

An Echo In My Blood

(An Excerpt from Chapter One)

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It had taken less than an hour to make the trip from Kiev to Chernobyl, driving north past crisp fields of wheat, flax, and potatoes under a bleached June sky. After forty-five minutes, the collective farms abruptly gave way to a tangle of scrub, thistles, and pale sunflowers. Soon, we pulled up to a glossy white booth with a pneumatic bar gate. This was the security check at the thirty-kilometer perimeter that enclosed the area known as the Zone of Alienation. Twenty kilometers farther, at a second checkpoint, we were required to park our van and enter a squat concrete building sheathed in blue aluminum siding.

My companions were all scientists: three Americans, plus two Ukrainians who knew Chernobyl better than they wished. They led the rest of us inside, where a terse, tight-faced woman in loose navy work pants and a black sweater instructed us to leave our clothes and jewelry in a row of lockers. In paper slippers and undershorts, we shuffled down a long white cinder-block corridor to a sealed steel doorway. A uniformed guard, also female, unclanked the bolts and passed us through.

On the other side awaited an identical bank of lockers, containing long-sleeved plaid shirts of coarse cotton, hooded stiff polyester coveralls, heavy leather ankle boots, breathing filters, and surgical caps to mask our hair from specks of wind-borne plutonium. Moments before, I had also slipped on an extra pair of jockey shorts -- a pretty pathetic buffer, I supposed, between plutonium dust and whatever offspring I might somehow yet conceive. Over the previous few months I had been shaken by a series of personal losses, among them a soured two-year courtship. I now found myself in my mid-forties, single and alone. With my hopes for fatherhood dwindling, an extra layer of gonad protection at this point seemed hardly worth the effort.

But coming into direct contact with plutonium particles was no small concern, and reassurances from Chernobyl officials that the heavy clothing they'd issued us was an adequate shield somehow did not convince. Once we reached the ruined reactor, background radiation would be several hundred times normal. As I adjusted the elastic strap on my white air filter, it occurred to me to wonder why I was doing this -- a question that had become rather familiar in recent years. My stock answer was that if no one bore witness to the consequences of the greedy, heedless, stupid, often downright heinous risks people take with the world we live in, they would blithely continue taking them. The article I'd come to write would conclude that not only could the earth not afford another Chernobyl, but we couldn't afford the first one, either: Mere money could not contain what had been unleashed here. But as I boarded a bus so contaminated it could never leave this restricted zone and rode to the huge steel and concrete sarcophagus

that encased the hot remains of Chernobyl's #4 reactor, again I recalled the other reason I had come.

This was Ukraine, where my father was born. This was the land where he had watched his own father die, victim to yet another atrocity on this soil. Ukraine, the place where my father vowed he'd never again set foot. And now he, too, was dead. The previous fall, we'd laid him to rest wearing his tallis and World War II dog tags, in an Orthodox Jewish ceremony at a military cemetery, to the accompaniment of taps and rifle salutes and Kaddish.

Then, unexpectedly, just seven weeks later my sister and I buried our mother beside him.

Half a year had now passed, but I was still stunned over this double bereavement. Over the intervening months, kind editors had sent me to write about benign places like Spain and Trinidad instead of the somber stories I usually covered. Then, this assignment was proposed to me -- a report about how, in the aftermath Chernobyl's terrible explosion, thousands were trying to cope with survival in an indefinitely poisoned landscape. Grim a prospect as this was, its setting was in Ukraine, and I leapt at this chance to return to my family's source.

And maybe, time permitting, to solve a mystery.

Chernobyl's blocky gray sarcophagus, nearly five stories high and sixty feet thick in places, had been patched so often its sides resembled the tarred, caulked hull of a derelict ship. Coils of concertina wire, cyclone fencing, and floodlights surrounded the area -- as though anyone would try to break in. In the seven years since the accident, hundreds of men who built this vault had died from radiation poisoning. Despite their labor and sacrifice, it kept corroding: One reason why our Geiger counters were screaming was that more than a thousand square meters' worth of leaks had sprung in the sarcophagus's roof and walls.

A French firm contracted to erect another tomb around the first one warned that it could not be completely sealed while the melted core was still hot, which essentially meant never, since plutonium has a half-life of 24,000 years. Nor could radioactive runoff from Chernobyl's cooling ponds, impounded by dikes hastily constructed along the nearby Pripyat River, be kept from seeping into the watershed. Once there, it flowed directly to the Dnieper River, Ukraine's Mississippi, the source of drinking and irrigation water to thirty-five million people. Chernobyl had blown a hole in reality that no human effort could ever close.

Our Ukrainian hosts were two nuclear physicists: Andriy Demydenko, who was now Ukraine's deputy minister of the environment, and Volodya Tikhii, who had helped track Chernobyl's spreading radioactive stain in the immediate aftermath of the disaster. The three American scientists were from the University of Oregon. In collaboration with colleagues at Moscow State University, the Oregonians had designed a computerized tool to help thousands of former Soviet citizens living in contaminated areas minimize their

daily exposure to radiation from eating locally grown foods. Their program, which ran on portable computers, combined topographic details with field-by-field fallout measurements and data on how different crops absorb radionuclides from the soil. A farmer who knew, for instance, that wheat and barley tend to concentrate radioactive isotopes in non-edible parts like their stalks, could reduce his family's lethal intake by sowing grains to suck radiation from the surface before planting lettuce or cabbage, which store radioactivity in their leaves.

This still left the problem of what to do with the tainted chaff after the wheat was harvested, since burning or burying toxic organic wastes would return the radioactivity to the ecosystem. But this was the best anybody could do, the scientists told me: There was simply no way to stuff the damage back in the vessel it came from. Their efforts represented science's best attempt in the face of a bleak, inescapable fact: that much of the best farmland in the former Soviet Union would be hot for nearly two centuries to come, until the cesium-137 and strontium-90 deposited by Chernobyl sufficiently decayed.

During the previous week, I had visited Russian villages hundreds of kilometers from Chernobyl, so radioactive that they had to be evacuated -- but no one realized that until three years after the accident, when researchers like my hosts had discovered a dreadful secret: For days following the explosion, the Soviet government seeded clouds headed east so that contaminated rain would not fall on Moscow. Instead, it had drenched the country's richest breadbasket.

With a trembling, nail-bitten forefinger, Andriy Demydenko indicated a peeling sign above a clump of rusting, radioactive machinery that exalted the V.I. Lenin Chernobyl Nuclear Power Station as a "Victory for Communism." Like many former Soviet scientists, the tall, bearded Demydenko had been catapulted from the uproar born of that cataclysm into the unexpected role of bureaucrat. At forty, under the strain of trying to help organize a shaky new country following the U.S.S.R.'s collapse, his sandy hair was already graying to match the sallow void of his skin.

"Those Party bastards," he spat into my tape recorder, "knew all along that citizens were plowing radioactive dirt, eating radioactive vegetables, and feeding radioactive hay to their cows. Cesium-137 is a chemical analog to calcium. It concentrates in cows' milk, the source of eighty percent of a rural Soviet child's protein."

Just after the accident, as radioactive ash settled over Kiev while the reactor still burned seventy miles to the north, Andriy Demydenko learned that his wife was carrying their first child. He immediately raced her away from the capital. Happily, their daughter showed no signs of thyroid disease or lymphoblastic leukosis, the form of leukemia filling children's cancer wards in Kiev that had also surged after Hiroshima. They were all holding their breath, Demydenko told me -- literally: "The first thing we had to teach her," he said, "was to close her eyes and not breathe whenever she sees blowing dust. And to never, ever smell flowers."

Chernobyl had vented a hundred times more radiation than the A-bombs that fell on Japan. In Ukraine and Belarus, some human immune systems were so depressed that forgotten diseases like diphtheria were reappearing. Forests of red pines near the reactor died within weeks of the explosion, while surviving trees sprouted distorted branches and needles of different lengths and colors. But before we left the accident site, Kit Larsen, a systems analyst on the Oregon team, handed me his binoculars. I looked where he was pointing. Several families of barn swallows were nesting in debris surrounding the sarcophagus that was still flecked with plutonium and bits of uranium fuel. "Strange," he said. "This would be their sixth generation since the explosion."

Apart from occasional white flecks in their blue and orange coats, they seemed normal. Later, at a bridge railing over the now-deadly Pripjat River two miles downstream from the devastated reactor, we watched marsh hawks cruise over the willows lining banks that flattened into a flood plain covered with meadow grass, daisies and purple lupine. To his bird list Larsen added three species of raptors, a black tern, wagtails, stilts, mallards, hooded crows, magpies, and a European goldfinch we heard singing in a stand of maples.

"It's the best birding I've done in the ex-Soviet Union," he said, baffled.

Driving through Chernobyl's silent streets, branches of unpruned chestnut trees grazed the radioactive sides of our bus. It seemed that both Chernobyl and neighboring Pripjat, from which fifty thousand stricken workers and their families had to flee, were being reclaimed by nature. Once-trimmed hedges now ran wild, their foliage so dense that many houses were nearly covered. As we arrived at St. Ilya's, the old Ukrainian Orthodox church in the town of Chernobyl, I asked Volodya Tikhii, who now worked for Greenpeace, how to explain this apparent proliferation of life in a sickened land.

Tikhii, a gaunt man in his early forties with sparse blond hair and thick, owlsh glasses, spoke deliberate, thoughtful English gleaned from scientific texts at Moscow State, then humanized through increasing contact with international environmentalists. Chernobyl's birds, he replied, absent when he was hoisting lethal water samples from the Pripjat River in 1986, began returning a year later. With few humans or predators to bother them and with no more agricultural pesticides, they seemed to be flourishing. For that matter, a growing population of radioactive roe deer and wild boar now thrived in the surrounding forests, proliferating so rapidly that there was now talk of allowing hunting, lest they spread across northern Ukraine, bringing their radionuclides with them. "Plant growth is sometimes stimulated by radiation," Tikhii said with shrug. "Some researchers think that other organisms may also be."

"Maybe nature appears healthy here," Andriy Demydenko interjected. He stood in the thick churchyard grass, long gone to seed, his head tilted toward a pair of skylarks perched on St. Ilya's eaves. "But who knows what the life expectancy of these birds will be? Or what chromosomal deviations will erupt in future generations? Animals can't understand the risk they take here." The skylarks took flight; he paused to listen to their

pleasing warble. "Humans understand risks. But even we often fail to calculate those we can't see. Appearances deceive."

Demydenko ascended St. Ilya's short flight of front steps, which in sunnier times had been alternately painted red and green. The wooden door was padlocked. He leaned against it and sighed. "I wanted to show you something. But I'll tell you about it instead. A little coincidence from the Bible."

He described a passage from the Book of Revelations, verses 8:2-11, which recounts breaking the seventh and final seal on the book at God's right hand, to release the angels who herald the beginning of the Apocalypse. The first angel's trumpet summons a hailstorm, followed by a mixture of blood and fire that scorches the earth, incinerating trees and grass. The second causes a fiery mountain to slide into the sea.

And the third angel sounded, and there fell a great star from heaven, burning as it were a lamp, and it fell upon the third part of the rivers and upon the fountains of waters; And the name of the star is called Wormwood;

and the third part of the waters became wormwood, and many men died of the waters, because they were made bitter.

"Do you know the Ukrainian word for wormwood?" Demydenko asked me.

I didn't know any Ukrainian, but I knew that wormwood, an extremely bitter herb, was used to purge intestinal worms and parasites.

"It's chornobyl." That was also the correct name of this abandoned town, whose spelling had been corrupted in Russian. "But the village wasn't named for the plant," Demydenko added. "It's actually named for the falling star." He indicated a sagging sign commemorating Chernobyl's 800th anniversary, which showed a meteor dropping behind the spire of the church where we stood.

In my notebook, I jotted: "Revelations, again."

As we filed back to our bus, Demydenko asked if I would like to visit a Jewish cemetery before we left Chernobyl. "There are two. One for the old believers, and a newer one. There were Jews here for at least four centuries, you know.

"By 'old believers,' I understood him to mean Hasidim: Chernobyl had once been a vigorous center of the fundamentalist Hasidic movement, born during the 18th century in Podolia, the neighboring region to the west. Toward the end of the Czarist regime, that center began to crack under pressure from anti-Semitic massacres that swept Ukraine, home at that time to the world's greatest concentration of Jews. During four years of anarchy following the Bolsheviks' 1917 October Revolution, Jews became the helpless prey of free-booting bands of plunderers who roamed the Ukrainian countryside, igniting pogroms of astonishing depravity.

One of the most infamous had occurred not far from where the wreckage of Reactor #4 now stood. For a week during April, 1919, a gang of renegade peasants led by a twenty-three year-old warlord brigand, the Ataman Struk, commandeered steamships coming up the Dnieper from Kiev, throwing overboard every Jew they found. Then they marched a thousand Chernobyl Jews at gunpoint into the Pripiyat River -- the Dnieper tributary where an hour earlier we'd been birdwatching. Anyone who swam ashore was shot. The rest drowned.

The newer Jewish cemetery, I suspected correctly, held the few hundred who survived -- until occupying Nazis finished them off in 1944, just as they wiped out two thousand other Ukrainian Jewish communities. Well before Chernobyl blew, its Jews were already dead. "Thanks. We don't have to," I told Demydenko. I had seen enough of cemeteries lately. The worst nuclear tragedy in history was enough sorrow to sustain for one day.

In the van back to Kiev, Volodya Tikhii sat beside me. "I'm sorry about your parents."

"Thanks."

My father had died on his eightieth birthday. Though his end was an excruciating, slow-motion ordeal, it was expected -- even a relief, especially for my mother, who had nursed him through a long decline. The big shock, I told Volodya, came when she suddenly followed him.

"Very terrible," Tikhii murmured. Yet the anguish in which I'd wallowed during the previous months felt self-indulgent compared to what he had endured. Seven years earlier, Tikhii's father had perished in the Gulag (his crime, for which he was jailed repeatedly, was teaching the Ukrainian language). Volodya hadn't seen his father for the last six years of his life. Just recently, Oleksa Tikhii's remains had been exhumed in Russia and carried back to Kiev, where he was re-interred in a massive public funeral as a martyred hero.

"Losing my parents one right after the other was a double blow," I said. "But they were elderly. Your father was still vital. It's so unjust." He nodded, staring outside as the van slowed to thread through a herd of dairy cows. "You know," I added, "my father was also from Ukraine."

Surprised, Tikhii turned to me.

"He had to flee when he was a little boy," I explained, "after his own father was assassinated. He came with his mother and brothers to the United States when he was eleven."

"Do you know what town they were from?"

I did. I had heard the name many times, along with the story of my grandfather's murder, which my father repeated so often when I was growing up that I recalled it in his voice and could still picture him telling it, his big silhouetted frame weighing down the foot of my bed.

"A village called Mala Viska," I said.

Tikhii didn't know of it.

"It's supposedly about halfway between Kiev and Odessa, " I said. "The nearest city, I think, was called Elizabethgrad. That was where my grandmother took him and his brothers after my grandfather was killed. They lived there three years before they could get to America."

Elizabethgrad also drew a blank. "Its name may have been changed to something else," Tikhii said. "The Soviets did a lot of that. I'll look it up when we get back."

That night in a Kiev restaurant we ate gefilte fish, sliced cucumbers, tomatoes, red cabbage, roasted chicken, rye bread with duck paté and horseradish, red caviar, and prune compote, washed down with Crimean and Carpathian wines. My great-grandmother -- my mother's grandmother, from Podolia, who left Ukraine in 1890 -- often made gefilte fish from the northern pike and carp we caught in lakes in Minnesota, where I was raised. That week, I had seen Dnieper River fishermen in shallow skiffs catching pike and carp to sell in the streets, a practice theoretically prohibited because the fish were now radioactive. "Where does the restaurant get this fish?" I asked Andriy Demydenko.

"Don't ask," he said, filling my tumbler with purple Crimean port.

Tikhii, seated next to me, drained his own glass. "By the way," he said. "It's Kirovograd."

"Sorry?"

"Yelisavetgrad. The city where your father lived. The Communists changed it to Kirovograd. I found Mala Viska, too."

I paused, a forkful of irradiated gefilte fish hovering between plate and mouth.

"Would you like to go there?"

"Is it far? How could I get there?" I had a solid week of interviews ahead, and my visa locked me into a departure the following Monday. "I just have Sunday free. Are there buses?"

"No. But I have a car. We can get there and back in a day. If you want."

I wanted. In that instant, I was sure that I was fated to go there, destiny having appeared in the form of Volodya Tikhii's car and his offer to be my guide and translator. Bringing the remains of his own father home had at last accorded his family some peace and closure -- a consolation that, I gathered, he now kindly wished to extend in some way to me.

The following Sunday, we filled his aging blue VAZ sedan with black market gasoline and drove into the steppes of central Ukraine to find my father's village. What I hadn't told Volodya Tikhii was that this journey involved more than honoring my late father's memory. All my life my father had told me what had happened to him and to my grandfather back in the Ukraine ("which," he always added, "was part of Russia.") I'd heard the story so often it had assumed mythological dimensions. I read it again in newspaper columns that eulogized him. But not long before his death -- yet after strokes had so ravaged his memory that I could no longer challenge him -- I'd heard a sharply different account of the same events. Now I was driving through a rolling landscape of collective farms, whose vast, pale fields of wheat and hops disappeared over the horizon toward Mala Viska, where I hoped someone could tell me the truth.

This is the story my father told me all my life:

My grandfather, Avraham Weisman, was born in a village between Kiev and Odessa. Because his father -- my great-grandfather -- administered a powerful man's lands, he survived the pogroms that either killed or banished many of his own relatives around the turn of the century. Although the law limited the right of Jews to own property, over the years my great-grandfather nevertheless managed to acquire substantial acreage in reward for his services.

In his early twenties, my grandfather Avraham traveled to Hungary, where for two years he worked in a mill, studying its function and memorizing its construction. When he returned to his Ukrainian village, he built one on his family's land. By the time his first child -- my father -- was born in 1912, my grandfather had more than one hundred employees and lived in a large house overlooking a river. Milling wheat and pressing sunflower-seed oil had made him rich enough to marry a rabbi's daughter.

There is a sepia photograph taken in their yard, probably in 1918 or early 1919. My father, Simon Weisman -- Shimon Vaisman in Yiddish; Simon Weisman after Ellis Island -- is in knickers, mounted on a tricycle with large iron wheels. His two younger brothers sit on the lawn nearby, wearing bonnets. My father and uncles were attended by a governess. My grandmother, Rebecca Weisman, née Gellerman, did not have to work, although she often sewed clothes from fine fabric with my great-grandmother Frieda, the rabbi's widow, who lived with them.

My father clearly remembered the day the soldiers came, he would tell me. They were not Czarist troops, but Bolsheviks. He recalled how they tramped into the house with muddy boots. When his grandmother barred their passage across the imported carpet, the revolutionary who led the ragged column drew a sword and slew her. Six-year-old Simon

ran at her attacker and pounded him with his little fists. The soldier hit him with the butt of the sword that killed my great-grandmother. At this point in the story, my father would show me the scar on his forehead, next to his dark widow's peak.

They marched the family outside. My grandfather was summarily tried and convicted of being a capitalist collaborator for selling wheat to the imperial Czar's army. His mill and adjoining fields and forests were confiscated for the revolution. With his wife and children helplessly watching, Avraham Weisman's Communist captors stood him against the house and shot him.

My broad-shouldered grandfather had measured well over six feet. My father recalled struggling to help drag his body, enshrouded in one of my grandmother's sheets, to the grave they dug before they fled. Rebecca Weisman took her sons and what little she could carry to the nearest city, Yelisavetgrad, sixty kilometers to the east. Her only skill was sewing; by night she made clothes to sell each day in the market.

"You kids don't know how lucky you've got it," my father told my sister and me. "When your grandmother sold something, we ate. It wasn't too damn often."

She wrote to relatives who had left years earlier for the United States. After months, a reply arrived from a sister, whose husband had found work in Minnesota as a kosher slaughterer. They knew someone lending money to help Jews escape the chaos and menace of the fledgling Soviet Union. Much of the cash they sent went to coax officials. Three years after my grandfather's execution, my grandmother Rebecca and her sons traveled to Moscow, for paperwork and more bribes that dragged on for months. My father's principal memory of those times was bald Vladimir Lenin parading like God through the streets. Then a train to Riga, on the Latvian coast. Then a boat to America.

They arrived in late autumn, 1923. My father, eleven years old, sold newspapers in a language he couldn't read on freezing Minneapolis street corners. My grandmother remained, to her death, what Yelisavetgrad had transformed her into: a dressmaker. Years later, along with my father's exploits in World War II, the legends of their poverty became my bedtime tales: Simon and his brother Harold rising for their predawn bakery route each day before high school; baby brother Herman, sent one morning to buy cracked eggs -- all they could afford -- and, upon finding none, asking if the grocer could crack him a dozen.

It was this brother, my uncle Herman, who first cast doubt on my father's story. That happened on January 16, 1991, the night that war began in the Persian Gulf.