

THE CHILDREN OF TIME

Stephen Baxter

Stephen Baxter tells us his "big news is that we moved house last year, to a National Park in Northumberland, near the Scottish border." Stephen's next novel, *Transcendent* (Del Rey, December 2005), is his third in the *Destiny's Children* series, and *Sunstorm*, a follow-up to *Time's Eye* written with Sir Arthur C. Clarke, will be out from Del Rey early next year.

I

Jaal had always been fascinated by the ice on the horizon. Even now, beyond the smoke of the evening hearth, he could see that line of pure bone white, sharper than a stone blade's cut, drawn across the edge of the world.

It was the end of the day, and a huge sunset was staining the sky. Alone, restless, he walked a few paces away from the rich smoky pall, away from the smell of broiling raccoon meat and bubbling goat fat, the languid talk of the adults, the eager play of the children.

The ice was always there on the northern horizon, always out of reach no matter how hard you walked across the scrubby grassland. He knew why. The ice cap was retreating, dumping its pure whiteness into the meltwater streams, exposing land crushed and gouged and strewn with vast boulders. So while you walked toward it, the ice was marching away from you.

And now the gathering sunset was turning the distant ice pink. The clean geometric simplicity of the landscape drew his soul; he stared, entranced.

Jaal was eleven years old, a compact bundle of muscle. He was dressed in layers of clothing, sinew-sewn from scraped goat skin and topped by a heavy coat of rabbit fur. On his head was a hat made by his father from

Asimov's

the skin of a whole raccoon, and on his feet he wore the skin of pigeons, turned inside-out and the feathers coated with grease. Around his neck was a string of pierced cat teeth.

Jaal looked back at his family. There were a dozen of them, parents and children, aunts and uncles, nephews and nieces, and one grandmother, worn down, aged forty-two. Except for the very smallest children, everybody moved slowly, obviously weary. They had walked a long way today.

He knew he should go back to the fire and help out, do his duty, find firewood or skin a rat. But every day was like this. Jaal had ancient, unpleasant memories from when he was very small, of huts burning, people screaming and fleeing. Jaal and his family had been walking north ever since, looking for a new home. They hadn't found it yet.

Jaal spotted Sura, good-humoredly struggling to get a filthy skin coat off the squirming body of her little sister. Sura, Jaal's second cousin, was two years older than him. She had a limpid, liquid ease of movement in everything she did.

She saw Jaal looking at her and arched an eyebrow. He blushed, hot, and turned away to the north. The ice was a much less complicated companion than Sura.

He saw something new.

As the angle of the sun continued to change, the light picked out something on the ground. It was a straight line, glowing red in the light of the sun, like an echo of the vast edge of the ice itself. But this line was close, only a short walk from here, cutting through hummocks and scattered boulders. He had to investigate.

With a guilty glance back at his family, he ran away, off to the north, his pigeon-skin boots carrying him silently over the hard ground. The straight-edge feature was further away than it looked, and as he became frustrated he ran faster. But then he came on it. He stumbled to a halt, panting.

It was a ridge as high as his knees—a ridge of stone, but nothing like the ice-carved boulders and shattered gravel that littered the rest of the landscape. Though its top was worn and broken, its sides were flat, smoother than any stone he had touched before, and the sunlight filled its creamy surface with color.

Gingerly he climbed on the wall to see better. The ridge of stone ran off to left and right, to east and west—and then it turned sharp corners, to run north, before turning back on itself again. There was a pattern here, he saw. This stone ridge traced a straight-edged frame on the ground.

And there were more ridges; the shadows cast by the low sun picked out the stone tracings clearly. The land to the north of here was covered by a tremendous rectangular scribble that went on as far as he could see. All this was made by people. He knew this immediately, without question.

In fact this had been a suburb of Chicago. Most of the city had been scraped clean by the advancing ice, but the foundations of this suburb, fortuitously, had been flooded and frozen in before the glaciers came. These ruins were already a hundred thousand years old.

"Jaal. Jaal! . . ." His mother's voice carried to him like the cry of a bird.

He couldn't bear to leave what he had found. He stood on the eroded wall and let his mother come to him.

She was weary, grimy, stressed. "Why must you do this? Don't you *know* the cats hunt in twilight?"

He flinched from the disappointment in her eyes, but he couldn't contain his excitement. "Look what I found, mother!"

She stared around. Her face showed incomprehension, disinterest. "What is it?"

His imagination leapt, fueled by wonder, and he tried to make her see what he saw. "Maybe once these rock walls were tall, tall as the ice itself. Maybe people lived here in great heaps, and the smoke of their fires rose up to the sky. Mother, will we come to live here again?"

"Perhaps one day," his mother said at random, to hush him.

The people never would return. By the time the returning ice had shattered their monocultural, over-extended technological civilization, people had exhausted the Earth of its accessible deposits of iron ore and coal and oil and other resources. People would survive: smart, adaptable, they didn't need cities for that. But with nothing but their most ancient technologies of stone and fire, they could never again conjure up the towers of Chicago. Soon even Jaal, distracted by the fiery eyes of Sura, would forget this place existed.

But for now he longed to explore. "Let me go on. Just a little further!"

"No," his mother said gently. "The adventure's over. It's time to go. Come now." And she put her arm around his shoulders, and led him home.

II

Urlu crawled toward the river. The baked ground was hard under her knees and hands, and stumps of burned-out trees and shrubs scraped her flesh. There was no green here, nothing grew, and nothing moved save a few flecks of ash disturbed by the low breeze.

She was naked, sweating, her skin streaked by charcoal. Her hair was a mat, heavy with dust and grease. In one hand she carried a sharpened stone. She was eleven years old.

She wore a string of pierced teeth around her neck. The necklace was a gift from her grandfather, Pala, who said the teeth were from an animal called a rabbit. Urlu had never seen a rabbit. The last of them had died in the Burning, before she was born, along with the rats and the raccoons, all the small mammals that had long ago survived the ice with mankind. So there would be no more rabbit teeth. The necklace was precious.

The light brightened. Suddenly there was a shadow beneath her, her own form cast upon the darkened ground. She threw herself flat in the dirt. She wasn't used to shadows. Cautiously she glanced over her shoulder, up at the sky.

All her life a thick lid of ash-laden cloud had masked the sky. But for the last few days it had been breaking up, and today the cloud had disintegrated further. And now, through high drifting cloud, she saw a disc, pale and gaunt.

It was the sun. She had been told its name, but had never quite be-

lieved in it. Now it was revealed, and Urlu helplessly stared up at its geometric purity.

She heard a soft voice call warningly. "Urlu!" It was her mother.

It was no good to be daydreaming about the sky. She had a duty to fulfill, down here in the dirt. She turned and crawled on.

She reached the bank. The river, thick with blackened dirt and heavy with debris, rolled sluggishly. It was so wide that in the dim light of noon she could barely see the far side. In fact this was the Seine, and the charred ground covered traces of what had once been Paris. It made no difference where she was. The whole Earth was like this, all the same.

To Urlu's right, downstream, she saw hunters, pink faces smeared with dirt peering from the ruined vegetation. The weight of their expectation pressed heavily on her.

She took her bit of chipped stone, and pressed its sharpest edge against the skin of her palm. It had to be her. The people believed that the creatures of the water were attracted by the blood of a virgin. She was afraid of the pain to come, but she had no choice; if she didn't go through with the cut one of the men would come and do it for her, and that would hurt far more.

But she heard a wail, a cry of loss and sorrow, rising like smoke into the dismal air. It was coming from the camp. The faces along the bank turned, distracted. Then, one by one, the hunters slid back into the ruined undergrowth.

Urlu, hugely relieved, turned away from the debris-choked river, her stone tucked safely in her hand.

The camp was just a clearing in the scorched ground-cover, with a charcoal fire burning listlessly in the hearth. Beside the fire an old man lay on a rough pallet of earth and scorched brush, gaunt, as naked and filthy as the rest. His eyes were wide, rheumy, and he stared at the sky. Pala, forty-five years old, was Urlu's grandfather. He was dying, eaten from within by something inside his belly.

He was tended by a woman who knelt in the dirt beside him. She was his oldest daughter, Urlu's aunt. The grime on her face was streaked by tears. "He's frightened," said the aunt. "It's finishing him off."

Urlu's mother asked, "Frightened of what?"

The aunt pointed into the sky.

The old man had reason to be frightened of strange lights in the sky. He had been just four years old when a greater light had come to Earth.

After Jaal's time, the ice had returned a dozen times more before retreating for good. After that, people rapidly cleared the land of the legacy of the ice: descendants of cats and rodents and birds, grown large and confident in the temporary absence of humanity. Then people hunted and farmed, built up elaborate networks of trade and culture, and developed exquisite technologies of wood and stone and bone. There was much evolutionary churning in the depths of the sea, out of reach of mankind. But people were barely touched by time, for there was no need for them to change.

This equable afternoon endured for thirty million years. The infant Pala's parents had sung him songs unimaginably old.

But then had come the comet's rude incursion. Nearly a hundred mil-

lion years after the impactor that had terminated the summer of the dinosaurs, Earth had been due another mighty collision.

Pala and his parents, fortuitously close to a cave-ridden mountain, had endured the fires, the rain of molten rock, the long dust-shrouded winter. People survived, as they had lived through lesser cataclysms since the ice. And with their ingenuity and adaptability and generalist ability to eat almost anything, they had already begun to spread once more over the ruined lands.

Once it had been thought that human survival would depend on planting colonies on other worlds, for Earth would always be prone to such disasters. But people had never ventured far from Earth: there was nothing out there; the stars had always remained resolutely silent. And though since the ice their numbers had never been more than a few million, people were too numerous and too widespread to be eliminated even by a comet's deadly kiss. It was easy to kill a lot of people. It was very hard to kill them all.

As it happened old Pala was the last human alive to remember the world before the Burning. With him died memories thirty million years deep. In the morning they staked out his body on a patch of high ground.

The hunting party returned to the river, to finish the job they had started. This time there was no last-minute reprieve for Urlu. She slit open her palm, and let her blood run into the murky river water. Its crimson was the brightest color in the whole of this grey-black world.

Urlu's virginal state made no difference to the silent creature who slid through the water, but she was drawn by the scent of blood. Another of the planet's great survivors, she had ridden out the Burning buried in deep mud, and fed without distaste on the scorched remains washed into her river. Now she swam up toward the murky light.

All her life Urlu had eaten nothing but snakes, cockroaches, scorpions, spiders, maggots, termites. That night she feasted on crocodile meat.

By the morning she was no longer a virgin. She didn't enjoy it much, but at least it was her choice. And at least she wouldn't have to go through any more blood-letting.

III

The catamaran glided toward the beach, driven by the gentle current of the shallow sea and the muscles of its crew. When it ran aground the people splashed into water that came up to their knees, and began to unload weapons and food. The sun hung bright and hot in a cloudless blue dome of a sky, and the people, small and lithe, were surrounded by shining clouds of droplets as they worked. Some of them had their favorite snakes wrapped around their necks.

Cale, sitting on the catamaran, clung to its seaweed trunks. Looking out to sea, he could spot the fine dark line that was the floating community where he had been born. This was an age of warmth, of high seas that had flooded the edges of the continents, and most people on Earth

made their living from the rich produce of coral reefs and other sun-drenched shallow-water ecosystems. Cale longed to go back to the rafts, but soon he must walk on dry land, for the first time in his life. He was eleven years old.

Cale's mother, Lia, splashed through the water to him. Her teeth shone white in her dark face. "You will never be a man if you are so timid as this." And she grabbed him, threw him over her shoulder, ran through the shallow water to the beach, and dumped him in the sand. "There!" she cried. "You are the first to set foot here, the first of all!"

Everybody laughed, and Cale, winded, resentful, blushed helplessly.

For some time Cale's drifting family had been aware of the line on the horizon. They had prepared their gifts of sea fruit and carved coral, and rehearsed the songs they would sing, and carved their weapons, and here they were. They thought this was an island full of people. They were wrong. This was no island, but a continent.

Since the recovery of the world from Urlu's great Burning, there had been time enough for the continents' slow tectonic dance to play out. Africa had collided softly with Europe, Australia had kissed Asia, and Antarctica had come spinning up from the south pole. It was these great geographical changes—together with a slow, relentless heating-up of the sun—which had given the world its long summer.

While the rafts had dreamed over fecund seas, seventy million years had worn away. But even over such a tremendous interval, people were much the same as they had always been.

And now here they were, on the shore of Antarctica—and Cale was indeed the first of all.

Unsteadily he got to his feet. For a moment the world seemed to tip and rock beneath him. But it was not the world that tipped, he understood, but his own imagination, shaped by a life on the rafts.

The beach stretched around him, sloping up to a line of tall vegetation. He had never seen anything like it. His fear and resentment quickly subsided, to be replaced by curiosity.

The landing party had forgotten him already. They were gathering driftwood for a fire and unloading coils of meat—snake meat, from the fat, stupid, domesticated descendants of one of the few animals to survive the firestorm of Urlu's day. They would have a feast, and they would get drunk, and they would sleep; only tomorrow would they begin to explore.

Cale discovered he didn't want to wait that long. He turned away from the sea, and walked up the shallow slope of the beach.

A line of hard trunks towered above his head, smooth-hulled. These "trees," as his father had called them, were in fact a kind of grass, something like bamboo. Cale came from a world of endless flatness; to him these trees were mighty constructs indeed. And sunlight shone through the trees, from an open area beyond.

A few paces away a freshwater stream decanted onto the beach and trickled to the sea. Cale could see that it came from a small gully that cut through the bank of trees. It was a way through, irresistible.

The broken stones of the gully's bed stung his feet, and sharp branches scraped at his skin. The rocks stuck in the gully walls were a strange mix:

big boulders set in a greyish clay, down to pebbles small enough to have fit in Cale's hand, all jammed together. Even the bedrock was scratched and grooved, as if some immense, spiky fish had swum this way.

Here in this tropical rainforest, Cale was surrounded by the evidence of ice.

He soon reached the open area behind the trees. It was just a glade a few paces across, opened up by the fall of one mighty tree. Cale stepped forward, making for a patch of green. But iridescent wings beat, and a fat, segmented body soared up from the green, and Cale stumbled to a halt. The insect was huge, its body longer than he was tall. Now more vast dragonflies rose up, startled, huddling for protection. A sleeker form, its body yellow-banded, came buzzing out of the trees. It was a remote descendant of a wasp, a solitary predator. It assaulted the swarming dragonflies, ripping through shimmering wings. All this took place over Cale's head in a cloud of flapping and buzzing. It was too strange to be frightening.

He was distracted by a strange squirming at his feet. The patch of green from which he had disturbed the first dragonfly was itself moving, flowing over the landscape as if liquid. It was actually a crowd of creatures, a mass of wriggling worms. From the tops of tottering piles of small bodies, things like eyes blinked.

Such sights were unique to Antarctica. There was no other place like this, anywhere on Earth.

When its ice melted away, the bare ground of Antarctica became an arena for life. The first colonists had been blown on the wind from over the sea: vegetation, insects, birds. But this was not an age for birds, or indeed mammals. As the world's systems compensated for the slow heating of the sun, carbon dioxide, the main greenhouse gas, was drawn down into the sea and the rocks, and the air became oxygen-rich. The insects used this heady fuel to grow huge, and predatory wasps and cockroaches as bold as rats made short work of Antarctica's flightless birds.

And there had been time for much more dramatic evolutionary shifts, time for whole phyla to be remodeled. The squirming multiple organism that fled from Cale's approach was a descendant of the siphonophores, colonial creatures of the sea like Portuguese men o' war. Endlessly adaptable, hugely ecologically inventive, since colonizing the land these compound creatures had occupied fresh water, the ground, the branches of the grass-trees, even the air.

Cale sensed something of the transient strangeness of what he saw. Antarctica, empty of humans, had been the stage for Earth's final gesture of evolutionary inventiveness. But relentless tectonic drift had at last brought Antarctica within reach of the ocean-going communities who sailed over the flooded remnants of India, and the great experiment was about to end. Cale gazed around, eyes wide, longing to discover more.

A coral-tipped spear shot past his head, and he heard a roar. He staggered back, shocked.

A patch of green ahead of him split and swarmed away, and a huge form emerged. Grey-skinned, supported on two narrow forelegs and a powerful articulated tail, this monster seemed to be all head. A spear stuck out from its neck. The product of another transformed phylum, this

was a chondrichthyan, a distant relation of a shark. The beast opened a mouth like a cavern, and blood-soaked breath blasted over Cale.

Lia was at Cale's side. "Come on." She hooked an arm under his shoulders and dragged him away.

Back on the beach, munching on snake meat, Cale soon got over his shock. Everybody made a fuss of him as he told his tales of giant wasps and the huge land-shark. At that moment he could not imagine ever returning to the nightmares of the forest.

But of course he would. And in little more than a thousand years his descendants, having burned their way across Antarctica, accompanied by their hunting snakes and their newly domesticated attack-wasps, would hunt down the very last of the land-sharks, and string its teeth around their necks.

IV

Tura and Bel, sister and brother, grew up in a world of flatness, on a shoreline between an endless ocean and a land like a tabletop. But in the distance there were mountains, pale cones turned purple by the ruddy mist. As long as she could remember, Tura had been fascinated by the mountains. She longed to walk to them—even, she fantasized, to climb them.

But how could she ever reach them? Her people lived at the coast, feeding on the soft-fleshed descendants of neotenus crabs. The land was a plain of red sand, littered with gleaming salt flats, where nothing could live. The mountains were forever out of reach.

Then, in Tura's eleventh year, the land turned unexpectedly green.

The aging world was still capable of volcanic tantrums. One such episode, the eruption of a vast basaltic flood, had pumped carbon dioxide into the air. As flowers in the desert had once waited decades for the rains, so their remote descendants waited for such brief volcanic summers to make them bloom.

Tura and her brother hatched the plan between them. They would never get this chance again; the greening would be gone in a year, perhaps never to return in their lifetimes. No adult would ever have approved. But no adult need know.

And so, very early one morning, they slipped away from the village. Wearing nothing but kilts woven from dried sea grass, their favorite shell necklaces around their necks, they looked very alike. As they ran they laughed, excited by their adventure, and their blue eyes shone against the rusted crimson of the landscape.

Bel and Tura lived on what had once been the western coast of North America—but, just as in Urlu's dark time of global catastrophe, it didn't really matter where you lived. For this was the age of a supercontinent.

The slow convergence of the continents had ultimately produced a unity that mirrored a much earlier mammoth assemblage, broken up before the dinosaurs evolved. While vast unending storms roamed the waters of

the world-ocean, New Pangaea's interior collapsed to a desiccated wasteland, and people drifted to the mouths of the great rivers, and to the sea coasts. This grand coalescence was accompanied by the solemn drumbeat of extinction events; each time the world recovered, though each time a little less vigorously than before.

The supercontinent's annealing took two hundred million years. And since then, another two hundred million years had already gone by. But people lived much as they always had.

Tura and Bel, eleven-year-old twins, knew nothing of this. They were young, and so was their world; it was ever thus. And today, especially, was a day of wonder, as all around them plants, gobbling carbon dioxide, fired packets of spores through the air, and insects scrambled in once-in-a-lifetime quests to propagate.

As the sun climbed the children tired, their pace falling, and the arid air sucked the sweat off their bodies. But at last the mountains came looming out of the dusty air. These worn hills were ancient, a relic of the formation of New Pangaea. But to Tura and Bel, standing before their scree-covered lower slopes, they were formidable heights indeed.

Then Tura saw a splash of green and brown, high on a slope. Curiosity sparked. Without thinking about it she began to climb. Bel, always more nervous, would not follow.

Though at first the slope was so gentle it was no more than a walk, Tura was soon higher than she had ever been in her life. On she climbed, until her walk gave way to an instinctive scramble on all fours. Her heart hammering, she kept on. All around her New Pangaea unfolded, a sea of Mars-red dust worn flat by time.

At last she reached the green. It was a clump of trees, shadowed by the mountain from the dust-laden winds and nourished by water from sub-surface aquifers. Instinctively Tura rubbed her hand over smooth, sturdy trunks. She had never seen trees before.

As the sun brightened, Earth's systems compensated by drawing down carbon dioxide from the air. But this was a process with a limit: even in Jaal's time the remnant carbon dioxide had been a trace. Already the planet had shed many rich ecosystems—tundra, forests, grasslands, meadows, mangrove swamps. Soon the carbon dioxide concentration would drop below a certain critical level, after which only a fraction of plants would be able to photosynthesize. The human population, already only a million strung out around the world's single coastline, would implode to perhaps ten thousand.

People would survive. They always had. But these trees, in whose cool shade Tura stood, were among the last in the world.

She peered up at branches with sparse crowns of spiky leaves, far above her head. There might be fruit up there, or water to be had in the leaves. But it was impossible; she could not climb past the smoothness of the lower trunk.

When she looked down Bel's upturned face was a white dot. The day was advancing; as the sun rode higher the going across the dry dust would be even more difficult. With regret she began her scrambled descent to the ground.

As she lived out her life on the coast of Pangaea, Tura never forgot her brief adventure. And when she thought of the trees her hands and feet itched, her body recalling ape dreams abandoned half a billion years before.

V

Ruul was bored.

All through the echoing caverns the party was in full swing. By the light of their hearths and rush torches people played and danced, talked and laughed, drank and fought, and the much-evolved descendants of snakes and wasps curled affectionately around the ankles of their owners. It was a Thousand-Day festival. In a world forever cut off from the daylight, subterranean humans pale as worms marked time by how they slept and woke, and counted off the days of their lives on their fingers.

Everyone was having fun—everyone but Ruul. When his mother was too busy to notice, he crept away into the dark.

Some time ago, restlessly exploring the edge of the inhabited cave, where tunnels and boreholes stretched on into the dark, he had found a chimney, a crack in the limestone. It looked as if you could climb up quite a way. And when he shielded his eyes, it looked to him as if there was light up there, light of a strange ruddy hue. There might be another group somewhere in the caverns above, he thought. Or it might be something stranger yet, something beyond his imagination.

Now, in the dim light of the torches, he explored the chimney wall. Lodging his fingers and toes in crevices, he began to climb.

He was escaping the party. Eleven years old, neither child nor adult, he just didn't fit, and he petulantly wished the festival would go away. But as he ascended into profound silence the climb itself consumed all his attention, and the why of it faded from his mind.

His people, cavern-bound for uncounted generations, were good at rock-climbing. They lived in caverns in deep limestone karsts, laid down in long-vanished shallow seas. Once these hollows had hosted ecosystems full of the much-evolved descendants of lizards, snakes, scorpions, cockroaches, even sharks and crocodiles. The extreme and unchanging conditions of Pangaea had encouraged intricacy and interdependency. The people, retreating underground, had allowed fragments of these extraordinary biotas to survive.

Soon Ruul climbed up out of the limestone into a softer sandstone, poorly cemented. It was easier to find crevices here. The crimson light from above was bright enough to show him details of the rock through which he was passing. There was layer upon layer of it, he saw, and it had a repetitive pattern, streaks of darkness punctuated by lumpy nodules. When he touched one of the nodules, he found a blade surface so sharp he might have cut his fingers. It was a stone axe—made, used, and dropped long ago, and buried somehow in the sediments that had made this sand-

stone. Growing more curious, he explored the dark traces. They crumbled when he dug into them with a fingernail, and he could smell ash, as fresh as if a fire had just burned here. The dark layers were hearths.

He was climbing through strata of hearths and stone tools, thousands of layers all heaped up on top of one another and squashed down into the rock. People must have lived in this place a very long time. He was oppressed by a huge weight of time, and of changelessness.

But he was distracted by a set of teeth he found, small, triangular, razor-edged. They had holes drilled in them. He carefully prized these out of the rock and put them in a pouch; perhaps he would make a necklace of them later.

With aching fingertips and toes, he continued his climb.

Unexpectedly, he reached the top of the chimney. It opened out into a wider space, a cave perhaps, filled with that ruddy light. He hoisted himself up the last short way, swung his legs out onto the floor above, and stood up.

And he was stunned.

He was standing on flat ground, a plain that seemed to go on forever. It was covered in dust, very red, so fine it stuck to the sweat on his legs. He turned slowly around. If this was the floor of a cave—well, it was a cave with no walls. And the roof above must be far away too, so far he could not see it; above him was nothing but a dome of darkness. He had no word for sky. And in one direction, facing him, something lifted over the edge of the world. It was a ruddy disc, perfectly circular, just a slice of it protruding over the dead-flat horizon. It was the source of the crimson light, and he could feel its searing heat.

Ruul inhabited a convoluted world of caverns and chimneys; he had never seen anything like the purity of this utterly flat plain, the perfectly circular arc of that bow of light. The clean geometric simplicity of the landscape drew his soul; he stared, entranced.

Three hundred million years after the life and death of Tura and Bel, this was what Earth had become. The sediments on which Ruul stood were the ruins of the last mountains. The magmatic currents of a cooling world had not been able to break up the new supercontinent, as they had the first. Meanwhile the sun's relentless warming continued. By now only microbes inhabited the equatorial regions, while at the poles a few hardy, tough-skinned plants were browsed by sluggish animals heavily armored against the heat. Earth was already losing its water, and Pangaea's shoreline was rimmed by brilliant-white salt flats.

But the boy standing on the eroded-flat ground was barely changed from his unimaginably remote ancestors, from Tura and Cale and Urlu and even Jaal. It had never been necessary for humans to evolve significantly, for they always adjusted their environment so they didn't have to—and in the process stifled evolutionary innovation.

It was like this everywhere. After the emergence of intelligence, the story of any biosphere tended to get a lot simpler. It was a major reason for the silence of the stars.

But on Earth a long story was ending. In not many generations from now, Ruul's descendants would succumb; quietly baked in their desiccat-

ing caves, they would not suffer. Life would go on, as archaic thermophilic microbes spread their gaudy colors across the land. But man would be gone, leaving sandstone strata nearly a billion years deep full of hearths and chipped stones and human bones.

"Ruul! Ruul! Oh, there you are!" His mother, caked by red dust, was clambering stiffly out of the chimney. "Somebody said you came this way. I've been frantic. Oh, Ruul—what are you doing?"

Ruul spread his hands, unable to explain. He didn't want to hurt his mother, but he was excited by his discoveries. "Look what I found, mother!"

"What?"

He babbled excitedly about hearths and tools and bones. "Maybe people lived here in great heaps, and the smoke of their fires rose up to the sky. Mother, will we come to live here again?"

"Perhaps one day," his mother said at random, to hush him.

But that wasn't answer enough for Ruul. Restless, curious, he glanced around once more at the plain, the rising sun. To him, this terminal Earth was a place of wonder. He longed to explore. "Let me go on. Just a little further!"

"No," his mother said gently. "The adventure's over. It's time to go. Come now." And she put her arm around his shoulders, and led him home. O

ECONOMY

Gravimov flatimov

Isaac Asimov

moved here from Russia when
just past age two.

Candy store genius of
phantasmagorical
stories of robots, he
made three laws do.

—Mario Milosevic