

A black and white photograph of a massive atomic bombing mushroom cloud. The cloud has a thick, dark column rising from the ground, topped by a large, billowing, white cloud head. The surrounding sky is filled with smaller, scattered clouds. The overall tone is somber and historical.

Under the Cloud

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On October 19, 1942, nearly eleven months after the United States declared war on Japan, Major General Leslie Groves, the military head of what came to be known as the Manhattan Project, sat with Robert Oppenheimer on the Twentieth Century Limited. They must have appeared an odd pair—Groves with his bulldog face and elephantine body sitting across from Oppenheimer, his frame nearly skeletal in its thinness as he fidgeted and chain-smoked Chesterfields. At an undefined point as the train sped between Chicago and New York, Groves made his decision about the scientific leadership for the bomb, “the Gadget,” as some subsequent combination of secrecy and perversity named it. Groves wanted Oppenheimer. Of the possible candidates from the scientific community, Oppenheimer alone possessed the intelligence and the organizational instincts to direct the making of the first atomic bomb.

Groves rightly thought Robert Oppenheimer brilliant, but more than that, he saw in him a leader able to focus the effort necessary to solve the most complex atomic problem ever attempted. Although nuclear physicists had long known the theoretical basis for a bomb, the practical difficulties of its construction remained monumental.

The decision that day virtually guaranteed the project's success, for even Oppenheimer's detractors agreed that no other man could do it. He produced the first atomic bomb in less than three years, from beginning to end. Looking back, it seems to me that in many ways, October 19 was the beginning of the end.

I think Oppenheimer would agree that the bomb delivered the end of the world as we had known it. The physicists who made the bomb—Oppenheimer, Fermi, Szilard, Teller, Seabold and many others—clad in a profound understanding of physics and armed with little more than slide rules, comprehended, with a depth of understanding that surpassed that of the military or political leaders who would direct its use, that nuclear weapons had the potential to destroy the planet.

Soon enough the burned and mutilated survivors of Hiroshima who wandered in the charred remains of their city would leave no doubt about the human face of the militarized nuclear age. But did the architects of the bomb foresee that their own children would huddle under their desks as sirens prepared them for a blast? That they would grow up not asking *if*, wondering only *when*, the next bomb would fall. Though the first bombs undoubtedly saved lives, arguably more Japanese than American, no one is saved from their legacy.

On the opposite side of the continent on that same October 19, I was born. It was many decades before I learned that I shared a birthday of sorts with the first atomic bomb.

Of course I do not remember those first three years while the bomb was being made. If I could, I think I would have thought them normal. There would have been blackouts in the town of San Pedro, where I lived with my parents, my older sister and, within a little more than a year of my birth, my baby brother. For sure my mother had a vegetable garden, but then, that was normal; she loved to garden, grew vegetables all her life, and had no need to call it a Victory Garden. Every night my father returned home in his three-piece suit. His orange Waterford pen and pencil set, fastened in his breast pocket by gold clips, perched there like tropical birds on a wire. His slide rule, made from ivory and engraved

with precisely etched black scales, shared the pocket and was hidden tucked in a leather sheath. I was unaware that most fathers were at war, fathers like my uncle, a prisoner of the Japanese in the Philippines. Later I learned the reason for my father's presence. It was no lack of patriotism, though I'm sure my father was not a fighter. Rather, as a chemical engineer with Standard Oil Company of California, his talents were more valuable making petroleum in Los Angeles. Petroleum, after all, was central to the war on all sides. Wasn't Japan's aggressiveness in south-eastern Asia driven by its need for oil and Germany's headlong rush to Stalingrad a route to the coveted oil fields of Baku? So I always knew that my family, especially my father, did his share for the war effort. Like the physicists in New Mexico, he engaged his brains to win the war. In no small part, science and the vast resources of our country defeated first Germany, then Japan.

When I was five, we moved to Northern California. The war, of which I had been so unaware, had been over for two years. The move was a promotion for my father, up from the El Segundo refinery to the Standard Oil headquarters in San Francisco. Our new home was in Colma, a portion of the Bay Area sprawl near Daly City. Today Colma is engulfed in the relentless expansion that rims the highway to San Francisco International Airport. In 1948, the roadway was just Junipero Serra Boulevard, a busy road named for a kind Franciscan monk who trekked to San Francisco from Mexico despite a crippled leg. The street had pink stucco overpasses for pedestrians and a movie theatre that showed Looney Tunes and Westerns on Saturday afternoons.

Beginning in the second grade, most Saturdays my brother and I walked the four blocks from our house on Sweetwood Drive to the movie theatre. The price of admission was twenty-five cents. My mother would bundle two quarters together in one of her handkerchiefs. She tied diagonally opposite corners once in the center, knotted the other corners together, and that was enough. It made a fluffy little bundle like a vagabond's matilda, as though this hanky with embroidered flowers ensured our safety.

I always carried the money. Although I was only fourteen months older than my brother, my job was to take care of him. Small for his age, he had curly blond hair and blue eyes. He was a darling little boy. Years later, when I saw a painting of the blue boy by Thomas Gainsborough, with his left leg facing forward and his hand on his hip, I recognized my brother, though my brother had a more angelic face. For my mother, he

was the most precious item on the planet. I loved my brother, and I had taken care of him as long as I could remember. I was innocent then of the knowledge that he would expect this forever. I protected his quarter, too, tied with mine like a gift in the hanky edged with flowers.

In the movies, the news in black-and-white clips preceded the cartoons. It swirled in with trumpets and a deep baritone to announce the events. Universal International NEWS. I saw the first mushroom cloud then, sometime before John Wayne rode onto the screen with his square jaw and resolute face that radiated security and certainty. And the mushroom cloud was before Porky Pig said “Th-th-that’s all, folks,” which I thought only meant, “That’s all until next week.” Then, I didn’t know that the cloud could unequivocally mean *That’s all, folks*.

The baritone was excited. You could feel it. His words came faster and louder, and in the distance, out of endless flat land, a colossal column rose from the plain and blossomed into this fluffy, rather pretty, big billowy expanding mound of whipped cream that reminded me of the way you could make your ice cream pop up from the bottom into the foamy top of a root beer float. Then the whipped cream multiplied in layers, and the fence in front blew over and the Joshua trees disappeared. Also in the news, uniformed troops marched together in front of phalanxes of tanks for a May Day celebration. Groups of spikey missiles pointed forward like eager pin cushions on parade. Exciting. I always made sure my little brother and I arrived on time so that we never missed anything.

The world under the mushroom cloud was never shown in the newsreels. But what vaporized Hiroshima was known and, given the turmoil of the times in the United States, recognized reasonably soon. Initially, it was the explosive power of the bomb that garnered the attention. Our military was proud of that.

In March of 1946, William Shawn, the managing editor of *The New Yorker*, made the decision to show the human dimension of the bomb’s impact on Hiroshima. For this he enlisted John Hersey, then a thirty-two-year-old reporter and veteran of coverage of the Allies’ invasion of Sicily and the battle of Guadalcanal.

During May, Hersey spent three weeks in Hiroshima interviewing survivors of the bomb. From among them, he chose six through whom to tell the larger story of the days and weeks after August 6—although the fact that they had survived made them nonrepresentative. Of the 250,000 inhabitants of Hiroshima, it is estimated that at least 140,000 died

in the blast or immediately afterward, and of those who remained, many were too young or elderly to relate their stories. Hersey did not dwell on the death toll, the physical destruction of the city or the explosive power of the bomb. The images Hersey reported were of people with burned skin that hung from their limbs, draped like ragged kimonos, and fell from exposed hands in glove-like pieces to leave behind naked muscle and bone covered in slime. Corpses lined the banks of the Ōta River as scorched victims, driven by thirst, died crawling to water. Charred faces with hollows for eye sockets stumbled aimlessly, with only their voices to identify them. Amid the horror, a few ironic details emerged from his interviews, such as surprisingly tasty roasted pumpkins on the vine, cooked by the bomb as a ready-made meal, or the vitality with which weeds, seemingly invigorated by the radiation, emerged first from the epicenter of the blast zone.

Hersey's story filled the entirety of the August 31 issue. The magazine sold out within hours of its appearance on the stands. The reportage was soon published as a book by Knopf, read in its entirety by ABC on the radio, rebroadcast by the BBC and discussed in newspapers and other magazines. It provided the first real glimpse of the bomb's aftermath widely available to the American public. Yet the American public reacted with curiosity more than sympathy or outrage. Even some Japanese beneath the cloud admitted, "It was war and we had to expect it."¹ The city's devastation seemed more akin to a natural disaster than a deliberate, man-made event. For most people in the United States in these early months after the end of the war, the implication of the bomb remained unexamined, the threat to humanity not yet fully understood.

Like many housing developments that erupted in postwar California with the nuclear family in mind, track homes comprised my neighborhood in Colma. Our subdivision, though named Garden Village, boasted neither gardens nor trees to interrupt the rows of single-level homes. The houses were almost identical, built for families that were almost identical. Like us. The mother at home, the father at work, 2.8 children seen but not heard. My diminutive brother counted as our 0.8, my sister, three years older than I, should have counted for more than 1.0.

Perhaps because of my arrival as a sibling, unhappiness defined my sister. Born well before the war, she had lived as an only child long enough to remember my absence. She behaved like an anxious puppy, permanently skittish, wary, hanging back as if expecting a blow, feeling

unwanted and therefore acting unwanted. I never knew why. My mother would tell my sister that she was born frowning and that I was born smiling. That couldn't have been true, and her words did not endear me to my sister.

On Sweetwood Drive, she and I shared a bedroom. It had green wallpaper with flowers and ruffled curtains of white muslin that draped over twin windows facing the back yard. A climbing rose bush outside crisscrossed the windows. My mother often gave us bundles of chocolate chips to take into the bedroom for our after-lunch nap. My sister would tell me that if I hung my bundle on the rose bush, a fairy would leave a present in its place. I fell for it every time. Usually the fairy left me a small toy from my own stash. The chocolate chips always disappeared. My father called my sister "Sunbeam"; in fact, many years later, when he bought a small ketch, he named it *The Sunbeam*. We were the only Californians who understood the irony.

Proof of my sister's disadvantage rested everywhere, even across the street. That home belonged to the Wallers, a family like ours in a home like ours. Their 0.8 child was a baby, but their daughter, Betty, was my age, and their son the age of my brother. By a mere fact of postwar construction and the affordability of housing on that nondescript edge of San Francisco, my brother and I each received a neighboring best friend. That my sister did not confirmed her disadvantage and life's injustice; she scowls in every photograph from those five years in Colma. But I loved those years. Betty and I attended school together, played together, ate together—it was the only time in my childhood when I had a friend nearby. Betty's father played with us too—organizing games of crack-the-whip and hide-and-seek. Red Rover was the best. He rallied the children on our street and set us up as two opposing lines holding hands. I loved to run with all my might to break the linked hands and choose the strongest person as my captive. My serious father never played with us; it would not have occurred to him. Betty's father relished it.

When Mr. Waller vanished for months on end, the games stopped. I wanted him to return as much as Betty did. We knew the reasons for his disappearance. He was an FBI agent. Like John Wayne, he hunted murderers. I thought of him like the sheriffs in the Westerns, felt sure that he packed a six-shooter on his hip. Betty's brother knew where he hid handguns, bullets and even a rifle, in a box on a shelf in his bedroom closet, ready at a moment's notice. When Mr. Waller left for weeks and sometimes months at a time, the guns and bullets went with him. Manhunts

were real, Westerns were real, and the news with the mushroom clouds was real. It seemed to fit together.

Life changed for me when we moved north of the Golden Gate Bridge to Marin County when I was nine years old. Our home, though larger, sat high on a hill from which Mt. Tamalpais loomed to the south and San Francisco Bay unfolded to the east. A bedroom of my own was an improvement, but Marin County's advantage ended there for me. I could no longer walk to school. The chocolate chip bundles stopped at the very moment when I wished they would continue. Old people lived around us. There were no children. The Saturday movies ended. Never again did I receive quarters tied in hankies, and never again did I possess a best friend with a father who played Red Rover and went on manhunts for murderers. Instead, I acquired worry. It was 1952. I entered fourth grade at Isabel Cook Elementary School.

Mr. Sullivan taught the fourth grade. Without question, he was a strange man. Older than my father, he had a shiny bald head rimmed by a band of hair, a tonsure perhaps like Father Junipero Serra's. In a style that mirrored my father, he wore dark gray suits with white shirts. He spoke to our class of fourth graders with a microphone plugged into the wall with a cord. When he paused, he placed the live microphone on the metal chalk tray under the blackboard, where it landed with a magnified clunk that made me jump. Before he wrote on the blackboard, he marked lines with a wooden scribe that sprouted six cigarettes of chalk. He swept the loaded holder as a broom across the board, the chalk scratching. Small clouds of gypsum dust trailed the scribe and settled on Mr. Sullivan's shiny head and coat sleeves. I would sneeze if he waved his arm near my desk. Our cursive writing was not to drift from lines on our paper any more than did his letters on the chalk railroad tracks on the board. I think we learned multiplication that year.

Every second or third week, a school siren announced an atomic bomb drill. Mr. Sullivan was as careful about the drills as he was about straight chalk lines. It was held as a certainty that when the atomic bombs from the Soviet Communists were dropped on America, San Francisco would not be left out. We would be among the first to go. We had to be ready, and Mr. Sullivan saw to it that the fourth grade of Isabel Cook Elementary School was alert and prepared. Marin County was determined to survive and, with it, Mr. Sullivan's well-rehearsed nine-year-olds.

Our classroom had individual desks formed by a wooden top over an open shelf where books and papers could be stored. On the top of the

desk, an ink well and a groove for pencils marked the edge. The chair was attached to the desk behind to create rows as neat as the lines on the board. When the air-raid siren sounded, a high wail that oscillated up and down the shrill end of the audible scale, we performed our duck-and-cover drill. If we could do it, fast and completely, tucked under our tidy rows of desks, then atomic bombs posed no problem. At the first instant of the siren, I dropped onto my knees on the floor and curled under my desk into the smallest shape possible. I put my forehead on my curved left arm on the floor and protected the back of my neck with my right hand. Simple. A compact ball of a fourth-grade girl, neatly wound with no loose ends—no unraveling bits that an atomic bomb could tear out and destroy. I pulled my skirt as tightly as I could around my legs to keep my panties covered. Boys crouched behind me. I pictured sparkling atomic specks like glitter sprinkling down around me. The square of desk above would catch the bits before they hit me. Afterward, I supposed, we would brush the glitter off our desks and return to the multiplication tables. But I still worried. I never could completely tuck in. Nubbins of elbows or feet stuck out. I eventually solved the feet problem; I crisscrossed them under my bottom. My individual desk that I liked so much, with its inkwell and ink stains and wonderful pencil groove, was just too small. Or I was too big. And if we had to stay tucked so neatly for hours, my knees would hurt and my crisscrossed feet would go numb. I hoped the bomb wouldn't last long.

Occasionally the air-raid siren blasted when we were outdoors at recess. Although that engendered a problem without our desks, we practiced this too. More duck and cover—tucked-in knees, forehead down, hand over neck—but against a wall, against a rock, against anything without a window. That was an inviolate rule: at all costs, stay away from windows. Being out at recess when the bomb came was nonetheless a concern. I feared that the bomb's sparkling bits would blanket us.

We saw movies on how to duck and cover. My favorite, *Bert Ducks and Covers*, showed Bert the turtle with a helmet strapped under his chin as he strolled down a street on his hind legs humming “deedle dum dum” when a monkey sporting a stick of dynamite dropped from a tree. The dynamite exploded; the tree was destroyed, but Bert saved himself with a speedy duck into his shell. If the bomb came without the warning siren, a bright flash would signal it. Like Bert, Mr. Sullivan didn't omit that drill. We should still duck and cover and, most importantly, not look at the light. That would be as bad as staring at the sun. Our eyeballs

would melt like candy on a hot sidewalk and run down our cheeks to leave sockets that sank into a gooey mess. So, just duck and cover and close your eyes. Then everything would work out wonderfully.

On certain points, I was right. Eyes did melt; whole faces melted. Children and adults together sat mute and paralyzed, begging each other not to die as their skin peeled off in slabs and blood poured from their mouths. Although Hersey reported this, it was years before others who directly endured the immediate aftermath of the Hiroshima bomb wrote their firsthand accounts. Sadako Teiko Okuda waited almost forty years before she wrote, *A Dimly Burning Wick: Memoir from the Ruins of Hiroshima*; the English-language version did not appear for another twenty years.

Living on an island in the Inland Sea, thirty-five miles east of Hiroshima, in August, 1945, Sadako sat near a window the morning of the blast. Even at that distance, her exposed skin facing the window was burned. The next day, she joined others from her island to search for survivors in Hiroshima, in her case, for the children of her brother. She kept a diary during her ordeal, an hour-by-hour account of her eight days in the rubble of the blast, from which she wrote her book.

Sadako writes not of anger but of apology for being alive while so many others die, of regret for her inability to give comfort or care in the face of overwhelming despair in the city. Hersey also writes of similar guilt among the survivors he interviewed; one unharmed person repeatedly apologized as he overtook burned and lacerated victims, “Excuse me for having no burden like yours.”²

Sadako describes children, usually alone but sometimes with mothers, in every conceivable combination of dying and death, and ground so littered with corpses that no space for a foothold remained on a roadway. Sadako complains only that her weariness and the nearness of doom left her unable to find adequate words. “Before me was a wasteland, barren but for the dead bodies that filled virtually every inch of the ground. I wanted to scream but the only sound that escaped my mouth was a deep moan.”³

No camera for Universal News captured that scene.

The atomic bomb drills were straightforward. I was sure I knew exactly what to do—inside, outside, bright flash—I was primed. It was the evacuation that puzzled me. After the bomb, we were to abandon our

home and town. The main roads of San Anselmo and the surrounding communities had signs to indicate the direction of escape. Wherever you found yourself when the bomb arrived, you would likely spot a blue sign with a white arrow and “evacuation route” written below. The signs were reassuring; I could read them with ease. From San Anselmo, we were to drive past Isabel Cook Elementary School, past Sir Francis Drake High School, past Sleepy Hollow, out toward Fairfax and beyond Samuel P. Taylor State Park to somewhere—it was beyond Taylor Park that I lost track of where to go. But how would we get there? And once there, what about the food? And gas for the car? The bomb itself seemed manageable, but not the rest.

The evacuation plan was clear on one detail: to escape the bomb, your car required gas. The planners were adamant on that point: never let your gas tank be more than half empty; it should always be half full. How else could you evacuate without enough gas to reach at least as far as Samuel P. Taylor State Park, a park that seemed quite distant to me? But on this issue of gas, I faced major problems. My mother didn’t follow instructions. She was unconcerned. The gas tank emptied before she filled it. In my nightmares we ran out of gas as everyone in Marin County streamed north, aligned with the arrows on the blue signs, evacuating in perfect order, while we sat on the side of the road, dead empty. We sat like forlorn dogs.

In addition, part of evacuation preparedness required a car trunk with food and water. Our trunk remained empty, silent proof of my mother’s incomprehensible nonchalance about the bomb. I wanted canned fruit cocktail in the trunk, fruit cocktail with orange peaches cut into perfect cubes to match squares of flawless white pears. I deemed Del Monte fruit cocktail the best; it had halves of red cherries.

I was right to be concerned about evacuation, though in reality, for a sixth-grade girl, the holocaust from an atomic bomb differed mainly in scale from that of other forms of total destruction. The firebombings of Tokyo and Dresden, though equally dreadful, were at least ordeals that lived within the boundaries of the imagination. Not so with Little Boy. A single plane on a sunny day, a single instant, a flash, and then Hiroshima disappeared. When Enola Gay flew over, the world below shrugged off the flight as weather reconnaissance, barely noticed and unworthy of alarm. Japanese schoolchildren looked up and identified “B-san, or Mr. B, as the Japanese, with a mixture of respect and unhappy familiarity

called the B-29.²⁴ That lone plane realized its mission with a suddenness and completeness that had no precedent. Even General Curtis LeMay, the undisputed master of firebombing, would have carpeted the skies with B-29s, shadowing the world before igniting it.

An additional concern with the evacuation plan was my father. I reasoned that he would have the most difficulty. Every morning he left our house to take a commuter bus over the Golden Gate Bridge to the offices of the Standard Oil Company of California, in San Francisco. Surely a return over the bridge, crowded with cars even on normal days, would be monumentally difficult after a bomb. But he, too, never voiced concern as he departed in a dark three-piece suit, a gold chain draped across across his vest to tether a gold watch in a tiny pocket made expressly for it. I liked the way he would check the hour by flipping open the lid of the timepiece, then close it with a snap. As though “that was that.” Like a conductor on a train. It rang of precision and control. Like duck and cover. You snapped yourself into a ball under your desk, and the nuclear holocaust was no longer a threat. He placed his gray fedora over his thinning hair and exited before I was up in the morning; he returned just before dinner, the *Wall Street Journal* neatly folded in quarters, tucked under his arm. He rarely talked. Sitting on the sofa after dinner, he smoked Camel cigarettes all evening as he read *The Oil and Gas Journal* and carefully picked bits of tobacco from his tongue. Occasionally he napped. To protect the upholstery, he would balance *The Oil and Gas Journal* on the arm of the sofa before resting his head on it. I thought this considerate; Brylcreem would leave an oily stain—though eventually the arm of the sofa turned greasy anyway. As a chemical engineer, he “cracked petroleum” all day, or so he said. I sometimes thought of him taking a hammer and chisel to petroleum rocks.

Several years after we moved to Marin County and air raid drills began in earnest, my father served on the Atomic Energy Commission, loaned to it by Standard Oil Company for some aspect of petroleum planning. He stayed in Washington, DC, for a year and returned home only once. What he actually did for the Atomic Energy Commission was never clear to me. He claimed it was secret. It probably was. Everything my father did seemed secret to me. But that the Atomic Energy Commission needed him could only mean one thing: the threat was heating up; the menace of the Soviet Union was escalating. And that threat was somehow bound

up with the hordes of Red Chinese pouring into Korea and causing us to fight another war so soon after the last one. He did meet the President at the end of his year of loan and returned with a framed certificate of gratitude for his service.

Though I could not speak for my mother, my siblings and I didn't miss my father while he was away. It wasn't possible to miss someone whose presence was vaguely felt in the first place. I would have missed the radio far more, and my favorite programs—*The Lone Ranger* and *The Whistler*. *The Whistler*, in particular, was inseparable in my mind from the menace of the Communists and the bomb. The footfalls at night, the nameless terrors in the dark, the lurking threat in the shadows, the deep voice in rhythm with the advancing steps coming nearer and nearer like the Soviet May Day soldiers with their straight legs—these were what we expected and why we had to be prepared. If you were quick, you could hide from the Whistler, too.

What we did not know about duck and cover then was that no amount of duck or cover could save anyone.

Richard Rhodes's nearly 800-page tome, *The Making of the Atomic Bomb*, documents the story more as the biography of the atom than of the bomb. He opens with the beginning of the intellectual conception of the bomb in September of 1933 by Leo Szilard, who realized on a dreary London morning that "it might be possible to set up a nuclear chain reaction, liberate energy on an industrial scale, and construct atomic bombs." Of that realization, Szilard goes on to say, "there was very little doubt in my mind that the world was headed for grief."⁵

The initial critical step toward that foreseen grief didn't take long. By December of 1941, at a site hidden below the football stadium at the University of Chicago, Szilard and Enrico Fermi accomplished the first nuclear chain reaction. Although an intellectual feat, it was shrouded in fear more than pride. Szilard says, "I shook hands with Fermi and I said I thought this day would go down as a black day in the history of mankind."⁶

Yet these scientists persisted. Who could blame them? If not they, then others would: German and Japanese physicists fully recognized the scientific feasibility of an atomic bomb. Nazi Germany was known to be working on the project; after the war, Japanese attempts were uncovered in the charred remains of Tokyo. Throughout the war, Soviet spies excelled at stealing our atomic secrets. The race to build a nuclear

weapon became a contest that the United States determined it had to win. Those responsible for the project's success knew, better than anyone, the devastation housed within their device. The scientists and, ultimately, our country, struck a Faustian bargain. At the Trinity test site in July, 1945, in viewing his success, Oppenheimer quoted the line from the *Bhagavad Gita*: "Now I am become Death, the destroyer of worlds" and later reflected, "I suppose we all thought that, one way or another."⁷ Kenneth Bainbridge, the Los Alamos director, surveyed the blast zone and said, "Now we are all sons of bitches."⁸

By the time she was in high school, my sister was in constant conflict with my parents. My mother called it "acting out," but it loomed as outright warfare to me. She took to eating only cooked cabbage and hard Life Savers, her molars crunching the candies long into the evening and leaving her tongue stained red. Before my father left for Washington, DC, he often tried to help her with her math homework, but the episodes degenerated into fights with my sister crying, yelling, slamming the door and running into the night. Then my father had to drive around the neighborhood to find her. Night after night these explosions dominated the dining room.

I would retreat to my bedroom to attack my own homework behind the safety of a closed door. It seemed obvious to me that escape from a similar fate centered on doing well in school. I earned straight As in math and physics and every other subject. Perhaps I took it to extremes; much later, I even majored in math in college.

During these years of high school, my unhappy sister associated with what my mother deemed the "wrong kind" of classmates. She called them "chukes" with ducktail haircuts and claimed they smoked by a tree-shrouded bridge on the edge of the high school campus. Whenever my sister received a phone call, my mother would eavesdrop, crouched like a turkey buzzard behind the kitchen door, her ear glued near the doorknob, the furrows between her eyebrows frozen into deep grooves. Like the radar installations strung across the Arctic, I tried to be my sister's DEW line and wave an early warning for her to whisper. The effort would earn me an annoyed stare from my mother and her silent treatment for the remainder of the day.

I thought we were a poor excuse for a nuclear family. Someday, if I could run fast enough, I imagined myself breaking out, bursting through the chains, as I had in Red Rover.

Sometime during my seventh-grade year, in 1955, the air raid drills in school stopped. Instead, each family was to rely on its own evacuation plan. Ours was so imperfect that I had no hope of survival. How could I possibly find my brother and walk with him the five miles home? I knew the way and could find our house, but the journey would take hours. And I seriously doubted my mother would be home when we arrived. Her bridge games, it seemed to me, were daily. And if she were home, the fuel level in the car would be low, and the canned fruit cocktail would be missing. Evacuation was hopeless.

Air raid shelters became the recommended answer, a solution well within my power to visualize. *The San Francisco Chronicle* and even the *Marin County Independent Journal* published plans for construction and photographs on how to outfit air raid shelters. Water, fruit cocktail, graham crackers, a radio and flashlights—this I could organize. Our home was perched on the side of a hill with an internal door on the lower level that opened to the raw dirt under the house, a perfect spot for a bomb shelter. If we excavated more dirt, added a rim of concrete, moved in a rug and bunk beds, plugged in the radio, then we would have one. Moreover, I was certain I could get my little brother home to it. But my parents would not build one. They claimed a shelter would cost too much. They never told me it wouldn't work. I had to discover that for myself, which took some years.

In seventh grade I developed an appetite for war stories. Ernie Pyle's books collected from his journalistic war correspondence from the battlefields of Europe during World War II became my favorites. I loved *A Bell for Adano* and never relinquished my association of John Hersey with a chocolate bar. Mr. Kerry, my eighth grade teacher, on whom I had a major crush, caught me reading *From Here to Eternity* one day at lunch. He declared he was shocked. I had checked the book out of the San Anselmo public library. I liked it. Mr. Kerry instructed me to bring a note from my parents the next day verifying that they knew about my lurid choice in literature. I adored this extra attention from him but neither made the confession nor produced the note. Instead, I closed the door to my bedroom and finished the book that very night lest it be whipped from my hands. All the girls in my class were smitten with Mr. Kerry, a young Irishman with blond eyebrows and light brown hair who was tackling his first teaching job out of college. Two of us even wrote to "Dear Abby" in the *San Francisco Chronicle* for advice. Abby recommended that we renounce our infatuation and consider the feelings of his wife.

For literature, any war would do: *The Red Badge of Courage*, *For Whom the Bell Tolls*, *The Sun Also Rises*, *All Quiet on the Western Front*. I memorized “Old Ironsides” as my eighth-grade poem. I scanned the newspapers for information about silos and missiles, nuclear warheads and Strategic Air Command bombers and our surefire continental Distant Early Warning (DEW) line in Alaska that I always pictured as a frosty fence. *Time Magazine* and *Life* filled their pages with descriptions and photographs. Little was left to the imagination—great pointed missiles in sunken soup cans of silos strung across the Midwest. Even smiling Ike could not mitigate the menace of those pictures.

Every family has untouchable subjects. My sister unknowingly blundered into one at Thanksgiving dinner when I was thirteen. She asked my Uncle Harry a question about being a prisoner of war of the Japanese. Of all the relatives in our small family, Uncle Harry, mild-mannered and conciliatory, was my favorite. He lived near us and built oil and gas pipelines for the Bechtel Corporation in San Francisco. The question was an unusual one from my sister, who ordinarily had no curiosity about history or warfare. She was then a junior in high school; perhaps her history class was covering World War II.

She asked the question. The room fell silent. Kind and gentle Uncle Harry looked ashen. He stood, left the table, and dinner ended. Later my mother berated my sister for deliberately ruining Thanksgiving dinner.

The question, asked in innocence, opened another forbidden closet. Harry, captured with the fall of Manila, where he’d worked as a civil engineer for the US Navy, returned home nearly dead from a jungle prison camp following Japan’s surrender. That was the whole of the story that any of us knew. What he’d endured, he chose not to discuss, but his reaction was explanation enough.

My sister took the heat for a question I would have asked. After Thanksgiving I switched from the European theatre to the Pacific battles of World War II. But it was not until decades later that I discovered my uncle’s connection to the atomic bombs on Hiroshima and Nagasaki.

For many like Uncle Harry, caught in the labyrinth of the war in the Pacific, the atomic bombs represented salvation. Part of the official decision to drop the bombs was to save the lives of the soldiers and sailors massed on Guadalcanal and Tinian Island in preparation for the long invasion of the Japanese archipelago. The bombs additionally spared the lives of many Japanese, both military and civilian, whom the Allies

expected to fight to the death. But initially not emphasized were the countless prisoners the Japanese held throughout Japan and southeastern Asia. From Java (Indonesia) to Singapore to Vietnam to China to the Philippines, the landscape was littered with camps holding military and civilian prisoners, most on the verge of starvation. The camps were often run by the cruelest of the Japanese military, and the prisoners were held in harsh conditions. In the Japanese military tradition, to surrender or be captured alive was cowardice and dishonor of a degree that rendered a prisoner less than human—and their Japanese captors treated them as such.

Relatively soon after the war, Laurens van der Post wrote of his experiences as a POW of the Japanese. A British subject who died in 1996, van der Post is a writer better known in England and South Africa for his books on the African Bushmen. With respect to the atomic bomb, however, his early life is of greater interest. As a young man fluent in Dutch in the first years of World War II, he joined the Wingate raiders, British soldiers skilled in guerrilla tactics dropped behind the Japanese lines in Southeast Asia. While leading native insurgent groups in the Dutch colony of Java, van der Post was captured by the Japanese in 1942 and held in Java as a prisoner for three and a half years. He barely survived and was one of approximately 500,000 prisoners of the Japanese military on August 6, 1945. In *The Night of the New Moon*, a memoir of his last days in captivity, he states that his compelling reason to write the book was to record the special relationship the prisoners of the Japanese had to that “terrible moment in time,”⁹ which, after the end of the war, was discussed progressively more out of context. In this, I knew what he meant. Years later, when I visited the Hiroshima Peace Memorial Park, I found almost no mention of the war. The impression was of a city suddenly destroyed, horrifying in itself but out of context. In contrast, the Nagasaki Peace Park acknowledged the war and paid homage to the slave prisoners of the Japanese, American and Korean alike, who perished in the blast over that city.

Van der Post interpreted the atomic bombs as an exit from the war, as much for the Japanese as for the Allies. The fact that August 6 was the first night of a new moon symbolized for him the beginning of a new phase “however catastrophic the introduction”¹⁰ and the death of the past. After his long captivity, van der Post was convinced that in the eyes of the Japanese, their whole history, culture and psychology would have demanded death either in fighting or by their own hands.

Ending the war with atomic bombs freed them from that fate, in a sense, because “it would strike them, as it had us (van der Post and his fellow POWs) in the silence of our prison night, as something supernatural” and “would make the Japanese feel that they could now withdraw from the war without dishonor.”¹¹

Although my uncle survived, what transpired in his prison night he carried in silence to his grave. Without question, he owed his life to the bomb. It is estimated that up to one million US servicemen and many million Japanese do also.

When I was a sophomore in high school, the Soviets launched Sputnik, Elvis sang “All Shook Up” and I fell in love with Wheat. He was a year older than I. We looked alike in that healthy, all-American way Californian teenagers can appear. Even Wheat’s scalp was tan beneath his blond crew cut. No ducktail for him. He smelled like sugar pine. We spent every free moment together. On the high school lawn by the playing fields, we would sit Indian style with our legs crossed and our sack lunches between us, my skirt tucked around my legs and my saddle shoes soaking up grass stains. My lunch required assembly. I always ate tuna fish sandwiches to which I added separately wrapped slices of tomatoes that I segregated to save the bread from soggianness. No doubt I smelled fishy. Between classes we sat like lorikeets balanced on the railings of the open-air walkways between the buildings, our feet hooked on the lower rungs, liked but little noticed, I think, by the most popular students.

After school we’d retreat to my home to push aside my mother’s African violets to do our homework on the dining room table. On weekends, we’d go to Wheat’s house, in Kentfield, or to his uncle’s, in Bolinas, where Wheat carved and painted birds: mallards and mergansers and pintails, even Canada geese. He mounted them in groups on pieces of driftwood using nails that he covered with plaster to make legs and feet. They looked nearly real. One mallard might be eating, while the other scanned the horizon. Wheat hunted the same ducks with his father and brother in the marshes of Bolinas and Stinson Beach. I learned how to carve and paint birds too, and once we joined a local art exhibit where I sold a chickadee for forty dollars.

If I were to survive a nuclear war, I wanted to survive with Wheat.

The summer between my sophomore and junior years, Wheat and his brother built a cottage next to his family’s house—expansion room and, I supposed, a project to keep the boys busy all summer. I imagined that

we would outfit it as a bomb shelter; then at least he and I would survive. But even in my fantasy, the imperfection of the plan was apparent. I felt I could leave my disengaged family behind, but Wheat would, I knew, find it impossible to abandon his, especially his two little sisters.

On most of our weekends, Wheat and I roamed the north coast of Marin County, beautiful wild bluffs that ultimately became part of the Point Reyes National Seashore. Windswept and deserted, covered in wild oat grass, California poppies and lupine, often the land would almost disappear as fog crept into its crevices and iceplants crunched under our feet. After a storm, we headed to this coast to hunt for the buoys of translucent green glass used by Japanese fishermen as floats for their nets. The glass balls would break loose in a typhoon and be swept by the warm Japan Current across the Pacific, intact, even from Hiroshima or Nagasaki.

The menace of war was part of the windswept headlands. We usually drove to what we called Radio Beach before setting out on foot to walk the last mile over the flat, grass-covered fields and down crumbling cliffs, holding on to bits of sage and chaparral as we descended, finally sliding onto the beach below. A porcupine of antennae rose from Radio Beach. From a distance, they could have been missiles. Tethered by wires on top of the bluff, forty or fifty of these towers clustered on the edge of the Pacific. They seemed poised to pick up the first warning of incoming rockets, though in reality, I knew, they only received overseas radio waves. But it was a desolate stretch of coast, uninhabited except for the odd cow separated from the main herd of the Straus Farm. In all the years we roamed those cliffs, we met no other people. As we retrieved the glass floats, I often imagined we were the last survivors, left behind to pick up the flotsam of civilization.

At that age, Wheat and I were perfect for one another. We created our own world without knowing that it was glass. For the four years we were together, we carved a sanctuary for each other—from our families as much as from the bomb. For me, it was a reprieve from my silent, fighting family. For Wheat, it was shelter from his volatile parents, with their arguments and growing alcoholism. As much as we loved one another, our time was overlaid with sadness, wandering the deserted stretches of the Pacific Coast, knowing, without being able to name it, that we and our world could splinter into shards. Like it or not, we were as exposed as the cliffs and the cows and the towers and the floats washing in the waves.

One summer Saturday evening before my last year of high school, Wheat and I drove across the Golden Gate Bridge to San Francisco to see the movie *On the Beach*. The movie dramatizes the book by Nevil Shute in which Sydney is the last surviving city in the world after accidental nuclear war. A lone American submarine escapes the initial blast and surfaces in Sydney Harbor as the inhabitants await their deaths from a worldwide cloud of radiation descending from northern Australia to envelop them. The film ends as the crew returns to San Francisco to discover the streets deserted, the city entombed in stillness except for papers blowing in the wind, and every inhabitant dead.

We drove over the Bridge in sunlight before the crystalline beauty that only San Francisco offers among American cities. The bay and ocean were lapis flecked with silver, the city shards of quartz in the distance. The 1959 hit “A Teenager in Love” played on the radio. Out by the end of Geary Street, beyond the eucalyptus of the Presidio and the blown cypress of Lincoln Park, the theatre was in the Sunset District. This western edge of San Francisco melts into the ocean and can collect fog the instant it forms. In the sunlight, it is as though the hills of San Francisco have liquefied, and a grid of streets and houses bubbles up on the flat and cooling surface to become a cubist painting. In the fog and mist, the houses disappear, wrapped in shrouds of gauze undulating in the wind, and dissolve into the sand.

Hours later, after dark, when we emerged from the theatre, we came out to a city draped in fog and mist, the ghosts of buildings evaporating before the end of the block. Wet newspapers blew across deserted streets to cling to lamp posts and flap below in yellow light. It was as though we had stepped into the story. The world had ended. There was no bang, no booming crash as a final signal—just the lonely wait to the mournful melody of “Waltzing Matilda.” The long Hollywood kiss between Gregory Peck and Ava Gardner on the headlands of Australia as the last lovers on the planet, parted forever, had been our farewell to any illusion that survival was even a possibility. Our lives and the melancholy and beauty of the bluffs and the beaches we walked so often merged with the message we had just seen—that there was no survival if the nuclear arsenals were ever released. No guy-wires could keep us on earth. The towers would only announce the end. That night, it felt inevitable.

Right or wrong and though I wish it hadn’t, what happened in August of 1945 is at least understandable. As a country, we were nearing the

end of a vicious global war that affected virtually every person in the United States. Ordinary people, not a professional military, fought and suffered. Pearl Harbor had destroyed the illusion that oceans protected our country. Long before the war, nuclear physics had advanced to the point that the development of an atomic bomb was inevitable; during the war the only question that remained was which power would develop one first. The bomb was a military product at a cost of US\$2 billion in 1945 (roughly US\$25.8 billion in 2012). The military owned it; the military wanted to use it. Our commander-in-chief nominally made the decision, but Truman was a new, untested commander, thrust to power at the helm of exhausted armed forces, a citizenry anxious to end the war and an emerging ideological battle with the Soviets. All this I can understand.

Incomprehensibility enters with what ensued—the illusion of survivability once the sophistication and number of the weapons multiplied. The deployment of nuclear weapons—a threat posed by the Americans and the Soviets alike—would indeed destroy the planet. One could think back to the dark evening of July 15, 1945, the night before the Trinity test, when Fermi satirically took wagers on “whether or not the bomb would ignite the atmosphere, and if so, whether it would merely destroy New Mexico or destroy the world.”¹² About this wager, instead of honesty, our country chose a stratagem of deliberate deceit about the weapons’ necessity and survivability. School children huddled under their desks; roadside signs pointed the route to run and hide; a bomb shelter could save you.

Notes

1. Hersey, John. *Hiroshima* (1946. New York: Vintage, 1989), 89.
2. *Ibid.*, 10
3. Okuda, Sadako Teiko. *A Dimly Burning Wick: Memoir from the Ruins of Hiroshima* (New York: Algora Publishing, 2008), 55.
4. Hersey, *Hiroshima*, 2.
5. Rhodes, Richard. *The Making of the Atomic Bomb* (New York: Simon Schuster, 1986), 2.
6. *Ibid.*, 442.
7. *Ibid.*, 676.
8. *Ibid.*, 675.
9. van der Post, Laurens. *The Night of the New Moon* (London: Hogarth, 1970), 156.

10. Ibid., 121

11. Ibid., 123.

12. Rhodes, *The Making of the Atomic Bomb*, 664.



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