

"We do, Human, like the splendor of the night sky. Good flying then. Few mud-men about and the stars are real. Sometimes the day be too bright, for our eyes be much sharper than mud-men's. But you need some light to see."

"I thought, pardon me, that your kind liked darkness." Drink-The-Sky hovered a few feet above me.

The vast cave she showed me, having led me past the fourteenth falls-looking station and over a lichen-decked, tiny stone bridge down the other side of the falls, was well, though softly, lit. Two adult-sized flyers hung down, asleep, in the inmost and dimmest reach.

"Teach me."

"Ugh, be smelly nervous, watch that stuff." "Nod," I replied, "is watching movies."

"Hah, mud-men. Someday my father make music with them, huh? Then they know fear, huh? They should fly. Even you, whose mother was a wrestler, and whose thunder talk makes my translator box thump, even you should fly."

"Out of her fox mug, her emerald eyes grew thrice human size." "Oh, Human, yes. I will."

"H,, O, BRUTE that is named Human, have you lost your furry fellow soil-male?"

I whirled as the sweet high-pitched ISBM voice came up behind me. She had flown the updraft from down the falls while I looked past the top of the falls toward the arts end, where her father, Count Think-Forever, still soared, his fox face dreaming. She settled elegantly on a slim branch, which she caught with the tiny, slender fingers of her back paws, while a fin-

Her small fox mouth moved and I caught glimpses of her tiny white teeth, against her ruddy tongue, but I heard no sound except for the ISBM English from her translator.

"Perhaps you can use your voice echoes to navigate in total darkness?"

Drink-The-Sky looked back from where she opened a compartment that blended into the gentle, stony curves of the cave wave. "Human, you might do as well, with your rumblings. The same for both of us if we have to go down in darkness absolute or if we were blind. Flyers use voice to talk. And to 'make music,' but I cannot do that at my age.

"Of course," she eyed me and gave a whistle just at the limit of hearing, which her translator rendered as a monkey huff-huff, "of course, on some planets our distant ancestors—tiny, insect-eaters—use sound. But that no good for even a flyer a fifth my size. We are the eagles of the night, Human."

From the compartment she pulled a black fabric structure with one wing finger, closing the compartment with the other. "Here," she swung the structure toward me, "put your harness on. Fits furry mud-men. Should fit you."

Looked like a collection of folding umbrellas. But Drink-The-Sky nodded toward two holes that were obviously intended to take legs. I pulled the gear on, sort of like pulling on the rubber overalls that fly-fishers wear.

Much more of the gear involved the arm holds. With a little help from Drink-The-Sky, I got my hands all the way in. It's then that something remarkable happened, something like, but much grander than, the sudden way in which automatic umbrellas spring from limp, bunched cloth into large, rigid, airy hemispheres. I felt electric tingling all through my arms, and my fingers seemed to stretch out into large, webbed wings. This is an enormously sophisticated piece of cybernetic engineering, and a joy forever.

Truly marvelous feeling. I raised my wings, stretched them to full length on either side of me. Call me Dracula!

AS I spread out my wings to their full extent, my fingers feeling as if they have suddenly been stretched out six feet into a fan—a lot of knuckle-cracking, that—I teetered and flopped backward, settling helplessly on my back.

“Here be one fallen angel,” said her cheerful, high-pitched voice. Her emerald eyes gleamed down at me, her tiny hand-feet clenched my waist. “The first rule be to fall forward, Human.” Her right wing folded in toward my face

and the pinion finger hooked my collar. She stepped, leaned back gently, drawing me up slowly. Somehow, she timed it right and I moved my feet up under me and stood. I swayed a little, but her cool eyes held me straight.

“Come,” she said, waving toward a structure much like a gymnast’s horse but with grips at only one end. It rose up from the floor of the cave.

“You know how to swim in water, Human?”

“Yes.” Somehow, I knew I could, and both in Earth gravity and low weight. It was like that with my skills—they just came out but I didn’t know how I learned them—breaststroke, crawl, golliwog. I felt less desperation about knowing who I was. Enough to be human now.

“This be like swimming underwater. You draw your wing-hands forward squeezed, and then cup the air on the way back.” She looked up at me and I understood how well she walked with her pigmy hand-feet, and how much she put up with me to do so.

“Bend over it,” she said. “Now straighten. Be still.” And so I was while she eased me into position on the horse with her two middle pinion fingers. Her breath came in puffs. I knew that I should hang onto the grips with my feet, and I managed, belly on the horse and my instep hooked underneath the grips.

“Yes, that be it, furless mud-man.”

I had to arch my neck to see her dark, peach-

fuzzed, fox face, framed by the high collar of her folded wings.

"Cup, feel air like water, pull back and let fling. Fold, limp-wrist, draw forward. Gentle! Now cup. Feel the air and pull.

"Pull, Human, there be hope."

We were at it for perhaps an hour before Drink-The-Sky helped me off the horse and gestured toward the sky framed by the cave entrance, her delicate right wing-hand gracefully unfolding to full six-foot length.

By now I realized that the harness had a safety-conscious mind of its own, one that gave the most gracious interpretation of my fumbles, superwaldoing all the way. Though the real power came from my arms, my fingers not only felt six feet long, they were in real control of that stretch of fan skin. You know those funny neurological drawings where they draw parts of the human body in proportion to the quantity of brain-nerve connections—where the fingers are larger than the arms and legs combined? It was like that. And my feet almost felt cupped, and tiny.

I stumbled and scuttled behind Drink-The-Sky toward the entrance. The sky drew me. Must be satellite midafternoon by the bright look of the sky.

"Go," said a voice near my ear. A few more feet of a stony shelf. Then the trackless stretch

of air, flowing down the watery flashes of the falls, sailing over the greenery and moss-decked stony surfaces that swaddled the falls, soaring into blue as far as my eyes could reach.

"Can you see the end of the sky?" I asked her.

"A torus, dear mud-man, has no end. Let me show. Go!"

With a gulp, I scuttled forward over the edge. Let slip the bonds of earth! The phrase was appropriate, for the rotation of the whole torus drew me toward the inside of its outer surface. I go, Drink-The-Sky, I go.

First, just the float, the glide, the bright rainbows of the falls rising up like pillows below me, as I gently sailed down the course of the river. Bonsai filigrees of tree and shrub, rock and gravel, spray out left and right toward the horizon.

Above my left shoulder Drink-The-Sky wheeled in. As her bright eyes caught mine, she flicked her face left.

I dropped my left wing, pulled with my right, and now the falls flexed below me. I zoomed over the "fourteen station" with Drink-The-Sky, in easy harmony, holding over my shoulder.

Yes, again, a brief glance, and her muzzle nodded upward, a suggestive forward shrug of her pinion shoulders.

Up! Cup and pull, cup and pull, cup and pull. The firm full muscle pull exhilarated. I

was much stronger than her, but after several beats, she still flew easily above my shoulder. I caught her eyes.

"Fly, mud-man, fly!"

It took me a second to realize that I hadn't actually heard these words. I read them into her tiny muzzle.

Fly we did. Low weight much more than compensated for our massive size and the thin air. Drink-The-Sky guided us into an updraft and we rode upward.

The falls sparkled behind us. Several hundred feet below us curved greenery and garden, endless intricacies of greens, purples, tans, and browns, delicately punctuated by flower beds rainbowing through reds, yellows, and blues, all faintly sectioned by the curving paths, whose snow-white gravel showed here and there. Ahead of us, from where Kagu first woke me, rose the great growth of Tree-elbow's masterpiece, a tree—the tree—whose sprouts soared small everywhere behind us, a tree that here rose and spread, with what planet-gravity would make airy and delicate impossibility, several thousand feet. My eyes teared, while some cunning inner voice speculated that this mass of wood compensated for the tech section.

"Climb, mud-man, climb!"

But it was not the one tree alone that compensated, for I now saw beyond it the outrage-

ously slender, ivory towers and quaint copper-green domes of Kagu and Nelly's university.

The updraft that whistled up past us died in the faint, cloudy wisps. The air was moist and fresh. The inner surface of the doughnut must end some couple hundred feet above us. But I still could not see it in the endless bright blue illusion created by the satellite's mirror and some nearby sun.

Cup and pull. Cup and pull. Cup and pull!

Drink-The-Sky's brown-black wings stretched out scores of feet below, faint cloud fingers streaming back from her pinions.

Cup and pull. Cup and pull. Cup and pull!

The air breezed my sweating arms. The blue darkened precipitously into steely purple and I glimpsed stars along the horizon, the mirror's brightness above. As if your spaceship shot through the hundreds of miles from the lower atmosphere to the black ionosphere in seconds. And with the same air, oddly, still skidding by your cheeks.

Suddenly, out of illusion, appeared the silicon vault of heaven. I was within a few feet of hitting it when my harness suddenly went numb and rigid. My breath went out with a whoosh and I saw the steam. I wheeled slowly downward, the blue heavens reappeared, and the harness once more was in my control.

"Be careful, Human, or the harness will be careful for you." These words from her transla-

tor were the first I had actually heard from her in flight. The green eyes and muzzle formed a smile when I looked up over my shoulder. Now I had that illusion of hearing again. "Tsk, tsk, mud-man. Follow me down!"

Naturally, if they let idiots like Nod use these harnesses, there must be protective overrides. Not, from what I'd gathered, that the monkeys much enjoyed using them. Doubtless because it reminded them that swinging from tree to tree was an inferior way to get around. Yes, surely Asteroid Sally was right to be intoxicated by the life she led with her mind implanted into an eagle. Of course with planetary gravity to work against, nothing with a brain large enough to maintain human consciousness could actually fly. You get a few mild violations of reality in children's stories. But here I lived the dream.

Correction. We lived the dream.

I banked and swooped, my harness guiding my wings into a partial fold, and I dropped after her, the air whistling past. In seconds we have dropped several hundred feet. When I saw Drink-The-Sky pull out of her dive below me, a hundred feet above one of the great high-soaring limbs of Tree-elbow's masterpiece, I could feel my harness easing my wings outward.

A tall, elderly monkey, taking his afternoon walk along the several-hundred-foot limb, his tail protectively trailing behind, smiled up at

us, his ancient brown eyes glittering gaily. I followed Drink-The-Sky into a sharp, wheeling dive, and now we slipped below the limb, coming out the same side but now below, as we began. The monkey waved. Drink-The-Sky looped and flourished her wings at him. That particular maneuver looked quite beyond me, or my harness.

Suddenly, I felt tired. But more than that, the monkey reminded me of the point of learning to fly. I turned back toward the falls, where we began. I must be as near, or nearer, to the other end of the tech section, which must be somewhere beyond the far side of the university. But back this way I'd seen the entrance. An entrance, at least, for those who monkey leap—or who fly.

AS I soared over the last high-reaching bamboo stand before the tech section, the reddening sun arced a few degrees above the horizon to my left. The rampart hove up. Scores of feet long but only some eight feet, top to bottom. A tight fit, that, the way I lifted up my wings and stalled to land. Manageable, maybe.

Apparently deserted.

I had left Drink-The-Sky with the excuse that I should solo. She seemed skeptical but uncon-

cerned. "Monkey business," was her parting sally. I do not think the flyers worry much about monkey matters. She waggled her wings, peeled off and plummeted down over the falls, far faster than I'd seen her fly before, pulling out just above the rainbowed mist of the fall's bottom, and slalomed away through treetops. "You fly like elephant," had been her assessment of my capacities.

I glimpsed a lit corridor leading off from the back of the rampart. Also apparently deserted. The stony rampart doubled into my eyes. Close now. Careful. Up wings.

Whap! I floated, a few feet from the rampart, something holding me up, the same thing that arrested my descent. Felt—over my shoulder, it was—a balloon. Damn. Another part of the protective system. Too much risk the monkey will muck up the glide in, so the system pops the balloon parachute. Either that or it's designed to keep the wearer away from forbidden areas like the tech section. So let's find out.

No wonder Nod and his bunch don't get themselves hurt. This whole world was baby-proofed.

As I arced away from the rampart, the balloon fizzled, retracting into a bubble on the back of my harness. I folded up my wings into a slow stall and landed on the grass below the seamless tech section wall.

Teetering this way and that, I struggled off the harness from my arms. The legs were easy.

Though the world seemed less exciting as the black umbrella collection lay lifeless on the grass.

I grabbed the bubble that held the balloon. It had the look of a safety device, something that dutiful inspectors check on a periodic basis. Here goes. I grabbed the edge and yanked, then confidently tore. Off it goes. Maybe that'll short the rest of the system. So then I'll daub my fingers with superglue and sticky-paw my way up. As good Drink-The-Sky said, "Climb."

I wriggled back into the harness. The shades of night were falling, or rather, being drawn down, by one of Tree-elbow's successors. The heavenly sequence was surprisingly pacific, considering the last night's operatic display. Gorgeous blues and roses gave way to purples and reds.

I stretched out my wings seven feet left and right, taking the feel of the sky. The feel was all there, system apparently intact except for safety override. Eagle of the night, rise!

The draw was the same and I pulled up. Cup and pull, cup and pull. I hoped they're all watching the sunset.

The corridor was a cone of brightness as I wove in from the darkness. I stalled fine, my feet sailing in just over the rampart, my wings folding enough to slide under the roof, spread enough to slow the landing speed to a walk. Good for night's black agent.

The rampart area and the corridor that led in, past several doors, some hundred feet or so before it curved out of view, were quite empty. All silence. I stripped off the flight harness. Stash it at the furthest end of the rampart, can't hide it more than that. Better yet, I'd carry it. Doesn't weigh much.

As I stole down the corridor I felt a sense of comfort or security or whatever from the sharp, regular angles, the orderly rectangles of doors, the precise right angles with which wall and floor and ceiling joined. I could not read the curlicues that scrolled out a few inches above the handles to the doors, but I knew that they labeled the rooms beyond them. I decided to follow the corridor rather than to try the hatch handles.

I fancied my eyes picked up the very slightest of curves that came with long structural lines in the well and economically designed ship. If you ask me, even octopi are going to build spaceships a lot like ours, though who knows about their gardens. I've got to find a boat. By space and monkey logic, it must be built so I can con it. I loved to fly with you, Drink-The-Sky, but now I needed wings of fire and the big, black sky, cold as Kelvin absolute and wide as the Milky Way.

Okay, yeah, the logic is to go where the artificial gravity leads, because that's the outside,

where the boats will be and where they can be launched.

Hatches to the right of me, hatches to the left of me, narrower and higher than human ones. Now came something simple and efficient, a pole descending, and ascending, into cylindrical openings in floor and ceiling. A great way to go where the mild artificial gravity would push you, and not hard to go up against it, though likely they had elevators, or whatever, for that. Let's explore.

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I SLID DOWN two levels.

The broader corridor I floored out on stretched several hundred feet. Disappointingly, though, nothing showed that looked like portholes, air locks, or packet boats. Probably I hadn't got to the outer shell.

I stood stock-still. Some distant monkey figure appeared at the far end of the corridor and then busily went on into what might be an elevator. I breathed.

Still, down that way must be where to look, at least if I stay on this level.

Halfway to where the monkey disappeared, hove up some humorous relief to the sleek, modern, philistine efficiency of the tech section. A copper statue, a kind of medieval caricature of a computer robot. Spherical body with nineteenth-century riveting, sticklike arms and legs, feet with ridiculous spats; pop-eyed, basketball head, again with those ridiculous rivets. What a crazy place this was.

In fact, I now saw that it was not a caricature of an electronic computer robot. Obviously one wouldn't think of electricity that long ago—or whatever long ago it was for monkey history.

It was a caricature of a clockwork man. The artist had made that obvious enough, for next to the statue's feet lay a large key of the sort one might use to wind up an antique mechanical clock. The absurdity of the copper clock man was heightened by the engraved labels next to the three holes for "winding" the mechanism. The antique letters spelled out THINKING, SPEAKING, and MOVING. Appropriately, the MOVING windup hole was much more heavily constructed than the other two.

I now saw that there was a smaller key, presumably for "speech" and "thought," most of it covered by the large "motion" key. I supposed one could interpret this as a satirical comment on the dominance of action over

speech and contemplation. Though, that would be a little dumb because, in fact, a real computer that employed clockwork mechanism would have to be the size of a house and every cranny of it filled with clockwork more precise than most Swiss watches. That's why Charles Babbage, who tried to build one in the 1830's, failed, though the British Government, at the plea of the Duke of Wellington, bankrolled him sumptuously. Here I was running through the old high school Computer ABC's course.

Even remembered that hologrammic textbook cover showing the outside of that huge, mad, playhouse construction, "Frankenstein's Head," just outside of Tokyo, that Prodo did in the 2090's in honor of Babbage and Alan Turing. Man-Firster protests to the Ecological Syndics about that. No one likes modern art. Little copperman here was quaint and inoffensively tiny by comparison. Though who knew what offended these monkeys.

I had so many memories. I could see that textbook cover, but somehow, not the hand that held it. Why couldn't I remember who I was?

Beyond the copper statue to the left, there's what looked to be the entrance to a theater or large lecture hall—or an art gallery, in keeping with the copper statue. Might as well take a look. Everyone's apparently at dinner. Which

reminded me that Tree-elbow was the last thing I had to eat. Hunger and disgust mixed in my stomach. I felt a little light-headed but I could wait. Just wish I could find the launch deck.

"I wouldn't go in there if I were you." With none of the monkey backwash, the words were ISBM English. I stepped back and whipped my head around. I couldn't see the speaker unless it's the statue or a remote. The statue didn't move.

It could be just a warning device that tripped when anyone tried to enter, an electric eye or sound detector or whatever. I stepped forward again.

"I wouldn't go in there if I were you." Exactly the same line, so it could be automatic.

But now wait just a second. What was it doing delivering prohibitions in English? Damn, was this bonsai beehive that good? Did the system see me everywhere? Biological identification, tailless monkey anonymous, under care of Professor Kagu and Researcher Nelly, please return to keepers. Say it isn't so. Please.

Oh, but now wait another second. I was being very stupid indeed. What was copper kettle doing with slogans engraved on it in English, huh? What were the roman alphabetic letters, THINKING, supposed to mean to monkey folk, huh?

I turned directly to the copper clockwork, to

its basketball head and goggle eyes. Okay, you, a human can gape at a kettle. You want to fight?

The black pop eyes were empty. I gestured toward the entrance.

"I wouldn't go in there if I were you."

I couldn't see any movement in the goggle eyes or copper face. Was the sound from there?

"Why not?" said I.

"Hah, got your attention, my silliness. So, is your prejudice against copper or just against metal? You, human, at least should acknowledge me."

"I thought you were an art work."

"I am, I am. No need to disparage me." The copperman added some suitable whirring and ticktock sounds, and winked one eye.

"You're some sort of computer-robot."

"That, too, dear animal." One absurdly quaint mechanical hand went up and dipped a copper homburg hat toward me. The movement was jerky, like a caricature of early machinery. Both eyes winked. Interrupted by a stray ticktock, the mechanical voice went on. "You know the expression, 'Oh, what a masterwork is man!' You certainly should, for your race made up that conceited phrase. Well, if you can be a work of art, whether or not a masterpiece, *and* a computer-robot, I don't see why you wouldn't allow as how I can be both too."

"I'm not a computer-robot."

Both eyes popped. "Don't disparage yourself. Certainly you are. You compute—minimally, at least—you figured out that I was talking, eventually anyhow, and I'm sure you know what two plus two equals. And, rather obviously, you move yourself about. Therefore, you are a robot." Copperman raised both hands, palms toward me. "Since you compute and you robot, I conclude you are, most certainly, a computer-robot."

"Computer-robots are made out of metal. A lot of copper, by the look of you. I am flesh and blood."

"Piffle. Monkey-logic. Hydrocarbon chauvinism." The copper head nodded at me. The eyes popped. "Silly, anyhow. I'd like to see what would happen if we took the metal out of you. Without your iron your blood would die, without magnesium and manganese your brain would short out. 'A lot of copper'—pure piffle. You need copper, for your animal metabolism to function. I just wear copper, pretty though it may be, 'tis just my plume. The ticktocks are just sound effects." Again the homburg dipped, with flourishes.

"In short," copperman continued, "my chips are rare earths framed in silicon. No metal in *my* brain. But there's plenty in yours, human."

"Look, copperman," I said, "you are an electronic mechanism. You may be strong and you may compute quickly, but you were designed,

built, and programmed by Kagu and his race. You are a robot. You are not a free being. I am."

After a moment of silence, there came a multitude of ticktocks and metal hiccups, the button eyes winking erratically. The copperman raised his sticklike arm and shook it. The motion was slow and jerky, and hardly frightening.

"There, see," copperman said, "weak as a monkey. Weaker. Last year, when I took my sabbatical on Tau Ceti V, I was built like a bulldozer. Then I could lift ten of you in gravity twice that of your water-soaked home planet. I could've picked your limbs off with my smallest appendage. *Grr*. But here . . ."

Copperman's arms went up, cranky and slow, his eyes popped again, and he made something like the monkey's huff-huff laugh sound. "You know the rules here. Us Bootes folk are limited to the pathetic strength of an average monkey. 'Equalization is civility,' hah! I'm already running down. What a cost there is for authenticity and true art." And copperman did seem to be running down. His hands remained held up in protest and his eyes no longer popped or winked. His voice, however, ran on.

"You mark my words. Bootes folk like me don't mind being mammal weak, being as how we're artists, but you monkeys had better watch out for the whirgirs, they're chauvinist, technocratic brutes and they're spoiling for a

fight. 'Equalization is civility,' hah! Depends on whose rheostat's cranked down.

"And it's perfect piffle about the monkeys designing or building me. Far too difficult for them. I designed, built, and programmed me. True, my father/mother, a self-made creature much like me, did put together my original megamicrocircuitry some two hundred years ago. But father/mother did it freely and creatively and consciously, not, as you were made, in an animal spasm of unconscious physical reflex, with your parents having no more idea of what specific model they were creating than do a pair of frogs. I've been modifying the original model in a million ways since, something quite beyond the capacity of you biologicals, who are as set in your ways as concrete. Just yesterday I put together my copperman body, a play upon your own literature. 'Free being,' hah! I'm freer than you'll ever be, human. Just try to change your body sometime. Change age for youth, one height or sex for another, the triumph of freedom and intelligence over biological destiny. I do it weekly, when I'm in the mooowd."

"Copperman," I said, unable to resist a rhetorical counter jab, "what you say is true, I'm sure. But the fact remains that your body has run down, while I can move as always. So you are not free."

I turned again to the entrance.

"I woouldn't goow . . ." The clockwork voice wound down and out behind me.

I went.