

RUDY RUCKER_____.

Message Found in a Copy of *Flatland*

The story, which appears below, is purported to be Robert Ackley's first-person account of his strange disappearance. I am not quite sure if the account is really true . . . I rather hope, for Ackley's sake, that it is not.

*I obtained the typescript of this story in a round-about way. My friend, Gregory Gibson, was in London last year, looking for rare books. A dealer in Cheapside showed Gibson a copy of an early edition of Edwin Abbott's 1884 fiction, *Flatland*. The copy Gibson saw was remarkable for the fact that someone had handwritten a whole story in the margins of the book's pages. The dealer told Gibson that the volume was brought in by a cook's helper, who had found the book in the basement of a Pakistani restaurant where he once worked.*

Gibson could not afford the book's very steep purchase price, but he did obtain the dealer's permission to copy out the story written in the volume's margins. Here, without further ado, it is: the singular adventure of Robert Ackley.

All my attempts to get back through the tunnel have proven fruitless. It will be necessary for me to move on and seek another way out. Before departing, however, I will write out an account of my adventures thus far.

Until last year I had always believed Edwin Abbott's *Flatland* to be a work of fiction. Now I know better. *Flatland* is real. I can look up and see it as I write.

For those of my readers familiar with the book in whose margins I write, this will be startling news; for *Flatland* tells the adventures of A Square, a two-dimensional being living in a two-dimensional world. How, you may ask, could such a filmy world really exist? How could there be intelligent creatures with length and width, yet without thickness? If *Flatland* is real, then why am I the only living man who has touched it? Patience, dear readers. All this, and much more, will be revealed.

The scientific justification for *Flatland* is that it helps us better to understand the fourth dimension. "The fourth dimension" is a concept peculiarly linked to the late nineteenth century. In those years, mathematicians had just laid the foundations for a comprehensive theory of higher-dimensional space. Physicists were beginning to work with the notion of four-dimensional space-time. Philosophers were using the idea of a fourth dimension to solve some of their oldest riddles. And mediums throughout Europe were coming to the conclusion that the spirits of the dead consist of four-dimensional ectoplasm. There was an immense popular interest in the fourth dimension, and *Flatland*, subtitled "A Romance of Many Dimensions," was an immediate success.

Abbott's method was to describe a two-dimensional square's difficulties in imagining a third dimension of space. As we read of A Square's struggles, we become better able to understand our own difficulties in imagining a fourth dimension. The fourth dimension is to us what the third dimension is to the Flatlanders.

This powerful analogy is the rarest of things: a truly new idea. I often used to ask myself where Abbott might have gotten such an idea. When Gray University granted me my sabbatical last year, I determined to go to London and look through Abbott's papers and publications. Could *Flatland* have been inspired by A.F. Moebius's *Barycentric Calculus* of 1827? Might Abbott have corresponded with C. H. Hinton, eccentric author of the 1880 essay, "What is the Fourth Dimension?" Or is *Flatland* nothing more than the inspired reworking of certain ideas in Plato's *Republic*?

Abbott wrote many other books in his lifetime, all crashingly dull: *How to Parse, the Kernel and the Husk—Letters on Spiritual Christianity, English Lessons for English People, A Shakespearian Grammar, Parables for Children*, and so on. Except for *Flatland*, all of Abbott's books are just what one would expect from a Victorian

clergyman, headmaster of the City of London School. Where did Abbott find his inspiration for *Flatland*? The answer is stranger than I could ever have imagined.

It was an unnaturally hot day in July. The London papers were full of stories about the heat wave. One man reported that three golf balls had exploded in the heat of his parked car. All the blackboards in a local school had cracked. Numerous pigeons had died and fallen to the sidewalks. I finished my greasy breakfast and set forth from my hotel, an unprepossessing structure not far from St. Paul's Cathedral.

My plan for the day was to visit the site of the old City of London School on Cheapside at Milk Street. Abbott attended the school himself, and then returned as headmaster for the years 1865–1889. Under Abbott's leadership the school moved to a new building in 1882, but I had a feeling that some valuable clue to his psychology might still be found in the older building.

To my disappointment, nothing of the old building remained . . . at least nothing that I could see. Much of Cheapside was destroyed during the Blitz. Flimsy concrete and metal structures have replaced what stood there before. I came to a halt at the corner of Cheapside and Milk, utterly discouraged.

Sweat trickled down my sides. A red double-decker labored past, fouling the heavy air with its exhaust. Ugly, alien music drifted out of the little food shops. I was jostled by men and women of every caste and color: masses of people, hot and impatient, inescapable as the flow of time.

I pushed into a wretched Pakistani snack bar and ordered a beer. They had none. I settled for a Coke. I tried to imagine Edwin Abbott walking through this dingy space one hundred years ago.

The girl behind the counter handed me my Coke. Her skin had a fine coppery color, and her lips were like chocolate ice cream. She didn't smile, but neither did she frown. Desperate with loneliness and disorientation, I struck up a conversation.

"Have you been here long?"

"I was born in London." Her impeccable accent came as a rebuke. "My father owns this shop now for five years."

"Do you know I came all the way from America just to visit this shop?"

She laughed and looked away. A girl in a big city learns to ignore madmen.

"No, no," I insisted. "It's really true. Look . . ." I took out my dog-eared first edition of *Flatland*, this very copy in whose margins I now write. "The man who wrote this book was headmaster of a school that stood near this spot."

"What school?"

"The City School of London. They moved it to the Victoria Embankment in 1882."

"Then you should go there. Here we have only food." For some reason the sight of Abbott's book had caused her cheeks to flush an even darker hue.

"I'll save that trip for another day. Don't you want to know what the book is about?"

"I do know. It is about flat creatures who slide around in a plane."

The readiness of her response astonished me. But before I could pose another question, the girl had turned to serve another customer, a turbaned Sikh with a pockmarked face. I scanned the menu, looking for something else to order.

"Could I have some of the spicy meatballs, please?"

"Certainly."

"What's your name?"

"Deela."

She failed to ask mine, so I volunteered the information. "I'm Bob. Professor Robert Ackley of Gray University."

"And what do you profess?" She set the plate of meatballs down with an encouraging click.

"Mathematics. I study the fourth dimension, just as Abbott did. Have you really read *Flatland*?"

Deela glanced down the counter, as if fearful of being overheard. "I have not *read* it, I . . ."

The Sikh interrupted then, calling for butter on his rice. I sampled one of the meatballs. It was hot and dry as desert sand.

"Could I have another Coke, please?"

"Are you rich?" Deela whispered unexpectedly.

Was she hoping for a date with me? Well, why not? This was the longest conversation I'd had with anyone since coming to London. "I'm well off," I said, hoping to make myself attractive. "I have a good position, and I am unmarried. Would you like to have dinner with me?"

This proposal seemed to surprise Deela. She covered her mouth

with one hand and burst into high laughter. Admittedly I am no ladies' man, but this really seemed too rude to bear. I put away my book and rose to my feet.

"What do I owe you?"

"I'm sorry I laughed, Robert. You surprised me. Perhaps I will have dinner with you some day." She lowered her voice and leaned closer. "Downstairs here there is something you should see. I was hoping that you might pay to see it."

It seemed very hot and close in this little restaurant. The inclination of the Sikh's turban indicated that he was listening to our conversation. I had made a fool of myself. It was time to go. Stiffly I paid the bill and left. Only when I stepped out on the street and looked at my change did I realize that Deela had given me a note.

Robert—

Flatland is in the basement of our shop. Come back at closing time and I will show it to you. Please bring one hundred pounds. My father is ill.

Deela.

I turned and started back into the shop. But Deela made a worried face and placed her fingers on her lips. Very well, I could wait. Closing time, I noted, was ten P.M.

I spent the rest of the day in the British Museum, ferreting out obscure books on the fourth dimension. For the first time I was able to hold in my hands a copy of J. K. F. Zöllner's 1878 book, *Transcendental Physics*. Here I read how a spirit from hyperspace would be able to enter a closed room by coming in, not through walls or ceiling, but through the "side" of the room lying open to the fourth dimension.

Four-dimensional spirits . . . long sought, but never found! Smiling a bit at Zöllner's gullibility, I set his book down and reread Deela's note. *Flatland is in the basement of our shop*. What could she mean by this? Had they perhaps found Abbott's original manuscript in the ruined foundations of the old City School? Or did she mean something more literal, something more incredible, something more bizarre than spirits from the fourth dimension?

The whole time in the library, I had the feeling that someone

was watching me. When I stepped back onto the street, I realized that I was indeed being followed. It was the Sikh, his obstinate turban always half a block behind me. Finally I lost him by going into a movie theater, leaving by the rear exit, and dashing into the nearest pub.

I passed a bland few hours there, drinking the warm beer and eating the stodgy food. Finally it was ten P.M.

Deela was waiting for me in the darkened shop. She let me in and locked the door behind me.

"Did you bring the money?"

The empty shop felt very private. Deela's breath was spicy and close. What had I really come for?

"Flatland," stated Deela, "is in the basement. Did you bring the money?"

I gave her a fifty-pound note. She flattened it out and held it up to examine it by the street-light. Suddenly there was a rapping at the door. The Sikh!

"Quick!" Deela took me by the arm and rushed me behind the counter and down a narrow hallway. "Down there," she said, indicating a door. "I'll get rid of him." She trotted back out to the front of the shop.

Breathless with fear and excitement, I opened the shabby door and stepped down onto the dark stairs.

The door swung closed behind me, muffling the sound of Deela's voice. She was arguing with the Sikh, though without letting him in. I moved my head this way and that, trying to make out what lay in the basement. Deela's faint voice grew shriller. There was what looked like a ball of light floating at the foot of the stairs. An oddly patterned ball of light some three feet across. I went down a few more steps to have a closer look. The thing was sort of like a huge lens, a lens looking onto . . .

Just then there came the sound of shattering glass. The Sikh had smashed his way in! The clangor of the shop's burglar alarm drowned out Deela's wild screams. Footsteps pounded close by and the door at the head of the stairs flew open.

"Come back up, Professor Ackley," called the Sikh. His voice was high and desperate. "You are in great danger."

But I couldn't tear myself away from the glowing sphere. It appeared to be an Einstein-Rosen bridge, a space tunnel leading into

another universe. The other universe seemed to contain only one thing: an endless glowing plane filled with moving forms. Flatland.

The Sikh came clattering down the stairs. My legs made a decision. I leaped forward, through the space tunnel and into another world.

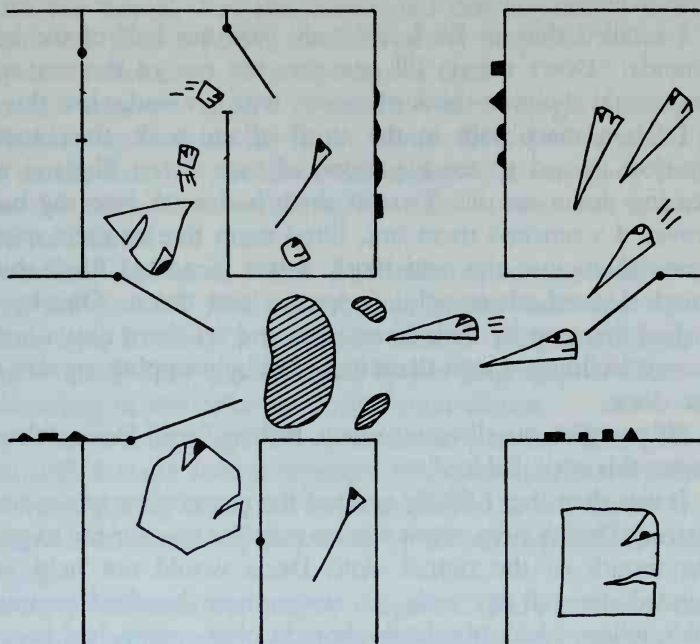
I landed on all fours . . . there was a sort of floor about a yard below the plane of Flatland. When I stood up, it was as if I were standing waist-deep in an endless, shiny lake. My fall through the Flatlanders' space had smashed up one of their houses. Several of them were nosing at my waist, wondering what I was. To my surprise, I could feel their touch quite distinctly. They seemed to have a thickness of several millimeters.

The mouth of the space tunnel was right overhead, a dark sphere framing the Sikh's excited little face. He reached down as if to grab me. I quickly squatted down beneath the plane of Flatland and crawled away across the firm, smooth floor. The hazy, bright space shimmered overhead like an endless soap film, effectively shielding me from the Sikh.

I could hear the sound of more footsteps on the stairs. Deela? There were cries, a gunshot, and then silence. I poked my head back up, being careful not to bump any Flatlanders. The dark opening of the space tunnel was empty. I was safe, safe in Flatland. I rose up to my full height and surveyed the region around me.

I was standing in the middle of a "street," that is to say, in the middle of a clear path lined with Flatland houses on either side. The houses had the form of large squares and rectangles, three to five feet on a side. The Flatlanders themselves were as Abbott has described them: women are short Lines with a bright eye at one end, the soldiers are very sharp isocetes Triangles, and there are Squares, Pentagons, and other Polygons as well. The adults are, on the average, about twelve inches across.

The buildings that lined my street bore signs in the form of strings of colored dots along their outer walls. To my right was the house of a childless Hexagon and his wife. To my left was the home of an equilateral Triangle, proud father of three little Squares. The Triangle's door, a hinged line segment, stood ajar. One of his children, who had been playing in the street, sped inside, frightened by my appearance. The plane of Flatland cut me at the waist and arms, giving me the appearance of a large blob



flanked by two smaller blobs—a weird and uncanny spectacle, to be sure.

Now the Triangle stuck his eye out of his door to study me. I could feel his excited voice vibrating the space touching my waist. Flatland seemed to be made of a sort of jelly, perhaps one-sixteenth of an inch thick.

Suddenly I heard Deela calling to me. I looked back at the dark mouth of the tunnel, floating about eight feet above the mysterious ground on which I stood. I walked towards it, staying in the middle of the street. The little line-segment doors slammed as I walked past, and I could look down at the Flatlanders cowering in their homes.

I stopped under the tunnel's mouth and looked up at Deela. She was holding a coiled-up rope ladder.

"Do you want to come out now, Robert?" There was something cold and unpleasant about her voice.

"What happened to the Sikh?"

"He will not bother us again. How much money do you have with you?"

I recalled that so far I had only paid her half of the hundred pounds. "Don't worry, I'll give you the rest of the money." But how could she even think of money with a wonder like this to . . .

I felt a sharp pain in the small of my back, then another. I whirled around to see a platoon of two dozen Flatland soldiers bearing down on me. Two of them had stuck into my back like knives. I wrenched them out, lifted them free of their space, and threw them into the next block. I was bleeding! Blade-thick and tough-skinned, these soldiers were a real threat. One by one, I picked them up by their blunt ends and set them down inside the nearest building. I kept them locked in by propping my side against the door.

"If you give me all your money, Robert," said Deela, "then I will lower this rope ladder."

It was then that I finally grasped the desperation of my situation. Barring Deela's help, there was no possible way for me to get up to the mouth of the tunnel. And Deela would not help unless I handed over all my cash . . . some three hundred pounds. The Sikh, whom I had mistakenly thought of as enemy, had been trying to save me from Deela's trap!

"Come on," she said. "I don't have all night."

There were some more soldiers coming down the street after me. I reached back to feel my wounds. My hand came away wet with blood. It was interesting here, but it was clearly time to leave.

"Very well, you nasty little half-breed thief. Here is all the money I have. Three hundred pounds. The police, I assure you, will hear of this." I drew the bills out and held them up to the tunnel-mouth. Deela reached through, snatched the money, and then disappeared. The new troop of soldiers was almost upon me.

"Hurry!" I shouted. "Hurry up with the ladder! I need medical attention!" Moving quickly, I scooped up the soldiers as they came. One got past my hand and stabbed me in the stomach. I grew angry, and dealt with the remaining soldiers by poking out their hearts.

When I was free to look up at the tunnel-mouth again, I saw a sight to chill the blood. It was the Sikh, eyes glazed in death, his arms dangling down towards me. I realized that Deela had shot

him. I grabbed one of his hands and pulled, hoping to lift myself up into the tunnel. But the corpse slid down, crashed through Flatland, and thudded onto the floor at my feet.

"Deela!" I screamed. "For the love of God!"

Her face appeared again . . . but she was no longer holding the rope ladder. In its stead she held a pistol. Of course it would not do to set me free. I would make difficulties. With my body already safe in this dimensional oubliette, it would be nonsense to set me free. Deela aimed her gun.

As before, I ducked below Flatland's opalescent surface and crawled for dear life. Deela didn't even bother shooting.

"Good-bye, Robert," I heard her calling. "Stay away from the tunnel or else!" This was followed by her laughter, her footsteps, the slamming of the cellar door, and then silence.

That was two days ago. My wounds have healed. The Sikh has grown stiff. I made several repellent efforts to use his corpse as a ladder or grappling-hook, but to no avail. The tunnel mouth is too high, and I am constantly distracted by the attacks of the isosceles Triangles.

But my situation is not entirely desperate. The Flatlanders are, I have learned, edible, with a taste something like very moist smoked salmon. It takes quite a few of them to make a meal, but they are plentiful, and they are easy to catch. No matter how tightly they lock their doors, they never know when the five globs of my fingers will appear like Zöllner's spirits to snatch them away.

I have filled the margins of my beloved old *Flatland* now. It is time to move on. Somewhere there may be another tunnel. Before leaving, I will throw this message up through the tunnel mouth. It will lie beneath the basement stairs, and someday someone will find it.

Farewell, reader, and do not pity me. I was but a poor laborer in the vineyard of knowledge—and now I have become the Lord of Flatland.