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DAIKON

A Novel

Samuel Hawley

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To the memory of my mother, Anne Hawley,
who helped me to read

A NOTE FROM THE AUTHOR

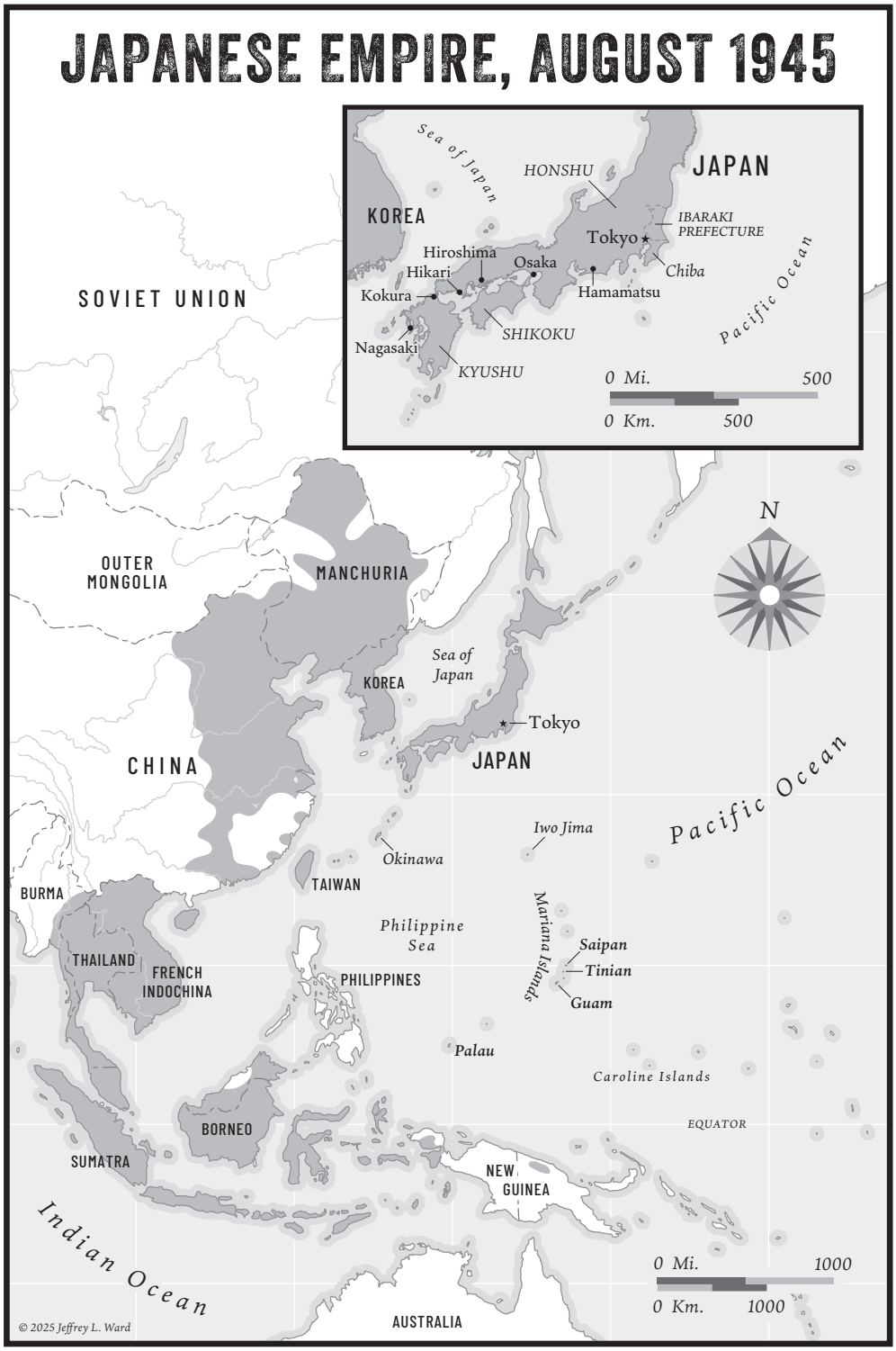
THE ATOMIC BOMB DROPPED ON HIROSHIMA ON AUGUST 6, 1945, WAS CODE-NAMED LITTLE BOY. Its design—one mass of enriched uranium fired into another using what was essentially a gun—was relatively crude, especially in comparison to the bomb that destroyed Nagasaki three days later, which used a sphere of plutonium and a much more complex implosion triggering system.

While the design of Little Boy was simple, the 64 kilograms of uranium it contained was not. This material was so profoundly difficult to produce that virtually every book on the subject asserts that the bomb took all the uranium the United States had enriched up to that time. But according to a document at the Oak Ridge National Laboratory, where the work took place, "Beta Calutron Operations, June 24, 1944–May 4, 1947," significantly more uranium than 64 kilos was enriched prior to August 1945.

This enriched uranium was so precious that it was transported across the Pacific to Tinian Island in multiple shipments, lest it be lost. Half of it was sent by air on three C-54 Skymaster transports that arrived on Tinian on July 28—reportedly the only cargo aboard, 20-odd

pounds in aircraft designed to carry 14 tons. The rest of the uranium and a crate containing the bomb were sent by sea on the USS *Indianapolis* and reached Tinian on July 26. A memorandum regarding this *Indianapolis* shipment ("Transportation of Critical Shipments," Major J. A. Derry to Admiral W. S. DeLany, August 17, 1945) refers to a heavy lead bucket containing the uranium and a crate just large enough to accommodate the 10-foot-long, 28-inch-wide bomb. Eyewitness accounts, however, suggest that there may have been more. Some crewmen remembered seeing not one bucket being carried aboard, but two. Others recalled the crate as being significantly larger. Lieutenant Lewis Haynes, medical officer aboard the *Indianapolis*, remembered it as "almost the size of this room."

Despite these inconsistencies in the historical record, the United States government has always asserted that only one Little Boy uranium bomb was delivered to Tinian in late July 1945.



PROLOGUE

THEY JOINED THE LINE OUTSIDE THE WARFIELD THEATER, A MAN AND A WOMAN. THE PICTURE was *Camille,* starring Greta Garbo and Robert Taylor, "the most poignant love story ever told," according to the ad in the paper. It had not been his choice. He would have preferred to see Gary Cooper in *The Plainsman*. He liked Westerns. They were easier to understand. But she wanted to see *Camille,* and he wanted to please her. So he had taken the bus across the Bay Bridge and met her outside the Warfield for the six-thirty show.

The news from home wasn't good. It had been on the front page of the *Tribune* that very morning when he checked the time for the show: "Japan Cabinet Forced to Quit." The militarists were taking over. He would be returning to a Japan that was heading toward war. Would he be going alone? Or would she . . .

He glanced at her. She smiled back—the smile that never failed to flutter his heart, that promised to fill the void inside him that he now knew was there. How was he going to tell her? How was he going to express these feelings that were so overwhelming he didn't know how to put them into words?

They were almost to the ticket window. It was flanked by a life-size advertisement for the film, the two stars locked in a passionate embrace, *Camille* in red, the words encircled in lights: "Garbo Loves Taylor!"

Garbo loves Taylor.

It's so easy in the movies, he thought as they entered the theater.

She cried when Garbo died in Taylor's arms at the end and was still dabbing at her eyes as they left the theater, he walking her home. They continued in silence past City Hall. Then they were turning north on her street, and he knew he had no more than ten minutes left.

He began to walk more slowly, tension starting to build in his stomach.

He stopped.

She said, "Are you all right?"

He looked into her eyes, desperate.

"I . . . "

Nothing more came out. He struggled to get past the blockage, to kick it down, to get around it. He had to let her know or he would be returning to Japan alone. And that surely would kill him.

"I . . . "

His shoulders subsided. His eyes dropped to the ground. And then a thought came into his head and before he could reconsider he blurted out:

"Taylor loves Garbo!"

A look of surprise on her face, softening to a smile of understanding. She knew.

She wrapped her arms around him and laid her head on his shoulder.

"And Garbo loves Taylor," she whispered.

And they kissed.

ONE

MAJOR EDWARD T. HOUSEMAN LEFT HIS BARRACKS TENT AT 8TH AVENUE AND 125TH STREET— the Columbia University district—and headed down the crushed coral roadway in the direction of Times Square. It was eleven o'clock at night and a half-moon was rising, painting the island bluish gray. He passed a row of Quonset huts on his left, backed by miles of runways for the B-29s. To his right lay the sea and the beach where he liked to go swimming. Up ahead: the high point of the island, a hill known as Mount Laso, where stranded Japanese soldiers were still hiding in caves. One of them could be out there in the darkness right now, prowling for food or an American to attack. It was a popular off-duty outing with some of the boys to pack a lunch and load up the rifles and go hunting for them.

The major turned right onto Broadway. He had chuckled at his first sight of all these New York–style street signs when the 509th Composite Group arrived on Tinian Island back in June. They had been the idea of some joker in the engineer corps who had observed that Tinian was shaped like Manhattan and that the roads should be accordingly named. That was back when Houseman was just one part

of the 509th team, nothing but a cog in the wheel. He didn't feel like that any longer. And the signs didn't amuse him. The meeting at the base hospital a few hours before had dropped what seemed like the weight of the whole world onto his shoulders.

It had taken place at the bedside of the 509th's ailing commander, Colonel Paul Tibbets. Brigadier General Thomas Farrell, deputy to Manhattan Project head General Leslie Groves, was also present. Together they had filled Houseman in on what he needed to know, starting with the closely guarded secret that the weapon the 509th had been training for six months to deliver was a bomb that unleashed the power of the atom. Whatever that meant.

"This thing is big, Eddie," Tibbets had said, his voice raspy. "What I've been told is that we're looking at a destructive force equal to . . . " He paused to painfully swallow. "Equal to 20,000 tons of TNT."

Houseman would never forget that moment, looking down at Tibbets flat on his back and hearing those words. How could tiny atoms make an explosion equal to 20,000 tons of TNT? And what did 20,000 tons of TNT even look like? Would it make a pile as big as a house? No, probably bigger, more like a small apartment building. Someday, when all this was over, he would thrill his wife, Marion, and son Charlie with the story.

"So, Eddie." Tibbets reached out a hot, clammy hand, smiling to hide the disappointment Houseman knew he was feeling. "It looks like you're the guy who's going to end the war. But no pressure, okay?"

"Gee, thanks, Colonel," Houseman replied with a grin. "That's just what I need!"

The dark hump of the crew lounge emerged from the darkness. It was an olive drab Quonset hut like all the others, but some effort had been expended to make it look a little more like home. Shrubbery and a bit of lawn had been planted, and a sign erected out front, announcing it as Tinian Tavern. When the beer wasn't flowing, it was where mission briefings were held. Two armed guards were on duty

outside, standing motionless in the moonlight as Houseman mounted the steps.

The crews were already assembled inside. A murmur rose when Houseman entered and walked to the front.

"All right, listen up." It was Houseman's mission voice. Discipline taking over. "Colonel Tibbets went into the hospital earlier today. Don't ask me why because I can't tell you. But I'm told he's going to be okay, so there's no need to worry. I repeat: the colonel is going to be okay. In the meantime . . . "

He paused, looking around at the intense faces of the men.

"In the meantime, we're going ahead with the mission. There's supposed to be a break in the weather, and if we don't take advantage of it, we could lose a whole week. So we go tonight. That's the word. The Gimmick is being transferred to *Wicked Intent*."

The Gimmick. Houseman glanced at the weaponeer who had just been assigned to his crew, a cold-eyed commander in the U.S. Navy named Samuel Filson. They were the only two men in the room who knew the nature of the weapon. For the rest it was still a mystery, referred to as the Gadget or the Gimmick. But his own crew would know soon enough. Houseman would fill them in on the way to Japan. He was looking forward to it. *Well, boys,* he would say, *it looks like we're splitting atoms today.* Then he would hit them with that bit about the 20,000 tons of TNT.

He winked at the crew members of the *Wicked Intent,* the guys he had been training with for six months, getting things to where they could drop a Gimmick on a dime. There was his copilot, John Morris, a killer at poker; navigator, "Billy" Boys, proud possessor of the foulest mouth in the Army Air Forces; tail gunner, "Pappy" de Gerald, sporting a cud of chewing tobacco in his cheek and spitting into a cup; flight engineer, "Hickey" Hicks; and bombardier, "Cy" O'Neill, who had dreamed up the clothes-snatching caper at the beach that had given them all such a good laugh.

"So that means it's us, guys," he said. "We'll be hauling this thing."

Houseman turned to the map pinned to the board behind him and got down to business. "All right. Primary target is Hiroshima. Secondary is Kokura. Third, Nagasaki.

"Weather ships." He turned to the crews of the three B-29s that would precede the strike team to radio back visibility conditions. "Take off at zero-one-thirty. Use the weather codes on the blue paper. No formation flying. Keep it spread out. You know the drill. Strike team. We go at zero-two-forty-five and proceed to Iwo. After rendezvous, it's compass heading 327 degrees, altitude 31,000 feet."

It took Major Houseman thirty minutes to get through the briefing, displaying the efficiency and focus that had made him the first choice to replace Tibbets in leading the historic mission. He ended with the synchronization of watches, then led the way to the mess hall for a breakfast he didn't want. He always felt queasy before missions, and this time was worse. He sat as far as he could from the smell of bacon and eggs as he spooned down a little oatmeal laced with brown sugar.

A hand on his shoulder. He looked up to see the flight surgeon.

"I hope you won't need these," the man said, handing Houseman a small pillbox. Inside it were ten cyanide capsules, one for each crew member in the event that the plane went down over Japan.

Houseman took the little packet of death and slipped it into his pocket. He figured the odds were in their favor, but he wasn't overly sanguine. In war, things went wrong. Throw a new weapon into the mix, a bomb never before used in combat, and the chance of a mishap became that much greater. Dummy gimmicks had already malfunctioned twice in practice drops off Tinian in the previous few days, one bomb tumbling unexploded into the sea and another detonating soon after leaving the plane. There was evidently some sort of fault in the proximity fuze.

Returning to his barracks tent, Houseman took a moment to say a prayer in private, asking God for steadiness and courage, for success

in his mission, and for a speedy end to the war so that he could return home to New Jersey. He wanted to get to know Charlie, who was now nearly six. He also had a surprise for Marion, poker winnings totaling nearly two thousand dollars that would make a fat down payment on a house. But first he had to get through this mission.

When the time came, he pulled on his combat coveralls, collected his flight gear, and headed out to Tinian's North Field. The breeze in his face on the jeep ride felt good, taking the edge off the heat that the island had soaked up during the day. *Wicked Intent* was parked at the west end of Runway Able. He pulled to a stop under the scantily clad beauty painted on the nose, which would have been so much more lascivious if Billy Boys had his way. The crew lined up for a photograph, the prickly heat rash in Houseman's armpits now burning, for he was starting to sweat. A blinding flash exploded in the darkness.

"Okay, that's enough," said Houseman, annoyed. He groped his way up through the hatch and into his seat, a disk of light lingering on his retinas and overwhelming his vision.

Billy's voice behind him: "Goddamn it, I can't see a damn thing."

The stillness of the night was shattered by twelve 2,200-horsepower Wright Cyclone engines coughing to life, the three planes of the strike team. In addition to *Wicked Intent,* there was a B-29 that would drop instrument packages to measure the effects of the blast, and a second plane to film and take photos.

Wicked Intent led the way to the end of the runway and turned into the breeze. Houseman advanced the four engines to full power. The plane began lumbering down the crushed coral track, past the control tower, past the broken corpses and burned skeletons of B-29s that had crashed at this same moment, on takeoff, and been dragged off to the side. Finally, with less than a hundred yards remaining, Houseman pulled back on the yoke and eased the behemoth bomber into the air.

Three hours into the mission. The sun was up, a glorious dawn at 8,000 feet, the clouds to the east turning from purple to red, then glowing

orange, then full daylight. Major Houseman was starting to feel hungry. He took out one of the bologna sandwiches he had brought, along with a thermos of coffee, and tucked in as he gazed down at Iwo Jima below.

It took fifteen minutes to rendezvous with the two observation planes that would accompany them the rest of the way to Japan. Houseman then led the way onto compass heading 327 degrees—northwest—and began a slow climb. "We're going to pressurize now," he informed the crew, his throat mike conveying his voice through the plane's interphone system. This was the signal for Pappy to squeeze into the tail gunner's compartment, for once the plane was pressurized for high altitude the access door would be sealed. With *Wicked Intent* stripped of all its remote-controlled cannons to save weight, Pappy and his tail guns were its only defense.

Another two hours and Japan itself was in sight, Shikoku, one of the four main islands, emerging from the mist up ahead. Houseman recognized the distinctive arc of south-facing coastline that looked like a bite had been taken out of the island. The cloud cover could be a problem, nearly 50 percent. It would be difficult to deliver the bomb with any accuracy if similar conditions were awaiting them over the target.

His headphones crackled: "Okay, I'm arming it now." It was the weaponeer, the stranger sent out from Washington, Commander Samuel Filson, his voice taut as a wire. The arming procedure involved his entering the bomb bay to remove the green plugs from the bomb and replace them with red ones. This would in turn switch the lights on the monitoring equipment hooked up to the weapon from green to red, indicating that it was live and ready to go. From this point on, it would be up to the radar countermeasures officer, Clifford Slavin, who should be setting aside his comic book about now, to ensure that enemy radar did not interfere with the signals emanating from the bomb, prematurely setting it off.

The first coded message from the weather planes was received:

"Y-3, Q-5, B-4, D-7." Translation: cloud cover over primary target more than 50 percent.

That meant Hiroshima was out. Houseman felt his stomach tighten. The odds were turning against them.

A second message came in, this one from the weather plane over Kokura: "R-7, S-1, B-2, A-3." Translation: cloud cover over secondary target less than three-tenths.

A wave of relief. Kokura was a go. Houseman spoke into the interphone: "Okay, it's going to be—"

A jolt rocked the plane.

Houseman turned to look at his flight engineer, Ralph Hicks, seated behind him. Hickey's eyes were on the cylinder head temperature gauges, his finger tapping on the glass. Then he was hitting the fire extinguisher switch and pumping fuel out of the Number Two tank.

"We got a fire in Number Two," he said. "I think she swallowed a valve."

"Can we still make it?" It was Commander Filson, crouched over his row of red lights. He was plugged into the interphone and had heard the exchange.

Houseman didn't reply for a moment. He had experienced an engine fire before in a B-29, but never so deep in hostile airspace.

His hand went to his throat mike. "If we can get the fire out, yes. How's it looking, Hickey?"

Hickey flicked the engine fire extinguisher switch again. No good. The cylinder head temperature needle remained stuck at 350 degrees. That meant in all likelihood that the fire was burning inside the cowling, where the fire retardant couldn't reach.

"It's still burning," he said.

Houseman's grip on the yoke tightened, his mind racing. The engines of the recently developed B-29 were not only prone to burst into flames, their crankcases were fabricated from a high-magnesium alloy to save weight—magnesium that, if it caught on fire, burned so hot

that it could melt off the wing. And in the meantime it was producing a trail of black smoke that would be glaringly visible from the ground. The Japanese rarely attacked high-flying B-29s approaching singly or in small groups. They were too hard to bring down. But a B-29 trailing black smoke and clearly injured would be hard to resist. It was a target of opportunity, a real chance for a kill.

But they were so close. Less than thirty minutes and they would be over the target.

Houseman's eyes swept over the gauges. Airspeed barely holding at 189. Altitude: 28,000 feet and dropping. The *Intent*, running slower on three engines, was drifting lower, seeking denser air for support. To continue the mission would mean dropping the bomb from much lower than the 31,000 feet they had trained for. And they'd be too close when it detonated. They'd be knocked out of the sky.

He spoke to the crew: "That's it. It's an abort."

Filson reentered the bomb bay to replace the red plugs with the green, returning the weapon to safe mode. Back in the cockpit, Houseman was digging out a binder from beside his seat and flipping through to the page listing the codes for twenty-eight possible mission outcomes for transmission back to base. He ran his finger down the list to the one that he wanted, then spoke to his radio operator, Don Wood.

"Okay, Don. Send 25."

Number 25 meant *Returning with unit due to damage to aircraft.*

Houseman made the course correction, putting the bomber into a 180-degree turn. Down below, the dark green of Honshu, looking like crumpled tissue paper, began to rotate.

Wicked Intent came out of its turn, heading back south, altitude now holding steady at 25,000 feet. Number Two engine fuel tank was pumped dry and things were holding together. If the fire went out, they stood a chance of getting back to Iwo. If not, they were going down.

Major Houseman took out the pillbox he had been fingering in his

vest pocket. He didn't want to hand out the capsules, but to do otherwise wouldn't be fair to the crew. They all knew how the Japanese treated downed airmen, going back to the Doolittle Raid and those eight guys who were starved and tortured and killed.

He leaned forward to the bombardier's seat and placed his hand on Cy's shoulder. "You might want to hang on to this," he said, holding out a capsule.

With *Wicked Intent* on autopilot, Houseman got up and began working his way through the plane, distributing a capsule to each man. He was on his way back to the cockpit when John Morris called from his copilot's seat, "We got company, chief!"

Houseman returned to his seat and snapped himself into his harness. "Okay, let's have it," he said.

"I count five fighters." It was Pappy on the interphone with his unimpeded view at the tail guns pointing back. "They look like Franks. Six o'clock. About six thousand feet down."

Houseman craned around, peering out his left side window, but couldn't see them.

There. He could see them now. They were definitely Nakajima Ki-84s. "Franks." They would be struggling on the edge of their maximum altitude. They wouldn't get much higher.

A series of blinks from the lead fighter. It was firing from too far out, a desperate move. No return fire from Pappy. He would be waiting until they were within a few hundred yards—if they made it that close.

Movement off to the left. Houseman raised his gaze to see a Tony, a Kawasaki Ki-61, no more than fifteen hundred feet out and just a few hundred feet down. It had broken away from the others for a separate approach.

"Nine o'clock low, Pappy!" he shouted. "He's coming right at us!"

The sound of Pappy's 50-cals. Houseman watched the first bursts of streaking bullets go wide.

The Tony kept coming, right into the face of Pappy's fire.

Half the distance gone now. Still no fire from the Tony. It just kept coming. Why wasn't he firing? Were his guns jammed?

A puff on the wing as the Tony was hit. Still no return fire.

Pappy must have got him!

The Tony wobbled but kept coming—so close now that Houseman could see the goggles, the oxygen mask, the tanned leather helmet of the Japanese pilot. That's when the realization hit him:

He's going to ram us.

The impact threw Houseman against the side of the cockpit, his head bouncing off the glass so hard that it left him momentarily stunned. As he regained his senses, he saw the horizon rising, up and up until the earth filled his field of vision. He stared, disoriented, as the mottled terrain began to rotate, wondering why the aircraft was pointing straight down.

A silvery mass entered his field of vision. It had a toppled-over "A" painted on it. It took a moment for him to process that it was the tail section. *Wicked Intent* had broken in two.

He fought with the controls, trying to level out using only the flaps. The mortally wounded aircraft slowly responded. The uncontrolled dive turned into a gentler downward spiral. But no amount of skill could arrest it.

In his final moments, with trees and rice fields coming at him, Houseman thought of Marion and Charlie and the house they were going to live in.

Then he saw a bright light.

TWO

THE B-29 CRASHED SIXTY KILOMETERS SOUTHWEST OF HIROSHIMA, IN YAMAGUCHI PREFECTURE near the coastal town of Hikari. The main part came down in a great smoking arc to litter fields on the banks of the Shimata River where it snaked out of the mountains, a flying shard nearly killing a farmer working in his rice paddy. As the man sat in shock on an embankment, others converged on the scene, followed by a local policeman.

It was the policeman, named Kinoshita, who hurried to the nearest military establishment to report the crash and the discovery of what appeared to be a large bomb in the wreckage. The base was home to 2nd Attack Squadron, Hikari Special Attack Unit, one of eleven such units in the Kure Naval District. After keeping Policeman Kinoshita waiting for some minutes, the Hikari SAU executive officer, Lieutenant Takeo Miyata, came to the gate. Lieutenant Miyata knew very well that the American B-29 had a tremendous carrying capacity, dozens of bombs. He therefore pressed the policeman about the bomb that had been discovered, asking if he had seen any more. Kinoshita was quite certain that he hadn't. "Only one," he said.

Lieutenant Miyata made his way back through the base to the

main workshop, where the kaiten, the manned torpedoes, were prepared. The job of investigating and disposing of the bomb required a competent man—competent, but not too valuable in case it exploded.

"Yagi! Where are you? Where's my hairy Korean!"

Petty Officer Second Class Ryohei Yagi looked up from the fuel pump he was repairing. He was no hairier than Lieutenant Miyata. And he didn't smell of garlic, another slur the lieutenant frequently used.

He came over to Miyata, wiping grease from his hands. The two men were the same age, twenty-three, but Yagi looked older, due to the lines etched on his face by his time in the engine room of an Imperial Navy oil tanker, back when the Imperial Navy still had ships. And then there were the ugly scars that snaked up his neck, a souvenir from the night his oil tanker went down.

"Yes, Lieutenant Miyata," Yagi acknowledged—a little too casually for the Navy, a little too proud.

The lieutenant's eyes narrowed. "Is today the day you lose that last bar?" He was referring to the single bar above the wreath and anchor on Yagi's petty officer second class insignia patch, one step above seaman. Yagi had suffered much to ascend that one step.

"No, Lieutenant. I hope not," he said.

"Then straighten that back."

Yagi felt the anger stirring inside him. One day, if this war ever ended, he might pay Miyata a visit.

He swallowed the feeling down and straightened his back.

"That's better," said Miyata. "Now, I'm sending you on a little outing. That B-29 that came down—they've found the crash site, and a bomb that's got the farmers shitting their pants. I want you to secure the site and deal with the bomb. There's a policeman waiting at the gate who will show you the way. Understand?"

Yagi gave a curt nod and started back to his workstation to gather some tools.

"On the double!" roared Miyata.

Yagi picked up his pace.

Petty Officer Yagi took two men with him: Seaman First Class Kuniyasu Nakamura, nineteen years old, and Ordinary Seaman Kotaro Wada, eighteen. Nakamura, a university student, had washed out of the profoundly difficult kaiten pilot training program and been reassigned to working on the craft, a tremendous disappointment. Yagi liked him. Nakamura had a sharp mind and was not given to resentful looks and loafing. He thought less highly of Seaman Wada, a slow-witted bumpkin and easy mark when they played Cho-han, Yagi expertly handling the dice. Nakamura, to his credit, rarely allowed himself to be fleeced.

The trio set out on bicycles, Policeman Kinoshita leading the way. It took them across the bridge spanning the Shimata River and through the center of the town of Hikari. It was a small place, not a likely target in itself for American bombers. It was home, however, to Hikari Naval Arsenal, where engines, cannon, bombs, and torpedoes were manufactured. The bombers therefore would surely come. It was only a matter of time.

They turned north and continued, the road angling back to follow the west bank of the river, clumps of bamboo screening the water and the train tracks on the opposite side. The going was easy, the road level, but Policeman Kinoshita was straining nevertheless. He was tired out from the fifteen kilometers he had already pedaled that morning. The civilian ration, reduced again and then again over the previous year, was also not enough to sustain any sort of physical effort.

Seven kilometers on and they turned away from the river into a narrow valley heading west. "There," said Kinoshita, pointing up the track they were following. PO Yagi had seen it already, tendrils of black smoke hanging over a stand of trees. He looked off to the right at the rice paddies filling the valley, about 500 meters across. A Buddhist temple overlooked the scene from a ravaged hillside on the left,

the pine trees that had once surrounded it all gone. They had been cut down and the roots dug up to be distilled into fuel.

It was after passing the shrine that Yagi spotted the first piece of wreckage, an immense wheel with its supporting arm sticking up. It must have been thrown a great distance. He was starting to pick up smells now, acrid smoke from burning rubber, fuel, and scorched metal. Then they were past the trees and at the heart of the crash site, a mass of scattered wreckage, some of the larger pieces blackened by fire that had now almost burned itself out.

There were twenty or more people standing around, mostly farmers. Some were chatting in the shade, still excited by the crash and enjoying a respite from their labors. Others were moving about in the fields, picking through the wreckage. Those who were near enough to see the military outfits stood up and bowed as the navy men approached and dismounted.

Yagi set his heavy iron bicycle on its kickstand and offered his canteen to Policeman Kinoshita, who was struggling to catch his breath. The policeman urged Yagi to go first, then gratefully accepted the canteen with both hands and took a long drink. They refreshed themselves to the drone of cicadas, so loud that it seemed to envelop the whole area in a vibrating cocoon. Yagi mopped his brow and began surveying the scene.

The B-29 had first hit the ground off to the right, judging from the swath cut through the rice plants that were starting to ripen. Straight ahead—that was a broken remnant of a wing, some of the aluminum skin peeled away, exposing the bones of the frame. One of the engines, propeller sheared off, was still attached—a stunningly massive engine, larger than anything Yagi had seen on any Japanese aircraft. A second piece of wing lay farther off, electrical wiring trailing out like intestines. Somewhat closer, amid flattened rice plants, lay a huddled mass that looked like a pile of rags. It took a moment for Yagi to realize that it was a body, one of the crew.

The largest portion of the wreckage in sight appeared to be the central fuselage, with half the starboard wing still attached. Two farmers could be seen searching through it. No sign of the tail section. There was something very large farther up the track, however, something plowed into the hillside, partly obscured by the trees.

"The cockpit," said Policeman Kinoshita, noting the direction of his gaze. "And some smaller parts farther along. It's all through the trees. The bomb is farther down, against the embankment."

Yagi took out several sheets of paper from his knapsack, each one bearing a printed warning: "DO NOT TOUCH! BY ORDER OF THE IMPERIAL JAPANESE NAVY." He handed a dozen of them to Nakamura and a jar of paste to Wada. "Post these on the larger pieces. This site is off-limits."

The two men snapped a bow before hurrying off. "Hai!"

"And keep your eyes open for aircraft markings!" Yagi called after them.

He turned to Kinoshita. "All right, show me the bomb."

Kinoshita led the way up the track. As Yagi followed, he could hear Nakamura and Wada in the distance, establishing order: "Get away from that! Put that down! No one in this field!"

Yagi stopped first to examine the cockpit. It had been torn completely off in the crash, skipping on across the field and plowing partway up the hill, the last of its forward momentum arrested by the trees. An elderly Buddhist monk stood beside the track a short distance before it, rocking back and forth as he chanted over a second crumpled body, the remains of another member of the enemy aircrew. He took no notice of Yagi and Kinoshita.

The cockpit lay angled up the hillside, its ragged edges trailing wires and cables. The interior space was sealed off at the rear by a bulkhead with an access hatch on the upper side. Yagi tried the hatch, but it would not open. He put his shoulder against it and pushed, but it still would not move. So much the better. No one would get in. He took out one of the "Do Not Touch" notices and affixed it to the bulkhead,

then continued on up the hillside to look at the nose, pulling himself up with the broken branches of the trees.

The entire nose of the aircraft was comprised of thick glass panels, now mostly covered with dirt. One had been knocked out, the open space large enough for a small person to squeeze through. Yagi, stocky of build, stuck his head in for a look.

He saw two bodies, pilot and copilot, strapped to their seats. The pilot, eyes partly open but quite dead, had his hands still locked on the yoke. The copilot was slumped sideways, hanging limp in his harness, blood down the front of his flight suit. A third seat, empty, was situated between them, lower down and farther forward. It was so close that Yagi could reach out and touch it. Who sat here? The bombardier? They were perhaps on a weather observation mission. Or taking reconnaissance photos. But why carry a bomb?

Yagi withdrew his head from the nose of the plane and looked around. Small pieces glinted in the undergrowth here and there: torn shards of metal, bits of wiring, a metal cylinder that looked like a thermos, a brown leather boot.

Policeman Kinoshita was right. It was all through the trees.

He affixed another "Do Not Touch" sign to the glass. There likely would be a good deal inside the cockpit of interest to the Imperial Navy. The warning alone should be enough to deter the local people from wriggling in through the broken-out panel, but still . . .

"Policeman!" he called out to Kinoshita, looking on from the track. "No one is to touch this."

Kinoshita jerked his head in acknowledgment. "Hai!"

Yagi began to descend the hillside on the other side of the cockpit, handing himself down from one tree to the next. It was then that he noticed the scraped and muddied image of a nearly naked woman painted on the aircraft's aluminum skin. He broke off an obscuring branch to reveal the picture more fully. An American movie star, displaying her bottom and looking alluringly over her shoulder. The picture was framed by two words, painted in red at a jaunty angle. He

took out his notebook and copied down the twelve letters without understanding: *WICKED INTENT*.

"It's just over here," said Kinoshita when Yagi rejoined him. The policeman ushered him along the track for another fifty meters, toward a trio of farmers squatting on the side of the embankment, contemplating something below them down in the field.

"There," said Kinoshita, pointing toward whatever it was they were gazing at.

"You should move back!" Yagi called out to the farmers as he approached. "Move back at least one hundred—"

He looked down at the biggest bomb he had ever seen in his life.

"Get out of here," he said quietly. "Move."

The farmers scrambled to their feet and scurried away.

The bomb lay at the edge of the field, its nose buried in the chest-high embankment. It must have tumbled some distance, expending momentum, Yagi deduced. Otherwise it would have dug itself all the way into the earth. It was some seventy-five centimeters across, and three meters of its length was showing. Depending on how much of it was buried, it was possibly the length of two men.

"Only this one?" he said.

Kinoshita nervously nodded. "Only this one. Should I . . . should I guard the site?"

Yagi grunted and nodded. "Make sure that nothing is touched."

"Hai!" Kinoshita gratefully backed away, then turned and jogged off.

Yagi continued contemplating the bomb. For a B-29 to be carrying only one, and so large—it must be special.

He eased himself down the embankment to stand in the paddy among the rice plants. The realization that the bomb had tumbled violently before coming to rest was not a great comfort. It could have some sort of delayed fuze, after all. He stood very still, apprehensive before it, like it was a sleeping beast that might suddenly wake.

It was making no noise. He stepped closer and lowered his head toward the dirt-smeared black casing.

Nothing.

He pressed his ear to the metal, listening for the ticking of a timing device, the sound of an internal mechanism winding itself down.

Nothing.

He straightened up, starting to relax, and once again took in the immensity of the thing. He now noticed that under the dirt it was covered with inscriptions in chalk and white paint, each put there by a different hand, judging from the various ways the letters were formed—some in capitals, some cursive, some slanted, some straight. He had a passing knowledge of the English alphabet and recognized some of the letters: an E and an M and a P. He did not understand any of the words but could guess the intent. But for so many inscriptions to be on one bomb . . .

Yes, it was clearly special, worth investigating. He decided not to use the thermite charges they had brought along to detonate it in place.

A sharp intake of breath from Nakamura and Wada, returning at the double and getting their first look at the thing.

They descended the embankment, stepping lightly. Yagi began brushing dirt from the casing, revealing what appeared to be a large identifying number, L10, and more handwritten inscriptions.

"These look like signatures," said Nakamura, scrutinizing the various scrawls. He sounded out a few of the more legible names, pointing at them in turn: "John Morris . . . Samuel Filson . . . Edward Houseman, for Charlie." To all three men they were meaningless sounds.

Nakamura moved on to the largest inscription, printed in block letters, and read it aloud in halting English: "For . . . the boys . . . on . . . Han-cock Street . . . De-tro-it . . . USA." He puzzled over this for a moment, murmuring the Japanese word for "boys."

"A street of boys," mused Wada, looking over his shoulder.

"Detroit," said Yagi. "That's an American city." He remembered his father mentioning the place. Yagi senior had owned a garage in Osaka and often had occasion to service American cars, Fords and Packards and even a Cadillac that had been built in Detroit.

Steeling himself, Nakamura brushed off the dirt from another inscription and slowly read it aloud, syllable by syllable. "'To Emperor Hirohito, Special Delivery to where the sun don't shine.'"

He looked up at Yagi, pointing at the name. "'Emperor Hirohito.' That means Tennō Heika."

Yagi tried the rest of the inscription. "'Where . . . the . . . sun . . . don't . . . shine.'"

Nakamura attempted a translation.

Wada's eyes widened. "They're cursing the Emperor to a place of darkness. Near a street of boys. What could that mean?"

Yagi sent the two men back to the bicycles for the tool bag and shovels and put them to work excavating dirt from around the bomb. As they dug and sweated, he jotted down notes and began making a sketch. He then took over with the hand brush, cleaning off the last of the dirt from the now fully exposed bomb and beginning a detailed examination. It seemed sensible to gather as much information as he could, given the bomb's unusual nature. He also hadn't figured out how to go about disarming it. He in fact had very little experience in bomb disposal. What he knew came from a daylong lecture that had been part of his retraining at Kure Naval Yard after recovering from his burns. The class had been shown a 50-kilo American incendiary bomb and a few examples of British bombs recovered earlier in the war. That was the extent of the enemy ordnance he had seen.

The bomb was just over 3 meters long from its blunt nose to the boxlike structure at the tail. Yagi added the measurement to his sketch, together with the diameter, 71 centimeters, and the circumference, 2.23 meters. The rear structure had been crushed on impact, but its original configuration was apparent, crisscrossed vanes to stabilize the bomb as it fell. It was bolted to the casing and evidently could be removed. Some sort of plate lay beneath it, an access plate to the rear of the bomb. There were three shallow holes in it, possibly for a special tool to assist with removal.

Yagi worked his way forward, running his hand along the casing.

He came to a vertical seam in the metal, lined with bolts. A second seam lay another meter and a half farther on, making for three distinct parts to the casing. And positioned on this forward seam: a single steel shackle. This was where the bomb was suspended and thus marked its center of gravity. It was only a third of the way from the nose. That meant it was nose-heavy.

Where was the fuze? On the American incendiary bomb he had seen at Kure, it was inserted in the nose. Seeing the bolt and nut projecting from the front of this vastly larger weapon led him to think that it was similarly designed.

He removed the largest adjustable wrench from the tool bag and fitted it onto the nut projecting from the nose. He began to apply pressure as Nakamura and Wada looked on.

The nut didn't move.

Yagi braced himself and tried again, straining harder.

The nut didn't move.

He got down close to squint at the fraction of bolt projecting from the end of the nut. He could make out a bit of the thread, enough to verify that he was applying torque in the proper direction. Counterclockwise. The Americans did things the same, like on their cars.

He wavered, thinking he ought to switch his attention to the tail. No, the box-shaped vanes there would first need to be cut away. And that couldn't be done here in a rice field without an acetylene torch.

He returned to the nose.

He removed the heavy hammer from the tool bag, repositioned the wrench, and tapped on the handle to loosen the nut. It remained frozen. He increased the force of his blows, then tried tapping the wrench in one direction, then the other, trying to break whatever bond was preventing the nut from turning. No good. The nut wouldn't budge. Yagi let out a sigh of frustration and settled back on his haunches.

It was only then that he noticed Nakamura and Wada hovering behind him, their eyes wide with alarm from watching him use a hammer on a bomb.

Their fright goaded him on. It had been this way with him since he was a boy, when his family emigrated from Korea and his father, Yang Jae-sok, had adopted the Japanese surname Yagi. As an ethnic Korean in Japan, fully acculturated but still looked down on, Ryohei Yagi had developed a drive growing up to prove that he was braver and stronger and tougher than any Japanese boy. It was a trait that got him into numerous fights at school. By the age of sixteen, he could take on grown men.

"I hope you sent a letter home to your parents," he said, squaring his powerful shoulders and returning to work. He readjusted the wrench on the nut and bellied up close, both his hands bearing down on the handle. Wada, seeing what he was about to do, sucked in his breath.

"*Yosh!*"

Yagi brought his weight down on the wrench, one, two, three, four times. The nut held like it was welded in place. Instead, the entire bomb moved.

He paused to wipe away the sweat dripping into his eyes. A glance at Nakamura and Wada, looking on in terror.

"You two boys want to give it a try?"

Both men shook their heads.

Yagi got into position again to use his full weight on the wrench. He began heaving down again on the handle, grunting with effort. The bomb began rocking. Finally he felt the nut give way.

He paused for a breath, then resumed.

More movement. A definite turn.

But it wasn't the nut that was turning. It was the whole steel disk to which the nut was attached. It was unscrewing from the nose of the bomb like a giant oil drain plug from the crankcase of an engine.

Using less force, Yagi completed a full turn. The plate was a centimeter out now and rotating smoothly. Another turn and another, and the plug kept coming. Five centimeters, then eight, then ten—ten centimeters of high-quality steel with machined threads cut into the

surface. Whatever this was—and it didn't look at all like a fuze—it had been manufactured with care.

It was getting hard to turn now. The emerging plug, solid steel, was heavy.

"Take the weight off the end," Yagi ordered.

Wada and Nakamura, moving stiffly from fright, positioned themselves facing the nose of the bomb and lifted up on the plug as Yagi continued to unscrew it.

A heavy metallic thunk, and the bomb shifted. The two seamen threw themselves backward. The plug had come loose. It was hanging at an angle from what was now a hole in the bomb's nose, apparently held in place by something farther inside.

With a great deal of struggle and straining, PO Yagi and his two assistants pulled the plug the rest of the way out of the cavity. It dropped into the dirt and they fell back, panting, Yagi's vision momentarily filled with flashing stars brought on by the effort.

Retrieving a flashlight from the tool bag, he peered into the exposed nose of the bomb. A polished tube, like a gun barrel, extended deep inside, sixteen centimeters in diameter and easily two meters in length. If there was any explosive material inside, he couldn't see it.

He got to his feet and looked down at the heavy plug they had removed from the nose. This was no fuze. It was a cylindrical assembly of several pieces of metal, held together by a thick rod with a heavy nut on each end. At the outermost end was the threaded plug that he had unscrewed from the casing. Next to it, in the center of the assembly, was a smaller piece of machined steel, angling down to a diameter of fifteen centimeters, then a thick gray metallic disk that had the look of coarse iron or perhaps tungsten carbide. And seated upon this, farthest inside . . .

There were six metallic rings, stacked one on top of the other. They were of varying thicknesses and crudely cast, which seemed odd, considering the precision evident in the rest of the bomb. The metal itself also seemed strange. It had a plum-colored patina, richer on some

of the rings than others, and was quite soft, like lead. It yielded when Yagi pressed it with his thumbnail.

It was also extremely heavy. After removing the stacked rings from the assembly by unscrewing the innermost bolt from the rod, Yagi needed a good deal of strength to pick them up. The entire stack was only the size of a one-liter tin can, but he estimated that it weighed about twenty-five kilos.

He allowed his two men to handle the rings as they wondered what the material was.

It was Seaman Nakamura, remembering his high school chemistry, who suggested conducting a test.