“Pressure”

a short story by Joseph L. Lockett
for Dr. Abrahamson’s Spring 2000
SEDE 6335 “Literature for Adolescents”
at the University of Houston, main campus

It’s not easy feeling like you’re the only one on the planet with problems.

And when you live on the Moon, it even has a chance of being true.

My Dad and I had talked before the move. I was ready not to see blue sky except in a painted ceiling. I was ready to lose a hundred pounds, without even trying, in the lower gravity; how many diets take you from 120 to 20? I was ready to try eating guinea-pig steak instead of beef — and to go vegetarian if it was too gross, like I was sure it would be.

But I wasn’t ready for the people.

☽

My name’s Diana Johannsen. The last name’s Swedish, I guess, though I wouldn’t know. My mom died when I was just a baby, and my dad’s moved around to so many different engineering jobs I’m not sure he remembers where his family comes from. In sixteen years I’ve lived in a dozen different cities and countries where projects took us, from the microwave farm outside Phoenix to the sea plantations off Nigeria to the spaceport in Manila. “And now for something completely different,” as my Dad’s old comedy videos put it: an old-style “mining town,” but in Alphonsus Crater, on the Moon.

From the outside Moonbase isn’t much to look at. There aren’t the boxy buildings of old science-fiction movies; just a lump of lunar dirt piled up in a long rectangular hill over the Plaza to provide shielding from cosmic radiation. I keep expecting somebody to climb it and pitch a flag on top. Oh, there are “high-tech” features, all right: the rail lines to the oxygen and aluminum mines in the crater wall, the spaceport pads and solar collectors, the regular lumps that

mark factories for microchips as small as your fingernail or diamonds as big as your fist. But, living inside, you don't get to see it that way very often.

Inside there's air, and warmth, and colors other than black and gray, and people. The gravity is only one-sixth Earth's, so all the rooms have ceilings sixteen feet high and there are ramps instead of stairs so newcomers (like me) won't bump heads or bark shins. It's a lot of indoor space, especially compared to the cramped dorms and industrial parks I'm used to back on Earth — but you need it, because, of course, there's no real "outside" to go to. The closest you get is the Plaza, the big trench all the houses and offices open onto, 1000 feet wide and 2000 feet long with a 250-foot ceiling. It's full of grass and trees and fishponds and other psychologically healthy stuff, but you can never forget that it's not Earth. First of all, there's a ceiling. And second, most days there'll be at least a couple of people with wings strapped on, *flying* past all the walkways and balconies in the thick air and low gravity.

The builders made a big effort to make the whole place look big from the inside. But there are only a few thousand people on the whole Moon, and almost half of them live hundreds of miles away in Tian Shi, the Chinese settlement. So, despite all the space and all the conveniences, Moonbase is really just a small town. It might be full of Ph.D.'s, but this frontier town doesn't even rate one horse. It would probably eat all the grass, anyway. What with the size and the strangeness, most people, if they're only staying for a year or two, don't even bring their families with them. So there are even fewer kids than you'd expect. There's one school building for kindergarten through high school. It's not a one-room schoolhouse, but it's close.

Good ol' Moonbase High only has five students, in fact, and that includes me. Malik Chillman is one of the first kids born here, and he shows it. He's built like a Zulu warrior, all arms and legs that have stretched easily in the low gravity until he stands over seven feet tall.

José Dominguez stands a bit shorter (his family immigrated when he was six), but it doesn't show when the two of them mix it up on the basketball court. Alan Briggs is just a freshman, but he's already taller than I am and bound to catch up to the other two soon, though he spends more time in books than with a ball.

And then there's Claire. Claire Trebec has that elfin physique little girls dream about on Earth: she was born only a couple of weeks after Malik, and if he's the warrior king of the Moon, she's right there putting down her claim on the queenship. Six feet tall, slender with no need for gravity's aid, with a cascade of blond hair wafting gently behind her as she minces her way through Moonbase, she has the other three wound around her delicate little pinkies. I could tell from the first day of school that I was going to have to deal with this Monarch of the Moon.

☽

And that's not easy when you're the short newcomer from *way* out of town. The Moon has a way of reminding everybody of the differences. During my first week of classes, we headed outside for an astronomy lesson. We stopped in the air lock to put on the bright orange universal suits stored there, and they magnified the contrast between us. The sleeves and legs of mine were cinched up to fit my frame, while Claire's and the others' were let out as far as they could go. Dr. Coombs, our sciences instructor when he wasn't running the environmental systems, started going over the safety points for our trip: "Make sure your helmet, gloves, and boots are dogged down tight. 'Nature abhors a vacuum,' the saying goes. If you've left a leak to the outside, your air will spill out to try to fill it. Leave it long enough, and your lungs will collapse, your gut will squeeze out any air there, the fluid will evaporate from your eyeballs, and the blood will start to hemorrhage under your skin."

"In other words, you fart and get a whole-body hickey," José chimed in. Malik and Alan laughed as if at an old joke. Claire was too busy carefully coiffing her hair under her helmet to bother with such crudity. As for me, I was too petrified to laugh, checking and re-checking all the seals on my Day-Glo orange suit.

At last we finished checking each others' suits. We listened to the whine of the air pump fall in pitch and fade away, and felt our elbows and knees stiffen as the suits expanded slightly into the vacuum. With the suits stiffer, it got hard to walk, and I was glad I still had my Earth muscles. Of course, when I tripped coming out of the lock my Earth reflexes caused me to turn my body and put my arms out to stop a fall. I heard Claire's laugh over the suit radio: a true "Lunatic" knows she can just stick her arms out and push herself back upright again. I'm glad no-one could see my red face through the visor of my helmet. I clambered back to my feet again, and our group set off, doing the "lunar shuffle" required to cover ground without wasting time hanging mid-air in mid-step. It was lunar night outside, but the Earth always sheds enough light to see by, either from sunlight reflecting off the day side or the blaze of millions of electric lights in the cities by night.

The ground outside the air lock was thick with footprints: with no weather to disturb them, footprints on the Moon last forever, or until somebody else disturbs them. I understand there's a place over by the crater wall where they'll epoxy your footprints and give you a certificate, kind of like some bizarre extraterrestrial Mann's Chinese Theater. The footprints from the first lunar landings are still out there somewhere, fenced off in National Park exhibits. It's kind of spooky, seeing everybody who's gone before you. The footprints show up as light outlines in the dark ground — something about radiation exposure tinting the surface, Dr. Coombs said. You can see the muddle by the air lock, and then trails heading out in various

directions: here a wide track used by surveying groups or school classes like ours, there a single pair of footprints, left by some lovers or curious kids years or decades ago. Who will follow us, years from now, or wonder where we went and why?

Eventually Dr. Coombs was satisfied with our data from the lesson — using an old-style sextant, like they used on Earth sailing vessels before the Global Positioning System. It turns out you can still “shoot” stars, do some math, and find your position on the Moon. If the electronics in my suit ever burn out and I have to find my way around that way, though, I suspect my calculator and watch will have flaked out too, and I’ll be lost for sure. Alan was still hammering out some point with Dr. Coombs, so I just stood for a while, looking at the Earth overhead, so green and blue and white and swirly and *alive*, unlike the parched gray sand around us. *How can they call this area on the Moon the Sea of Clouds?* I wondered: *We may use sextants, but it’s nothing like the real oceans back home!* Those old astronomers who christened all these dark splotches “seas” — how more wrong could they be?

Malik, José, and Claire were off in a group by themselves, I noticed, in a rough circle. Claire was holding some shiny object which she would drop, and the three of them would watch it slowly twirl around until it hit the ground in a puff of lunar dust, when they’d all lean forward and touch helmets to talk privately, off the class radio channel. *Spin-the-bottle doesn’t work in helmets, dummies!* I thought to myself. Claire liked to style herself “Claire de Lune,” after the French phrase. More like Claire the Loon, I was starting to think. Still, I headed over to see what was up.

As I drew closer, I saw what the “spinner” was: the release valve from a spare oxygen tank, attached like a necklace to a thin metal chain. My three classmates turned towards me as I

approached, though I couldn't see their faces through the gold-tinted visors of the helmets, so I sent out a quick squawk on the class radio channel: "Hey, what's going on?"

Claire's helmet looked down on me like an unblinking golden eye. "Fortune-telling," came the arch reply, "for the children of the Moon. High things for high people. And not for low children of the dirty Earth."

I don't think I'd ever been insulted so poetically.

☽

Oh, it hurt, of course, to be rejected by the only teenagers on the planet. Luckily, a lot of our schoolwork was in the form of independent study, with community mentors. "Young people learned through apprenticeships for thousands of years before formal schooling began," says Dr. Coombs. "And with all the educated adults sloshing around this place, we'd be fools not to take advantage of it!" So I didn't have to spend all that much time enduring Claire's spite, or the boys' obedient indifference. And I got to meet Hilde.

Dr. Hilde Sorensen is one of the scientists in charge of the atmosphere systems at Moonbase. I don't know if it's some secret Scandinavian sisterhood kind of thing or what, but we hit it off well together, and I ended up doing a lot of my science research with her that semester. And she certainly helped to lighten the atmosphere around me.

"The Moon is a lot like Arizona, don't you think?" she'd say. "You used to live in Phoenix, didn't you? In 1912, Arizona's first U.S. senator praised his newly admitted state in a long inauguration speech, and closed by saying, 'all that Arizona needs to make it Heaven is water and society.' Of course, as another senator was heard to whisper, 'That's all the Hell needs to make it Heaven!' You've got the water — rationed, I'll admit, but I've seen you enjoying the swimming pool in the base reservoir, too. Now all you need is the society."

"But to have society, people need to be sociable," I groused back as I took down the latest CO_2 readings for a lab on plant growth.

"Oh, they can be, and they will," Hilde chuckled. "It's like you always hear: 'Nature abhors a vacuum.' You spend enough time together, and some sort of friendliness is bound to leak out into that emptiness you've got now. You just have to keep trying. Why, any engineer knows that sometimes you just have to keep at a problem until you find its weak spot!"

☽

But I seemed to find more weak spots in myself than in my problems: school was miserable, as I continued to superbly fill my role as class dwarf. Though within a few weeks my reflexes more or less adjusted so that I didn't bound towards the ceiling when getting up, I kept slipping up in other areas when I got distracted. It was a class joke to attract my attention while I was pouring something — by asking a question, dropping something, starting an argument — and then watch the resulting spill as automatic reflexes met lunar gravity. My Earth-grown muscles worked wonders against the home-grown lunar variety on the basketball court, and it was thrilling to bounce off the plexiglass walls, soar through the air, and slam-dunk into a basket 33' up… but cleaning up on Malik and José was unlikely to endear me to them, especially with Claire leading the effort to brand me as some sort of unclean mud-child from beyond civilization.

So one day I confronted her about it. In midair. I saw her flying, alone, up above the Plaza. So I rented a set of the plastic wings they keep on hand, fitted the flexible spar over my shoulders, my feet in the tail-rudder, and my hands in the gloves attached to the wings, and took off. That's one of the few plusses about the Moon, I guess. On Earth, everybody dreams about flying. On the Moon, you can do it for pocket change.

Short but stout and strong won the day again, and I was near Claire before she realized who it was approaching. "We need to talk," I opened, as I glided alongside her.

"I see no need," was the short, snippy response from the Ice Princess of the Moon. But I was smaller, stronger, and more maneuverable than she was: the Red Baron of Munchkinland, I stayed right next to her even as she tried to dive away from our stillborn conversation.

"Why are you treating me like this? It's not like we're different species, or something!" I called out. "I haven't done anything to you!"

Claire kept flapping her wings, but I was all around her, hemming her in, keeping her up from the safety of the landing station, goading her from one end of the ceiling to another. For once, I was glad we didn't have open sky. "You Earthers *are* different!" she shrieked in frustration, her blond hair flailing about the cables of her gossamer wing set. "Everything we have is from you, everything was there first, everything there is bigger, better, more. And then you even spoil the new things we have, like this!"

She pulled her wings back and leaned into a dive, but again I was right with her, and practically nose-to-nose forcing her back to more level flight. I was upside-down for a moment, and saw above me the oxygen valve on its chain, flopping from Claire's iridescent green bodice. "*That's* something new!" I shouted over the wind we made, jerking my chin at the ornament. "I've seen Malik and José and Alan wearing them too. What does it mean? Help me learn!"

Claire laughed, and at last managed to sideslip by me. She went buzzing low over the promenades towards the landing pad, and I saw several startled pedestrians aim cameras at her. *Great*, I thought, *now she'll get grounded and blame THAT on me too!* But I oared along above her and reached the pad at about the same time as she was stepping out of her tail-boots. "*You* want to be a Vacuum Breather?" Claire hissed. "Come and try it!"

Well, this was more reaction that I'd had from the Moon Mistress in weeks, so I shucked off the wings, hurriedly stuffed them back in the rental locker, and followed Claire as the practically ran back down the promenade, bobbing through the air in a most undignified and inefficient manner. We circled back to the main air locks, where Claire started pulling on one of the universal suits. I joined her — after all, you're not allowed to be outside without a buddy — though I could sense the frustration in her as I did my usual thorough check of seams and seals.

We headed out through the lock and onto the surface. Weeks had gone by in the twenty-eight-day lunar cycle, so it was finally daytime again. I heard my suit's cooling unit kick up a notch as we emerged into sunlight, and I had to hoof it to keep up with Claire as she blazed a new set of footprints past the chip factories and over a slight rise to a secluded patch of crater floor, away from the main bustle of Moonbase.

"To really live on the Moon, to really *love* the Moon, you have to experience everything she has to offer." Claire's voice crackled in my helmet. "You have to live her, eat her, drink her — breathe her." And now her helmet touched mine, and I heard her voice dimly, muffled by the rough contact between us instead of crisply over the radio. "To be a Vacuum Breather, to *really* be one of us, you need to undog your helmet and let the Moon in. You won't pass out, not if you're careful. And when your suit's empty of air, when you've really breathed vacuum, you can reconnect everything and walk back."

I was so surprised that I just stood there for a moment, before I reared back and broke contact. "You're crazy!" I screamed, and had to remember to turn my radio back on and repeat it. "That's the most ridiculous… made-up ritual I've ever heard of! Why should I trust you? You'd probably leave me out here, to gasp my life away! Forget it: who needs you and your

group anyway!" And I broke the rules: I ran away, by myself, back to the air lock, crying all the way at how Claire, in this way at least, managed to be stronger — or more foolish — than I was.

☽

Stomping on her little membership ritual obviously didn't make me any more eager to hang around with Claire and the gang, so for the next several days I started handing my school assignments in at the beginning of the day and then going to rack up some volunteer hours in the younger classes. All the teachers at the school are part-time volunteers — *everybody* at Moonbase has some job related just to keeping the base and the factories going, so stuff like education, news, and so forth gets handled by the people who have the interest and the spare time. Children can't do the big, professional jobs, but the adults love to get us helping with everything else.

I enjoyed working with the kindergarten classes: telling stories, settling arguments, teaching games and words and puzzles. And it gave Dr. Siva Dvapara a chance to catch up on her real job of quality-control data for the chip factories. Of course, Claire had a little sister in the class, but once Alais had told me once, in that snotty, self-assured, five-year-old way, "You're from Earth, so you're dirty," the class and I got along together quite well. I guess even dirty people know good stories, if you're only five and don't have much taste.

Anyway, after a few days Dr. Dvapara and I took the kids out on a field trip around Moonbase in a crawler. It was the first time many of them had seen their home from the outside. When we got back, Siva had to run ahead to the classroom, so she left me to marshal the students in the airlock as the crawler pulled away, back to hauling ore trailers instead of children. And that's when we heard — or rather, felt — the most awful noise you can imagine. I found out later that a fuel line had burst and an entire shuttle had blown up on the launching pad. All I

knew then was that the hallway shook, and suddenly the bass rumble turned into that thin whistle, accompanied by the feeling of icepicks in the ears, that screams to anyone in Moonbase: DECOMPRESSION! A piece of wreckage the size of a marble shooter had blown through the airlock doors and the walls behind us. Thank God it didn't hit any of the children. But on either side of me I could see the big emergency doors closing off our section of hallway. There were enough suits in the airlock for a normal party of adults — but the emergency plans didn't call for a lock full of over a dozen children!

The whistle was getting lower in pitch and softer in volume as there was less and less air in the compartment to carry the sound. I scooped up two of the children, who were already bawling in panic, and bundled them both into one suit. I zipped it up while it was still hanging in the rack, with the two girls dangling inside the torso and the arms and legs still reeled in and flopping to either side. I hoped my seals were good enough: no time for my usual thorough check now. My ears were popping as I continued to pack children into hardsuits, two to three apiece, and I could feel my eyes drying out as the tears boiled away in the steadily thinning air. It got harder and harder to breathe, let alone shout encouraging words, so eventually I just started running on blood oxygen and smiles.

All the suits were full but one, and where was… Alais! Lying in a heap over by one of the pressure doors, which would listen to her pleading no more than I had her insults. I ran down the hall, scooped her up in my arms, my vision going red as I made the effort, and made it back to the last remaining universal suit. I let out all the girth it had and squeezed us both inside. Somewhere in there I blacked out, though I evidently lasted long enough to pull the seals and dog the helmet from inside. They found the two of us dangling together, still there in the rack.

☽

It was a freak accident. But we have emergency drills once a month now in the school. And I’m the proctor, shouting “Pressure Drill! Pressure Drill!” as the kids scramble for the inflatable rescue balls in their school kits. Around my neck is an oxygen tank valve with a star of salvaged diamond chips from the factories, put together by my new friend Claire for “doing it when it really meant something, not just for a stunt.” And in my heart, there isn’t that emptiness any more: “Nature abhors a vacuum.” I can stand tall, even when everything around me is stretched upwards to a different scale. I’m a Vacuum Breather, and a Lunatic, but what I really breathe is *belonging*.

And you know what? I’ve even learned to like guinea pig.

☽ ☽ ☽

Some technical details for the setting come from the book *Welcome to Moonbase*
by Ben Bova, © 1987, published by Ballantine Books of New York.
The plot, however, is the author’s own.