

# The Cosmic Express

BY JACK WILLIAMSON

Mr. Eric Stokes-Harding tumbled out of the rumpled bed-clothing, a striking slender figure in purple-striped pajamas. He smiled fondly across to the other of the twin beds, where Nada, his pretty bride, lay quiet beneath light silk covers. With a groan, he stood up and began a series of fantastic bending exercises. But after a few half-hearted movements, he gave it up, and walked through an open door into a small bright room, its walls covered with bookcases and also with scientific appliances that would have been strange to the man of four or five centuries before, when the Age of Aviation was beginning.

Yawning, Mr. Eric Stokes-Harding stood before the great open window, staring out. Below him was a wide, park-like space, green with emerald lawns, and bright with flowering plants. Two hundred yards across it rose an immense pyramidal building—an artistic structure, gleaming with white marble and bright metal, striped with the verdure of terraced roof-gardens, its slender peak rising to help support the gray, steel-ribbed glass roof above. Beyond, the park stretched away in illimitable vistas, broken with the graceful columned buildings that held up the great glass roof.

Above the glass, over this New York of 2432 A. D., a freezing

blizzard was sweeping. But small concern was that to the lightly clad man at the window, who was inhaling deeply the fragrant air from the plants below—air kept, winter and summer, exactly at 20° C.

With another yawn, Mr. Eric Stokes-Harding turned back to the room, which was bright with the rich golden light that poured in from the suspended globes of the cold ato-light that illuminated the snow-covered city. With a distasteful grimace, he seated himself before a broad, paper-littered desk, sat a few minutes leaning back, with his hands clasped behind his head. At last he straightened reluctantly, slid a small typewriter out of its drawer, and began pecking at it impatiently.

For Mr. Eric Stokes-Harding was an author. There was a whole shelf of his books on the wall, in bright jackets, red and blue and green, that brought a thrill of pleasure to the young novelist's heart when he looked up from his clattering machine.

He wrote "thrilling action romances," as his enthusiastic publishers and television directors said, "of ages past, when men were men. Red-blooded heroes responding vigorously to the stirring passions of primordial life!"

He was impartial as to the source of his thrills—provided they were distant enough from modern civilization. His hero was likely to be an ape-man roaring through the jungle, with a bloody rock in one hand and a beautiful girl in the other. Or a cowboy, "hard-riding, hard-shooting," the vanishing hero of the ancient ranches. Or a man marooned with a lovely woman on a desert South Sea island. His heroes were invariably strong, fearless, resourceful fellows, who could handle a club on equal terms with a cave-man, or call science to aid them in defending a beautiful mate from the terrors of a desolate wilderness.

And a hundred million read Eric's novels, and watched the dramatization of them on the television screens. They thrilled at the simple, romantic lives his heroes led, paid him handsome royalties, and subconsciously shared his opinion that civilization had taken all the best from the life of man.

Eric had settled down to the artistic satisfaction of describing the sensuous delight of his hero in the roasted marrow-bones of a dead mammoth, when the pretty woman in the other room

stirred, and presently came tripping into the study, gay and vivacious, and—as her husband of a few months most justly thought—altogether beautiful in a bright silk dressing gown.

Recklessly, he slammed the machine back into its place, and resolved to forget that his next “red-blooded action thriller” was due in the publisher’s office at the end of the month. He sprang up to kiss his wife, held her embraced for a long happy moment. And then they went hand in hand, to the side of the room and punched a series of buttons on a panel—a simple way of ordering breakfast sent up the automatic shaft from the kitchens below.

Nada Stokes-Harding was also an author. She wrote poems—“back to nature stuff”—simple lyrics of the sea, of sunsets, of bird songs, of bright flowers and warm winds, of thrilling communion with Nature, and growing things. Men read her poems and called her a genius. Even though the whole world had grown up into a city, the birds were extinct, there were no wild flowers, and no one had time to bother about sunsets.

“Eric, darling,” she said, “isn’t it terrible to be cooped up here in this little flat, away from the things we both love?”

“Yes, dear. Civilization has ruined the world. If we could only have lived a thousand years ago, when life was simple and natural, when men hunted and killed their meat, instead of drinking synthetic stuff, when men still had the joys of conflict, instead of living under glass, like hot-house flowers.”

“If we could only go somewhere—”

“There isn’t anywhere to go. I write about the West, Africa, South Sea Islands. But they were all filled up two hundred years ago. Pleasure resorts, sanatoriums, cities, factories.”

“If only we lived on Venus! I was listening to a lecture on the television, last night. The speaker said that the Planet Venus is younger than the Earth, that it has not cooled so much. It has a thick, cloudy atmosphere, and low, rainy forests. There’s simple, elemental life there—like Earth had before civilization ruined it.”

“Yes, Kinsley, with his new infra-red ray telescope, that penetrates the cloud layers of the planet, proved that Venus rotates in about the same period as Earth; and it must be much like Earth was a million years ago.”

“Eric, I wonder if we could go there! It would be so thrilling to

begin life like the characters in your stories, to get away from this hateful civilization, and live natural lives. Maybe a rocket—”

The young author's eyes were glowing. He skipped across the floor, seized Nada, kissed her ecstatically. “Splendid! Think of hunting in the virgin forest, and bringing the game home to you! But I'm afraid there is no way.—Wait! The Cosmic Express.”

“The Cosmic Express?”

“A new invention. Just perfected a few weeks ago, I understand. By Ludwig Von der Valls, the German physicist.”

“I've quit bothering about science. It has ruined nature, filled the world with silly, artificial people, doing silly, artificial things.”

“But this is quite remarkable, dear. A new way to travel—by ether!”

“By ether!”

“Yes. You know of course that energy and matter are interchangeable terms; both are simply etheric vibration, of different sorts.”

“Of course. That's elementary.” She smiled proudly. “I can give you examples, even of the change. The disintegration of the radium atom, making helium and lead and *energy*. And Millikan's old proof that his Cosmic Ray is generated when particles of electricity are united to form an atom.”

“Fine! I thought you said you weren't a scientist.” He glowed with pride. “But the method, in the new Cosmic Express, is simply to convert the matter to be carried into power, send it out as a radiant beam and focus the beam to convert it back into atoms at the destination.”

“But the amount of energy must be terrific—”

“It is. You know short waves carry more energy than long ones. The Express Ray is an electromagnetic vibration of frequency far higher than that of even the Cosmic ray, and correspondingly more powerful and more penetrating.”

The girl frowned, running slim fingers through golden-brown hair. “But I don't see how they get any recognizable object, not even how they get the radiation turned back into matter.”

“The beam is focused, just like the light that passes through a camera lens. The photographic lens, using light rays, picks up a picture and reproduces it again on the plate—just the same as the Ex-Press Ray picks up an object and sets it down on the other side of the world.

"An analogy from television might help. You know that by means of the scanning disc, the picture is transformed into mere rapid fluctuations in the brightness of a beam of light. In a parallel manner, the focal plane of the Express Ray moves slowly through the object, progressively, dissolving layers of the thickness of a single atom, which are accurately reproduced at the other focus of the instrument—which might be in Venus!

"But the analogy of the lens is the better of the two. For no receiving instrument is required, as in television. The object is built up of an infinite series of plane layers, at the focus of the ray, no matter where that may be. Such a thing would be impossible with radio apparatus because even with the best beam transmission, all but a tiny fraction of the power is lost, and power is required to rebuild the atoms. Do you understand, dear?"

"Not altogether. But I should worry! Here comes breakfast. Let me butter your toast."

A bell had rung at the shaft. She ran to it, and returned with a great silver tray, laden with dainty dishes, which she set on a little side table. They sat down opposite each other, and ate, getting as much satisfaction from contemplation of each other's faces as from the excellent food. When they had finished, she carried the tray to the shaft, slid it in a slot, and touched a button—thus disposing of the culinary cares of the morning.

She ran back to Eric, who was once more staring distastefully at his typewriter.

"Oh, darling! I'm thrilled to death about the Cosmic Express! If we could go to Venus, to a new life on a new world, and get away from all this hateful conventional society—"

"We can go to their office—it's only five minutes. The chap that operates the machine for the company is a pal of mine. He's not supposed to take passengers except between the offices they have scattered about the world. But I know his weak point—"

Eric laughed, fumbled with a hidden spring under his desk. A small polished object, gleaming silvery, slid down into his hand.

"Old friendship, *plus* this, would make him—like spinach."

Five minutes later Mr. Eric Stokes-Harding and his pretty wife were in street clothes, light silk tunics of loose, flowing lines—little clothing being required in the artificially warmed city. They

entered an elevator and dropped thirty stories to the ground floor of the great building.

There they entered a cylindrical car, with rows of seats down the sides. Not greatly different from an ancient subway car, except that it was air-tight, and was hurled by magnetic attraction and repulsion through a tube exhausted of air, at a speed that would have made an old subway rider gasp with amazement.

In five more minutes their car had whipped up to the base of another building, in the business section, where there was no room for parks between the mighty structures that held the unbroken glass roofs two hundred stories above the concrete pavement.

An elevator brought them up a hundred and fifty stories. Eric led Nada down a long, carpeted corridor to a wide glass door, which bore the words:

#### COSMIC EXPRESS

stenciled in gold capitals across it.

As they approached, a lean man, carrying a black bag, darted out of an elevator shaft opposite the door, ran across the corridor, and entered. They pushed in after him.

They were in a little room, cut in two by a high brass grill. In front of it was a long bench against the wall, that reminded one of the waiting room in an old railroad depot. In the grill was a little window, with a lazy, brown-eyed youth leaning on the shelf behind it. Beyond him was a great, glittering piece of mechanism, half hidden by the brass. A little door gave access to the machine from the space before the grill.

The thin man in black, whom Eric now recognized as a prominent French heart-specialist, was dancing before the window, waving his bag frantically, raving at the sleepy boy.

"Queek! I have tell you zee truth! I have zee most urgent necessity to go queekly. A patient I have in Paree, zat ees in zee most creetical condition!"

"Hold your horses just a minute, Mister. We got a client in the machine now. Russian diplomat from Moscow to Rio de Janeiro. . . . Two hundred seventy dollars and eighty cents, please. . . . Your turn next. Remember this is just an experimental service. Regular installations all over the world in a year. . . . Ready now. Come on in."

The youth took the money, pressed a button. The door sprang open in the grill, and the frantic physician leaped through it.

"Lie down on the crystal, face up," the young man ordered. "Hands at your sides, don't breathe. Ready!"

He manipulated his dials and switches, and pressed another button.

"Why, hello, Eric, old man!" he cried. "That's the lady you were telling me about? Congratulations!" A bell jangled before him on the panel. "Just a minute. I've got a call."

He punched the board again. Little bulbs lit and glowed for a second. The youth turned toward the half-hidden machine, spoke courteously.

"All right, madam. Walk out. Hope you found the transit pleasant."

"But my Violet! My precious Violet!" a shrill female voice came from the machine. "Sir, what have you done with my darling Violet?"

"I'm sure I don't know, madam. You lost it off your hat?"

"None of your impertinence, sir! I want my dog."

"Ah, a dog. Must have jumped off the crystal. You can have him sent on for three hundred and—"

"Young man, if any harm comes to my Violet—I'll—I'll—I'll appeal to the Society for the Prevention of Cruelty to Animals!"

"Very good, madam. We appreciate your patronage."

The door flew open again. A very fat woman, puffing angrily, face highly colored, clothing shimmering with artificial gems, waddled pompously out of the door through which the frantic French doctor had so recently vanished. She rolled heavily across the room, and out into the corridor. Shrill words floated back:

"I'm going to see my lawyer! My precious Violet—"

The sallow youth winked. "And now what can I do for you, Eric?"

"We want to go to Venus, if that ray of yours can put us there."

"To Venus? Impossible. My orders are to use the Express merely between the sixteen designated stations, at New York, San Francisco, Tokyo, London, Paris—"

"See here, Charley," with a cautious glance toward the door, Eric held up the silver flask. "For old time's sake, and for this—"

The boy seemed dazed at sight of the bright flask. Then, with a

single swift motion, he snatched it out of Eric's hand, and bent to conceal it below his instrument panel.

"Sure, old boy. I'd send you to heaven for that, if you'd give me the micrometer readings to set the ray with. But I tell you, this is dangerous. I've got a sort of television attachment, for focusing the ray. I can turn that on Venus—I've been amusing myself, watching the life there, already. Terrible place. Savage. I can pick a place on high land to set you down. But I can't be responsible for what happens afterward."

"Simple, primitive life is what we're looking for. And now what do I owe you—"

"Oh, that's all right. Between friends. Provided that stuff's genuine! Walk in and lie down on the crystal block. Hands at your sides. Don't move."

The little door had swung open again, and Eric led Nada through. They stepped into a little cell, completely surrounded with mirrors and vast prisms and lenses and electron tubes. In the center was a slab of transparent crystal, eight feet square and two inches thick, with an intricate mass of machinery below it.

Eric helped Nada to a place on the crystal, lay down at her side.

"I think the Express Ray is focused just at the surface of the crystal, from below," he said. "It dissolves our substance, to be transmitted by the beam. It would look as if we were melting into the crystal."

"Ready," called the youth. "Think I've got it for you. Sort of a high island in the jungle. Nothing bad in sight now. But, I say—how're you coming back? I haven't got time to watch you."

"Go ahead. We aren't coming back."

"Geel! What is it? Elopement? I thought you were married already. Or is it business difficulties? The Bears did make an awful raid last night. But you better let me set you down in Hong Kong."

A bell jangled. "So long," the youth called.

Nada and Eric felt themselves enveloped in fire. Sheets of white flame seemed to lap up about them from the crystal block. Suddenly there was a sharp tingling sensation where they touched the polished surface. Then blackness, blankness.

The next thing they knew, the fires were gone from about them. They were lying in something extremely soft and fluid; and



warm rain was beating in their faces. Eric sat up, found himself in a mud-puddle. Beside him was Nada, opening her eyes and struggling up, her bright garments stained with black mud.

All about rose a thick jungle, dark and gloomy—and very wet. Palm-like, the gigantic trees were, or fern-like, flinging clouds of feathery green foliage high against a somber sky of unbroken gloom.

They stood up, triumphant.

“At last!” Nada cried. “We’re free! Free of that hateful old civilization! We’re back to Nature!”

“Yes, we’re on our feet now, not parasites on the machines.”

“It’s wonderful to have a fine, strong man like you to trust in, Eric. You’re just like one of the heroes in your books!”

“You’re the perfect companion, Nada. . . . But now we must be practical. We must build a fire, find weapons, set up a shelter of some kind. I guess it will be night, pretty soon. And Charley said something about savage animals he had seen in the television.

“We’ll find a nice dry cave, and have a fire in front of the door. And skins of animals to sleep on. And pottery vessels to cook in. And you will find seeds and grown grain.”

“But first we must find a flint-bed. We need flint for tools, and to strike sparks to make a fire with. We will probably come across a chunk of virgin copper, too—it’s found native.”

Presently they set off through the jungle. The mud seemed to be very abundant, and of a most sticky consistency. They sank into it ankle deep at every step, and vast masses of it clung to their feet. A mile they struggled on, without finding where a provident nature had left them even a single fragment of quartz, to say nothing of a mass of pure copper.

“A darned shame,” Eric grumbled, “to come forty million miles, and meet such a reception as this!”

Nada stopped. “Eric,” she said, “I’m tired. And I don’t believe there’s any rock here, anyway. You’ll have to use wooden tools, sharpened in the fire.”

“Probably you’re right. This soil seemed to be of alluvial origin. Shouldn’t be surprised if the native rock is some hundreds of feet underground. Your idea is better.”

“You can make a fire by rubbing sticks together, can’t you?”

“It can be done, I’m sure. I’ve never tried it, myself. We need some dry sticks, first.”

They resumed the weary march, with a good fraction of the new planet adhering to their feet. Rain was still falling from the dark heavens in a steady, warm downpour. Dry wood seemed scarce as the proverbial hen's teeth.

"You didn't bring any matches, dear?"

"Matches! Of course not! We're going back to Nature."

"I hope we get a fire pretty soon."

"If dry wood were gold dust, we couldn't buy a hot dog."

"Eric, that reminds me that I'm hungry."

He confessed to a few pangs of his own. They turned their attention to looking for banana trees, and coconut palms, but they did not seem to abound in the Venerian jungle. Even small animals that might have been slain with a broken branch had contrary ideas about the matter.

At last, from sheer weariness, they stopped, and gathered branches to make a sloping shelter by a vast fallen tree-trunk.

"This will keep out the rain—maybe—" Eric said hopefully. "And tomorrow, when it has quit raining—I'm sure we'll do better."

They crept in, as gloomy night fell without. They lay in each other's arms, the body warmth oddly comforting. Nada cried a little.

"Buck up," Eric advised her. "We're back to Nature—where we've always wanted to be."

With the darkness, the temperature fell somewhat, and a high wind rose, whipping cold rain into the little shelter, and threatening to demolish it. Swarms of mosquito-like insects, seemingly not inconvenienced in the least by the inclement elements, swarmed about them in clouds.

Then came a sound from the dismal stormy night, a hoarse, bellowing roar, raucous, terrifying.

Nada clung against Eric. "What is it, dear?" she chattered.

"Must be a reptile. Dinosaur, or something of the sort. This world seems to be in about the same state as the earth when they flourished there. . . . But maybe it won't find us."

The roar was repeated, nearer. The earth trembled beneath a mighty tread.

"Eric," a thin voice trembled. "Don't you think—it might have been better— You know the old life was not so bad, after all."

"I was just thinking of our rooms, nice and warm and bright, with hot foods coming up the shaft whenever we pushed the button, and the gay crowds in the park, and my old typewriter."

"Eric?" she called softly.

"Yes, dear."

"Don't you wish—we had known better?"

"I do." If he winced at the "we" the girl did not notice.

The roaring outside was closer. And suddenly it was answered by another raucous bellow, at considerable distance, that echoed strangely through the forest. The tearful sounds were repeated, alternately. And always the more distant seemed nearer, until the two sounds were together.

And then an infernal din broke out in the darkness. Bellows. Screams. Deafening shrieks. Mighty splashes, as if struggling Titans had upset oceans. Thunderous crashes, as if they were demolishing forests.

Eric and Nada clung to each other, in doubt whether to stay or to fly through the storm. Gradually the sound of the conflict came nearer, until the earth shook beneath them, and they were afraid to move.

Suddenly the great fallen tree against which they had erected the flimsy shelter was rolled back, evidently by a chance blow from the invisible monsters. The pitiful roof collapsed on the bedraggled humans. Nada burst into tears.

"Oh, if only—if only—"

Suddenly flame lapped up about them, the same white fire they had seen as they lay on the crystal block. Dizziness, insensibility overcame them. A few moments later, they were lying on the transparent table in the Cosmic Express office, with all those great mirrors and prisms and lenses about them.

A bustling, red-faced official appeared through the door in the grill, fairly bubbling apologies.

"So sorry—an accident—inconceivable. I can't see how he got it! We got you back as soon as we could find a focus. I sincerely hope you haven't been injured."

"Why—what—what—"

"Why I happened in, found our operator drunk. I've no idea where he got the stuff. He muttered something about Venus. I consulted the auto-register, and found two more passengers regis-

tered here than had been recorded at our other stations. I looked up the duplicate beam coordinates, and found that it had been set on Venus. I got men on the television at once, and we happened to find you.

"I can't imagine how it happened. I've had the fellow locked up, and the 'dry-laws' are on the job. I hope you won't hold us for excessive damages."

"No, I ask nothing except that you don't press charges against the boy. I don't want him to suffer for it in any way. My wife and I will be perfectly satisfied to get back to our apartment."

"I don't wonder. You look like you've been through—I don't know what. But I'll have you there in five minutes. My private car—"

Mr. Eric Stokes-Harding, noted author of primitive life and love, ate a hearty meal with his pretty spouse, after they had washed off the grime of another planet. He spent the next twelve hours in bed.

At the end of the month he delivered his promised story to his publishers, a thrilling tale of a man marooned on Venus, with a beautiful girl. The hero made stone tools, erected a dwelling for himself and his mate, hunted food for her, defended her from the mammoth saurian monsters of the Venerian jungles.

The book was a huge success.