

found among books in a long-buried library. Other ages were to compare their life with the weird, ugly-lovely story of the Go-Captain Taliano and the Lady Dolores Oh.

Out of it all, two things stood forth — their love and the image of the great sails, tissue-metal wings with which the bodies of people finally fluttered out among the stars.

Mention him and others knew her. Mention her and they knew him. He was the first of the inbound sailors, and she was the lady who sailed the *Soul*.

It was lucky that people lost their pictures. The romantic hero was a very young-looking man, prematurely old and still quite sick when the romance came. And Helen America, she was a freak, but a nice one: a grim, solemn, sad little brunette who had been born amid the laughter of humanity. She was not the tall, confident heroine of the actresses who later played her.

She was, however, a wonderful sailor. That much was true. And with her body and mind she loved Mr. Gray-no-more, showing a devotion which the ages can neither surpass nor forget. History may scrape off the patina of their names and appearances, but even history can do no more than brighten the love of Helen America and Mr. Gray-no-more.

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Both of them, one must remember, were sailors.

## II

SHE was a child and she was playing with a spiertier. She got tired of letting it be a chicken, so she reversed it into the fur-bearing position. When she extended the ears to the optimum development, the little animal looked odd indeed. A light breeze blew the animal-toy on its side, but the spiertier good-naturedly righted itself and munched contentedly on the carpet.

The little girl suddenly clapped her hands and broke forth with the question, "Mama, what's a sailor?"

"There used to be sailors, darling, a long time ago. They were brave men who took the ships out to the stars, the very first ships that took people away from our sun. And they had big sails. I don't know how it worked, but somehow the light pushed them, and it took them a quarter of a life to make a single one-way trip. People only lived a hundred and sixty years at that time, darling, and it was forty years each way, but we don't need sailors any more."

"Of course not," said the child. "We can go right away. You've taken me to Mars and you've taken me to New Earth too, haven't you, Mama? And we can go anywhere and it only takes one afternoon."

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"That's planofforming, honey. But it was a long time before the people knew how to planofform. And they could not travel the way we could, so they made great big sails. They made sails so big that they could not build them on Earth. They had to hang them out halfway between Earth and Mars. And you know, a funny thing happened . . . Did you ever hear about the time the world froze?"

"No, Mama. What was that story about?"

"Well, a long time ago, one of these sails drifted and people tried to save it because it took a lot of work to build it. But the sail was so large that it got between Earth and the sun. And there was no more sunshine, just night all the time. And it got very cold on Earth. All the atomic power plants were busy, and all the air began to smell funny. And the people were worried and in a few days they pulled the sail back out of the way. And the sunshine came again."

"Mama, were there ever any girl sailors?"

A curious expression crossed over the mother's face. "There was one. You'll hear about her when you are older. Her name was Helen America and she sailed the *Soul* out to the stars. She is the only woman that ever did it. And that is a wonderful story."

The mother dabbled at her eyes with a handkerchief.

The child said: "Mama, tell me now. What's the story all about?"

At this point the mother became very firm and she said: "Honey, there are some things that you are not old enough to hear yet. But when you are a big girl, I'll tell you all about them."

The mother was an honest woman. She reflected a moment, and then she added, "Unless you read about it yourself first."

## III

HELEN America was to make her place in the history of mankind, but she started badly. The name itself was a misfortune.

No one ever knew who her father was. The officials agreed to keep the matter quiet.

Her mother was not in doubt. Her mother was the celebrated she-man Mona Muggeridge, a woman who had campaigned a hundred times for the lost cause of complete identity of the two sexes. She had been a feminist beyond all limits, and when Mona Muggeridge, the one and only Miss Muggeridge, announced to the press that she was going to have a baby, that was first-class news.

Mona Muggeridge went further. She proclaimed that no woman should have consecutive children with the same man, that women should be advised to pick different fathers for their children, so as to

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diversify and beautify the race. She capped it all by announcing that she, Miss Muggeridge, had selected the perfect father and would inevitably produce the only perfect child.

Miss Muggeridge, a bony, pompous blonde, stated that she would avoid the nonsense of marriage and family names, and that therefore the child, if a boy, would be called John America, and, if a girl, Helen America.

Thus it happened that little Helen America was born with the correspondents in the press services waiting outside the delivery room. News screens flashed the picture of a pretty three-kilogram baby.

That was just the beginning. Mona Muggeridge was belligerent. She insisted, even after the baby had been photographed for the thousandth time, that this was the finest child ever born. She pointed to the child's perfections. She demonstrated all the foolish fondness of a doting mother, but felt that she, the great crusader, had discovered this fondness for the first time.

Helen America was a wonderful example of raw human material triumphing over its tormentors. By the time she was four years old, she spoke six languages, and was beginning to decipher some of the old Martian texts. At the age of five she was sent to school. Her fellow

school children immediately invented a rhyme:

*"Helen, Helen,  
Fat and dumb,  
Doesn't know where  
Her daddy's from!"*

Helen took all this and perhaps it was an accident of genetics that she grew to become a compact little person — a deadly serious little brunette. Challenged by lessons haunted by publicity, she became careful and reserved about friendships, and desperately lonely.

When Helen America was sixteen, her mother came to a bad end. Mona Muggeridge eloped with a man she announced to be the perfect husband for the perfect marriage hitherto overlooked by mankind. The perfect husband was a skilled machine polisher. He already had a wife and four children. He drank beer and his interest in Miss Muggeridge seems to have been a mixture of good-natured comradeship and a sensible awareness of her motherly bankroll. The planetary yacht on which they eloped broke the regulations with off-schedule flight. The bridegroom's wife and children had alerted police. The result was a collision with a robot barge which left both bodies identifiable.

At sixteen Helen was already famous, and at seventeen already forgotten, and very much alone.

#### IV

THIS was the age of sailors. The thousands of photo-reconnaissance and measuring missiles had begun to come back with their harvest from the stars. Planet after planet swam into the ken of mankind. The new worlds became known as the interstellar search missiles brought back photographs, samples of atmosphere, measurements of gravity, cloud coverage, chemical makeup and the like.

Of the very numerous missiles which returned from their two- or three-hundred-year voyages, five brought back reports of New Earth, a planet so much like Terra itself that it could be settled.

The first sailors had gone out almost a hundred years before. They had started with small sails not over two thousand miles square. Gradually the size of the sails increased. The technique of adiabatic packing and the carrying of passengers in individual pods reduced the damage done to the human cargo. It was great news when a sailor returned to Earth, a man born and reared under the light of another star. He was a man who had spent a month of agony and pain, bringing a few sleep-frozen settlers, guiding the immense light-pushed sailing craft which had managed the trip in an objective-time period of forty years.

Mankind got to know the look of a sailor. There was a plantigrade walk to the way he put his whole body on bed, couch or ground. There was a sharp, stiff, mechanical swing to his neck. The man was neither young nor old. He had been awake and conscious for forty years, thanks to the drug which made possible a kind of limited awareness. By the time the psychologists interrogated him, first for the proper authorities of the Instrumentality and later for the news releases, it was plain enough that he thought the forty years were about a month. He never volunteered to sail back, because he had actually aged forty years. He was a young man, young in his hopes and wishes, but a man who had burned up a quarter of a human lifetime in a single agonizing experience.

At this time Helen America went to Cambridge. Lady Joan's College was the finest woman's college in the Atlantic world. Cambridge had reconstructed its proto-historic traditions, and the neo-British had recaptured that fine edge of engineering which reconnected their traditions with the earliest antiquity.

Naturally enough the language was cosmopolite Earth and not archaic English, but the students were proud to live at a reconstructed university very much as the archeological evidence showed

it to have been before the period of darkness and troubles came upon the Earth.

Helen shone a little in this renaissance.

NEWS release services watched Helen in the cruellest possible fashion. They revived her name and the story of her mother. She had put in for six professions, and her last choice was sailor. It happened that she was the first woman to make the application — first because she was the only woman young enough to qualify who had also passed the scientific requirements.

Her picture was beside his on the screens before they ever met each other.

Actually, she was not anything like that at all. She had suffered so much in her childhood from "*Helen, Helen, fat and dumb*" that she was competitive only on a coldly professional basis. She hated and loved and missed the mother she had lost, and she resolved so fiercely not to be like her mother that she became an embodied antithesis of Mona.

The mother had been horsy, blonde, big — the kind of woman who is a feminist because she is not very feminine. Helen never thought about her own femininity. She just worried about herself. Her face would have been round if it had been plump, but she was not

plump. Black-haired, dark-eyed, small and slim, she was a genetic demonstration of her unknown father. Her teachers often feared her. She was a pale, quiet girl, and she always knew her subject.

Her fellow-students had joked about her for a few weeks and then most of them had banded together against the indecency of the press. When a newsframe came out with something ridiculous about the long-dead Mona, the whisper went through Lady Joan's; "Keep Helen away. Those people are at it again."

They protected her, and it was only by chance that she saw her own face in a newsframe. There was the face of a man beside her. He looked like a little old monkey, she thought. Then she read, "PERFECT GIRL WANTS TO BE A SAILOR. SHOULD SAILOR HIMSELF DATE PERFECT GIRL?" Her cheeks burned with old helpless embarrassment and rage, but she had grown too expert at being herself to do what she might have done in her teens — hate the man. She knew it wasn't his fault either. It wasn't even the fault of the news services. She had only to be herself, if she could ever find out what that really meant.

THEIR dates, when they came had the properties of a nightmare. A news service notified Helen that she had been awarded a week's holiday in New Madrid — with the sailor from the stars.

Helen refused.

Then he refused too, and he was a little too prompt for her liking. She became curious about him.

Two weeks passed, and in the office of the news service a treasurer brought two slips of paper to the director. They were the vouchers for Helen America and Mr. Gray-no-more to obtain the utmost in preferential luxury at New Madrid.

The treasurer said, "These have been issued and registered as gifts with the Instrumentality, sir. Should they be canceled?"

The executive of the news service had his fill of stories that day, and he felt humane. On an impulse he commanded the treasurer, "Give those tickets to them again. No publicity. We'll keep out of it. If they don't want us, they don't have to have us. Push it along. That's all. Go."

The tickets went back out to Helen. She had made the highest record ever reported at the university and she needed a rest. When the news service woman gave her the ticket, she said, "Is this a trick?"

Assured that it was not, she then asked, "Is that man coming?"

She couldn't say "*the sailor*" — it sounded too much like the way people had always talked about herself — and she honestly didn't remember his other name at the moment.

The woman did not know.

"Do I have to see him?" said Helen.

"No," said the woman. "The gift is unconditional."

Helen laughed, almost grimly. "All right, I'll take it and say thanks. But one picturemaker — mind you, just one — and I walk out. Or I may walk out for no reason at all. Is that all right?"

It was.

Four days later Helen was in the pleasure world of New Madrid, and a master of the dances was presenting her to an odd, intense old man whose hair was black.

"Junior Scientist Helen America — Sailor of the Stars Mr. Gray-no-more."

He looked at them shrewdly and smiled a kindly, experienced smile. He added the empty phrase of his profession, "I have had the honor and I withdraw."

They were alone together on the edge of the dining room. The sailor looked at her very sharply indeed and then said, "Who are you? Are you somebody I have already met? Should I remember you? There are too many people here on Earth. What do we do next? What are we supposed to do? Would you like to sit down?"

Helen said one "Yes" to all those questions and never dreamed that the single yes would be articulated by hundreds of great actresses, each one in the actress's own spe-

cial way, across the centuries to come.

They did sit down.

How the rest of it happened, neither one was ever quite sure.

SHE had had to quiet him almost as though he were a hurt person in the House of Recovery. She explained the dishes to him, and when he still could not choose, she gave the robot selections for him. She warned him, kindly enough, about manners when he forgot the simple ceremony of eating which everyone knows, such as standing up to unfold the napkin or putting the scraps into the solvent tray and the silverware into the transfer.

At last he relaxed and did not look so old.

Momentarily forgetting the thousand times she had been asked silly questions herself, she asked him, "Why did you become a sailor?"

He stared at her in open-eyed inquiry, as though she had spoken to him in an unknown language and expected a reply. Finally he mumbled the answer, "Are you — you, too — saying that — that I shouldn't have done it?"

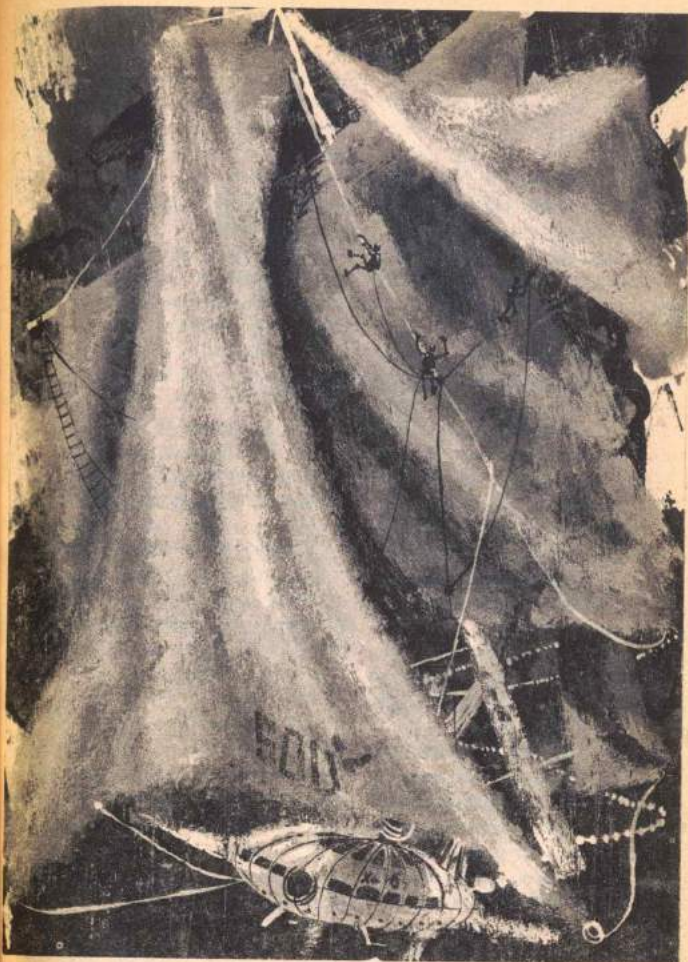
Her hand went to her mouth in instant apology. "No, no, no. You see, I myself have put in to be a sailor."

He looked at her, his young-old eyes open wide. He did not stare, but merely seemed to be trying to

understand words, each one of which he could comprehend individually but which in sum amounted to sheer madness. She did not turn away from his look, odd though it was. Once again, she had the chance to note the indescribable peculiarity of this man who had managed enormous sails out in the blind, empty black between untwinkling stars.

He was young as a boy. The hair which gave him his name was glossy black. His beard must have been removed permanently, because his skin was like that of a middle-aged woman — well-kept, pleasant, but showing the unmistakable wrinkles of age and betraying no sign of normal stubble. The skin had age without experience. The muscles had grown older, but they did not show how the person had grown.

Helen had learned to be an acute observer of people as her mother took up with one fanatic after another; she knew that people carry their secret biographies written in the muscles of their faces, and that a stranger passing on the street tells us (whether he wishes to or not) all his inmost intimacies. If we but look sharply enough, and in the right light, we know whether fear or hope or amusement has tallied the hours of his days, we divine the sources and outcome of his most secret sensuous pleasures, we catch the



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dim but persistent reflections of those other people who have left the imprints of their personality on him in turn.

All this was absent from Mr. Gray-no-more.

HE had age but not the stigmata of age; he had growth without the normal markings of growth; he had lived without living, in a time and world in which most people stayed young while living too much.

He was the uttermost opposite to her mother that Helen had ever seen, and with a pang of undirected apprehension Helen realized that this man meant a great deal to her future life, whether she wished him to or not. She saw in him a young bachelor, prematurely old, a man whose love had been given to emptiness and horror, not to the tangible rewards and disappointments of human life.

He had had all space for his mistress, and space had used him harshly. Still young, he was old; already old, he was young.

The mixture was one which she knew that she had never seen before, and which she suspected that no one else had ever seen, either. He had in the beginning of life the grief, compassion, and wisdom which most people find only at the end.

It was he who broke the silence. "You did say — didn't you?—that

you yourself had put in to be a sailor?"

Even to herself, her answer sounded silly and girlish. "I'm the first woman ever to qualify with the necessary scientific subjects while still young enough to pass the physical . . ."

"You must be an unusual girl," said he mildly.

Helen realized, with a thrill, a sweet and bitterly real hope that this young-old man from the stars had never heard of the "perfect child" who had been laughed at in the moments of being born, the girl who had all America for a father, who was famous and unusual and alone so terribly much so that she could not even imagine being ordinary, happy, decent, or simple.

She thought to herself, *It would take a wise freak who sails in from the stars to overlook who I am*, but to him she simply said, "It's no use talking about being 'unusual.' I'm tired of this Earth and since I don't have to die to leave it, I think I would like to sail to the stars. I've got less to lose than you may think . . ." She was about to tell him about Mona Muggerridge, but she stopped in time.

The compassionate gray eyes were upon her, and at this point it was he, not she, who was in control of the situation. She looked at the eyes themselves. They had stayed open for forty years, in the

blackness near to pitch darkness of the tiny cabin. The dim dials had shone like blazing suns upon his tired retinas before he was able to turn his eyes away. From time to time he had looked out at the black nothing to see the silhouettes of his dials, almost blackness against total blackness, as the miles of their sweep sucked up the push of light itself and accelerated him and his frozen cargo at almost immeasurable speeds across an ocean of unfathomable silence. Yet what he had done, she had asked to do.

The stare of his gray eyes yielded to a smile of his lips. In that young-old face, masculine in structure and feminine in texture, the smile had a connotation of tremendous kindness. She felt singularly much like weeping when she saw him smile in that particular way at her. Was that what people learned between the stars? To care for other people very much indeed and to spring upon them only to love and not to devour?

IN a measured voice he said, "I believe you. You're the first one that I have believed. All these people have said that they wanted to be sailors too, even when they looked at me. They could not know what it means, but they said it anyhow, and I hated them for saying it. You, though — perhaps you will sail among the stars, but I hope that you will not."

As though waking from a dream, he looked around the luxurious room, with the gilt-and-enamel robot-waiters standing aside with negligent elegance. They were designed to be always present and never obtrusive: This was a difficult esthetic effect to achieve, but their designer had achieved it.

The rest of the evening moved with the inevitability of good music. He went with her to the forever-lonely beach which the architects of New Madrid had built beside the hotel. They talked a little, they looked at each other, and they made love with an affirmative certainty which seemed outside themselves. He was very tender, and he did not realize that in a genetically sophisticated society, he was the first lover she had ever wanted or had ever had. (How could the daughter of Mona Muggerridge want a lover or a mate or child?)

On the next afternoon, she exercised the freedom of her time and asked him to marry her. They had gone back to their private beach, which, through miracles of ultra-fine mini-weather adjustment, brought a Polynesian afternoon to the high, chilly plateau of central Spain.

She asked him, *she* did, to marry her, and he had refused, as tenderly and as kindly as a boy of twenty aged sixty can refuse a girl of eighteen. She did not press him; they continued the love affair.

They sat on the artificial sand of the artificial beach and dabbled their toes in the man-warmed water of the ocean. Then they lay down against an artificial sand dune which hid New Madrid from view.

"Tell me," Helen said, "may I ask again, why did you become a sailor?"

"Not so easily answered," he said. "Adventure, maybe, at least in part. And I wanted to see Earth. Couldn't afford to come in a pod. Now — well, I've enough to keep me the rest of my life. I can go back to New Earth as a passenger in a month instead of forty years—be frozen in no more time than the wink of an eye, put in my adiabatic pod, linked to the next sailing ship, and wake up home again while some other fool does the sailing."

Helen nodded. She did not bother to tell him that she knew all this.

"Out where you sail among the stars," she said, "can you tell me—can you possibly tell me anything of what it's like out there?"

His face looked inward on his soul and afterward his voice came as from an immense distance. "There are moments — or is it weeks? You can't really tell in the sail ship — when it seems — worth while. You feel — your nerve endings reach out until they touch the stars. You feel enormous."

GRADUALLY he came back to her. "It's trite to say, of course, but you're never the same again. I don't mean just the obvious physical thing, but — you find yourself — or maybe you lose yourself. That's why," he continued, gesturing toward New Madrid, out of sight behind the sand dune, "I can't stand this. New Earth — well, it's like Earth must have been in the old days, I guess. There's something fresh about it. Here . . ."

"I know," said Helen America, and she did. The slightly decadent, slightly corrupt, too comfortable air of Earth must have had a stifling effect on the man from beyond the stars.

"There," he said, "you won't believe this, but sometimes the ocean's actually too cold to swim in. We have music that doesn't come from machines, and pleasures that come from inside our own bodies without being put there. I have to get back to New Earth," he said.

Helen said nothing for a little while, concentrating on stilling the pain in her heart. "I — I —" she began.

"I know!" he said, almost savagely turning on her. "But I can't take you! You're too young; you've got a life to live and I've thrown away a quarter of mine. No, that's not right. I didn't throw it away. I wouldn't trade it back because it's given me something inside that

I never had before. And it's given me you."

"But if—" she started again to argue.

"No. Don't spoil it. I'm going next week to be frozen in my pod to wait the next sail ship. I can't stand much more of this and I might weaken. That would be a terrible mistake. But we have this time together now, and we have our separate lifetimes to remember in. Don't think of anything else. There's nothing else, nothing we can do."

Helen did not tell him — then or ever — of the child they would now never have. She could have tied him to her with it, for he was an honorable man and would have married her, had she told him. But Helen, even then in her youth, wanted him to come to her of his own free will. To that marriage their child would have been an additional blessing.

There was the other alternative, of course. She could have borne the child without naming the father. But she was no Mona Mugeridge. She knew too well the terror and loneliness of being a Helen America ever to be responsible for creating another. And for the course she had laid out, there was no place for a child. So, at the end of their time in New Madrid, she let him say a real good-by. Wordless and without tears, she left.

Then she went up to an arctic city, a pleasure city where such carelessnesses are known to happen, and a confidential medical service eliminated the unborn child. Then she went back to Cambridge and confirmed her place as the first woman to sail a ship to the stars.

## V

THE Presiding Lord of the Instrumentality at that time was a man named Waite. Waite was not cruel; he had a job that left no room for anything but efficiency.

His aide said to him, "This girl wants to sail a ship to New Earth. Are you going to let her?"

"Why not?" said Waite. "If she fails, we will find out something eighty years from now, when the ship comes back. Don't give her any convicts, though. Convicts are too valuable as settlers to be sent on a gamble. Give her fanatics. Don't you have twenty or thirty thousand who are waiting?"

"Yes, sir, twenty-six thousand two hundred. Not counting recent additions."

"Very well," said the Lord of the Instrumentality, "give her the whole lot of them and assign her that new ship. Have we named it?"

"No, sir," said the aide.

"Name it."

The aide looked blank.

A contemptuous wise smile crossed the face of the senior bureaucrat. He said, "All right, then—name it the *Soul*—and let the *Soul* fly to the stars. And let Helen America be an angel if she wants to. Poor thing, she hasn't had much of a life on this Earth, not the way she was born and brought up. And it's no use to try and reform her, to transform her personality, when it's a lively, rich personality. It does not do any good. We don't have to punish her for being herself. Let her go. Let her have what she wants."

Waite sat up and stared at his aide and then repeated very firmly: "Let her have what she wants — *but only if she qualifies.*"

## VI

**H**ELEN America did qualify. The doctors and the experts tried to warn her against it.

One technician said: "Don't you realize what this is going to mean? Forty years will pour out of your life in a single month. You leave here a girl. You will get there a woman of sixty. There will be about thirty thousand pods strung on sixteen lines behind you, and you will have the control cabin to live in. We will give you as many robots as you need, probably a dozen. You will have a main sail and a foresail and you will have to keep the two of them."

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"I know. I have read the book," said Helen America. "And I sail the ship with light, and if the infrared touches that sail, I go. If I get radio interference, I pull the sails in. And if the sails fail, I wait as long as I live."

The technician looked a little cross. "There is no call for you to get tragic about it. Tragedy is easy enough to contrive. And if you want to be tragic, you can do it without destroying thirty thousand other people or wasting a large amount of Earth cargo and shipping. You can drown right here, or jump into a volcano, or get into an accident. Tragedy is not the hard part. The hard part is when you don't quite succeed and you have to keep on fighting. When you must keep going on and on and on in the face of really hopeless odds.

"Now this is the way the foresail works. That sail will be twenty thousand miles at the wide part. It tapers down and the total length will be just under 80,000 miles. It will be retracted or extended by small servo-robots. The servo-robots are radio-controlled. You had better use your radio sparingly, because these batteries have to last forty years. They have got to keep you alive."

"Yes, sir," said Helen America very contritely.

"You've got to remember what your job is. You're going because a sailor takes a lot less weight than

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a machine. There is no all-purpose computer built that weighs as little as you do. You go simply because you are expendable. Anyone who goes out to the stars takes one chance in three of never getting there. But you are not going because you are a leader. You are going because you are young, because you qualify intellectually and academically — because your nerves are good. You understand that?"

"Yes, sir."

"Any questions?"

"No, sir."

"Furthermore, you are going because you'll make the trip in forty years. If we send automatic devices and have them manage the sails, they would get there — possibly. But it would take them a hundred years or more, and by that time the adiabatic pod would have spoiled, most of the human cargo would not be fit for revival, and the leakage of heat would be enough to ruin the entire expedition. So remember that the tragedy and the trouble you face is mostly work. Work, and that's all it is. That is your big job."

Helen smiled. She was a short girl with rich dark hair, brown eyes, and very pronounced eyebrows, but when Helen smiled she looked almost like a child again, and a rather charming one. She said: "My job is work. I understand that, sir."

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## VII

**I**N the preparation area, the make-ready was fast but not hurried. Twice the technicians urged her to take a holiday before she reported for final training. She did not accept their advice. She wanted to go forth; she knew that they knew she wanted to leave Earth forever, and she also knew they knew she was not merely her mother's daughter. She was trying, somehow, to be herself. She knew the world did not believe, but the world did not matter.

The third time they suggested a vacation, the suggestion was mandatory. She had a gloomy two months which she ended up enjoying a little bit on the wonderful islands of the Hesperides, islands which were raised when the weight of the earthports caused a new group of small archipelagoes to form below Bermuda.

She reported back, fit, healthy, and ready to go.

The senior medical officer was very blunt. "Do you really know what we are going to do to you? We are going to make you live forty years out of your life in one month."

She nodded, and he went on, "Now to give you those forty years we've got to slow down your bodily processes. After all, the sheer biological task of breathing forty years' worth of air in one month

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involves a factor of about five hundred to one. No lungs could stand it. Your body must circulate water. It must take in food. Most of this is going to be protein. There will be some kind of a hydrate. You'll need vitamins.

"Now, what we are going to do is slow the brain down, very much indeed, so that the brain will be working at about that five-hundred-to-one ratio. We don't want you incapable of working. Somebody has to manage the sails.

"Therefore, if you hesitate or start to think, a thought or two is going to take several weeks. Meanwhile your body can be slowed down some. But the different parts can't be slowed down at the same rate. Water, for example, we brought down to about eighty to one, food to about three hundred to one.

"You won't have time to drink forty years' worth of water. We circulate it, get it through, purify it, and get it back in your system, unless you break your link-up.

"So what you face is a month of being absolutely wide awake, on an operating table *and being operated on without anesthetic*, while doing some of the hardest work that mankind has ever found."

WHITE of face, she nodded again when he paused, and again he continued.

"You'll have to take observa-

tions. You'll have to watch your lines with the pods of people and cargo behind you. You'll have to adjust the sails. If there is anybody surviving at your destination point, they will come out and meet you.

"At least that happens most of the times.

"I am not going to assure you you will get the ship in, and if they don't meet you, take an orbit beyond the furthest planet and either let yourself die or try to save yourself. You can't get thirty thousand people down on a planet single-handedly.

"Meanwhile, though, you've got a real job. We are going to have to build these controls right into your body. We'll start by putting valves in your chest arteries. Then we catheterize you. We are going to make an artificial colostomy that will go forward here, just in front of your hip joint. Your water intake has a certain psychological value, so that about one five-hundredth of your water we are going to leave you to drink out of a cup. The rest of it is going to go directly into your blood stream. Again about a tenth of your food will go that way. You understand that?"

"You mean," said Helen, "I eat one-tenth, and the rest goes in intravenously?"

"That's right," said the medical technician. "We will pump it into you. The concentrates are there. The reconstituter is there. Now

these lines have a double connection. One set of connections runs into the maintenance machine. That will become the logistic support for your body. And these lines are the umbilical cord for a human being alone among the stars. They are your life.

"If they should break or if you should fall, you might faint for a year or two. If that happens, your local system takes over: that's the pack on your back.

"On Earth, it weighs as much as you do. You have already been drilled with the model pack. You know how easy it is to handle in space. That'll keep you going for a subjective period of about two hours. No one has ever worked out a clock yet that would match the human mind, so, instead of giving you a clock, we are giving you an odometer attached to your own pulse and we mark it off in grades. If you watch it in terms of ten-thousands of pulse beats, you may get some information out of it. I don't know what kind of information, but you may find it helpful somehow."

Helen nodded.

He looked at her sharply and then turned back to his tools, picking up a shining needle with a disk on the end.

"Now, let's get back to this. We are going to have to get right into your mind. That is a chemical too."

HELEN interrupted. "You said you were not going to operate on my head."

"Just the needle. That's the only way we can get to the mind. Slow it down enough so that you will have this subjective mind operating at a rate that will make the forty years pass in a month." He smiled grimly, but the grimness changed to momentary tenderness as he took in her brave, obstinate stance, her girlish, admirable, pitiable determination.

"I won't argue it," she said. "This is as bad — and as good — as a marriage, and the stars are my bridegroom." The image of the sailor went across her mind, but she said nothing of him.

The technician went on, "We have already built in psychotic elements. You'll have to be insane to manage the sails and to survive utterly alone and be out there even a month. And the trouble is, in that month you are going to *know* it's really forty years. There is not a mirror in the place, but you'll probably find shiny surfaces to look at yourself.

"You will see yourself aging, every time you slow down to look. I don't know what the problem is going to be on that score. It's been bad enough on men.

"Your hair problem is going to be easier than men's. With the sailors we sent out, we simply had to kill all the hair roots. Other-



wise the men would have been swamped in their own beards. And a tremendous amount of the nutrient would be wasted if it went into raising of hair on the face. I think what we will do is inhibit hair on the top of your head. Whether it comes out the same color or not is something you will find for yourself later. Did you ever happen to meet the sailor who came in?"

The doctor knew she had. He did not know that it was the sailor from beyond the stars who called her.

Helen managed to remain composed as she smiled at him to say: "Your technician planted a new scalp. The hair came out black and he got the nickname of Mr. Gray-no-more."

"If you are ready next Tuesday, we'll be ready too. Do you think you can possibly make it by then, my lady?"

Helen felt odd seeing this old, serious man refer to her as "lady," but she knew he was paying respect to a profession and not just to an individual.

"Tuesday is time enough." She felt complimented that he was old-fashioned enough to know the ancient names of the days of the week and to use them. That was a sign that he had not only learned the essentials at the university but that he had picked up the elegant inconsequential as well.

### VIII

**T**WO weeks later was twenty-one years later by the chronometers in the cabin. Helen turned for the ten-thousandth-times-ten-thousand time to scan the sails.

Her back ached with a violent throb.

She could feel the steady roar of her heart like a fast vibrator as it ticked against the time-span of her awareness. She could look down at the meter on her wrist and see the hands on the dials indicate tens of thousands of pulses very slowly.

She heard the steady whistle of air in her throat as her lungs seemed shuddering with sheer speed.

And she felt the throbbing pain of a large tube feeding water directly into her neck.

Her abdomen felt as though someone had built a fire there. The evacuation tube operated automatically, but it burned as if a coal had been held to her skin, and a catheter, which connected her bladder to another tube, stung as savagely as the prod of a scalding-hot needle.

Her head ached and her vision blurred.

But she could still see the instruments and she still could watch the sails. Now and then she could glimpse, faint as a tracery of dust, the immense skein of people and

cargo that lay behind the sails. She could not sit down.

The only way that she could be comfortable was to lean against the instrument panel, her lower ribs against the panel, her tired forehead against the meters.

Once she rested that way and realized that it was two and a half months before she got up. She knew that rest had no meaning, and she could see her face moving, a distorted image of her own face growing old in the reflections from the glass face of the "apparent weight" dial. She could look at her arms with blurring vision, note the skin tightening, loosening and tightening again as changes in temperatures affected it.

She looked out one more time at the sails and decided to take in the foresail. Warily she dragged herself over the control panel with a servo-robot. She selected the right control and opened it for a week or so. She waited there, her heart buzzing, her throat whistling air. Finally she checked to see if the control really had been the right one, pushed again, and nothing happened.

She pushed a third time. There was no response.

Now she went back to the master panel, re-read, checked the light direction, found a certain amount of infra-red pressure which she should have been picking up. The sails had very gradually risen to

something not far from the speed of light itself because they moved fast with the one side dulled; the pods behind, sealed against time and eternity, swam obediently in an almost perfect weightlessness.

Her reading had been correct.

The sail was wrong.

She went back to the emergency panel and pressed. Nothing happened.

**S**HE broke out a repair robot and sent it out to effect repairs, punching the papers as rapidly as she could, to give instructions. The robot went out and an instant (three days) later it replied. The panel on the repair robot rang forth, "Does not conform."

She sent a second repair robot. That had no effect either.

She sent a third, the last. Three bright lights. "Does not conform" started at her. She moved the servo-robots to the other side of the sails and pulled hard.

The sail was still not at the right angle.

She stood there wearied and lost in space, and she prayed. She thought she had prayed very fervently and she hoped that she would get an answer to her prayer.

It did not work out that way. She was bewildered, alone.

There was no sun. There was nothing except the tiny cabin and herself, more alone than any woman had ever been before. She



sensed the thrill and ripple of her muscles as they went through days of adjustment while her mind noticed only the matter of minutes. She leaned forward, forced herself not to relax, and finally she remembered that one of the official busybodies had included a weapon.

What she would use a weapon for, she did not know.

It pointed. It had a range of two hundred thousand miles. The target could be selected automatically.

She got down on her knees trailing the abdominal tube and the feeding tube and the catheter tubes and the helmet wires, each one running back to the panel. She crawled underneath the panel for the servorobots and she pulled out a written manual. She finally found the right frequency for the weapon's controls. She set the weapon up and went to the window.

At the last moment she thought, "Perhaps the fools are going to make me shoot the window out. It



ought to have been designed to shoot through the window without hurting it. That's the way they *should* have done it."

She wondered about the matter for a week or two.

Just before she fired, she turned. There, next to her, stood her sailor from the stars, Mr. Gray-no-more. He said: "It won't work that way."

He stood clear and handsome, the way she had seen him in New Madrid. He had no tubes, he did not tremble, she could see the nor-

mal rise and fall of his chest as he took one breath every hour or so. One part of her mind knew that he was a hallucination. Another part of her mind believed that he was real. She was mad, and she was very happy to be mad at this time, and she let the hallucination give her advice. She re-set the gun so that it would fire through the cabin wall, and it fired a low charge at the repair mechanism out beyond the distorted and immovable sail.

The low charge did the trick.