and lay on his back, gathering strength. The morning sky overhead was a sheet of polished blue. He saw trees on a hilltop, lacy and nodding. Wild birds called shrilly. The morning world was a warm and friendly place.

But not for him . . .

Memory of the preceding night returned. Hastily, he stumbled to his feet. He had to go on. He had to keep running . . .

The dogs opened their eyes with faint hungry growls. His own stomach rattled in emptiness, but there was no food.

"Come on," he said, weakly. "we've got to move."

They rose and trotted along beside him as he lurched up the next hill. He pulled back his sleeve as he walked, examining the wound. He felt suddenly sick.

Stumbling over the brow of a hill, he halted, knowing his wound would require attention before very long, if he was to escape infection.

The hills ran on endlessly, vanishing in a hazy blue-green line far in the distance. There were no towns—no buildings. Only a road about half a mile away, winding like a dirty snake through the woodlands.

He had started on down the hill when his eyes caught a line of dust rising from where the road dipped. The dogs growled their hunger.

Jordan pulled the pistol from his belt and loped down the hill. Dust meant someone on the road, perhaps someone on a horse. The dogs ran low over the ground beside him, quiet now.

His arm began to beat with a throbbing rhythm that corresponded to his pounding heart. The breath tore in and out of his chest, but he kept up the pace, making himself run—run—

The last hill was ahead. It seemed to tower like a mountain into the blue infinity of the sky. He choked weakly and struggled for the top. The world, grown hazy black, swam into focus again. He seized a root and pulled himself upward.

The moving line of dust floated over the hilltop. His margin would be narrow. The dogs were already near the summit.

Letting out a torn gust of air, he stumbled. Even with the rest he had gotten, his legs were weak—drained of strength by the damaged arm. He retched and crawled to the crest of the hill on his knees.

Without looking down at the road, he thrust the gun out and croaked "Stop!"

He could do nothing more than hold the gun and wait while the sound of his voice floated away on the wind. The bright sky was motionless, the clouds gone. The dogs stood alertly beside him, ears erect, tongues hanging over white teeth.

A gypsy wagon, pulled by two horses with sore-ridden hides, stood in the center of the road. Faint trails of dust still drifted from the big rear wheels. The side was painted with red and gold letters that said, *Spanio The Clown & Company.*

A man and a girl watched him

from the wagon seat. The man was stout, yet hungry looking. His green and yellow harlequin's suit was baggy, frayed and ill-fitting. A worn peaked cap with little bells was on his head.

The girl was yellow-haired and skinny. Her mouth was daubed with too much red lip paint. The split flaring skirt displayed legs that needed flesh, and the white blouse revealed the tops of breasts that might once have been attractive. She was much younger than the man, but their faces both bore suffering and starvation and loneliness like livid brands.

Jordan felt a quick, unexplainable kinship. He stood up and walked unsteadily down the hill, the dogs at his heel.

"What do you want with us?" the man asked. "We have no money."

"I don't want that," Jordan replied. "I want you to let me ride with you. My arm is hurt. I can't walk and I've got to—" He almost said *get away,* but checked himself. They might be tech-haters.

The girl glared at him, as if she were used to arguing and fighting. "Why should we help you?"

"My gun," he muttered.

She made a disgusted noise and reached for the reins, but the man pushed her aside. "He *is* hurt, Jenny. We should help him."

"But he might be pretending," she whispered intently. "We must reach Mount Gabriel, father. . . ."

"Stop talking," Jordan ordered. "I'm going to climb inside the wagon." He held his teeth together against the pain and took a step. Again his legs dissolved beneath him. He pawed the air with his good hand. The gun fell into the dust and he clutched at the wheel, leaning his head against the wood, trying to fight back the closing dark.

Dimly, he heard someone jump from the seat. A hand pulled at his shoulder. New agony burned through him.

"Let loose of the wheel," the girl was saying fiercely, *"let loose—"*

He felt his tunic rip. His cheek was pressed against the rough wood of a wheel spoke.

The girl's voice was a whisper. *"Father . . . he's got the black mark on his back!"*

"Are you sure?" Bells jingled and the shirt was lifted away.

"Quickly," came the man's voice. "Put him in the wagon. I'll drive. You attend to the wound. Make him comfortable."

Jordan felt hands lifting him, up and up and up. . . .

HE LAY on a pile of skins inside the wagon. They were stopped in a roadside glade. The girl gave him a wine jar and he took a long drink, feeling comfort in his stomach. He began to gnaw on a slice of rye bread the girl offered.

Then she leaned back on thin haunches and watched him. The man in the harlequin costume sat on the tailgate, holding the cap in his hand and idly jingling the bells.

"You're a scientist," he said.

Jordan stiffened.

The girl laughed shortly and pulled down one side of her blouse. A black question mark was branded

into the skin, just behind the armpit. "Don't be afraid. We've both got them."

"My name is Spain," the man said. "I trust you because no one who was in his right mind would purposely have that brand on him. I was—a chemist, once." His eyes brimmed with remembrance.

"You travel disguised as a clown?" Jordan asked curiously.

"Yes. We lived in Illinois for a long time, hiding in a cave near the university they burned after the blowup. But word came from Mount Gabriel, and friends got us these clothes and this wagon. My daughter and I started out." He brushed a hand across his face. "I went to college, once. And I used to sing and dance quite a bit. Social entertainer."

The girl studied Jordan with deep pity as her father continued, "We're going to Mount Gabriel, because in that town, scientists are gathering!"

Jordan sat up, alert in spite of the wounded arm.

"Word came secretly," Spain related. "All the scientists of this country are gathering there, to wait for the time when people won't be afraid of us. That time will come—certainly. It's a deserted town, no one goes there any more. But we'll wait and our time will come—"

"I've hoped that there might be such a place," Jordan said. "I would like to go with you."

"Not before we stop in the next town and attend to your wound," Jenny said. "It'd be dangerous to leave it alone, and we don't have any medical supplies with us."

"You don't understand. Someone will be hunting me. The towns will be dangerous."

"Someone is hunting all of us," the girl said.

Jordan shook his head stubbornly. "One man is hunting me." He told them about Red Henry, and the fight at the inn. "He waits for an opportunity to kill anyone with a black question mark on them. He blames all scientists for what happened to his family. He knows I'm wounded, and he'll direct all his energy to finding me. Towns—"

Spain waved him silent. "That chance we'll have to take." He dropped off the tailgate, replaced his cap and looked at the sky.

The wagon began to roll. The rocking motion soothed him, made him tired. He lay back on the skins and watched the wooden ceiling.

Jenny sat beside him. "I wish you'd go past the town," he said half-heartedly. "I'll be all right."

She didn't answer. He felt warm fingers touch his skin. "Rest now." Her voice had lost some of its harsh stridency. "Rest and get back your strength."

The warm fingers stayed on his skin, clinging there, as if they had found something in a lonely world.

The wagon rocked on, and the ceiling grew darker as the sun fell in the west. Mount Gabriel. The name echoed in his thoughts. Red Henry was searching for him, but somewhere ahead in the vast wild lands of witchcraft and fear, there was sanctuary. Only a few more desperate miles—*rest*—let the strength seep back into twisted empty muscles—*rest*—

He heard the dogs barking playfully as they followed along behind. Then even that became distant . . .

NIGHT HAD come when they reached a town. Jordan was perched on the wagon seat between Jenny and her father. He felt rested and fairly strong.

The horses shambled wearily down a tree-covered lane. Jordan saw a sign hanging blasted and askew in the starlight. *Galena Junction, Pop. 5,633, A Fine Town For Work And Play.* The letters were faded and streaked with rain water. Jordan laughed silently.

The streets were dusty, quiet. Houses showed lines of lamplight behind shutters, but no face looked out inquisitively as the horses moved with a soft, rhythmic plopping.

"We'll tie the wagon up ahead," Spain announced, "and act like we're staying for the night." He indicated the town square. Glass faces of shops stared vacantly. Bricks were scarred with soot. The courthouse lawn was overgrown with weeds, and a stack or iron cannonballs decorated one corner. Lanterns hung on posts all about the square, casting tall shadows on the emptiness.

The wagon pulled into the square and Spain drew it to a stop near the shattered courthouse steps. "We've got to be out of here by dawn," he said. "It isn't safe to be in a town at all, much less in the daylight."

"Then let's move on right now," Jordan insisted.

Spain shook his head stubbornly. "That wound needs attention. We'll—" He sat up straight, eyes darting to the vacant street on his left. *"Quiet!"*

Four men in work clothes and wide hats were coming around the courthouse and toward the wagon. Shotguns protruded from the crooks of their elbows.

Jenny whispered to Jordan, "Dad will talk to them."

The four men walked up to the wagon, shotguns glinting. "Make some light, pilgrims," one of them said.

Jenny fished out a match, struck it, and put it to the lantern hanging from the lip of the wagon roof. Gold light spilled over the knot of shadow that was the men.

Their faces were bearded and thin and suspicious. The leader had spots of food on his shirt front and black sweat rings under his arms. He examined the sign on the side of the wagon and asked, "What's your business in Galena Junction, pilgrims?"

"We're entertainers," Spain said with mock joviality. "We have a little show, my friend. We've been on the road all day, and we decided to stop in this peaceful little town and present our show tomorrow morning." He added fawningly, "If that's all right with you."

The man grunted meaninglessly. One of the others lit a cigar and exhaled puffs of blue smoke that whirled upward in the night air. His eyes crawled over Jenny. He grinned and switched his gaze to Jordan. He frowned. "All of you in the show?" he asked.

Jordan reached behind the seat, hiding his movement with his body. His fingers closed about the butt of a pistol. He listened for the dogs, heard them sniffling somewhere at the side af the wagon. He stared back at the four men.

"Of course we're all in the show," Spain boomed. The echoes bounced off the buildings. "Spanio *and Company,* that's what the sign says."

The leader said, "That's what it says all right. Keep your wagon here till morning. Come on, boys."

They walked back the way they had come. Just as they were about to round the corner of the courthouse, the one with the cigar glanced back to where the three sat in the lantern glow.

Jordan held himself steady, not lowering his eyes as he wanted to, but keeping them fixed on the horses.

After a minute, Jenny sighed and said, "They're gone."

Jordan glanced quickly to the street. It was empty. Blue wisps of smoke floated under one of the lamp posts. He examined his arm. A soggy red stain had come through onto the shirt. "He saw I was wounded," Jordan said abruptly. "One of them was looking at my arm. I didn't know it had soaked through."

"And we still don't know where the doctor lives," Spain added. "That means hunting for him. It may be dangerous, with them patrolling like that. Jenny, drive around to the other side of the courthouse." He pointed off to the right with one hand, extinguishing the lantern with the other. "When we come to that patch of shadow, Jordan and I will get off. You stay here, climb into the back and keep quiet. If they come back, maybe they'll think we're sleeping."

She started to protest, but Spain silenced her with a hand to his lips. He gave her the reins. Reluctantly, she pulled them to the right, and the wagon began to move.

As they swung around the corner of the square, Spain motioned and jumped quickly from the seat. Jordan followed, landing with a thud that jarred pain along his arm. They ran through the murky blackness and flattened themselves against a shop front, watching.

Jenny drove to the appointed position, dropped the reins and vanished from the seat. The dogs settled down behind the wheels.

"All right," Spain whispered. "Let's move."

They slipped into an alley and ran down to the next street. There were houses here, but no lights. Jordan took one side, Spain the other. They examined each gate, peering in the starlight for a sign indicating a doctor.

"Nothing," Jordan called softly as he reached the end of the block. Spain motioned to a cross street and they began their search once more. Somewhere in this dark maze of streets there *had* to be a doctor.

A thin sliver of moon crept over the housetops. Trees on the lawns sighed comfortingly, and Jordan felt again the stinging loneliness that belonged to him and his kind. The houses were dark, but secure, even with their superstitions.

AGAIN the street produced nothing. They turned one more corner. Half way down the block, Jordan saw a black square hung from a gatepost. He strained to make out the lettering. *M. Rayburn, Medicines.* Two words had been added—painted on in a hasty scrawl. After the blowup, Jordan thought bitterly. The sign now read *Medicines and Spells.*

He motioned to Spain. The older man moved across the street, crouching low, holding the bells on his cap to keep them from jingling.

Jordan pushed the gate open. Boards groaned and creaked as they moved up the walk and onto the frame porch. No light showed within.

Spain fumbled for the bell, breathing heavily. "I've got my gun ready," Jordan said.

Spain beat upon the door. They waited tensely, listening. No sound came to their ears except the wind in the dark trees. Spain knocked a second time.

A spot of light shimmered beyond the cut-glass doorpane. It enlarged slowly, accompanied by footsteps. A shadow fell on the glass from inside. It held a lamp high and reached out and opened the door.

A wizened old man in a night shirt looked out at them apprehensively. "What do you want?"

"My friend has a wounded arm," Spain told him. "I want you to fix it."

"Go away," the old man mumbled, trying to close the door. "Go away and leave me alone."

Jordan lifted his gun and pointed it at the old man's head. Rheumy eyes widened in fright. "Stand back," Spain said. "We're coming in."

The old man shuffled backwards, the fear of the unknown—born when the bombs fell—welling up in him. Jordan and Spain walked into the hall. "Put out your light," Jordan said. The old man turned down the lamp as Spain closed the front door.

"Now lead us to your office," Jordan ordered.

They walked through a musky parlor smelling of lavender, and the man called Rayburn, pushed back another door, turning up his lamp. He stood shuffling his veined hands nervously, ludicrous in the baggy night shirt.

"Terrible," he kept mumbling. "Terrible to open at night. Night is the time when they walk—"

"Keep quiet," Spain said. They surveyed the room. All the standard medical equipment was present. There was a desk and a reclining table and a case containing instruments that glittered with a white silver sheen behind glass doors. The room smelled of cool antiseptic.

But there were other objects.

A wooden vampire stake hung on one wall. A witch-cross twined with wolfbane hung on another. Charm bags littered the desk, and a porcelain slab showed an uncompleted mess of clay, hair and fingernail parings. A bare human skull gaped in crazy mirth from atop the instrument case.

"Who are you?" Rayburn asked querulously. "What are you running from? Or are you—*sorcerers?*"

Jordan felt the same anger rise

that had come with the words of Red Henry back at the inn. He shifted the gun to his weak hand and pulled up his tunic as he turned around. His mouth twisted.

"Take a look—*doctor.*"

Rayburn choked in a high-pitched voice and cowered back. "Devils! Black spawn of hell!" The sagging flesh on his jowls quivered.

"Spawn of hell or not," Spain replied, "you're going to take that bullet out of his arm."

"I won't! I won't help your kind!"

"Would you like me to put a curse on you?" Jordan asked with sudden insight. His voice carried malicious overtones, partly jest, partly sick irony. "Would you like your bones to dissolve and your flesh to drop off in rotten pieces? I can do that, doctor, because I'm one of them!"

Rayburn put his face in his hands and sobbed softly. Then he looked up, trembling. "Take off your shirt."

Jordan handed the gun to Spain. He pulled his tunic off his good arm, then over his head, and finally removed it from the wounded arm. Sitting on the long table, he watched Rayburn gathering the jars of antiseptic and the instruments from the case where the skull grinned.

He shambled over to Jordan and daubed at the wound with some liquid from a black bottle. Jordan wondered if it was alcohol. It didn't sting. He was puzzled.

Then Rayburn got a gourd rattle from a desk drawer. With perfect fear-crazed sincerity, he began to shake it back and forth before the wound.

"What are you doing?" Spain asked sharply.

"Proceeding by ritual," Rayburn whined. "I must do it this way." Jordan saw that the liquid had made his wound flesh-colored. He picked up the bottle. "What is this?"

"Devil cleanser," the man quaked.

Jordan corked the bottle and handed it to Spain. "Devil cleanser. Flesh colored paint. Use it for clown makeup."

Spain dropped the bottle in one voluminous pocket of his harlequin suit.

"Forget ritual," Jordan said. "Just get the bullet out of there."

"Please," Rayburn protested. "I don't want to die burning—"

"Remember what I can do."

Rayburn remembered. He removed the lamp chimney and passed several knives through the flame. "No time to purify the instruments," he muttered.

He picked up one of the scalpels after cleaning off the wound. The blade sparkled like a small star in the lamplight. Rayburn bent down, blade poised over the wound. Jordan saw sweat running down his neck, dampening his night shirt.

"Be careful," Jordan said. "Very careful." he knew he could not expect anesthetics. There were none.

Rayburn began to cut at the wound.

Jordan's fingers were scarlet where they clutched the table. The knife dug. The color of the fingers changed from scarlet to livid

white . . .

Rayburn breathed with noisy gasps. He wiped away the blood with a rag and kept cutting.

THE PIECE of lead clanked into the enameled tray. Rayburn sewed up the wound, bandaged it with clean cloth, and began picking up the bloody rags from the floor.

"We'd better hurry," Spain advised. "It isn't safe to leave Jenny with the wagon for too long. How do you feel?"

"Better," Jordan replied honestly, in spite of the pain. He bowed mockingly to Rayburn. "Thank you . . . *doctor.*"

The old man looked at him, swallowing hard. A question framed itself suddenly within his eyes.

"Wait a moment. If you are—one of them—you should have been able to remove the wound yourself. I didn't think of that." Resentment for the mental suffering he had endured sprang to light on his face. "How powerful are you?" he whispered.

"I'm a human being like yourself. The only difference is, I refuse to believe in lies."

"Come on, Jordan," Spain said nervously. "Don't waste time—"

"But you wear the black question mark," Rayburn whispered. Dazed, not knowing whether to believe in Jordan as a demon or not, the old man stumbled forward, thrusting a scalpel ahead of him. "I'll see how strong you are—" His eyes were open wide.

Spain called a sharp warning. Rayburn swung the knife at Jordan, who fended with his good arm and pushed the old man backwards.

The doctor stumbled, arms flung out. He clutched at the desk. His fingers caught the lamp and pulled it over. The flames crept out like red tongues, licking over the bloody rags scattered on the floor.

Jordan and Spain turned for the door as the flames began to dance over the wooden planking.

They rushed through the house and out into the street. Doors were open now. Other men and women in night dress were watching in panic as yellow fire lit up the inside of the doctor's house like a magic lantern.

"We must move fast," Spain said, as they ran toward the square. "The fire will bring many people—"

Hands clutched at them. Angry voices asked where they were going; who, what, why. Jordan pushed them away roughly and ran on.

They dodged through back alleys and yards as a red smear stained the sky.

Down one last alley, and they were running across the square. The wagon remained in its original position. Dim outlines showed where the dogs lay under the wheels.

The horses were skittering nervously, as if recently disturbed. The two men reached the wagon. The dogs did not get up.

Jordan knelt down in the darkness, reaching out with fearful hands. He touched the soft warm fur of one dog. He felt something else. Sickened, he examined the others.

All three of the dogs had bullet

holes in their heads.

"Spain," he said urgently, but the older man was searching the interior of the wagon.

"She's gone, Jordan," he whispered.

"The dogs," Jordan murmured, confused.

"Jordan, *Jenny's gone!*"

"That's right, pilgrims," said a voice from the shadows of the courthouse. "Lay down the pistol."

Spain yanked back the gun hammer, but Jordan grabbed his wrist. "*No!* We've got to find out what happened."

Weakly, Spain dropped the gun into the dirt. The men moved out from the shadows.

"Where is she?" Spain said brokenly.

"Locked up in a house," replied the leader, "until dawn."

"How did you find out about me?" Jordan asked. Hope seemed a lost and lonely thing.

The leader said, "We seen your arm, so I went and talked with somebody who came into town earlier hunting a feller with a bloody arm."

Jordan realized that there were five men, instead of four. Even as he thought, the fifth stepped out to where the lamplight fell on the lower half of his body. One black-coated arm hung loosely, pressing a wounded side. The other hand carried a pistol.

Suddenly, he was on Jordan, clubbing at his head. Shotgun barrels lifted, silver-blue bars flashing in the night. Jordan fought back, but weakly—

There was dirt under him. Spain was struggling. The stars were tinted with a scarlet haze, and voices lifted in the distance. His hand flopped against furry hide that was growing cold. He saw one of Red Henry's boots coming for his face. He jerked his head aside, but not in time.

Complete darkness smashed down on him and covered him over.

SPAIN tossed the black bottle into the air and caught it absently. He was standing at the window of the parlor. Out on the lawn, men were gathered, talking quietly, scratching their beards. Black soot and sparks still drifted in clouds across the rooftops from the wreckage of Rayburn's house.

Jenny sat on the embroidered settee, watching Jordan who rested loosely in a large brown rocker that creaked ever so little as it swayed. Jordan's mind worked endlessly, thinking of Mount Gabriel where the other scientists would be gathering.

Abruptly, Jenny got up. "I wish they'd tell us what they're going to do."

Spain tossed the black bottle. "Red Henry told me. They're waiting for dawn. Then they're going to take us outside of town and kill us. It sounds a bit ridiculous, doesn't it?" His smile was artificial. He tossed the bottle once more and it fell back into his hand with a faint plop.

"Why all of us?" Jordan massaged his arm, trying to rub away the pain.

"I don't understand," Jenny said.

"I do," Spain replied. "He means

that he's the only one Red Henry really wants."

"And he doesn't know you two have the black question mark, does he?" Jordan asked.

"Don't," Jenny pleaded. "Please don't talk like that."

"He didn't look for a mark on me," Spain continued, watching the brightening pearl sky. "You, Jenny?"

"No," she said angrily. "Please—"

"Well," he sighed, "it's almost dawn. The men are begining to move out there." They were hefting their guns restlessly, eyes on the house, awed, and eager to be finished with their job.

"Be practical," Jordan went on, even though a great sickness fought and writhed inside his stomach. "I'm no scientist. I only carry the black mark. You're a chemist. You would be useful at Mount Gabriel, but I—" He gestured simply with uplifted palms.

"Stop it," Jenny cried, turning her back on both of them. "Stop it! We're together—"

"He's right, you know," Spain said softly.

"In one way," Jenny said. Her voice was harsh. "Of course he's right in one way, but not—" She stopped.

"But how could we do it?" Spain asked, approaching Jordan. "I'm fool enough to want to live when someone offers me a chance."

Jordan pointed at the black bottle. "That might blot out the question marks."

Spain's eyes grew large and excited. He rubbed sweaty hands on his harlequin suit. "Let's try," he said eagerly. It was a childish giggle.

Jordan nodded assent.

Spain slipped the suit down off his aging shoulders. Behind one jutting shoulderblade was the mark. Jordan opened the bottle with trembling hands and slopped a little of the paint over the symbol.

"Walk to the window and pull back the curtains," he ordered. Spain hurried to comply. The shimmering light of new dawn dripped over him.

"It doesn't show," Jordan told him, almost with regret.

Spain struggled to get back into his suit. "Jenny," he said anxiously. "Put some on her."

Jordan moved closer, seeing the way her head shook, seeing her skinny body that might once have been womanly, and might be womanly again.

He put a hand on her shoulder. "Jenny—"

"Don't touch me."

He pressed her shoulder and felt the skin faintly warm. "It's the right thing."

She pulled the blouse away and he daubed on the paint. Then she turned and looked at him, all of the hunger and longing and fear of the dark years reaching out to hold him for a moment.

"Mount Gabriel will be lonely," she said, and walked to the window.

Hastily, Jordan gave Spain the bottle of paint, and the older man deposited it again in his pocket.

Jordan started to speak when boots sounded outside the door. They waited silently and the door

opened slowly.

Red Henry, great blue pistol in one hand, gazed at Jordan, seeing the finish of his mad hunt. The other two he dismissed with cursory glances. And Jordan knew they had a chance.

"You want me to die, don't you?" he asked.

Red Henry's mouth twitched. "Yes, I want you to die, although I can't do it slowly this time, with all the townsmen watching."

"But did you know there's a price? There's a price for everything in the world, even for sorcerers."

His long jaw raised quizzically, just a bit shaken. "What is the price?"

"The lives of these two people." He balanced himself lightly on his feet, exactly as his approach had to be balanced.

Henry laughed suddenly. "Why should I spare them, sorcerer? They took you in. They helped you."

"Because you hate only sorcerers. The sorcerers caused the death of your family." He moved quickly to the window, caught a fistful of cloth and ripped the clown suit. He tore Jenny's blouse in the same fashion.

"These people aren't sorcerers," he said quickly, not daring to look at their backs.

RED HENRY grunted and Jenny and her father turned around so that their backs were no longer exposed.

"They have no mark on them," Red Henry admitted, "but they helped you."

"Either you let them go," Jordan said, readying his final desperate stroke, "or you don't get me. And above all, you want to see me die . . . by your hand."

The black coated man peered at Jordan for weapons. He saw none.

"I have a way to die by my own hand." Jordan jerked the doctor's bandages away and dug his fingers into the sewn edges of the wound, fighting the pain.

"I can pull this open and bleed, but I know you want the death your way. Let them go, and I do nothing."

The other man's fingers were stroking the gun butt nervously. "All right," he breathed. "I want you. They can go free."

Jordan let out a long breath and relaxed, wishing he had some god to which he could offer thanks.

"Outside," Red Henry ordered. "It's dawn."

No one spoke as they walked out of the old house. The wagon was brought around. Red Henry, Jordan and the rest of the men mounted horses. The little cavalcade rode toward the east as the sky began to turn white as a shroud.

The buildings dropped behind, one by one, and the hills began. They stopped at a large tree near the road. Jordan's arm was almost empty of aching.

Red Henry and the other men dismounted. They came toward Jordan where he sat his horse. Henry reached into his saddlebag and brought out a long wooden stake, sharply pointed.

He walked to the small circle of men around Jordan. He smiled.

"Now, witch-man—"

The sun began to glint yellow over the hills. Jenny and her father watched from the wagon, their faces streaked and dirty.

"I'm going to drive this right through your heart," Red Henry said softly. A morning wind made soft noises in the trees.

Jenny screamed.

Red Henry turned, angered. He peered at her for a moment, then dragged one of his pistols free and pointed it at her.

Through the faint mist of pain still on him, Jordan saw her face, inscribed like a fiery image in his mind. He saw the gun.

Savagely he kicked the horse, dragging its head back and up, tearing at the reins. The horse lifted its feet high in the air, making shrill noises of fear. The men cursed. Red Henry whirled, mouth open, swinging the gun at the head of the horse and at the sharp hooves that came down and smashed his skull.

Red Henry's gun exploded in the dust as he lay there, blood spilling out of his mouth. He jerked once or twice on the ground. Jordan hung onto the reins as the horse reared again, striking at the men. They scattered toward the trees, hunting their guns.

The world began to darken around Jordan. He felt, somehow, from the warm flow on his body, that his wound had broken. And the guns were lifting, from the trees. Lifting at him.

He kicked the horse again as it clattered past the wagon away from the grove. For seemingly endless hours he rode that way, lost in a half-world of grim fevered trees and dark sunlight. The horse swayed and bucked under him. He was losing his hold. . . .

And at last he let his arms relax completely. He was lifted upward for a moment, and then there was nothing under him, and then very suddenly, a hard something that was the earth. Hoofs rattled away into the distance.

He lay in the middle of the road, in the sun, watching with strange curiosity the way the red blood from his wound mixed with the grainy brown dirt of the road. And then the sun, a dying candle in the sky, went out.

The darkness that came after was only a partial dark and there was a face; Jenny bending over him, and the rocking, as if he were in a coffin that floated on a dark sea.

His arm did not hurt so much. He was tired.

Jenny kept saying words. ". . . Red Henry killed . . . they were disorganized . . . we followed you . . . found you in the road . . . Mount Gabriel . . . you . . ."

The thoughts made sense now. Through the dark and the hurt, they made a pattern. Mount Gabriel. Mount Gabriel, to be built tall and strong above the fear and the hatred, for the morning that would inevitably come.

And he would be there, with her.

The rocking carried him on into the healing darkness from which he knew he would soon return.

THE END

Life had become a mad scramble for points.

Money was worthless, yet no man dared go broke. It was all pretty confusing to Mark until "Point-Plus-Pearlie" told him—

YOU TOO CAN BE A MILLIONAIRE

By Noel Loomis

MARK RENNER looked anxiously backward as he ran up the street to the place where the faded gold lettering on one window said "Jewelry." That would be a good place to hide, he thought. Most of the plate-glass windows and doors along the street were broken out as in fact they were everywhere, and had been for twenty years—but one of the jewelry windows and the door, protected by iron grating, were still whole and would help to conceal him.

With one final glance back at the corner, he climbed the grating, scuttled across it, and dropped down. Then, keeping low, he ducked in among the dusty old counters and stopped abruptly, listening.

He heard Conley's slow, slapping footsteps as the tall man rounded the corner and came up the street. He forced himself to breathe softly in spite of the pounding of his heart. The dust rose a little around him and got in his nostrils and he wanted to sneeze, but by sheer willpower he choked it down.

Conley was from the Machine—

Central Audit Bureau—and the Machine knew by now that Mark was three thousand points in the red. Three thousand points—when you were supposed to be always within one day's point of a balance. You were allowed twelve hundred points a day, so Mark was now two and a half days in debit.

He'd been walking the streets in a sort of daze, signing slips right and left while his own pad of slips stayed in his pocket. He hadn't cared, either, until now, because in this brave new world of the one freedom—freedom from work—he was abominably unhappy.

Everybody struggled all day to get enough points to stay even with Central, and what good did it do them? You got even one day, but the next day you had to start all over. There wasn't any point to it. So he'd said to hell with it, and for five days now he'd ignored the Machine entirely except to line up automatically once a day at the concourse to have his card audited. And for five straight days the balance had been in red.

Then, today, he had seen Conley on the street, coming toward him. All of a sudden Mark had been scared. He didn't know what Central would do to him—nobody knew—but he didn't want to find out, either. He ran from Conley.

Now he crouched in the dust behind an empty counter while Conley's footsteps approached. He held his breath when they got close, and when they passed the broken window he was very thankful.

It was late afternoon and he thought Conley would go back to Central. Nobody knew much about Conley except that he represented the Machine and that he seemed to disappear within it every afternoon.

So, presently, Mark crawled out of the broken window and walked down to Main Street. He looked carefully right and left and then, not seeing Conley's tall form above the traffic, he wandered slowly down the street, trying to figure things out. Why wasn't there anything worth while to do? What was the reason for all the broken windows and empty stores? Had there once been places where people could buy things like food and clothes? Maybe—before Central Audit Bureau had come into existence. Or had Central always been there?

Mark saw the old lady sitting in the wheel-chair. He turned out absently to walk by her. He saw her put her foot in his way but his brain wasn't working. He stumbled over her foot.

Instantly the old lady half arose from her chair as if in pain, shrieking and brandishing her cane, the leg held stiffly out in front of her. "You've injured me," she shrieked in a raucous voice. "You've hurt my lame foot!"

Mark stood there dumbly. He was a young man and so he didn't at once foresee what was about to happen.

A crowd gathered in no time. The old lady was putting on a show. Mark didn't get it. He would have allowed her a thousand points—even fifteen hundred—without argument. But he got the shock of

his young life.

"Thirty thousand points!" she screamed at him, and thrust a pad of slips at him. "Sign my slip, please."

MARK TOOK the pad automatically. He took the pencil she held out. He started to sign. He'd never get a credit balance at the Central Bureau now, but he didn't care. Maybe he'd get in so deep they'd give him some work.

The old lady's voice rose unexpectedly. "My feelings are hurt, too. He did it deliberately. Five thousand points for my injured feelings."

Dazedly Mark wrote down "Thirty-five thousand and no more," and signed his name. He handed the pad back to her and started on. The crowd was leaving.

But a voice stopped him. A soft voice. "Wait, son." He looked back. He started to go on, then he saw the old lady's eyes on his. "Stick around," she said. There wasn't any raucousness in her voice now. "Wait till the crowd goes. I want to talk to you."

Presently he was walking beside her while she laboriously operated the two big hand-wheels that propelled the chair. Two blocks away she turned into an empty building marked "Groceries." Mark helped her cross the threshold.

Inside, she amazed him by springing out of the chair and standing quite steadily. She was small and she wasn't as old and wrinkled as he had thought. "You get in the chair," she said. "I'll push you. I need the exercise."

A minute later she was pushing him briskly along the street while Mark sat, still half dazed, in the wicker chair, her old red shawl was across his lap.

"Get cramps in my legs, to say nothing of my bottom," she observed, "sitting there all day." She saw him stiffen. "Oh, you needn't be shocked. After all, I'm old enough to be your grandmother. I was born in 1940, you know."

"Nineteen-forty," Mark repeated, wonderingly. "Gee, that was back in the days when everybody worked. I wish *I* could work."

"Well, it's a changed world," she observed. "In those days, you *had* to work."

At that instant Mark heard the ominous slapping footsteps. He looked ahead, and there was Conley, easily noticeable because of the type N hat a head above everybody else, coming toward them. Mark snatched up the red shawl and wrapped it around his face to the nose and pulled his hat low over his eyes. He watched from under the type L brim while Conley approached. He held his breath while Conley fixed his deep eyes on him for a moment, but Conley went by, and once more he was safe.

The old lady trotted briskly along. They passed a few people who stared at them, but Mark was thinking. "This is 2021," he observed. "You're eighty-one years old. You must know all about things."

"I'm quite spry," she pointed out, "though I must say I am working up a sweat right now. No,

no—" She pushed Mark back into the chair. "It's good for me. Don't get enough exercise any more. Now you just sit there. You're in a bad way. Anybody who'd fall for such a phony act and release thirty-five thousand points without even an argument—well, of course," she said archly, "I do have a well-turned ankle."

But the enormity of Mark's debit with Central when the old lady should turn in his slip, began to worry him. He wondered if he could get it back from her. He wasn't happy with the world, and things were all wrong, and all that, but still—well, he did have to live in it. Thirty-five thousand points. He began to worry. He wished he knew what the penalty would be. He wondered if the old lady knew. What were these points all about anyway? "You must know," he said, "how the world got into this mess."

She chuckled, "For thirty-five thousand points, I guess you've got a right to the story." She turned into the archway of a standard type B apartment house.

He wondered what she would do with all those points. What did anybody do with them? Everybody had about the same living quarters. Food was furnished by automatic venders at the Hydroponic Farms. Clothes were provided, ready-made; all you had to do was put your credit card in a machine, punch the buttons for your measurements, and a suit would drop down the chute.

Mark got out of the chair and helped her inside with it. He took off his hat and started uncertainly to leave, but she put her hand on his arm, "No, no. Have supper with me. I'll tell you all about everything. Glad to. There aren't many who want to know about things any more."

Her apartment was neat and clean. It was hard for Mark to connect it with an old woman shrieking points at him. "My name's Pearl. Point-Plus-Pearlie, they call me. But my real name's Penelope. You can call me Penelope."

"Thank you," Mark said gravely, and sat down. Penelope bustled into an apron and began pulling packages from the freezer. "We'll have a feed, you and I—a real feed." She chuckled pleasantly. "After all, you're paying for it."

MARK squirmed uncomfortably.

"I'll tell you how all this started," Penelope said, popping open a can of high-content protein. "Back before you were born there were insurance companies. At first they were started to insure your life, and—"

"Your life!" Mark frowned. "How—"

"Never mind. Also, they insured you against loss by fire. Then it was loss by collision of vehicles—you've never seen an auto, of course—and so on. Finally they got to insuring you against hurting yourself when you slipped on a cake of soap in the bathtub, and then they insured against a suit for damages by someone who might stub his toe and fall down and break a leg on your side-

walk. Follow me?"

"I think so," said Mark doubtfully.

"Well, there were all kinds of lawsuits. Two men would be in an accident. Both hurt. Their insurance companies would sue each other. Suppose A knocked over a ladder and B fell down on top of him. B's fall broke A's arm and it broke his own leg. A could sue B for breaking his arm. B could sue A for making him fall. Well, suppose A was insured by company X, and B was insured by company Y. A and B filed claims against each other's companies, and everybody went to court."

"You mean they didn't agree on damages?" Mark asked incredulously.

"Exactly." Penelope cut off the top of a bottle of enzymes. "It was pretty dumb. But pretty soon the companies got wise. They formed working agreements.

"When two companies carried insurance on two persons involved in an accident, the companies just presented their claims to each other, and the one with the biggest claim against him paid the difference, while each company paid off the claim of the one it represented. You can see what eventually happened."

She punched a button and a dinette table popped out of the wall.

"Companies insured people for more and more types of damage, even against being insulted or against a claim for damages for being insulted. The big companies eliminated the small ones, and it was just a matter of bookkeeping among those that were left. Eventually the government took it over."

"But look," said Mark, "I don't see—"

"Don't rush me." Penelope put a can into the container-dissolver and punched the button that set out the plates and silverware on the tiny table. "You see, pretty soon everybody was insured for everything possible. People were collecting right and left, mostly small amounts but lots of them. But it took quite a bit of time to file claims and so on. And also, a man spent all he made buying insurance to protect himself. It was a wicked circle. Nobody could quit buying insurance and nobody dared quit filing claims. That's when the government took over. They simplified things. Once a day you turn your slips into Central and the Machine audits your account. That's all there is to it."

"But there's nothing else to do," Mark objected. "No entertainment, no work."

"Why should there be entertainment? Entertainment means work for somebody. No, Central—which is the government, of course—has eliminated work for everybody and at the same time has provided something to keep everybody busy. What work must be done is done by automatic, self-lubricating, self-repairing, self-renewing machinery." She sighed. "It's a brave new world. Everything is neatly worked out. Everybody spends all their time gathering points to offset the points they lose gathering points—and nobody seems to mind except a few

rebels like you and me. I saw that rebellious look in your eyes when you signed my slip. That's why I invited you to come along with me. But, as I said, Central keeps everybody busy all day and half the night trying to balance themselves. There's no labor problem, no unemployment, no relief, no worry about anything." She paused, to dip the vitamins out of the dissolver. "The only catch is—it's so damned monotonous."

Mark blinked, but Penelope whirled on him, the dissolver in one hand. "Why do you think I sit out there and put on my act all day long? Not to get points, though I confess the points are the measure of my success—but because life is too dull otherwise." She dished out the vitamins.

"You say the government did all this?"

"Yes."

A thought struck Mark. "Who is the government?"

Penelope was filling glasses from the ice-water faucet. She turned her head and stared at him like a bright-eyed bird. "To tell you the truth, Mark, as far as I know the men who used to make up the government disappeared after the last war, about the time all this automatic machinery was put in. We used to have an election every so often, but I haven't heard that word for twenty-five years. Do you know what I think?"

"No," Mark said attentively.

"I don't think there is any more government!" Penelope said dramatically. "I think all that's left are the Machine and Central Audit Bureau—which is nothing but a giant posting machine."

"Have you seen it—Central, I mean? I see the concourse where we line up every day to have our cards posted—but what's behind those twelve hundred windows?"

SHE NODDED briskly. "I saw it from one of the last planes. Central covers miles and miles in both directions. They said then it was the biggest machine on earth—and do you know, Mark"—she paused dramatically—"I think the Machine is the government! Roll up your chair, Mark."

Mark did. "But doesn't there have to be somebody to take care of the Machine?" he asked, holding her chair.

"Not that I know of. They said it was perfect—that barring an earthquake it would run for a thousand years without a human hand."

The iron-juice cocktail was pretty good, the way Penelope had flavored it with enzymes. But Mark inevitably got back to the thing that worried him. "What will happen when that release slip of mine goes through for thirty-five thousand points?"

Penelope raised her white eyebrows. "I don't know, but undoubtedly something drastic. I'll tell you what. I'll hold your slip for a while and you go out and see if you can get some points on your credit side. Stir up a little trouble. Get the points first and argue after." . . .

Mark went out and tried to get some points next day, but he couldn't seem to get his heart in

his work. It was all so pointless. Why couldn't the old lady give him back that slip, anyway? Mark got pretty much in the dumps, and after he managed to get his foot stepped on and demanded three hundred points, only to be countered by a claim of four hundred for hurting the other man's instep, he began to feel very low indeed.

At the end of the week he was walking slowly along the street watching for Conley, because he was getting further in the red every day, when he saw a foot stuck out in his way and heard a voice say, "Don't you stumble over my lame foot," and he looked up and saw the old lady. Her black eyes were soft. "You don't look happy, Mark."

"No." He held out his card.

"Hm." Her keen old eyes shot back to his. "Thirty-two hundred in the red. That's more than before. You've lost two hundred points this week, Mark."

"I know," he said dully.

"Here. Push me, Mark." She pulled the shawl around her and Mark started pushing the wheelchair. "You're a nice boy," she said when they reached a quiet street. "You just can't adjust yourself to this modern world."

"I want a job," Mark said stubbornly. "Something to do besides—well, some kind of mark to aim at, I guess. This point business is just putting in time. I'm not creating anything. Even if I could fasten zippers on feather-beds, I'd be doing something worth while, because it'd be used. But this way of living is like digging a hole and then filling it in again. Why, you don't even dare to get into a fight. Somebody would collect a thousand points every time you hit him. The standard price of a black eye is three thousand. You have to be pretty careful about things like that. And there's always Conley."

"Well," Penelope said, "I'm going to make you a proposition. I'll hold up your slip for sixty days, and in the meantime I'll teach you how to get ahead of the game. I'll teach you the tricks of the trade, just as old Point-a-Minute Charlie taught me. They say he averaged a point a minute all his life."

"Where is he now?" asked Mark, interested.

The old lady pondered. "Come to think of it, I don't know. I remember the last time I talked to him his credit balance was 98,000." She frowned at the tremendous, low-lying dome that covered the horizon in the distance and marked Central Audit Bureau. "I haven't seen him since then."

"Hm," said Mark.

"Well, now," Penelope said briskly. "I'll make you a regular business deal. I'll teach you, and for all you get, you give me twenty per cent. See how many you can get. Try for ten thousand. That'll give you something to shoot at."

"Maybe I can beat the Machine," Mark said eagerly.

Penelope swallowed. "They say you can't beat the Machine. But I guess it won't hurt to try."

Mark did well. At first he just walked down the street stopping people as fast as he could get to them. "You didn't recognize me,

sir," he would say indignantly. "I met you at Central concourse two years ago. Remember? You stood right in front of me in line for three hours, and we talked about our new suits. Remember? My feelings are injured because you ignored me just now. Fifty points. Will you sign my slip, please?"

His credit reached the black the first week. He was netting five hundred points a day, and it was fun, but Penelope said, "We'll go for bigger stakes. This is kindergarten stuff. Now here's the way you start. . ."

SO THE next morning Mark managed to get himself knocked down four times, and each time he came up with a skinned knee and collected from five hundred to eight hundred and fifty points. He was learning, Penelope assured him when he gleefully showed her his card at the end of the day. Mark was elated. That day he had gathered fifty-one hundred points.

"But this can get monotonous, too," Penelope said. "Anyway, you can't go around forever with a sandpapered knee. You're learning fast, and you're learning right. Old Point-a-Minute Charlie was the best there was, in his day, and he always said you make more points guessing character than you do falling down. Know your victim before you have an accident, and then hit him for all he will pay and hit him quick—the way I did you." She chuckled. "My commission for today is one thousand and twenty points. Here, sign my slip, please."

Mark signed. It was a cheap price to pay for the fact that life was no longer pointless. He decided he'd try to gather a credit of one hundred thousand points.

He worked on bigger stuff. He didn't try just everybody. He picked his signers with care. He slept until nine every morning and he and Penelope played two-handed bridge at a tenth of a point a point until midnight. He felt sorry for the poor suckers who had to get out at sunup and tread the sidewalks until dark to get enough points to satisfy Central. They were working like slaves, while he was living the life of Point-a-Minute Charlie.

It was a lovely existence. He forgot about Penelope's slip for thirty-five thousand. He could almost pay it off anyway. Then came the day when he pulled his grand coup.

He spent a week planning it, with Penelope's shrewd advice. He remembered what she had said about the man on the ladder in the nineteen-forties. He sandpapered his back and painted an irregular spot with merthiolate and iodine, and practiced twisting his back until it looked out of shape. Then he went out and watched for an absent-minded, nervous, excitable-looking man to try his next effort on.

Penelope's biggest advice was, "Preparation is half the points," so it was three days before Mark found the right person. After he found him it was very simple. He signaled Penelope to follow, and then he walked behind the man until they came to a high curb.

Mark moved out to the left. The man started to step up on the curb. Mark darted across in front of the man just as the man raised his foot. Mark managed to stumble exactly in front of the man. His arms went out and one hand caught the little man's leg. The little man fell squarely on top of him, assisted by a slight push from Penelope.

Mark groaned heart-breakingly. In a moment there was a crowd. The little man was getting up, bewildered, and automatically trying to dust off his type K suit. Mark lay half on the curb, half off, squirming like a broken-back snake. "My back," he moaned piteously. "Oh, my back."

The little man seemed paralyzed at the enormity of the thing he had done. He stared at Mark and Mark squirmed harder and moaned louder. Then Penelope hobbled up and pulled Mark's shirttail out of his trousers. The iodine spot on his back looked yellow and purple, and there were gasps from the crowd.

"He did it!" Mark said, glaring accusingly at the little man. "He tripped me. He tripped me and broke my back!"

Penelope was putting on a good act too, crying and wringing her hands and moaning. "My poor boy!" she said, over and over. A woman in the crowd came up and made a very expressive raspberry in the little man's face. The little man was not only bewildered; he was frightened. Mark adjudged the time had come.

"Points for my broken back!" he cried. Penelope held out a slip to the little man. He signed it dazedly, then he slipped out of the crowd, while three men picked up Mark and laid him tenderly in Penelope's reclining wheel-chair.

Mark could hardly contain himself. As soon as they were safely out of sight he said excitedly, "Let me see the slip."

Penelope looked around. She kept pushing him but she handed over the slip.

"Fifty thousand points!" Mark read under his breath. "Isn't that wonderful!" He couldn't remember ever having felt so elated in his life.

Penelope was shaking her head wonderingly. "That was a good act," she said. "I'd never have had the nerve to try that myself."

"Oh, that's nothing." Mark was enthusiastic. "As soon as I get fitted up with a magnelite brace so it'll look good, I'm going to knock a piece out of that curbing, and then if I can find out who's the registered owner of it I'll hit him for twenty-five thousand."

MARK GOT the twenty-five thousand. The owner of the sidewalk was finally convinced that Mark's broken back was worth a lot. From then on there was no holding Mark. Pretending to act for the little man who had originally knocked him down, he located the woman who had made a raspberry in the little man's face and collected another two thousand; the woman didn't recognize Mark, because Mark's features were changed a little.

Then Mark spotted two others who had made threatening noises

and collected five hundred from each, and from another who expressed doubt that he was really hurt, Mark got a thousand points. There was nothing to it, really. Most people had regular beats, and all Mark had to do was sit at one side in Penelope's wheel-chair and wait for them to come by. He would have collected more if he could have remembered more faces. He saw Conley go by once a day but now he wasn't afraid. He thought Conley looked at him disappointedly.

A couple of weeks later he got his card back from the Machine at Central and looked at it with great satisfaction. He had a hundred and thirteen thousand points to his credit. He met Penelope and they went to her apartment for dinner. Jubilantly Mark got all the fancy food—even some synthetic meat—that he could get on his card, and they prepared for a feast.

"The only thing is," Penelope said as she punched the dishes on the table, "I'm scared. I have a feeling you shouldn't have gone over a hundred thousand."

"Is that why you never cashed my slip for thirty-five thousand?"

She nodded. "That's mostly the reason. My balance is over eighty thousand and I was afraid."

"Afraid of what?"

"I don't know. Just afraid."

"Well," said Mark, "I'm not. I don't see what Central can do to a person for getting points. There's no rule against it."

"It's dangerous," Penelope insisted.

"Nevertheless, I have made a decision. A hundred thousand points—that's nothing." His head was high. "I'm going after a million points!"

Penelope gasped. "Mark, you mustn't do anything like that. You have no use for a million points."

"No," Mark said complacently, "but it's a lot of fun getting them. And it gives me something worth while to do. We'll sit up till three o'clock every morning and play bridge, and I'll stay in bed till noon, and dream up new stunts. I'll pull one a week. Life is going to be worth living."

The announcing light showed at the door. Penelope pressed the admittance button. A tall, thin man came in a moment later. "Mark Renner?" he asked.

Mark jumped. "Conley!" Mark's stomach had a funny feeling in it.

"They told me I would find you here," Conley said.

Penelope had recovered enough to gasp. "What do you want?"

"I'm from Central Audit Bureau."

"That's just lovely," Penelope said, "but it doesn't mean anything to us but a place where we get our cards balanced."

"It should mean something to you," Conley said hollowly. "Central is the government."

Penelope stared at him. "Sit down, please. I thought Central was just a machine."

"It is something more than a machine. There is a small corps of persons who live inside the machine to service it and occasionally adjust it, and those persons really are the government—that is, all the gov-

ernment we have." He sat down stiffly, his back straight. "Now then, Mr. Renner, your card today showed a credit balance of a hundred and thirteen thousand points. Is that correct?"

Mark swallowed. "Yes." He looked at Penelope. She was pale. With difficulty Mark asked, "Is it your job to cheek up on people, to see if they are entitled to their points?"

"Oh, my, no. Central doesn't care about that. In fact, Central doesn't care how much anybody's debit is. We figure as long as a man is in debt he'll try to pay it off. They always do, at least. No, we never bother with debits, and I don't suppose we ever would."

Mark breathed a sigh of relief.

"But a credit of over a hundred thousand is something else," said Conley. "The machines won't handle six figures without trouble, you see, so there has to be a penalty," He looked very sad. "Now, then, I shall have to—"

"Wait!" cried Penelope. "His credit is a hundred and thirteen thousand—but I have his slip for thirty-five thousand. If I turn it in, that would fix it up for him, wouldn't it."

Mark felt a warm wave of gratitude toward Penelope. She was a million per cent; no question about it.

"Well—yes, I suppose so. We don't like these last-minute adjustments, but I suppose—"

SHE CAME waving the slip and thrust it into Conley's face.

"There!" she said triumphantly. "Put that on my account."

Conley looked a little sad. "This is your slip?" he asked Mark.

Mark nodded gratefully.

"Let me have your credit card, Miss Penelope. Now, then, I'll transfer these points—hm." Conley's eyebrows raised. "Do you know what your balance is now, Miss Penelope?"

Penelope's mouth shot open and she popped her hand across it.

"You have now a hundred and twenty-two thousand," Conley said. He got up from his chair. "Well, I'm sorry, folks. That's the way it is."

Mark gulped. "What way?"

"Miss Penelope will have to come with me."

Mark was on his feet. "If she goes, I go," he said dramatically.

Conley looked at him. "If you feel that way about it, there won't be any trouble at all. You did go over, so I can take you in too."

"In where?" Penelope demanded.

"A certain number of persons is required to keep Central going, as I said—actually to be the government. But most of the population today is so apathetic they wouldn't be of any use at all, so years ago some of us who were in Central got an idea. We discovered that whenever any citizen rebels against the monotony of life today, he or she eventually winds up trying to gather a lot of points, because that is the only outlet for energy and ambition. That is the kind of person we need, so when anybody gets over a hundred thousand, the machine

warns us. We go after them." Conley picked up his type N hat. "Well, see you in the morning. Punch in your cards at window 1000. We'll do the rest. And by the way—" He was at the door. "We start work at eight o'clock."

Mark brightened. "Did you say *work?*"

"Oh, it's only four hours a day, five days a week. The rest of the time is your own, only of course you can't come Outside. It would upset things if the general public learned about us. Yes, it's a regular job; not hard work, but steady work. Gives you something to aim for; there are promotions, you know, and extra bonuses for those who show promise."

"Work!" Mark said. "Steady work? You mean there'll be something to do all the time?"

"Five days a week," said Conley.

Mark said, "This is so sudden. Why don't you sit down a minute while we let it soak in? We have plenty of enzymes and stuff for a guest, don't we, Miss Penelope? Why not stay for supper, Conley?"

"No, thanks," said Conley. "We have beefsteak and hot biscuits for supper in Central."

Penelope shrieked with joy. "Beef!"

Mark was puzzled. "What's that?"

"It's an old-fashioned food," said Conley. "Rather tasty too."

"Please sit down," Penelope begged, "and tell us more."

Conley looked at his watch. "Believe I will. My feet get a little tired all day from pounding the pavement. But there isn't much more to tell. You'll find out everything tomorrow. And I'm sure you'll like it. We try to give each person work to challenge him."

"What if a person wouldn't want to go to Central?"

"Very few ever object. Once in a while they are afraid and run away, but we just register their number with all the machines, and whenever that number is presented for food or clothes, the machines reject the card." He paused. "A very neat arrangement. Of course, inside of Central the point system as you know it now will be of no value whatever. We use money in Central."

Penelope had a can of synthetic meat in her hands. "Beef!" she said suddenly, and hurled the can into the disintichute. "I'm going to starve all night so I can enjoy eating tomorrow."

"So nobody ever gets away?" asked Mark.

"Very seldom, though there's one fellow playing a game with Central. He must have gotten wind of us, and he keeps careful check on his points. About once every three months he starts going strong. He'll be putting in eight or ten thousand points a day. Then his balance will shoot up over a hundred thousand and I'll go after him, but he's always just signed away a lot of points. Would you believe it, the last time he had given away fifty thousand points to a fellow who claimed a broken back. He said he knew it was a phony, but he had me there and he laughed at me, for he had signed away the points. The slip showed up next day."

Mark looked at Penelope and grinned. "We should have known that nobody in his right mind would give away fifty thousand points."

Conley raised his hand in a salute. "See you tomorrow at Central. If they don't keep you busy, look me up."

Mark watched him leave. Then he looked beamingly at Penelope. "Work! Every day! Eight o'clock! We'll have to get up before breakfast! Isn't it wonderful?"

But Penelope's bird-like eyes were bright. "He said there would be promotions and bonuses for those who show promise," she recalled. "I wish we had known that. We could have made a cleanup and gone into Central with a record that would make their eyes pop out. Anyhow"—she dug her pad of release blanks out of her pocket and began to figure on the back. "Let's see, fifty thousand from the little man who's playing a game with Central, twenty-five from the owner of the sidewalk, two thousand for the raspberry, five hundred each from two who made noises of disrespect, and a thousand from the man who doubted that your back was really broken. You could have collected two thousand from that last one," she said absently, "if you hadn't got cold feet. Anyway, that's seventy-nine thousand points. Now, then, twenty per cent of that is fifteen thousand, eight hundred points."

She wrote rapidly and held out the pad to Mark. "Sign my slip, please."

THE END

With skill of long practice, they brought the robot down.

No matter what the future, one factor must always be reckoned with—the ingenuity of the human animal.

Let There Be Light

By Horace B. Fyfe

THE TWO men attacked the thick tree trunk with a weary savagery. In the bright sunlight, glistening spatters of sweat flew from them as the old axes bit alternately into the wood.

Blackie stood nearby, on the gravel shoulder of the highway, rubbing his short beard as he considered the depth of the white notch. Turning his broad, tanned face to glance along the patched and cracked concrete to where squat Vito kept watch, he caught the latter's eye and beckoned.

"Okay, Sid—Mike. We'll take it a while."

The rhythm of the axe-strokes ceased. Red Mike swept the back of a forearm across the semi-shaven stubble that set him as something of a dandy. Wordlessly, big Sid ambled up the road to replace Vito.

"Pretty soon, now," boasted Mike, eyeing the cut with satisfaction. "Think it'll bring them?"

"Sure," replied Blackie, spitting on his hands and lifting one of the worn tools. "That's what they're for."

"Funny," mused Mike, "how some keep going an' others bust. These musta been workin' since I was a little kid—since before the last blitz."

"Aw, they don't hafta do much.

'Cept in winter when they come out to clear snow, all they do is put in a patch now an' then."

Mike stared moodily at the weathered surface of the highway and edged back to avoid the reflected heat.

"It beats me how they know a spot has cracked."

"I guess there's machines to run the machines," sighed Blackie. "I dunno; I was too young. Okay, Vito?"

The relieving pair fell to. Mike stepped out of range of the flying chips to sit at the edge of the soft grass which was attempting another invasion of the gravel shoulder. Propelled by the strength of Vito's powerful torso, a single chip spun through the air to his feet. He picked it up and held it to his nose. It had a good, clean smell.

When at length the tree crashed down across the road, Blackie led them to the ambush he had chosen that morning. It was fifty yards up the road toward the ruined city—off to the side where a clump of trees and bushes provided shade and concealment.

"Wish we brought something to eat." Vito said.

"Didn't know it would take so long to creep up on 'em this morning," said Blackie. "The women'll have somethin' when we get back."

"They better," said Mike.

He measured a slender branch with his eye. After a moment, he pulled out a hunting knife, worn thin by years of sharpening, and cut off a straight section of the branch. He began whittling.

"You damn' fool!" Sid objected. "You want the busted spot on the tree to show?"

"Aw, *they* ain't got the brains to notice."

"The hell they ain't! It stands out like one o' them old street signs. D'ya think they can tell, Blackie?"

"I dunno. Maybe." Blackie rose cautiously to peer over a bed of blackberry bushes. "Guess I'll skin up a tree an' see if anything's in sight."

He hitched up his pants, looking for an easy place to climb. His blue denims had been stoutly made, but weakened by many rips and patches, and he did not want to rip them on a snag. It was becoming difficult to find good, unrotted clothing in the old ruins.

CHOOSING a branch slightly over his head, he sprang for it, pulled, kicked against the trunk, and flowed up into the foliage with no apparent effort. The others waited below. Sid glanced up occasionally, Vito idly kicked at one of the clubs made from an old two-by-four.

The other lay beneath the piled jackets; but enough of the end protruded to show that they had been chopped from the same timber, gray-painted on one side, stained and gouged on the other where boards had once been nailed. A coil of rope lay beside the axes.

High in the upper branches, Blackie braced himself with negligent confidence and stared along the concrete ribbon.

From here, he thought, *you'd almost think the place was still alive,*

instead of crumbling around our ears.

The windows of the distant houses were dark, unglassed holes, but the sunlight made the masonry clean and shining. To Blackie, the ragged tops of most of the buildings were as natural as the tattered look of the few people he knew. Beyond, toward the center of the city, was real evidence of his race's bygone might—a vast jumble of shattered stone and fused metal. Queer weeds and mosses infected the area, but it would be centuries before they could mask the desolation.

Better covered, were the heaps along the road, seemingly shoved just beyond the gravel shoulders—mouldering mounds which legend said were once machines to ride in along the pavement.

Something glinted at the bend of the highway. Blackie peered closer.

He swarmed down the tree from branch to branch, so lithely that the trio below hardly had the warning of the vibrating leaves before he dropped, cat-footed, among them.

"They're comin'!"

He shrugged quickly into his stained jacket, emulated in silent haste by the others. Vito rubbed his hands down the hairy chest left revealed by his open jacket and hefted one of the clubs. In his broad paws, it seemed light.

They were quiet, watching Sid peer out through narrowly parted brush of the undergrowth. Blackie fidgeted behind him. Finally, he reached out as if to pull the other aside, but at that moment Sid released the bushes and crouched.

The others, catching his warning glance, fell prone, peering through shrubbery and around tree trunks with savage eyes.

The distant squawk of a jay became suddenly very clear, as did the sighing of a faint breeze through the leaves overhead. Then a new, clanking, humming sound intruded.

A procession of three vehicles rolled along the highway at an unvarying pace which took no account of patches or worn spots. They jounced in turn across a patch laid over a previous, unsuccessful patch, and halted before the felled tree. Two were bulldozers; the third was a light truck with compartments for tools. No human figures were visible.

A moment later, the working force appeared—a column of eight robots. These deployed as they reached the obstacle, and explored like colossal ants along its length.

"What're they after?" asked Mike, whispering although he lay fifty yards away.

"They're lookin' over the job for whatever sends them out," Blackie whispered back. "See those little lights stickin' out the tops o' their heads? I heard tell, once, that's how they're run."

Some of the robots took saws from the truck and began to cut through the tree trunk. Others produced cables and huge hooks to attach the obstacle to the bulldozers.

"Look at 'em go!" sighed Sid, hunching his stiff shoulders jealously. "Took us hours, an' they're half done already."

They watched as the robots precisely severed the part of the tree that blocked the highway, going

not one inch beyond the gravel shoulder, and helped the bulldozers to tug it aside. On the opposite side of the concrete, the shoulder tapered off into a six-foot drop. The log was jockeyed around parallel to this ditch and rolled into it, amid a thrashing of branches and a spurting of small pebbles.

"Glad we're on the high side," whispered Mike. "That thing 'ud squash a guy's guts right out!"

"Keep listenin' to me," Blackie said, "an' you'll keep on bein' in the right place at the right time."

Mike raised his eyebrows at Vito, who thrust out his lower lip and nodded sagely. Sid grinned, but no one contradicted the boast.

"They're linin' up," Blackie warned tensely. "You guys ready? Where's that rope?"

Someone thrust it into his hands. Still squinting at the scene on the highway, he fumbled for the ends and held one out to Mike. The others gripped their clubs.

"Now, remember!" ordered Blackie. "Me an' Mike will trip up the last one in line. You two get in there quick an' wallop him over the head—but good!"

"Don't go away while we're doin' it," said big Sid. "They won't chase ya, but they look out fer themselves. I don't wanna get tossed twenty feet again!"

The eyes of the others flicked toward the jagged white scar running down behind Sid's right ear and under the collar of his jacket. Then they swung back to the road.

"Good!" breathed Blackie. "The rollin' stuff's goin' first."

The truck and bulldozers set out toward the city, with the column of robots marching a fair distance behind. The latter approached the ambush—drew abreast—began to pass.

Blackie raised himself to a crouch with just the tips of his fingers steadying him.

AS THE last robot plodded by, he surged out of the brush, joined to Red Mike by their grips on the twenty feet of rope. They ran up behind the marching machine, trailed by the others.

In his right hand, Blackie twirled the part of the rope hanging between him and Mike. On the second swing, he got it over the head of the robot. He saw Mike brace himself.

The robot staggered. It pivoted clumsily to its left, groping vaguely for the hindrance. Mike and Blackie tugged again, and the machine wound up facing them in its efforts to maintain balance. Its companions marched steadily along the road.

"Switch ends!" barked Blackie.

Alert, Mike tossed him the other end of the rope and caught Blackie's. They ran past the robot on either side, looping it in. Blackie kept going until he was above the ditch. He wound a turn of rope about his forearm and plunged down the bank.

A shower of gravel spattered after him as Mike jammed his heels into the shoulder of the highway to anchor the other end. Then he heard the booming sound of the robot's fall.

Blackie clawed his way up the bank. Vito and Sid were smashing furiously at the floundering machine. Mike danced about the melee with bared teeth, charging in once as if to leap upon the quarry with both feet. Frustrated by the peril of the whirling two-by-fours, he swept up handfuls of gravel to hurl.

Blackie turned to run for one of the axes. Just then, Sid struck home to the head of the robot.

Sparks spat out amid a tinkle of glass. The machine ceased all motion.

"All right!" panted Blackie. "All *right!* That's enough!"

They stepped back, snarls fading. A handful of gravel trickled through Mike's fingers and pattered loudly on the concrete. Gradually, the men began to straighten up, seeing the robot as an inert heap of metal rather than as a weird beast in its death throes.

"We better load up an' get," said Blackie. "We wanna be over on the trail if they send somethin' up the road to look for *this.*"

Vito dragged the robot off the highway by the head, and they began the task of lashing it to the two-by-fours.

It was about two hours later when they plodded around a street corner among the ruins and stopped before a fairly intact building. By that time, they had picked up an escort of dirty, half-clad children who ran ahead to spread the news.

Two other men and a handful of women gathered around with eager exclamations. The hunters dropped their catch.

"Better get to work on him," said Blackie, glancing at the sky. "Be dark soon."

The men who had remained as guards ran inside the entrance of polished granite and brought out tools: hammers, crowbars, hatchets. Behind them hurried women with basins and large cans. The original four, weary from the weight of the robot despite frequent pauses on the trail, stepped back.

"Where first, Blackie?" asked one of the men, waiting for the women to untangle the rope and timbers.

"Try all the joints. After that, we'll crack him open down the middle for the main supply tank."

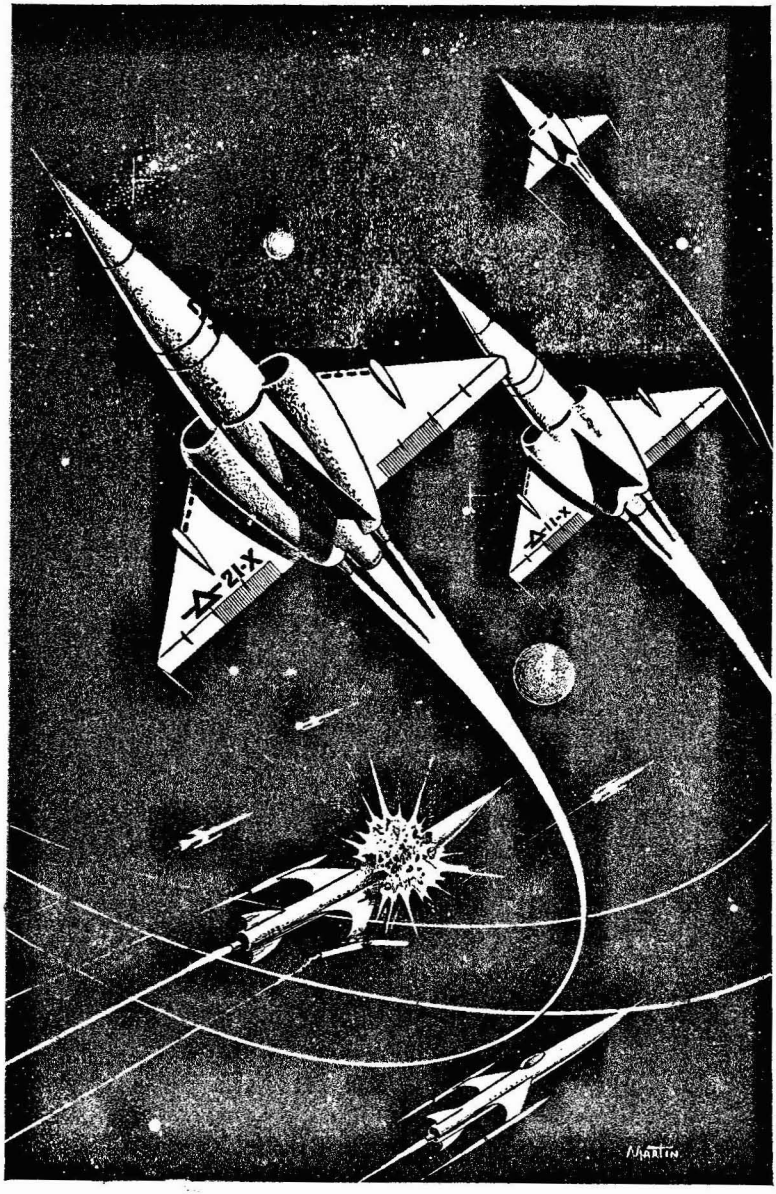
He watched the metal give way under the blows. As the robot was dismembered, the fluid that had lubricated the complex mechanism flowed from its wounds and was poured by the women into a five-gallon can.

"Bring a cupful, Judy," Blackie told his woman, a wiry blond girl. "I wanna see if it's as good as the last."

He lit a stick at the fire as they crossed the littered, once-ornate lobby, and she followed him down a dim hall. He pulled aside the skins that covered their doorway, then stumbled his way to the table. The window was still uncovered against the night chill, but it looked out on a courtyard shadowed by towering walls. To eyes adjusted to the sunny street, the room was dark.

Judy poured the oil into the makeshift lamp, waited for the rag

(Continued on page 117)



The fleet came in at four o'clock.

With no one to help him, it seemed the General was lost. But the enemy was soon to discover that —

GENERALS HELP THEMSELVES

By M. C. Pease

"DID IT go well?" the aide asked.

The admiral, affectionately known as the Old Man, did not reply until he'd closed the door, crossed the room, and dropped into the chair at his desk. Then he said:

"Go well? It did not go at all. Every blasted one of them, from the President on down, can think of nothing but the way the Combine over-ran Venus. When I mention P-boats, they shout that the Venusians depended on P-boats, too, and got smashed by the Combine's dreadnoughts in one battle. 'You can't argue with it, man,' they tell me. And they won't listen."

"But the Venusians fought their P-ships idiotically," the aide complained. "It was just plain silly to let small, light, fast ships slug it out with dreadnoughts. If they had used Plan K—"

The Old Man snorted.

"Are you trying to convince me? I've staked my whole reputation on Plan K. They wouldn't give me the money to build a balanced space-fleet, even when the fleets of the Combine of Jupiterian Satellite States were staring them in the face. So, I took what I could get and poured it into P-boats. I threw all our engineering and scientific staff into making them faster and

more maneuverable than anyone ever thought a space-ship could be. I got them to build me electronic computers that could direct that speed. And, two years ago, every cent I could lay my hands on went to install the computers on all our ships."

"I remember," the aide said.

"But, now the chips are down, the people have funked out on me. I am one of the most hated men in the Federation. They say I destroyed their Navy. And, we are not going to get a chance to try Plan K. They decided, today, to accept the Combine's offer to send envoys in a month to discuss possible revision of the Treaty of Porran. When I left, they were wondering if there was any chance of getting out for less than Base Q."

"But, good lord, sir, Base Q supplies nine tenths of all our power. The Combine will have a strangle hold on us, if they get that."

"Quite. But the people will give it to them, rather than fight. And the President will sign."

"Surely, sir, the people are not all cowards?"

"No. If they had time to think, they would fight. That's why the Combine is striking now. The people are panicky. Hysterical. The collapse of Venus was so sudden, and the disaster to their P-boats so complete. They've just lost hope. Most people would rather live under a dictator than die to no purpose. They've just lost hope."

The pounding of the Old Man's fist measured his words and the depth of his anger.

"If we could only make them hope. Somehow. Anyhow."

Suddenly, his clenched fist stopped in mid-air. He frowned. Slowly, his hand opened. The frown relaxed and a smile replaced it.

"Maybe we can, at that. Maybe we can." He leaned back with his eyes half closed. His aide knew better than to interrupt him. Ten minutes later, he opened his eyes.

"Make arrangements to have Commander Morgan take command of Base Q as soon as possible. Within two days at the outside." His manner was curt and clipped. "And bring him here to me before he leaves."

"Yes, sir. But may I say, sir, I do not understand?"

"You're not supposed to."

"Yes, sir."

The aide was a competent man. Orders were written that afternoon, in complete disregard of normal red-tape. Base Q was advised of the imminent shift. Commander Stanley Morgan boarded a jet plane on the Australian desert that night. The next morning, he was shown into the Old Man's office.

"Commander," the Old Man said after the preliminaries were taken care of, "as you are well aware, you have been in considerable disgrace, recently, for getting too close to the Venusian-Combine war, in defiance of orders. It has been felt, in certain quarters, that you might have caused a serious international crisis."

THE JUNIOR officer started to speak, but the admiral waved him to silence.

"You could, if you like, point out that the crisis has come, anyhow. As a matter of fact, I never felt that that phase of your action was too important. I did, however, deplore your disregard of orders—and still do." He paused a moment, while his steel gray eyes studied the younger man. "You are about to receive new orders. It is absolutely imperative that these orders be obeyed explicitly." His pointing finger punctuated his words with slow emphasis.

"These orders place you in command of Base Q. The Treaty of Porran, among other things, designates the asteroid Quanlik, or Base Q, as being the territory solely of the Federation and suitable for the establishment of a delta-level energy converter. Because this converter is the prime source of gamma-level, degenerate matter which is used as the fuel for nearly all our power generators, Base Q is recognized as a prime defense area of the Federation. A sphere, one hundred thousand miles radius about Quanlik, was designated by the treaty as a primary zone. Any ship or ships entering this zone may be ordered to leave within one hour. Upon failure to comply, our military forces may take such action as they deem necessary. A sphere, twenty thousand miles radius, is designated as the secondary zone. Assuming the prior warning has been given upon their entrance into the primary zone, full action may be taken against any ship entering this without delay or further warning.

"Standing orders with regard to Base Q are that any ship entering the primary zone shall be warned immediately. Upon failure to comply, after the one hour period, full action shall be taken with the forces stationed on Quanlik. Any ship entering the secondary zone shall be brought to action as soon as possible without warning.

"Your orders direct you to assume command of Base Q and to comply with existing standing orders regarding the maintenance of its security until and unless advised of a change in the standing orders or the Treaty of Porran." The Old Man paused for effect. "Any questions?"

"Yes, sir," the younger man said. "I am wondering if I should inquire what events you are anticipating. Would it be wise for me to ask?"

"No!" The monosyllable cracked out like a shot.

"No further questions, sir."

"I have one. While you were in Australia, I presume you kept well informed on recent developments of Plan K?"

"Yes, sir. The school I commanded taught advanced theory of Plan K."

"Very good. You will proceed immediately to Base Q. As a final word I will repeat the absolute necessity of obeying your orders *to the letter*! Good luck."

The young man saluted, collected his orders and walked out. Two hours later, he was in space.

COMMANDER Morgan's office was perched in a plastic bubble high on a crag overlooking Base

Q. Directly below it lay a few of the multitude of locks that provided haven for the protecting fleet of P-ships. A vast array of domes and other geometrical shapes bore witness to the hive of machine-shops, storerooms, offices, et al, that kept the fleet operating. And on the far horizon towered the mighty structure of the delta-level converter, the reason for the existence of Base Q. A quarter of a million tons of high test steel and special alloys, machined to tolerances of less than a thousandth of an inch, with another hundred thousand tons of control equipment, it was yet delicate enough so that it could not have functioned in the gravity field of any planet. This asteroid, small as it was, was barely below the permissible limit.

The Commander sat at his desk, watching the latest flashes in the news-caster. They were not good. At this very moment, the President of the Federation was in conference with the representatives of the Combine, discussing the wording of the protocol that would probably be signed in a few hours. And no word—no hint—that anyone in the Federation outside the services was willing to dare anything at all. A red light flashed on his desk. A buzzer sounded a strident call. He flipped a switch. "Commander talking."

"Far-Search talking. Report contact with large group of ships, probably dreadnought warships. Range, two one oh. Bearing, four oh dash one nine. Speed, seven five. Course, approaching. That is all."

"Keep me advised any change or further details. Advise when contact ranges one five oh."

"Wilco."

The Commander pressed a button on his desk. In response, his staff quickly assembled to brief him on the immediate status of Base Q as a war-making machine. As a matter of routine, it was always kept fully ready. His staff merely confirmed this for him.

Seventy-five thousand miles out in space, the Radars of the Far-Search net swept their paths. Men labored over their plotting tables, noting the information the radar echoes brought back; slowly piecing together the picture. Tight communication beams relayed the data back to the base as fast as it was obtained.

About an hour later, the red light flashed again. The assembled staff fell quiet as the Commander flipped the switch, again. "Commander talking."

"Far-Search talking. Contact previously reported now range one five oh. Bearing, four one dash one seven. Course, approaching. Speed, six nine. Estimated twenty three ships, dreadnought type, plus small ship screen. Battle formation. That is all."

"Advise at range one one oh."

"Wilco."

The Commander turned to his staff. "Sound a general alert." His words were clipped and clear. He flipped a second switch on his desk. "Radio, this is the Commander. Get me a direct beam to the Chief of Staff. Highest urgency. Scramble with sequence Charlie."

His office had emptied by now,

with officers running to their posts as the siren of the general alert wailed through the corridors. As its urgent call died off, a green light showed on his desk, indicating contact with earth. "Morgan, Commander, Base Q, requesting direct line to Chief of Staff. Highest urgency."

"Go ahead, Morgan." The Old Man's voice sounded peculiar after passing through the scrambling and unscrambling machines that twisted the sounds into queer pieces and distributed them among several frequencies and methods of modulation. But, even so, it had a note of strain in it that was not artificial.

"Sir, when you gave me my orders, here, you directed me to obey them *to the letter,* without question or cavil. Is that right, sir?"

"Yes, it is." There was a threat in the Old Man's voice.

"Then, sir, would you tell me if there has been any change in those orders since my arrival? Aside from administrative details, of course?"

"No. Absolutely not."

"Very good, sir. Sorry to have bothered you."

"Not at all. Quite right. Good luck. Signing out."

Morgan thought the Old Man sounded relieved at the end. And he could not be quite sure, but he thought he heard the Admiral mutter "And good hunting," as the connection broke.

He summoned his aide to take over the office while he went down to the center of the asteroid where I.C., the information center, was located, where he would assume direct command of the base.

AS HE ENTERED I.C., the Ships Supply Officer reported all ships fully loaded and fueled with gamma-matter, ready for flight. The Missile Officer reported all ships equipped with war-head missiles. The Lock Officer reported all locks manned and ready. Base Q was ready.

As he climbed to his chair over the plotting tank, he noted with satisfaction the controlled tautness of the men's faces. They too, were ready.

As the glowing points of yellow light that represented the enemy fleet crossed the dimly lit sphere in the tank that indicated the one hundred thousand mile radius marking the edge of the primary zone, he took a microphone from a man waiting, nearby.

"Base Q to unknown fleet. I have you bearing four one dash one seven. Range one oh oh. Identify yourself. Identify yourself. Over." His words were spaced out with painful clarity. A hush had fallen over I.C.

The loud speaker on the wall came to life with a squawk, after a few seconds.

"Fleet Four to Base Q. This is Fleet Four, operating under orders from the Jupiterian Combine. Over."

"Base Q to Fleet Four. According to the Treaty of Porran, space within a radius of one hundred thousand miles of Base Q has been designated a primary defense zone of the Federation. I therefore order you to leave this zone within one hour. Failure to comply will make you liable to full action on our part.

I have the time, now, as one three four seven. You have until one four four seven to comply. I further warn you that an approach within twenty thousand miles will make you liable to immediate action, regardless of time. Over."

The men in the room stared, open-mouthed. All had dreamed of hearing these words spoken in these tones to the Combine. A cheer might have been given, had it not been for discipline.

In a few seconds, the loud-speaker squawked again. "Fleet Four to Base Q. Our orders are to assume a position at twenty-five thousand miles radius pending renegotiation of the Treaty of Porran. I suggest you contact your headquarters before doing anything rash. Over."

The Commander sat with a smile on his lips. Quietly he handed the microphone back to the radioman. In a minute, the loud-speaker squawked, again. "Fleet Four to Base Q. Did you receive my last transmission? Acknowledge, please. Over."

The radioman looked at the Commander, questioningly, but he only shook his head.

"Can't you turn that damn squawk-box off? It's distracting."

As the minutes crept by, the bright dots in the tank moved closer. The Commander took the Public Address microphone.

"Attention, all personnel, this is the Commander talking. The Fourth Fleet of the Combine entered the Zone twenty minutes ago. They were given an ultimatum but are showing no indication of compliance. Therefore, we are going to blast hell out of them." The echoes from his voice rolled back from speakers all over the base. "The people at home do not think we can do it. I know we can. I have not asked their permission. It is not needed. My orders are explicit and fully cover the situation. My orders to you are equally explicit. Go out there and teach the bloody bastards a lesson." He turned back to the men in I. C. "Scramble flights one, two, three, and four. Others to follow at intervals of five minutes until all are in space. Flight plan King Baker. Initial Time, one four five oh. Execute."

The talkers took up the chant.

"Flight one. Flight one. Scramble. Scramble. Execute."

"Flight two. . . ."

Etc.

In the tank, green points of light moved out. The first four came into position and stopped in the four quadrants of the circle of which the center was the point at which the enemy would be at Initial Time. The following flights moved out to other points on the circle.

Time seemed to stop. In I. C., the Flight Directors gave the orders that moved their flights into position and briefed them on future tactics in quiet voices. The electronic computers and other devices moved silently. The clock made no noise as its hands moved towards the final moment.

The Commander moved some dials under his hands. He pushed a button and a red light showed on the lead dreadnought of the enemy column.

"This is the initial target." The

designation was relayed to the flights.

The second hand of the clock was making its final sweep. All voices quieted. The Commander raised his fist. As the clock's hand came to the top, his fist slashed down.

"Execute!" The battle was on.

FLIGHT Commander Dennis, Flight One, heard the final word as he sat in the small bubble on top of the dense package of machinery that was a P-ship. Swiftly, his hands closed switches. The course had already been chosen and fed into the automatic computers under him. He merely gave the signal to execute. In response, the ship seemed to pick itself up and hurl itself down the radius of the circle to the waiting enemy fleet.

He could not see them, but he knew that, behind him, lay the other nine ships of the flight, in column, spaced so close that an error in calculation of but a few millionths of a second would have caused disaster. But the automatic and inconceivably fast and accurate calculators in the ships, tied together by tight communication beams, held them there in safety.

As he came within range of possible enemy action, Dennis pressed another button, and the Random Computer took command. Operated by the noise a vacuum tube generates because electrons are discrete particles, it gave random orders, weighted only by a preference to bring the ship's course back to the remembered target.

The column behind obeyed these same orders. The whole flight seemed to jitter across space, moving at random but coming back to a reasonably good course towards the target, utterly confusing any enemy fire-control computers.

To the men in the ships, one to each, it seemed as if their very nerve cells must jar apart. They felt themselves incapable of coherent action, or, even, thought. But they did not need coherency. Their function was done until the ship was out of danger, when a new formation would be made, a new target designated, and a new order to execute given.

Because the electronic computers took care of the attack. They had to. No human could react as fast as was needed. Out from the enemy ships reached fingers of pure delta-field, reaching for gamma-matter. The touch of a finger meant death in a fiery inferno as the gamma-matter that fueled the ship and formed the war-heads of their lethal eggs would release its total energy. There was only one defense. The delta-field could be propagated only in a narrow beam, and at a rate much slower than the speed of light. By keeping the enemy computers confused, they kept those beams wandering aimlessly through space, always where the little ships might have been, but were not. Unless their luck ran out.

Flight One kept moving in, with constantly increasing speed, except for random variations. Once through the outer screen of small ships, a relay closed and the link was broken between the ships of the

column. Each then moved in independent manner. The designated target was an area to the computers, rather than a ship. Radar beams reached out to find specific targets. As they found them and moved close, the random computer switched off for a small moment of time, while the missles were dispatched on a true bearing. And then the ships moved on, leaving their eggs behind them.

The eggs moved in with fantastic acceleration to their targets. Half their energy went into that acceleration, to get them there before the delta beams could find them. The other half was given up in incandescent heat when they found their targets. Becoming pinpoints of pure star matter, they seared their way into the enemy vitals. But, even with their fantastically concentrated energy, it was not enough. For the dreadnoughts were armored with densely degenerate matter, impervious to any but a direct hit, and compartmented to require many hits.

The flights moved in and passed on through. And other flights came in. And others followed them. The first flights halted, found each other, turned, and drove in again. Pass and repass. A myriad of blue-white flashes gave measure of the struggle.

ON BASE Q, in the I. C. room, the Commander watched the tank. Curt orders designated new target areas as the enemy fleet broke up under the whiplash. Slowly, one by one, the points of light that marked the enemy vanished, leaving only the void.

Finally, as must any fleet that faces annihilation, they turned and fled. The battle was over. All that remained was to give the orders to bring the flights home. And that was soon done.

The Commander got up. He stretched. He was tired. He glanced at the clock. Two hours and forty minutes. Very quick, indeed, as space battles usually went. But, then, he thought grimly, this had been the first battle ever fought under the whiplash of Plan K.

But, now, there was a report to be made. And he did not know how to do it. As he walked back wearily to his office, he tried out phrases in his mind. None seemed to fit.

His aide was bending over the facsimile machine as he came in. "Priority orders from the General Staff, just coming in, sir."

The Commander looked at the machine. "General Staff to Commander, Base Q, Urgent, Immediate Action," he read. "You are hereby advised that a protocol has been signed at Washington, D. C., with representatives of the Combine, revising the Treaty of Porran to the extent that Base Q shall be jointly administered by yourself and the Commander, Fourth Fleet, Jupiterian Combine, until such time as its further dispensation shall have been agreed. You will, therefore, admit said Fleet upon demand, permitting it to take up such stations as it may desire, in either zone, or to land, in whole or in part, and to disembark such of its personnel as its commanding of-

ficer may direct. You will make arrangements with its commanding officer for the joint administration of the base. You will be held responsible for the smooth operation and successful accomplishment of this undertaking. These orders are effective immediately."

Commander Morgan smiled.

"Send this reply immediately," he said to his aide. "Open code. Commander, Base Q, to General Staff, Highest urgency. Acknowledge receipt recent orders regarding protocol revising Treaty of Porran. Regret unable to comply. Due to recent argument over interpretation of Treaty of Porran, Fourth Fleet, Combine, no longer exists. Request further orders."

He laughed.

On earth, the officer who took the message gaped at it. Seizing a telephone, he dictated it to the Old Man's aide. But when the Old Man saw it, he only smiled, coldly.

And his smile was bleak and cold, too, when he laid it before the President and the Cabinet an hour later. Shortly afterwards, when the President broadcast it to the people, they sat, stunned. It was not until the next day that they finally read its significance and started celebrating. But the Old Man had ceased smiling by that time, and was planning possible future battles.

A month later, Morgan sat again in the Old Man's office. Having presented his report and swallowed the unpleasant pill that, as he was now a hero, there were speeches to make and banquets to be bored at, he was talking informally.

"What I can't understand, sir, is why they came in. They only had to wait a couple of hours and the whole kit and caboodle would have been dumped in their laps. Yet they come barging in and give us exactly the opening we want. I don't get it."

"That *is* an interesting question," the Old Man replied with a shadow of a twinkle. "You might almost think they had intercepted an order I sent to our Intelligence Officer, on Q, to sabotage the Converter if the protocol was signed."

The Commander jumped. "Was that order given, sir?"

"Yes, it was. But it was countermanded an hour later. Different channel, however. I remembered they had broken the code of the first channel."

He paused a moment. "That illustrates a good point to remember, Morgan. You intercept enemy messages and break their code. A very useful trick. Also very dangerous, if the enemy discovers you have broken it, and you don't know that he knows. Very dangerous, indeed."

The young man laughed. The older one smiled, bleakly.

As Morgan looked out the window, he saw the public news-casters spelling out the full mobilization of the Federation. A glow filled his heart as he realized the people were now willing, if they had to, to fight to defend their freedom.

THE END

Personalities in Science

LEONARDO DA VINCI

A lonely figure walked Florentine streets . . .

APPROXIMATELY five hundred years ago, Nature did its finest job of human creation, and has apparently been resting up from the task ever since. This creation, an illegitimate child born to one Ser Piero Da Vinci and a peasant girl of sixteen in a village called Vinci, a few miles from Florence, Italy, became the golden man of his time and of times to come.

Those were the days of the great political princes, of the sinister Medici clan, of Lorenzo the Magnificent, the scoundrel of the Renaissance. Days when intrigue and cruelty were developed as fine arts. And through this period walked Leonardo, contributing to its greatness, but remaining untouched by its carnality and rottenness.

While this was the Renaissance from which sprang the renewed efforts of Man to discover and reflect his true dignity, the actual narrowness of the period is seen in the fact that Leonardo Da Vinci is known today mainly as an artist without peer. In most minds, this is his claim to greatness. In reality, it was but one facet of his myriad perfections—and probably a minor facet at that.

In truth, he left few paintings, and some of those, unfinished. His *Adoration of the Magi* was never finished. We have his *St. Jerome* and the *Virgin of the Rocks* among others. And of course, what was probably the greatest artistic effort ever produced by man—*The Last Supper.*

But, while other great artists of the time collected the huge fees offered for portraiture and epic works, Leonardo seems to have stood aloof from the lure of money. His notebooks and personal records chart his course as one of observation, study—almost, it appears, of meditation on the vast possibilities and developments which he alone —in his time—could sense and chart.

Thus we see him haunting the slums of Florence for the face of Judas to be used in *The Last Supper.* We see him standing, aloof, in a mob howling around the gibbet of Bandino—hung by the Medici—to observe and record in his notebook, the peculiar contortion of this last agony—the facial distortions. Leonardo was the student who said,

"We have no right to love or hate anything until we have a full knowledge of it."

HIS NOTEBOOKS are stunning in their revelations of his broad concepts. Sadly, he worried not at all about posterity's interest in his work. He made no effort to keep orderly records. At least 5000 pages of his writings are scattered over the world in various galleries and museums. Possibly as many were destroyed or lie undiscovered.

What we have shows that Leonardo founded, through his personal work, many formal channels of today's study. He was the father of engineering, anatomy, geology. He was a biologist, a hydrographer, a geometrician, a mathematician, a discerning student of optics.

In a letter to the Duke of Milan, when seeking employment with that overlord, Leonardo listed various capacities in which he could be of value; a list which no employment seeker of today—with all of today's advantages—could begin to duplicate:

Leonardo wrote in part:

"I have a method of constructing very light and portable bridges to be used in pursuit of, or retreat from, the enemy, with others of a stronger sort, proof against fire and easy to fix or remove.

"For the service of sieges, I am prepared to remove the water from the ditches, and to make an infinite variety of scaling-ladders and other engines proper to such purposes.

"I have also, most convenient and portable bombs, proper for throwing showers of small missiles, and with the smoke thereof, causing great terror to the enemy.

"By means of excavations made without noise, and forming tortuous and narrow ways, I have a means of reaching any given point, even though it be necessary to pass beneath rivers.

"I can also construct covered wagons, secure and indestructible, which, entering among the enemy, will break the strongest bodies of men; and behind these the infantry can follow in safety and without impediment.

"I can make mortars and field-pieces of beautiful and useful shape, entirely different from those in common use.

"For naval conflicts, I have means of making numerous instruments, offensive and defensive. I can also make powders and vapors in the offense of the enemy.

"In times of peace I believe I could equal any other as regards works in architecture. I can prepare designs in buildings whether public or private, and also conduct water from one place to another.

"Furthermore, I can execute works in sculpture, marble, bronze, or terra-cotta. In painting also, I can do what may be done, as well as any other, whosoever he may be.

"I can also undertake the execution of the bronze horse which is a monument that will be to the perpetual glory of my lord your father of happy memory and of the illustrious house of Sforza.

"And if any of the above-named things shall seem to any man impossible or impracticable, I am per-

fectly ready to make trial of them in whatever place you shall be pleased to command, commending myself to you with all possible humility."

Leonardo of course went to work for the Duke. For sixteen years he busied himself with all the things indicated in his letter of application. He finished the construction of a cathedral. He built canal and locks. He drained marshes. He invented the machine gun and the breech loading cannon.

He built, also, the statue of the horse and painted *The Last Supper.*

BUT ABOVE all, he showed that true greatness contains the quality of serenity. He lived simply while becoming at the same time a legend among the people. A lordly figure, he never walked the streets but what all eyes followed him and all tongues whispered.

But, beyond all doubt, he was lonely. Aloof from desires of princely splendor or hermitical detachment, he tread the common middle way, yet still above the vices with which many common men combat boredom or life's hostility.

In his written pages, he refers to a woman but once and then only to mention her "fantastic face". There is no record of a love affair, nor even an intellectual companionship with a woman. Yet, in his instincts he certainly knew women well. Witness the *Mona Lisa* smile. The immortal gentleness and compassion on the faces of the Madonna and St. Anne in the painting of the same name.

Perhaps it is more accurate to say that Leonardo Da Vinci knew no *one,* but rather *everyone*—no *thing,* but *all things,* with an understanding and an instinctive discipline that made it impossible for him to portray—in any of his many mediums—anything but truth.

When the Duke of Milan, Leonardo's sponsor, came finally to grief, Leonardo's comment was indicative of his character—of the epic impersonality with which he viewed all things. The Duke's downfall was brought about by the French, who crossed the Alps and took Milan over. Leonardo wrote:

"This day, the Duke lost his state, his possessions, his liberty—and none of his works is completed."

Leonardo made no comment on the fact that his own fortunes had been drained by the invasion.

His work went on, however. He moved under the mantel of Caesar Borgia, of evil reputation, invented the diving bell, the swimming belt, then moved into a career that took him all over central Italy—that of a cartographer. Of course, he excelled in this also.

Paralyzed, in later years, he lost the use of his hands, but his mind went on working and, in the end, he wrote:

"When I thought I had been learning how to live—I had only been learning to die."

This last he did, in his sixty-seventh year. And perhaps we are wrong in saying he lived before his time. Perhaps that will be said also, in future times, of greats who have enriched our present years. —pwf

SCIENCE BRIEFS

By R. S. Richardson

A New Major Planet

PROBABLY the most exciting astronomical announcement one could imagine would be the discovery of a new major planet within the present confines of the solar system.

Impossible? Perhaps, but did you know that out beyond the orbit of Jupiter there is a body that at times presents the appearance of a sharply defined disk corresponding to a planet about the size of Mercury or Mars? Moreover this body moves in a path that is nearly circular. You might follow this body for weeks without noticing anything about it to distinguish it from one of the terrestrial planets.

This body is one of the most peculiar in the solar system. It seems to be a sort of connecting link between comets and asteroids. In fact, it might be described as an asteroidal comet or a cometary asteroid. whichever name you prefer. Sometimes it is surrounded by a halo like a comet and at other times it shows simply a disk like a planet. And nobody knows when it is going to change from one to the other.

This body was discovered on November 15, 1927, by Schwassmann and Wachmann at Bergedorf, Germany. Apparently they picked it up accidentally on a photograph taken for some other purpose as so frequently happens in astronomy. On the discovery plate the body appeared as a starlike nucleus surrounded by a faint coma, the whole being of about magnitude 14. A sixth magnitude star is the faintest you can see with your unaided eye. The faintest star you can photograph with the 200-inch telescope is magnitude 22. Because of the coma the body was called a comet and in the course of time acquired several aliases. For example, you will find it referred to as Comet Schwassmann-Wachmann I, Comet j 1927, and Comet 1925 II. Suppose that we refer to it as 1925 II for short.

1925 II Troubled Astronomers

Right from the start 1925 II began giving astronomers trouble. When a new body is discovered computers try to determine its orbit as quickly as possible before it slips away and is lost again. Although this first orbit is only a rough approximation to the true one yet it is good enough to keep the body in sight for a couple of weeks or so. By that time astronomers will have gotten more observations which will enable a better orbit to be determined.

Most comets move in orbits so elongated that they are nearly parabolas. It is standard practice there-

fore when a comet is discovered to assume that the orbit *is* a parabola and to issue predictions on that basis, the reason being that a parabolic orbit can be computed very quickly. And so computers went to work on 1925 II assuming that here was another ordinary little comet moving in a nearly parabolic path. But when they began to compare notes they found that their orbits differed so widely that something must be radically wrong. They soon realized that the comet had fooled them completely. Instead of moving in an elongated cigar-shaped path it seemed to move in one that is nearly a circle. Later work has shown this view to be correct. Comet 1925 II moves in a path that is less elongated than that of Mercury or Pluto. It takes 16 years to make a complete circuit around the sun, never coming nearer to the sun than 493 million miles and never receding farther than 679 million miles.

Since 1925 II moves in a nearly circular path at such a great distance from the sun we should expect it to be the most stable and inert of comets. On the contrary, only a few months after discovery it began showing variations in brightness, not radical but enough to puzzle astronomers. As time went on more spectacular changes were observed that could not be passed off as errors of observation. It became apparent that here was a little body out in the cold of space that for no reason could change in brightness by a hundred fold within a space of less than a fortnight.

The biggest flareup on record occurred in January 1946. According to Dr. G. Van Biesbroeck, who made the observations with the 24-inch reflector of the Yerkes Observatory on the night of January 1, the comet showed a star-like nucleus from which emanated a broad fan-shaped tail. On the next night it looked about the same but was somewhat fainter being about magnitude 15.5. But when he examined the comet on January 25 he was astonished to find that it had jumped to magnitude 10.2, appearing as a sharp nucleus surrounded by a coma. The following night it was magnitude 9.4 and the coma had doubled in extent. Then it began to grow fainter and by February 8 had dropped to magnitude 15 again.

Brighter Than Halley's Comet

The faintest that 1925 II has ever been reported is about magnitude 18. Thus what should be the most sluggish of all comets has varied through a range of nine magnitudes corresponding to a change in brightness of 4000 times! Halley's comet is popularly regarded as a celestial giant. Yet Halley's comet could not be seen even in the most powerful telescope at the distance of 1925 II.

Before we can attempt to explain changes of this kind we must first ask ourselves What is a comet? and What makes it shine?

Astronomers are agreed that the nucleus of a comet consists of a loose collection of meteorites ranging in size from mere grains of sand up to boulders perhaps as big as a

house or larger. As a comet nears the sun these particles become heated and begin to give off occluded gases, in somewhat the same way that carbon dioxide gas begins to boil out of a bottle of soda water when it is warmed. A comet will generally begin to show signs of life about the time it reaches the orbit of Mars. First a tail develops, then the nucleus appears and starts sending out jets, halos, and emission fans. Sometimes a comet gets so active it may split in two.

A comet glows with a soft ghostly radiance quite different from the appearance we should expect if shown merely by reflected sunlight. What is the source of its luminosity? We now believe that comets shine for essentially the same reason that certain billboards gleam so brightly—fluorescence. Ultra-violet light or ordinary sunlight shining upon certain chemicals will make them emit a glow usually of longer wave-length than the light they have absorbed. Similarly, the gases of a comet absorb light from the sun and then emit it again. For example, a carbon molecule in a comet absorbs a blue ray from sunlight and then emits the same blue ray into space. Thus the spectrum of a comet shows a series of bright bands due to the light emitted by different molecules that have been excited to luminosity by the sun. This theory has been quite successful in accounting for the brightness of comets.

But when we try to apply it to 1925 II we immediately run into difficulties. In the first place, it is hard to see how the sun could be very effective in boiling gases out of material that is always frozen solid. The highest temperature which the material could possibly have is about -240° F, and it is almost certainly much lower than this. It is particularly hard to see how there could be sudden violent emission of gas. Remember, too, that this body has such a small mass that it could not retain an atmosphere even if it were presented with one. Any gases issuing from it will be immediately lost. For the sake of argument, however, we will assume that there is enough gas around 1925 II to form a fairly respectable halo.

No Relation to Sun's Brightness

We have seen that a comet shines by action of the sunlight falling upon it. Therefore, it seems reasonable to suppose that the sudden changes in brightness originate—not in the *comet*—but in the sun. Over large sunspots there often occur brilliant bursts of hydrogen gas called flares believed to be rich in ultra-violet light. A flare may blaze to maximum brightness in twenty minutes and then gradually fade away in the course of an hour. At first glance these flares seem to be exactly what we need to account for the sudden changes in luminosity of the comet.

So far, however, we have not been able to connect a single change in 1925 II with a single change of any kind upon the sun. This does not necessarily mean that no such relationship exists. But it does mean that it has not as yet

been proven. The trouble has been that when something extraordinary happened to the comet nobody was watching the sun and vice versa. It began to shape up as one of those cooperative problems calling for a combined effort by observers all around the world. Since 1937 the sun has been kept under watch for nearly twenty-four hours a day. But observations of 1925 II are fragmentary in character, two observers having done about 90 per cent of the work.

It is significant to note, however, that the record flareup of January 1946 occurred when the largest sunspot ever recorded was on the side of the sun turned toward the comet. As seen from the comet, this sunspot would have come into view on January 25, passed across the disk, and vanished on February 8. As we have seen, Van Biesbroeck reported the comet faint early in January but was amazed to find it around magnitude 10 on January 25, 26, and 28. Then it was faint again by February 8. Thus the comet was brightest when the greatest spot ever known was crossing the sun's disk as seen from the comet. Whether this was merely a coincidence nobody knows.

Astronomers have always felt that they could explain almost anything in the sky if only they can get a look at its spectrum. Hence the feeling has prevailed that if they could once catch 1925 II with the spectrograph when it was bright they might be able to clear up the mystery. About ten years ago such an opportunity occurred. On September 20, 1941, a telegram went out from Harvard stating: "Comet 1925 II suddenly brighter, spectra desirable."

Observed from Lick

Two photographs of the comet's spectrum were obtained with the 36-inch Crossley reflector at the Lick Observatory. At that time the comet was 512 million miles from the sun and in the telescope resembled a 12th magnitude nebulous star without a tail. The photographs showed nothing. Or nothing that was of much help in deciding what was happening on the comet. There were no bright lines and bands such as had been expected. Only the spectrum of reflected sunlight such as we would get from a cold body like the moon. Instead of clearing up the mystery the spectrograms had only served to deepen it.

Comets and asteroids are generally regarded as two distinct types of bodies. Actually, however, the difference between them is not nearly so well marked as is popularly supposed. This is the reason why a newly discovered body is called an "object." Astronomers can't be sure how to classify it until they have had a chance to study it for awhile.

There have been several asteroids reported surrounded by nebulosity. Sir William Herschel and Schroeter reported nebulosity around both *Ceres* and *Pallas*. Herschel also reported nebulosity around *Juno* but was unable to see any around *Vesta*. It is easy to discredit these old observations as being due to imperfections in the tele-

scopes. Yet in 1928 an experienced observer, J. Comas Solá, reported 224 *Oceana* and 182 *Elsa* surrounded by nebulosity, and 899 *Jocasta* has twice been photographed with a halo.

Thus after a quarter of a century of observation the sudden outbursts of light emitted by Comet 1925 II are still a mystery. The explanation most favored by astronomers is flares of ultra-violet radiation from the sun, but as we have seen this theory has encountered difficulties. But it seems practically impossible to think of anything else. A series of explosions due to pentup radioactivity is scarcely worthy of serious consideration. It is tempting to let one's imagination roam and assume that 1925 II is being used as a celestial proving ground for some new explosive or disintegrator ray. Perhaps this will serve as a working hypothesis until we can make the trip in a spaceship and find out the real reason.

Let There Be Light

(Continued from page 99)

wick to soak, and held it out to Blackie. He lit the wick from his stick.

"It burns real good, Blackie," the girl said, wrinkling her nose against the first oily smoke. "Gee, you're smart to catch one the first day out."

"Tell them other dames to watch how they use it!" he warned. "This oughta last a month or more when we get him all emptied."

He blew out the dying flame on the stick and dropped the charred wood thoughtfully to the floor.

"Naw, I ain't so smart," he admitted, "or I'd figure a way to make one of them work the garden for us. Maybe someday—but *this* kind won't do nothin' but fix that goddam road, an' what good's that to anybody?"

His woman moved the burning lamp carefully to the center of the table.

"Anyway, it's gonna be better'n last winter," she said. "We'll have lights now."

THE END

THE *Postman* COMETH . . .

TWO QUALITIES

Sir Editor:

The best thing about your magazine is its limitless possibilities. Let me explain: *Future* can publish nothing but stories in the future; *Galaxy* requires a space setting; *Space Science Fiction* and *Rocket Stories* are strictly limited. All those need a certain type of story. If the public loses interest in that type of story—blooey goes the magazine . . .

Right now science fiction is going through a big boom, but just as sure as it is on top now it will go under. Look at all the new magazines around now—only a continued and growing interest in the field can support them (And since we're dealing with cycles we must accept the fact that at one point the thing will reach its peak and then descend). After the field stops growing the magazines that survive and continue will be those that have two qualities: (1) good stories and (2) a policy that can adapt to the changing needs of the field.

IF's title can symbolize any field of imaginative fiction.

At this point it looks like I'm going to grow old along with IF.

Best wishes for continued success,

—Dave Hammond
Runnemede, N. J.

We're striving for both of them, Dave—in addition to making IF physically attractive, too. And thanks for sticking with us. We'll try to make it worth your while.

* * *

REVIEWS, NEW FACES AND SLANG

Dear Sir:

Congratulations on a second fine effort in the May issue of IF magazine. In the short space of two issues, IF has attained heights seldom reached by other magazines even after years of issue.

Jungle in the Sky, as far as plot went, was an exceptionally fine attempt and a pretty good piece of writing. Characterization, however, was not good, but the rest of the story made up for this.

I found both *Welcome, Martians!* and *The Beast* remarkably like a couple of stories Ray Bradbury published a little while ago. The former had a definitely unique twist, but the latter, although interesting, was definitely commonplace.

The rest of the stories were definitely up to par, as were the special features. I really think that you should do all you could in exposing and denouncing that absurdity known as the Shaver Mystery.

But my joy in the reading of your magazine was dashed to earth

when I turned to the letter column. Here my worst fears were realized. I noticed with a good deal of chagrin that someone asked for fanzine revues. Why not have revues of revues of fanzines and really drive the fen (sic) wild? Miss Steiner was right concerning the introduction of new authors. But it so often turns out that many of the new authors should have stuck to being fans. But, by all means, we do need some new faces in the science fiction firmament.

After agreeing with Miss Steiner, my eyes swept down to the next letter, and choked back a feeling of nausea. Here it was, another choice example of the inane drivel which one finds in the poorly printed pages of our cheapest pulp magazines. We have all the earmarks. Teen age slang like "terrif". Reference to stories as "cute". (Or dreamy, groovy, reety-vouty, mellow, or what have you?) I'd like to repeat, please try to keep stuff like this out of your publication. A little slang is fine, but please try to draw the line at utter infantilism.

Congratulation again on a fine science fiction publication.

—Ben Jacopetti
San Francisco, Calif.

* * *

TOP OF THE LIST

Dear Mr. Fairman:

The May issue of IF was even better than the first one and that's pretty good. You were right about that cover, it is good. The story *Jungle in the Sky* is even better if possible. And I'm not partial to anyone named Milton.

I, myself, would like more longer stories, but you can't please everyone . . .

I like the location of your contents page, it is right where it should be. Why don't you put in the number of words after each title, it would add to the enjoyment of your mag. But as it is, it's at the top of my stf reading list.

—Milton L. Olsen
Corvallis, Ore.

And we're going to try to keep it there!

* * *

THIRD ON THE LIST

Dear Ed:

I have just finished reading May's ish of IF, and I want to express my opinion. I traded IF from a friend of mine and immediately after reading it, I placed IF as the 3rd favorite on my sf mag list. (*ASF* and *Galaxy* are 1st and 2nd).

Joiner is one of my favorites and I also liked the cover, that, thank heaven, is different from most of sf mags.

Story ratings:

1. Jungle in the Sky
2. Welcome, Martians!
3. Resurrection Seven
4. It Takes a Thief
5. Dreamer's World
6. Infinity's Child
7. The Beast
8. The Revealing Pattern

I would like to see this in print, but I think I won't.

—George Viksnins
Philadelphia, Pa.

"TOO LONG TO STAND A CHANGE"

Dear Ed:

While the quality of the May issue was as high as that of the March one I didn't enjoy it as much. I'm afraid the stories were rather stereotyped in the boy-girl angle. However, they made good reading and it *is* true that you can't please everybody.

I would like to make one point clear. Ganymede is not the largest moon in the Solar System as Milton Lesser would have us believe in *Jungle in the Sky*. Saturn's moon Titan is the largest and it is also the only moon capable of holding an atmosphere. No hard feelings?

In my humble opinion *Infinity's Child* was the top story this month. It presented a very interesting theory and it seems to me that if so many people make references to the same thing as was showed in this story then there must be some truth in it. . .

At first *Welcome, Martians!* seemed to be almost exactly like Ray Bradbury's *They Landed on Mars* but once I got into it the similarity disappeared. What a thing to have happen to you after just completing a 48,000,000 mile trip. A simple case of mistaken identity! This was another I liked.

The Beast I didn't quite understand. Why wouldn't or couldn't the men shoot at the creature? It seems to me that they must have been hypnotized by said entity. Otherwise why wouldn't anyone kill something they knew was deadly whether it took the form of someone close to you or not. If you knew that it was only an illusion then what could hold you back?

By now this letter is too long to even stand a chance of being printed but as long as I've had my say I'm satisfied.

—Pat Scholz
Brooklyn, N. Y.

* * *

MAYBE WE WILL

Dear Editor:

You came up with some good stories in the May issue of IF. Congratulations to Milton Lesser for the excellent job he did in writing *Jungle in the Sky*. This was by far the best story in the issue.

Welcome, Martians! and *It Takes a Thief* were also well done. The only stories that I didn't like in the May issue were *Infinity's Child* and *Dreamer's World*.

I enjoyed your personality sketch on Ray Palmer very much. Keep this a regular feature in IF.

Maybe you will turn monthly soon?

—Bob Goodney
Ashland, Wis.

Hayden Planetarium

LUNAR SHIP, now approaching a crater area on the moon, is descending onto a planet without atmosphere—no sound, no odors, no rain, no snow; never a cloud in the sky, never a breeze. Night and day the heavens are black, and each day, according to earth standards, is a month long. In the velvety black heavens, the sun is a steady, bright, colorless light, and the earth is a huge globe, with oceans and continents easily definable.

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