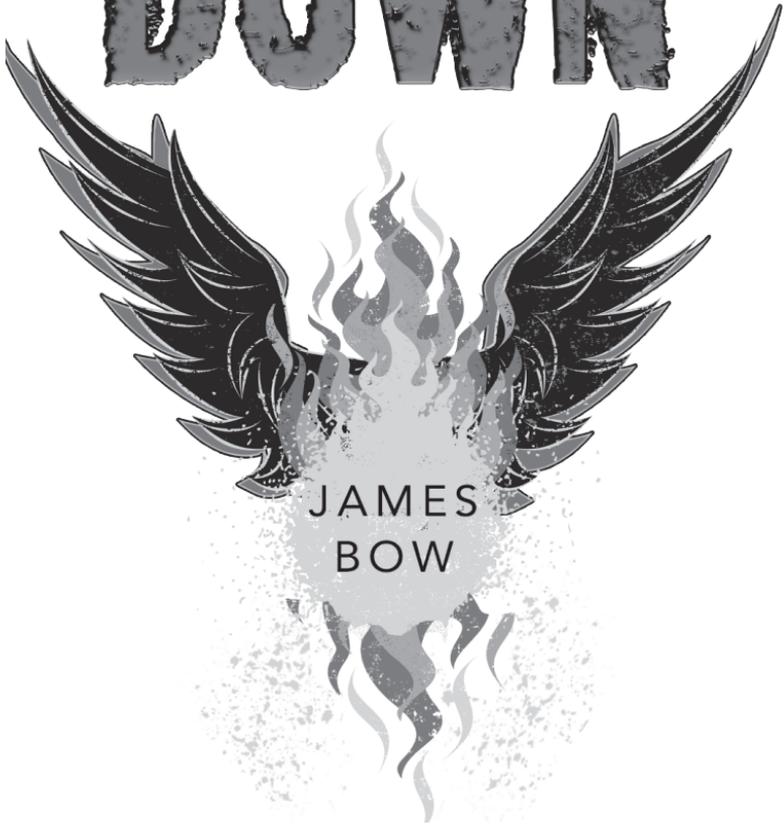


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CHAPTER ONE

BETWEEN FOG AND FIRE

SIMON:

My name is Simon Daud, and I was never the special one.

My brother Isaac, now, he was a golden boy. Everything came to him easily. He walked into a room and people smiled. He turned in his perfect schoolwork and his teachers smiled. He turned his bright eyes toward a girl, and *she* smiled. He went to the flight academy a year early, became the youngest full-fledged pilot in our colony's history, and the mayor himself smiled, and gave him a medal. In short, the universe smiled on Isaac. Right up to the day he died.



For a long time, I thought it was my fault. If you've read deep enough into the history books to bother

with this annotation, you know that it wasn't. That puts you ahead of me, because when I remember it, it still *feels* like my fault.

Isaac shouldn't have been there, of course. The Creator only knows what strings he pulled. The senior pilot who accompanies the junior on his maiden flight is chosen at random, but obviously older, golden-boy brothers shouldn't be called on to supervise younger, unremarkable ones. But Isaac could always bend the rules.

"What are you doing here?" I shouted at him when he turned up that morning on the gantries outside Daedalon's flight bay. The hot wind rushing across the underside of the city was loud, and the cables that tethered the city to the anchors in the cliffs hummed like cello strings. They could put up all the vibration dampers they wanted, and maybe inside the cities you wouldn't notice, but any pilot or gantry spider would tell you: our cities *sang*. Daedalon, our largest city, had a bass thrum you could feel in your bones. The ornithopters around me hung like dragonflies in a spider web, their folded fabric wings surging and snapping.

"Seven senior pilots on shift and I drew *you*?" I said. "Honestly, Isaac, it isn't fair!"

He took the canister of batteries from me and raised his voice above the furnace wind. "Fair won't keep your flight level, cadet! Fair's got nothing to do with it."

There was no point in arguing with Isaac. He was

brilliant in his white uniform, the ridged fabric of his sleeve denoting his senior pilot rank with shadow. More ridging over his heart outlined the arrowhead of Iapyx, our home city. On his shoulder, above the rank insignia, was a man rising to the stars on wings of flame, in memory of our colony ship the *Icarus*, the emblem of Icarus Down.

Holding on to one of the plastic-sheathed cables, I inched to the two-man ornithopter. Beneath my feet — a kilometre down — clouds rolled over the floor of the chasm. Behind me was the stem of the city, added after we pulled our cities halfway up the cliffs. Its wall curved behind me and swept downward, narrowing like a funnel before vanishing into a black point in all that white cloud. Before me and behind, the cliff faces bathed us in shadow. At the top of those cliffs, I could see sunlight blazing off fused silica, too bright to look at directly. Up on those diamond lands, an ornithopter's wings would catch fire in minutes. A person would burn to death even quicker.

I climbed into my ornithopter. Isaac was all business as he pulled himself into the rear seat and did up his harness. "Personnel in," he reported. "Cadet, what's our weight?"

Between the pilot's seat and the rear seat, the ornithopter engineers had squeezed a small bank of gauges. I checked them, tucking my head down to avoid my brother's eyes. They were bright that morning, like he was planning something. "Two hundred

kilos, even.” I paused just long enough before adding, “Sir.”

“Good. Battery levels?”

I had just put the batteries in myself. I did — I know I did — look at the gauge anyway. “Full power.”

“Wings?”

“Lateral control reads true,” I said. “Vertical control reads true. Rudder true. Green board.” It wasn’t green, of course, or a board; it was a series of wooden switches. But two generations beforehand, we’d been a star-faring civilization. Old words die hard.

“Tailhook reads true,” Isaac said. I’d missed that one, but he didn’t comment. He looked at me with his sunshine eyes and grinned dangerously. “Crank over.”

I turned the winch, cranking my chair around to face the windshield. My back left the seat. My chest pressed against the harness. Now there was nothing in front of me but the hand and foot levers of the flight mechanisms and, beyond that, a kilometre-long drop. Now I was in charge. Isaac was just the navigator. Well, just the navigator who could wash me out of flight school with one report. He tapped the Morse lever. “Requesting permission to drop, pilot,” he said.

I waited. Flight clearance had to come from Daedalon, the capital, and from Iapyx, which meant message by semaphore, which was slow, even if it was technically by the speed of light. Each city’s semaphore tower could be seen on approach, and

I imagined Daedalon's now, standing atop the vast dome of the city like a wind turbine from Old Mother Earth, two arms twisting and aligning, sending our flight plan letter by letter. Poking into sunlight, the semaphore was a beacon that could be seen kilometres away by watchers huddled in their roof bunker on Iapyx. Watching through filtered mirrors, the semaphore operators would write each letter down, send the slip by canister to Iapyx's flight bay, which would reply, and then . . .

Hanging from its tailhook, our ornithopter swayed like a pendulum. Finally, the Morse lever clicked to life. "Iapyx is expecting us, pilot," Isaac said. "We are clear to drop."

I took a deep breath; I couldn't help it. "Drop," I said. And we did.

We fell. We needed to be clear of the cabling before deploying wings, but you could lose track of time when falling and it was always tempting to unfold too early. My mind said the name of my city — *one eye-a-pix, two eye-a-pix* — and when I got to ten, I heaved back on both hand levers. They fought. Even with powerful gears, it's no small thing to push wings out against that kind of speed. The wood handles shuddered; my arms shook. Then the levers jerked as the wind caught the wings and snapped them back and into their locks. The ornithopter swung around to level as if it had hit a tightly curved rail. It wanted to keep swinging, and head up, but I fought it. "Wings set," I reported. "Navigator, start engine."

Isaac hit the electric button — the only one on board — and the engine came up with a hum. The ornithopter’s dragonfly wings started to buzz. We were away, flying level, pretty as a picture. I’d done it perfectly. Isaac didn’t say a word.

As we came out from under the cable umbrella of Daedalon, I ran over the advice of our instructors. I pictured our ornithopter in the centre of the canyon, a moth flying the routes of a maze: left cliff face half a kilometre to port, right cliff face half a kilometre to starboard. Five kilometres ahead, the right cliff face angled in front of us. Iapyx was an hour away. I gripped the rudder controls and counted down to the next turn. Finally, the black rock on my port side fell away. I turned the rudder, felt the ornithopter bank, and held on until the chasm opened up in our front windscreen. This length was angled more to the south, meaning the sun cut lower on the cliffs, and I dropped us a hundred metres to compensate. On my left, the cliff face blocked Daedalon from sight.

“Very good,” said Isaac.

I blinked.

“Let me be the first to congratulate you, Pilot Daud.”

“You’re supposed to file a report,” I protested. “It has to be evaluated.”

“Formality. You were never going to wash out, Si. You’re the best cadet the flight school’s had since . . . well, me. Didn’t you know?”

“Uh . . . no?” My brother always provoked me to brilliant conversation.

“Trust me. Your wings are waiting for you at Iapyx. I ordered them myself.”

“Oh,” I said.

“In the meantime, here we are in the middle of nowhere, sky to ourselves, an hour’s easy flying from any prying ears.”

“Prying ears?”

“You’d be surprised,” he said. “We need to talk, Si. It’s important. It’s — it’s about Mom.”



Mom. Is she even a footnote, now? Funny how things turn out, that you’re reading about me. Simon Daud, age (at the time) sixteen. Older brother: Isaac, just turned nineteen. Father: Abram, a gantry spider by profession — one of the men who tended to the webs of cables that tethered our cities to the anchors embedded in the cliffs. Fell to his death in the colony’s fifty-first year, age thirty. I was five. Mother: Hagar, map-maker, an aide to the mayor of Iapyx’s planning committee. Died in the colony’s fifty-fifth year. A suicide.

I was nine. That’s old enough to be shocked, old enough to be angry. Young enough — maybe — to forget, or pretend you’ve forgotten. Isaac and I, far from the only orphans in that dangerous place, were raised in vocational school, without parents but with cheerful and competent teachers and hall mothers. We did well enough. We hadn’t spoken about Mom in years.



We spoke about Mom, now, by ourselves in an ornithopter, in a canyon that nobody had bothered to name. Isaac didn't ease into it, either. "I don't think she jumped, Simon."

"Well, I don't think she flew." The bitterness in my voice surprised me; I thought I was past that. "They found . . . parts of her, Isaac. There was an ID." Though, as I said it, it sounded vague. Found what? ID'd how? I hadn't been asked to make an ID. Had Isaac? What if he'd been wrong? My heart lurched like an ornithopter levelling out.

"I don't mean she's not dead, Si," he said. "I mean she didn't kill herself. Maybe." All of a sudden, he sounded preoccupied. He tapped a dial. How could he lose focus in the middle of telling me *this*? He went on. "I've been . . . working with some people. I think . . . maybe she was . . ."

"Spit it out, Isaac!" I said. The ornithopter had nosed up while I was distracted. I pushed the tail flap pedal to compensate. "You think what?"

"I think she was murdered," he said. Then, before I could even take that in, he snapped, "Did we check these batteries?"

"*What?*" And the batteries were fresh. I *know* they were. "What in sunlight are you talking about?"

"We've got half a bank, and sinking," he said. "Twelve amps. Eleven point nine."

"Is this a test?" I barked at him. "Emergency sim?"

Pilots under emotional stress?”

“No,” he said. “It’s dropping. Look—”

I tried to crane my head around, but I couldn’t see the indicators.

“What does this have to do with what you said about Mom?”

“Nothing,” he said. “I think, but . . . Eleven point eight. Point seven five.”

I gaped at him over my shoulder. “We can’t make it to Iapyx on less than twelve amps.”

“I know.”

The wings buzzed. They hadn’t changed pitch. We weren’t slowing down. Not yet.

“We’ll ditch,” I said. “Put up flares. They’ll come looking for us when we’re over-time.”

Isaac pulled the chart down from the roll above his head. A long pause. I tried not to ask him. Pilots didn’t ask navigators, and navigators spoke out as soon as they had a fix. Simon Daud, playing by the rules.

“We’re too far out.” Isaac gave his clipboard a final tap with his pencil. “The rescue flight will be two or three hours, at least. The ticktocks will get us by then.” We both looked down as he said it. Beneath the veil of white appeared dark shapes, the limbs of trees. The fog forest. The bottom of the world.

“Take us down,” said Isaac. “Get us as low as you can.”

I was pushing on the elevator pedals with both feet before it occurred to me that I was obeying without

question, and I had no idea what the plan was. If we weren't going to ditch, why were we going down?

"Eleven point five," said Isaac.

Those battery readings were dropping fast. "A leak," I said. "An intermittent short somewhere."

"Maybe." There was a racket as he winched his chair around, pulled up the access hatch and poked around. "The bank's properly seated."

Funny how good news can be bad news. The connection between the battery bank and the cable that led out to the engine mounted at the front of the tail stem was the only thing that we could check on without landing. And there was no place to land.

"I'm going out," said Isaac. He reached for a set of smoked goggles.

"Out *where*?"

"On the roof. To check the engine connections."

Check the engine connections. In flight. It was a wild idea but, knowing Isaac, it might work. The engine was from interstellar days; nothing short of a supernova could make it go wrong. There were four cables connected to it, two for each wing pair. If there was a short, it was going to be there. It was probably just a matter of wiping some gunk off a plug.

"Keep going down," he said, his voice muffled as he wrapped a white scarf over the lower part of his face. "We'll need the room."

I saw what he meant, now. With him on the roof, the ornithopter would be tail-heavy, and would nose

up, no matter what I did to keep her level. Up, toward sunlight. I heard the *click* as Isaac undid his harness, then the *chuff* of the door seal, and a deafening rush of wind.

“Take your parachute!” I shouted.

“Like I’d leave you!” he shouted back. But out of the corner of my eye, I saw the chute pack pull free from the rack. “Right back, Si!” And he went out.

I didn’t have time to worry. It was all I could do to control the flight. The ornithopter lurched to port as Isaac swung out. I stomped on the portside elevator pedal and trimmed back the starboard wing pair. The next minutes were a wild, swinging ride as Isaac climbed over the fabric roof. I moved hands and feet fast, trying not to drop my brother into the clouds below.

“Hang on, hang on,” I muttered. Ornithopters were maintained while hanging from their tailhooks in the sky. There were handholds everywhere. They were *designed* for climbing on. I thought all that, but I kept saying “Hang on, hang on,” as if it were a prayer to the Creator.

Finally, the lurching stopped and the ornithopter nosed up hard. Isaac must be on the tail. I floored the pedals, but we kept climbing. I could hear Isaac shifting on the roof. I kept our glide true, right down the centre of the canyon, but going up. There was nothing I could do about that. If I cut speed any more, we’d stall and crash in the fog forest, never to be found.

It might come to that anyway. My heart thudded as I looked ahead. We were running out of shadow. The air glittered as the sun shone through the cap of fused silica above us.

“Isaac!” I yelled, jamming hard on the elevator pedals. “Isaac!”

There was no way he could hear me above the wind. I banged on the roof. “Isaac! We’re going into sunlight!”

Suddenly every wire and strut could be seen through the fabric of the ornithopter. Isaac’s dark bulk shifted as he moved toward the door hatch, thank the Creator.

The plane lurched again. I squinted, watching the cliff face through my eyelashes, unable to let go of the controls long enough to grab the smoked goggles that swung near my ear. Isaac’s shadow fell across me. But at that moment, the cabin glowed brilliant. The temperature spiked. And worst of all, the controls went dead in my hands. We’d run out of time. Something vital had burned, and broken.

I wrenched around. Isaac was in the doorway. His clothes were smoking. Behind him, the wing was smoking. “Isaac, get back in!” I grabbed at the winch, trying to turn around, to reach him, to help him. Or just to hold on to him as we both died. “*Isaac!*”

He gripped the edge of the cab door. The skin of his hands was blackening. I remember the smell of cooking meat. I will always remember the smell of cooking meat. I remember the way he turned his

hand over, peering at it as if curious. He didn't look like he was in pain.

The canvas by the doorframe caught fire.

Then the wing.

The whole plane was on fire.

I had the seat around; I fumbled with the buckles of my harness, trying to reach my brother.

The wing fell apart, and the wind ripped Isaac away.

I grabbed my chute and leapt, pulling it on as I fell. The ornithopter fell apart around me. Isaac's parachute ballooned out below me. I pulled the cord on mine; it deployed and jerked me upward viciously. The harness, half-on, cut into my armpits. I grabbed the chest strap, buckling it over my breastbone. The backs of my hands were already blistering.

Then, below me, Isaac's chute caught fire. It ripped open from the centre like petals falling off a flower. And then Isaac fell, his body alight. He hit shadow like a shooting star.

The air was so hot my lungs refused it, making me choke and gasp. I could smell my hair singeing away. Below, the veil of shadow was closer, but I wasn't falling quickly enough. I had forgotten to count. I had pulled the chute too soon. And now I was going to roast to death.

Of my brother, there was no sign.

Isaac. He had always led the way. I curled up, burning under the smouldering chute, and hoped I would follow him soon.



“Simon?”

A voice pulled on me like a cord. I woke from dreams of pain into soft white. The fog, I thought. I'd fallen into the fog. No. I was looking at a mottled white ceiling. It drifted above me.

“He has his eyes open. Simon, are you with us?”

Monitors. Hospital smell. Out the window, the triangles and diamonds of the cables. Iapyx. My city. Workers were adding mylar and polishing the mirrors. My addled mind saw this and recognized the early preparations for Solar Maximum. That added to my confusion. How long had I been out?

I tried to turn to the voice, but when I did, my skin crackled with pain. It felt stiff. Plastic. My hands were curled into claws.

“Take it easy, Simon,” said the voice. “The skin grafts will make it hard to move.”

Skin grafts?

“Rachel?” There was a raspy sound that I could hardly believe was my voice.

“Simon!” Her face swung over me. The constellation of her features swam: the blond hair coiled in its snood, the freckles, the beauty mark star at the corner of her jawbone. The just-slightly crooked nose. Those eyes . . . In the hollow of her throat, the betrothal charm that had once been my mother's hung like a star. “I'm right here, Simon.”

“Rachel . . . what . . . Isaac?”

There was a pause, and in that pause, I had hope. I had made it out. Had Isaac?

“I’m sorry.” She looked away. “He’s gone, Simon.”

Isaac. I closed my eyes. There was a long moment’s silence.

“How . . . How did they find me?” I said at last.

She forced a smile. “When you didn’t arrive at your prearranged time, the pilots scrambled to look for you. They found your parachute snagged against the cliff wall.”

“How . . .” I coughed and my chest cracked into a spiderweb of pain. “How long . . . ?”

There was a pause that was almost worse than the news. “You’ve been in a medically induced coma for three months.”

Three *months*. I tried to get my eyes to focus. Rachel, her hair like the gentle sun of Old Mother Earth, leaned over me. There was a slash in her whiteness: a black armband on her sleeve.

Rachel, my brother’s widow.