PROLOGUE

Kao Bay
Halmahera Island, Dutch East Indies
August 15, 1945

Waves battered the submarine's foredeck as rain swept over the sea in sheets. Even inside the island's barrier reef, the ferocious storm was kicking up breakers.

The two men atop *U-824*'s sail bent their heads against the torrent. Their eyes, however, remained alert, warily scanning the churning night sky. That was where the real threats loomed.

"Welcome to the tropics, Herr Doktor," said the U-boat's skipper.

SS Obersturmführer Dr. Heinrich Drexler squinted, his wheel hat useless against the pelting rain. After a long three months at sea, he was accustomed to the captain's dry sense of humor. It was a common survival mechanism among frontline commanders, especially those of submarines, which had the highest casualty rate in the German armed forces. How *U-824* and her crew had made it this long was an utter mystery.

Drexler wiped the moisture from his eyes. He possessed neither the training nor the temperament to be a sailor.

Throughout the war, he had been a department commander in the Institut für Wehrwissenschaftliche Zweckforschung—the SS division Himmler had created for military scientific research. What direction his life would take after tonight, however, was an open question.

"The storm is in our favor," Drexler noted. "It will keep the Americans' aircraft grounded."

The captain continued checking the skies, a force of habit as U-boats were always most vulnerable when running on the surface, especially this close to land.

"True," the captain replied, "but it won't last all night. I suggest you conduct your business quickly once we reach the pier. I don't wish to be exposed at daybreak."

"Will you take on fuel here?" the SS man asked.

"If there is any to be had. South America is quite a long voyage."

This was their loose plan. Once Drexler made his delivery, their mission would be complete. Returning to Germany, however, was out of the question, and the consensus among the crew was that Argentina was their best bet. From there, those who wanted to repatriate to the wreckage of the Fatherland could do so. The rest, Drexler among them, would attempt to fade away into Bariloche or other remote locations across the Andes.

Drexler's eyes reached into the distance. Minutes earlier, the captain had pointed out a low shadow on the horizon. He had seen it only briefly, and then the island had disappeared in a band of rain. When a flash of lightning turned night into day, he had spotted it again, but only for an instant.

Halmahera Island was home to Imperial Japan's Kao Bay Naval Base. The outpost was a shadow of what it had been years earlier, but it hadn't yet been completely abandoned. The Allies had bypassed its port and airfield as part of their island-hopping strategy, choosing to starve certain strongholds logistically instead of fighting for every square inch of ground. *A mistake that would now come back to haunt them*, Drexler thought.

As the boat drove deeper into the natural harbor, the gloom kept its grip, but the seas began to abate. *U-824* was a type IXD2, one of the Kriegsmarine's longest-range submarines. That attribute had been severely tested on this voyage. It had taken over three months to reach Halmahera from Bergen, Norway—one of the last remaining ports under the Wehrmacht's control in the final days of the Reich. For over ten thousand nautical miles *U-824* had dodged patrols, scrounged for

food, and made repairs. As necessary, they'd hijacked civilian vessels along the way for fuel.

For Drexler, a chemist by education, it had been a brutal introduction to the austerity of combat. The crew kept hatches open while on the surface to vent noxious fumes from the engines and battery compartment. They bathed by swabbing their bodies with alcohol. None of it improved the terrible stench below.

At this point, the boat was in desperate shape. Her dent-wracked hull seemed bonded by rust. There were innumerable leaks and her pumps ran constantly, but thankfully she could still dive. That instilled a sense of pride among the crew, as did the fact that *U-824* was, almost certainly, the only German warship still at sea.

Fighting, in the conventional sense, was no longer an option. Germany had surrendered mere days after they'd gone to sea. More damningly, *U-824* had not even been loaded with torpedoes—every inch of space had been needed for food and fuel.

Despite her admirable combat record, the boat's final mission had nothing to do with attacking enemy ships. This voyage was the Reich's final roll of the dice, a last-gasp prayer for resurrection.

The seas continued to calm, and Drexler could soon discern the shape of a pier and a few low-slung buildings.

"We will arrive soon," the captain said. "You should go below and make ready."

Drexler disappeared down the ladder.

Five minutes later he emerged from the midship deck hatch as mooring lines were being heaved to dockhands. Attached to his wrist by a chain was the special case that had been locked in a safe in his cabin since leaving Norway. The lines drew taut and a gangway was locked into place.

Aside from the dockhands, there was only one other person on the pier. A Japanese army sergeant stood waiting as Drexler stepped ashore. Without introduction, the sergeant said in rough German, "Follow me, please."

The escort led the way to a leaky Kurogane scout car. Known as a Type 95, or a Yonki for short, its battered soft top was in desperate need of repair. Drexler followed the quick-moving sergeant as best he could, his legs wobbly after months at sea.

Soon they were pounding over a road running brown with rain. The path curved through dense jungle, and while Drexler couldn't see the horizon, he sensed they were climbing.

For fifteen minutes the car hurtled upward, reversing through countless switchbacks. In the wash of the headlights, the road looked more like a river, and the four-wheel-drive Yonki struggled for traction. More than once, Drexler thought they were going to skid off the side of the mountain. Clutching the briefcase with one hand and the door handle with the other, he imagined what an inglorious end *that* would be after the odyssey that had brought him halfway around the world.

Finally, the driver pulled over to the side. He stepped out of the car and beckoned Drexler to follow.

An overgrown path led to what looked like an impassable rock wall. In the dim light, they came upon a crooked totem pole—three grim, hand-carved faces stacked vertically on a hardwood log.

The path terminated at an opening in the mountain's rock face. The entrance was large enough for a small truck to drive through.

Two guards snapped to attention as Drexler and the driver approached. They looked ragged and underfed. Yellow light emanated from inside the cavern. Stepping inside, Drexler paused to look around.

On first glance the cavern appeared natural, but then he saw telltale grooves on the walls, suggesting it had been expanded by blasting and machinery. The section in which he stood was clearly a warehouse or a supply depot of some sort. He saw wood-frame crates on one side containing a half dozen Zero fighter aircraft that had been disassembled, their wings detached from their fuselages for shipment. Fuel drums were stacked against the far wall. Judging by the acrid scent in the air, they were full.

The sergeant led Drexler deeper into the cavern, and he finally saw what he'd expected. A heavy entry door, pneumatic seals, ventilation, rigid construction. All were hallmarks of the laboratories in his own division. This was, after all, a joint venture.

Near the entrance stood the man he had come to see—Captain Yasu Shimizu. Though they had corresponded regularly, this was the first time the two had ever met in person. For over a year, he and

Shimizu had been coordinating on one of the most closely guarded secrets of the war—the project that would define both their careers.

The downcast look on Shimizu's face was not what he had been expecting. The Japanese, in Drexler's experience, were rarely expressive in work settings.

The two men shook hands tentatively, a pair of officers aware, but not ready to admit, that their nations were destined for the wrong side of history.

"I'm sorry we are meeting under such unpleasant circumstances," Shimizu said in solid German.

"As am I," Drexler replied.

"To be honest, I am somewhat surprised by your arrival. I can't imagine the gauntlet you must have run to get here."

"We were at sea for months, and there were many close calls. Thankfully, we had a good captain."

"Or a lucky one."

"In this war, one needs both. Fortunately, the Imperial Japanese Army fights on. What is the news from the Pacific front?"

"How far back should I go?" Shimizu asked.

"Our Enigma machine has been silent since leaving Norway. We received a few traces of news from the crew of a fishing boat we commandeered in the Indian Ocean, but nothing reliable. The Führer is supposedly dead, and the Russians, Americans, and British have been carving up Europe at Potsdam."

"Yes, all that is true. But on this side of the world, the most significant news came last week. The Americans dropped atomic bombs on mainland Japan—Hiroshima and Nagasaki. Both cities were obliterated in seconds, over a hundred thousand dead."

"*Atomic* bombs?"

Drexler looked at Shimizu with amazement. He had heard rumors the Americans were pursuing such a capability. His own unit had studied the concept, yet it seemed too complex, too theoretical for the application of scarce resources. The more damning truth, however, was rarely mentioned: In the run-up to the war, many of Germany's most accomplished nuclear scientists happened to be Jews, and almost all had fled.

"The end of the war is imminent. I can feel it," Shimizu said.

"How different it all might have been if we had begun our project a year sooner."

"It is never too late. The Reich will rise again. And the Land of the Rising Sun has not been defeated—the emperor will never surrender."

Shimizu nodded unconvincingly as his attention shifted to the briefcase. "You have determined the optimum formula?"

"We have, and the manufacturing hurdles have been overcome. And you? The tests?"

As if to answer, Shimizu walked forward and activated the controls of the heavy laboratory door.

Drexler heard a hiss of air, followed by the clanking of gears as Shimizu spun the locking wheel and the door opened.

The lab was larger than he expected, with corridors carved deep into the rock on both sides. He saw benches and lab equipment. Two large chalkboards were covered in mathematical equations and chemical symbols. On the back wall Drexler saw a dozen cages, half of which contained test subjects—six men sitting in varying states of misery.

They wore stained coveralls and looked haggard, their faces dirty and unshaven. Two of the broken souls looked at Drexler pleadingly while the rest remained motionless. None of the men attempted to speak, likely due to a nearby guard with a truncheon who eyed them menacingly.

The air in the room was stagnant and infused with an odor of something Drexler recognized. Not human waste or rotting flesh, both of which he'd experienced in the camps, but something that was even more prevalent in those hellholes . . . fear.

"Who are they?" Drexler asked. He knew that Shimizu's division, Unit 731, regularly experimented on humans—there was simply no other way to validate the science—but seeing these subjects alive and awash in suffering was much more powerful than the data points he had been sent.

"Koreans, Chinese, a few from the islands here. There is never a shortage of prisoners."

Without comment, the SS man unchained the briefcase from his wrist. He handed it to Shimizu with something near reverence. This was Drexler's contribution to the Reich. Two years of work, an escape

from Europe, evading capture across the oceans. He had now delivered his magnum opus.

"I only hope enough time remains to make a difference," he said.

Shimizu retrieved a bound copy of his own research from a cluttered desk and handed it to his German counterpart. Drexler felt a kinship of excitement. Neither man spoke as they digested the results of their parallel research.

Questions and answers began flowing. For forty-five minutes the two men discussed methods, challenged each other's inferences. Drexler went over his manufacturing process and the benefits of mass production. Then he listened raptly as Shimizu discussed the data from his experiments.

Unit 731 had begun with pigs and monkeys, and after validating a high survival rate for injections, had advanced to human testing six months ago. There were inevitable failures and terrible overdoses, but the final results were unassailable.

"It works," Shimizu whispered, almost in astonishment.

"And it can be synthesized on a mass scale."

"True, but even the method you describe would require a significant commitment of time and money. I don't see that as realistic given the precarious state of the war."

The German heaved a freighted sigh. "We might have turned the tide had we achieved this sooner."

"Perhaps. But now—"

"Captain!" said a corporal rushing into the lab.

Shimizu shot the man a hard look for the interruption. The corporal handed over a decoded message.

Drexler watched Shimizu read it and saw his expression collapse.

"What's happened?" Drexler asked.

Shimizu lowered the paper to his side. "It is over. Japan will surrender today. We have been instructed to stand down all war efforts."

Drexler knew there was nothing he could say that would allay his colleague's agony. *U-824* had received a similar message at the outset of their voyage, and the bitter taste of defeat was like nothing he'd ever experienced. He checked his watch. Sunrise would occur in less than an hour.

"I have to get back to the boat," he said.

"I understand," replied Shimizu.

Their shared disappointment was palpable. The weapon they had created might truly have changed the course of the war.

Dejectedly, the two men shook hands. Both knew it was highly likely that they would never see each other again. Drexler turned and disappeared through the pressure door.

Ignoring his desk, which was covered by thousands of pages of research, Shimizu turned toward the test subjects in their cages. One hundred and eighty-six others had come before them, their bodies now stacked in a mass grave in the valley. With the war over, there would be no hiding what had happened here. Shimizu made his decision quickly—one that had been forming in the back of his mind for months.

He ordered the exterior guards to join the others inside the cavern for a "special briefing." Once the entire unit was assembled under the pale interior lights, Shimizu positioned himself behind the heavy table from which he typically addressed his men. He imparted the worst news a military commander can give. *The war was lost*.

He followed with a short speech, commending his men for their valiant contributions. He assured them that their sacrifices were no less honorable in the face of defeat. He saw before him a mix of reactions. Some of the soldiers were clearly shattered at the mention of surrender. Others looked indignant, probably imagining how they might carry on the fight. Many, however, seemed relieved, no doubt buoyed by the prospect of returning home to reunite with their families.

None of that was going to happen.

Fighting a trembling hand, Shimizu reached down beneath the table, pulled back a safety guard, and flicked a concealed toggle switch.

He had ordered the explosives installed the previous year. He'd explained to the army detail who'd buried the charges in the mountainside that the research here was too valuable to ever be allowed to fall into enemy hands.

The twenty-eight explosions occurred almost simultaneously, and if anything, the army team had overshot their mandate.

The entire mountainside collapsed, a tropical avalanche that buried

Japan's most secret laboratory. The lone entrance disappeared under countless tons of dirt and rock. Two ventilation shafts belched smoke and dust until they, too, were covered by the landslide. The majority of those inside perished instantly, either buried alive or having taken shrapnel from the blasts. The few who survived were inescapably entombed.

And with that, Project Kōmori, the last hope of the Axis powers, was lost to the world.