Japan's political and military leaders balk at accepting such terms? Why were they so determined to preserve the Emperor? What was the American view of him?

3 Much has been made of the estimated casualties the Americans would have suffered had they been forced to invade the Japanese homeland. To invade the first home island alone (this was Kyushu), Marshall came up with one casualty figure and Admiral Leahy with a somewhat higher figure for the first month of fighting. The Report of the Joint War Plans Committee estimated total losses from an invasion of the Japanese homeland at 193,500. After the war, Truman claimed that an invasion would have resulted in 500,000 American deaths. How do you explain such discrepancies? What does Professor Maddox say about them? Were Japanese forces on Kyushu and the main home island, Honshu, strong enough to inflict such losses? What is Maddox's opinion of critics who use the estimate of the Joint War Plans Committee to condemn Truman?

4 Why did the Japanese look to Stalin's regime in hopes of securing favorable peace terms? Why did the Soviet Union refuse to intercede in Japan's behalf in an effort to end the Pacific war? Had the Soviets approached the United States, asking for terms for Japan other than unconditional surrender, how do you think Truman and his advisers would have reacted?

5 What do you think might have happened had the Truman administration decided not to use its nuclear capacity against Japan?

21 Hiroshima: The Victims

FLETCHER KNEBEL AND CHARLES W. BAILEY II

One of our friends, who thinks that dropping the bomb was a necessity, believes nevertheless that the horrors it visited on Hiroshima and Nagasaki ought never to be forgotten. Indeed, perhaps the best argument against the bomb is what it did to its victims, which is the subject of the following selection. It and the previous selection ought to generate fiery discussions in every classroom in which Portrait of America *is read.*

For the people of Hiroshima and Nagasaki, the questions faced by Truman and his advisers did not matter. Nothing mattered to them but the searing flash of light that ultimately killed some 130,000 people in Hiroshima and 60,000 to 70,000 in Nagasaki and scarred and twisted thousands more. One scorched watch, found in the wreckage at Hiroshima, stopped at the exact moment of the atomic blast: 8:16 A.M. When the bomb exploded two thousand feet above the center of the city, thousands of people "were simply burned black and dead where they stood by the radiant heat that turned central Hiroshima into a gigantic oven." Some 60 percent of the city—roughly four square miles—was totally vaporized. "Beyond the zone of utter death and destruction," as one history puts it, "lightly built houses were knocked flat as far as three miles from ground zero, so that 80 percent of all buildings were destroyed and almost all the rest badly damaged." Nothing was left of Hiroshima but smoking, radioactive rubble. After the second bomb wrought similar destruction on Nagasaki, Emperor Hirohito spoke to his people by radio—the first time he had ever communicated with them. "The enemy," he said, "who has recently made use of an inhuman bomb, is incessantly subjecting innocent people to grievous wounds and massacre. The devastation is taking on incalculable proportions. To continue the war under these conditions would not only lead to the annihilation of Our Nation, but the destruction of human civilization as well."

Since then, a number of books have appeared about the atomic explosions at Hiroshima and Nagasaki. Among the best are J. Samuel Walker's Prompt and Utter Destruction *(1997), John Hersey's* Hiroshima *(1946), available in a new edition, and* No High Ground *(1960), by Fletcher Knebel and Charles W. Bailey II. The latter recounts the entire history of the first atomic bomb at Hiroshima, from Truman's decision to use it, to the flight of the* Enola Gay *(which dropped "Little Boy," as the bomb was called), up to the actual explosion and its cataclysmic results. In this selection, Knebel and Bailey describe that explosion with telling details, narrating the experiences of several people who somehow lived through that "fireball of destruction." Telling the personal side of Hiroshima is what makes this such a powerful account, with implicit lessons about the horror of nuclear war that have universal resonance. We can all identify with the people here, with Mr. Nukushina, Mrs. Susukida, and Dr. Imagawa, as the atomic blast swept over their city and changed the world forever.*

GLOSSARY

ENOLA GAY Nickname of the B-29 that dropped the atomic bomb called "Little Boy" on Hiroshima.

HIRANO, MAJOR TOSAKU Staff officer stationed in Hiroshima, he had gone up to Tokyo, and his decision to stay there a couple of extra nights saved his life; later, he persuaded Japan's leading nuclear scientist, who already suspected that the bomb dropped on Hiroshima was a nuclear weapon, to fly there and investigate.

DR. IMAGAWA Visiting a patient's home when the bomb burst, he found himself "standing on top of a five-foot pile of rubble" with his clothes shredded; he made for his home in a suburb, helping the wounded along the way.

KINOSHITA, HIDEO An officer at the monitoring station of the Japanese quasi-governmental news agency near Tokyo, he reported to his boss the news from America that an atomic bomb had been dropped on Hiroshima, and the boss relayed that report to the chief secretary of the Japanese cabinet.

NAKAMURA, BIN Subchief of the Hiroshima bureau of Japan's news agency, he was eating breakfast when the explosion "lifted him off the straw mat on which he was sitting and sent a wave of 'immense' heat washing over his face"; miraculously unhurt, he spent the day interviewing survivors and got a story out on a suburban radio station.

NUKUSHINA, MICHIYOSHI Fire-truck driver at the Hiroshima Army Ordnance Supply Depot, he had just returned home when the bomb exploded, flattening his home and blowing him into a corner where two safes prevented the falling roof from crushing him; he eventually found himself at an emergency aid station on Ninoshima Island.

OPPENHEIMER, J. ROBERT Scientist and director of the top-secret project at Los Alamos, New Mexico, that built the first atomic bomb.

SAKAMOTO, CHINAYO A mother who was mopping her kitchen floor when the *Enola Gay* droned by overhead, she and her family escaped "the blast and fire," because their home was situated behind a high protective hill.

SAKAMOTO, MIHO Chinayo Sakamoto's daughter-in-law, who, after learning that her husband and his entire military unit had been wiped out, slit her throat with a razor in front of a little altar.

SUSUKIDA, HAYANO Picking up salvaged roof tiles with other volunteers, she found herself suddenly slammed to the ground, her back severely burned, and her watch blown off; she made it to the emergency aid station on Ninoshima Island.

YAMAGUCHI, YUKO She lived with her children in a rented farmhouse in a suburb and was just cleaning up after breakfast when the walls exploded in a black cloud of soot; unhurt, she went into the wrecked city and found her father and mother, both dying, in a Red Cross hospital; she never did find her husband's parents.

The sounding of the all-clear signal in Hiroshima at 7:13 A.M. on August 6 made little change in the tempo of the city. Most people had been too busy, or too lazy, to pay much attention to the alert. The departure of the single, high-flying B-29 caused no more stir than its arrival over the city twenty-two minutes earlier.

As the plane flew out over the sea, Michiyoshi Nukushina, a thirty-eight-year-old fire-truck driver at the Hiroshima Army Ordnance Supply Depot, climbed onto his bicycle and headed for home. He had received special permission to quit his post half an hour before his shift ended. Wearing an official-duty armband to clear himself through the depot gates, and carrying a new pair of wooden clogs and a bag of fresh tomatoes drawn from the depot commissary, he headed home through the narrow streets of Hiroshima.

Nukushina crossed two of the seven river channels that divided the city into fingerlike islands and finally arrived at his home in Kakomachi precinct a little more than half an hour after leaving the firehouse. Propping his bicycle by an entrance to his small combination home and wineshop he walked inside and called to his wife to go get the tomatoes.

At this same instant, in a comfortable house behind the high hill that made Hijiyama Park a welcome variation in the otherwise flat terrain of Hiroshima, a mother named Chinayo Sakamoto was mopping her kitchen floor after breakfast. Her son Tsuneo, an Army captain fortunately stationed right in his home town, had left for duty with his unit. His wife Miho had gone upstairs. Tsuneo's father lay on the straw mat in the living room, reading his morning paper.

Off to the east and south of the city, a few men in air defense posts were watching the morning sky or listening to their sound-detection equipment. At the Matsunaga lookout station, in the hills east of Hiroshima, a watcher filed two reports with the air defense center. At 8:06, he sighted and reported two planes, headed northwest. At 8:09, he saw another, following some miles behind them, and corrected his report to include it.

At 8:14, the telephone talker at the Nakano searchlight battery also made a report. His sound equipment had picked up the noise of aircraft engines. Unidentified planes were coming from Saijo, about fifteen miles east of Hiroshima, and were heading toward the city.

The anti-aircraft gunners on Mukay-Shima Island in Hiroshima harbor could now see two planes, approaching the eastern edge of the city at very high altitude. As they watched, at precisely seventeen seconds after 8:15, the planes suddenly separated. The leading aircraft made a tight, diving turn to the right. The second plane performed an identical maneuver to the left, and from it fell three parachutes which opened and floated slowly down toward the city.

The few people in Hiroshima who caught sight of the two planes saw the parachutes blossom as the aircraft turned away from the city. Some cheered when they saw them, thinking the enemy planes must be in trouble and the crews were starting to bail out.

For three quarters of a minute there was nothing in the clear sky over the city except the parachutes and the diminishing whine of airplane engines as the B-29's retreated into the lovely blue morning.

Then suddenly, without a sound, there was no sky left over Hiroshima.

For those who were there and who survived to recall the moment when man first turned on himself the elemental forces of his own universe, the first instant was pure light, blinding, intense light, but light of an awesome beauty and variety.

In the pause between detonation and impact, a pause that for some was so short it could not register on the senses, but which for others was long enough for shock to give way to fear and for fear in turn to yield to instinctive efforts at self-preservation, the

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sole impression was visual. If there was sound, no one heard it.

To Nukushina, just inside his house, and to Mrs. Sakamoto, washing her kitchen floor, it was simply sudden and complete blackness.

For Nukushina's wife, reaching for the bag of tomatoes on her husband's bicycle, it was a blue flash streaking across her eyes.

For Dr. Imagawa, at his patient's city home, it again was darkness. For his wife, in the suburban hills to the west, it was a "rainbow-colored object," whirling horizontally across the sky over the city.

To Yuko Yamaguchi, cleaning up after breakfast in the rented farmhouse where she and her in-laws now lived, it was a sudden choking black cloud as the accumulated soot and grime of decades seemed to leap from the old walls.

Hayano Susukida, bent over to pick up a salvaged roof tile so she could pass it down the line of "volunteer" workers, did not see anything. She was merely crushed to the ground as if by some monstrous supernatural hand. But her son Junichiro, lounging outside his dormitory at Otake, saw a flash that turned from white to pink and then to blue as it rose and blossomed. Others, also at a distance of some miles, seemed to see "five or six bright colors." Some saw merely "flashes of gold" in a white light that reminded them—this was perhaps the most common description—of a huge photographic flashbulb exploding over the city.

The duration of this curiously detached spectacle varied with the distance of the viewer from the point in mid-air where the two lumps of U-235 were driven together inside the bomb. It did not last more than a few seconds at the most.

For thousands in Hiroshima it did not last even that long, if in fact there was any moment of grace at all. They were simply burned black and dead where they stood by the radiant heat that turned central Hiroshima into a gigantic oven. For thousands of others there was perhaps a second or two, certainly not long enough for wonder or terror or even recognition of things seen but not believed, before they were shredded by the thousands of pieces of shattered window glass that flew before the blast waves or were crushed underneath walls, beams, bricks, or any other solid object that stood in the way of the explosion.

This scorched watch, found in the rubble at Hiroshima, stopped at the exact moment of the atomic blast: 8:16 A.M. When the bomb exploded, thousands of people "were simply burned black and dead where they stood by the radiant heat that turned central Hiroshima into a gigantic oven." (John Launois/Black Star; Hiroshima: National Archives)

For everyone else in history's first atomic target, the initial assault on the visual sense was followed by an instinctive assumption that a very large bomb had scored a direct hit on or near the spot where they were standing.

Old Mr. Sakamoto, who a moment before had been lounging on the living-room floor with his newspaper, found himself standing barefoot in his back yard, the paper still in his hand. Then his wife staggered out of the house, and perhaps half a minute later, his daughter-in-law Miho, who had been upstairs, groped her way out also.

Dr. Imagawa had just reached for his medical satchel to begin the examination of his patient. When the blackness lifted from his senses, he found himself standing on top of a five-foot pile of rubble that had

been the sickroom. With him, surprisingly, were both the sick man and the patient's young son.

Mrs. Susukida, flat on the ground amid the pile of old roof tiles, was left all but naked, stripped of every piece of outer clothing and now wearing only her underwear, which itself was badly torn.

Mrs. Nukushina had just time to throw her hands over her eyes after she saw the blue flash. Then she was knocked insensible. When she recovered consciousness, she lay in what seemed to her to be utter darkness. All around her there was only rubble where a moment earlier there had been her home and her husband's bicycle and the bag of fresh tomatoes. She too was now without clothing except for her underwear. Her body was rapidly becoming covered with her own blood from dozens of cuts. She groped around until she found her four-year-old daughter Ikuko. She saw no trace of her husband. Dazed and terrified, she took the child's hand and fled.

But Michiyoshi Nukushina was there, and was still alive, though buried unconscious inside the wreckage of his home. His life had been saved because the blast blew him into a corner where two big, old-fashioned office safes, used in the family wine business, took the weight of the roof when it fell and thus spared him from being crushed. As he came to, raised his head and looked around, everything seemed strangely reddened. He discovered later that blood from cuts on his head had gushed down over his eyelids, forming a sort of red filter over his eyes. His first conscious thought was that the emergency water tank kept on hand for firebombing protection was only one-third full. As his head cleared, he called for his wife and daughter. There was no reply. Getting painfully to his feet—his left leg was badly broken—he found a stick for a crutch and hobbled out of the rubble.

Hold out your left hand, palm down, fingers spread, and you have a rough outline of the shape of Hiroshima. The sea is beyond the fingertips. The back of the hand is where the Ota River comes down from the hills to the north. The spot where the bomb exploded is about where a wedding ring would be worn, just south of the main military headquarters and in the center of the residential-commercial districts of the city. Major Ferebee's aim was nearly perfect. Little Boy was detonated little more than two hundred yards from the aiming point on his target chart, despite the fact that it was released from a fast-moving aircraft over three miles to the east and nearly six miles up in the air.

Dropped with such precision, the bomb performed better than its makers had predicted. Several factors combined by chance to produce even more devastation than had been expected.

First was the time of the explosion. All over Hiroshima, thousands of the charcoal braziers that were the stoves in most households were still full of hot coals after being used for breakfast cooking. Almost every stove was knocked over by the massive blast wave that followed the explosion, and each became an incendiary torch to set fire to the wood-and-paper houses. In addition, where [J. Robert] Oppenheimer had estimated casualties on the assumption that most people would be inside their air-raid shelters, almost no one in Hiroshima was sheltered when the bomb actually fell. The recent all-clear, the fact that it was a time when most people were on their way to work, the mischance by which there had been no new alert when the *Enola Gay* approached the city, the fact that small formations of planes had flown over many times before without dropping bombs, all combined to leave people exposed. Thus more than seventy thousand persons instead of Oppenheimer's estimate of twenty thousand were killed outright or so badly injured that they were dead in a matter of hours.

The initial flash spawned a succession of calamities.

First came heat. It lasted only an instant but was so intense that it melted roof tiles, fused the quartz crystals in granite blocks, charred the exposed sides of telephone poles for almost two miles, and incinerated nearby humans so thoroughly that nothing remained except their shadows, burned into asphalt pavements or stone walls. Of course the heat was most intense near the "ground zero" point, but for

thousands of yards it had the power to burn deeply. Bare skin was burned up to two and a half miles away.

A printed page was exposed to the heat rays a mile and a half from the point of explosion, and the black letters were burned right out of the white paper. Hundreds of women learned a more personal lesson in the varying heat-absorption qualities of different colors when darker parts of their clothing burned out while lighter shades remained unscorched, leaving skin underneath etched in precise detail with the flower patterns of their kimonos. A dress with blue polka dots printed on white material came out of the heat with dark dots completely gone but the white background barely singed. A similar phenomenon occurred in men's shirts. Dark stripes were burned out while the alternate light stripes were undamaged. Another factor that affected injury was the thickness of clothing. Many people had their skin burned except where a double-thickness seam or a folded lapel had stood between them and the fireball. Men wearing caps emerged with sharp lines etched across their temples. Below the line, exposed skin was burned, while above it, under the cap, there was no injury. Laborers working in the open with only undershirts on had the looping pattern of shoulder straps and armholes printed on their chests. Sometimes clothing protected the wearer only if it hung loosely. One man standing with his arm bent, so that the sleeve was drawn tightly over his elbow, was burned only around that joint.

The heat struck only what stood in the direct path of its straight-line radiation from the fireball. A man sitting at his desk writing a letter had his hands deeply burned because the heat rays coming through his window fell directly on them, while his face, only eighteen inches away but outside the path of the rays, was unmarked. In countless cases the human body was burned or spared by the peculiarity of its position at the moment of flash. A walking man whose arm was swinging forward at the critical instant was burned all down the side of his torso. Another, whose moving arm happened to be next to his body, was left with an unburned streak where the limb had blocked out the radiation. In scores of cases people were burned on one side of the face but not on the other because they had been standing or sitting in profile to the explosion. A shirtless laborer was burned all across his back—except for a narrow strip where the slight hollow down his spine left the skin in a "shadow" where the heat rays could not fall.

Some measure of the heat's intensity can be gained from the experience of the mayor of Kabe, a village ten miles outside the city. He was standing in his garden and even at that distance distinctly felt the heat on his face when the bomb exploded.

After the heat came the blast, sweeping outward from the fireball with the force of a five-hundred mile-an-hour wind. Only those objects that offered a minimum of surface resistance—handrails on bridges, pipes, utility poles—remained standing. The walls of a few office buildings, specially built to resist earthquakes, remained standing, but they now enclosed nothing but wreckage, as their roofs were driven down to the ground, carrying everything inside down under them. Otherwise, in a giant circle more than two miles across, everything was reduced to rubble. The blast drove all before it. The stone columns flanking the entrance to the Shima Surgical Hospital, directly underneath the explosion, were rammed straight down into the ground. Every hard object that was dislodged, every brick, every broken timber, every roof tile, became a potentially lethal missile. Every window in the city was suddenly a shower of sharp glass splinters, driven with such speed and force that in hundreds of buildings they were deeply imbedded in walls—or in people. Many people were picking tiny shards of glass from their eyes for weeks afterward as a result of the shattering of their spectacles, or trying to wash out bits of sand and grit driven under their eyelids. Even a blade of grass now became a weapon to injure the man who tended it. A group of boys working in an open field had their backs peppered with bits of grass and straw which hit them with such force that they were driven into the flesh.

Many were struck down by a combination of the heat and the blast. A group of schoolgirls was working on the roof of a building, removing tiles as the

structure was being demolished for a firebreak. Thus completely exposed, they were doubly hurt, burned and then blown to the ground. So quickly did the blast follow the heat that for many they seemed to come together. One man, knocked sprawling when the blast blew in his window, looked up from the floor to see a wood-and-paper screen across the room burning briskly.

Heat and blast together started and fed fires in thousands of places within a few seconds, thus instantly rendering useless the painfully constructed firebreaks. In some spots the ground itself seemed to spout fire, so numerous were the flickering little jets of flame spontaneously ignited by the radiant heat. The city's fire stations were crushed or burned along with everything else, and two-thirds of Hiroshima's firemen were killed or wounded. Even if it had been left intact, the fire department could have done little or nothing to save the city. Not only were there too many fires, but the blast had broken open the city's water mains in seventy thousand places, so there was no pressure. Between them, blast and fire destroyed every single building within an area of almost five square miles around the zero point. Although the walls of thirty structures still stood, they were no more than empty shells.

After heat, blast, and fire, the people of Hiroshima had still other ordeals ahead of them. A few minutes after the explosion, a strange rain began to fall. The raindrops were as big as marbles—and they were black. This frightening phenomenon resulted from the vaporization of moisture in the fireball and condensation in the cloud that spouted up from it. As the cloud, carrying water vapor and the pulverized dust of Hiroshima, reached colder air at higher altitudes, the moisture condensed and fell out as rain. There was not enough to put out the fires, but there was enough of this "black rain" to heighten the bewilderment and panic of people already unnerved by what had hit them.

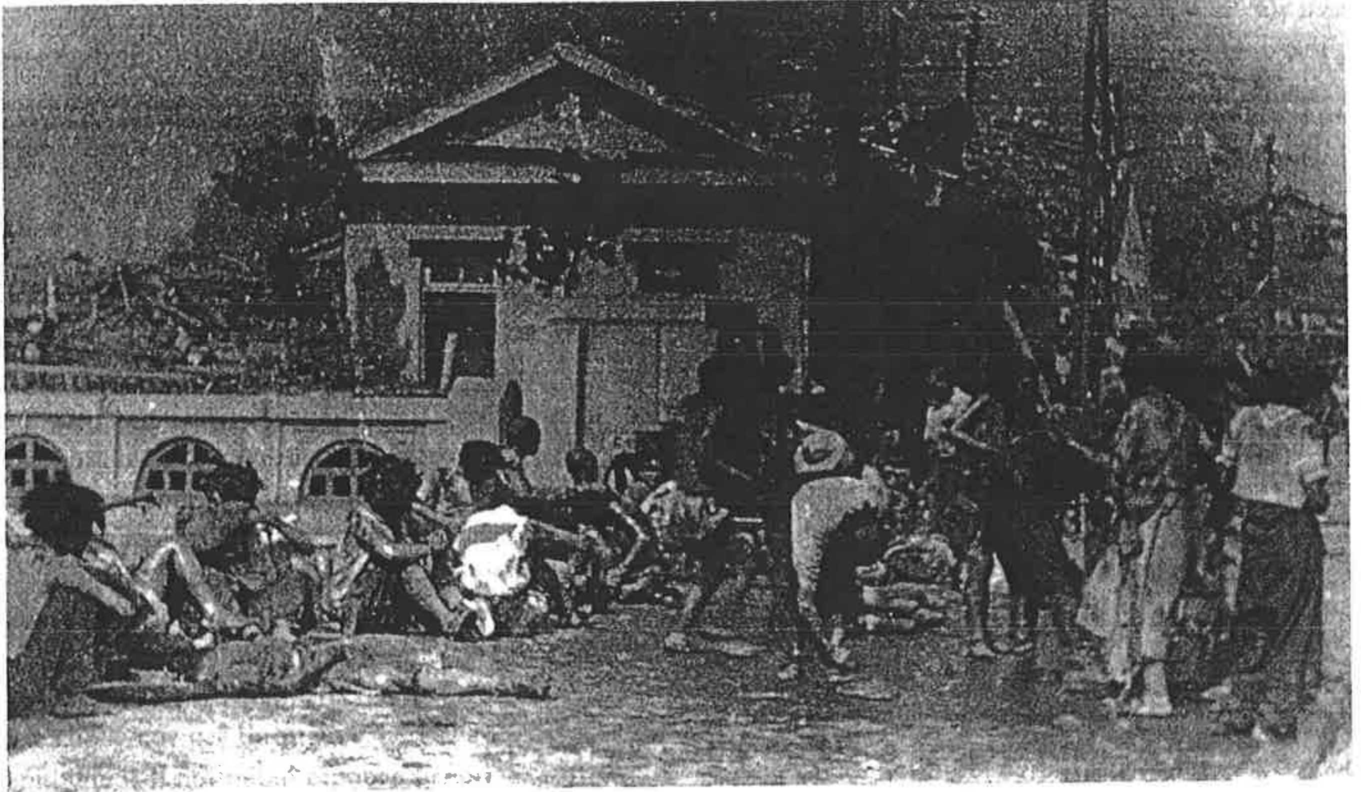
After the rain came a wind—the great "fire wind"—which blew back in toward the center of the catastrophe, increasing in force as the air over Hiroshima grew hotter and hotter because of the great fires. The wind blew so hard that it uprooted huge trees in the parks where survivors were collecting. It whipped up high waves on the rivers of Hiroshima and drowned many who had gone into the water in an attempt to escape from the heat and flames around them. Some of those who drowned had been pushed into the rivers when the crush of fleeing people overflowed the bridges, making fatal bottlenecks of the only escape routes from the stricken islands. Thousands of people were simply fleeing, blindly and without an objective except to get out of the city. Some in the suburbs, seeing them come, thought at first they were Negroes, not Japanese, so blackened were their skins. The refugees could not explain what had burned them. "We saw the flash," they said, "and this is what happened."

One of those who struggled toward a bridge was Nukushina, the wine seller turned fireman whose life had been saved by the big office safes in his house just over a half mile from "zero," the point over which the bomb exploded. Leaning on his stick, he limped to the Sumiyoshi bridge a few hundred yards away, where, with unusual foresight, he kept a small boat tied up, loaded with fresh water and a little food, ready for any possible emergency.

"I found my boat intact," he recalled later, "but it was already filled with other desperate victims. As I stood on the bridge wondering what to do next, black drops of rain began to splatter down. The river itself and the river banks were teeming with horrible specimens of humans who had survived and come seeking safety to the river."

Fortunately for Nukushina, another boat came by, operated by a friend who offered to take him on board.

"With his assistance, I climbed into the boat. At that time, they pointed out to me that my intestines were dangling from my stomach but there was nothing I could do about it. My clothes, boots and everything were blown off my person, leaving me with only my loincloth. Survivors swimming in the river shouted for help, and as we leaned down to pull them aboard, the skin from their arms and hands literally peeled off into our hands.



Their homes destroyed, city dwellers huddle on the Miyuki Bridge near the heart of Hiroshima. After the heat of the explosion came the "black rain," with drops as big as marbles, and then the "fire wind." Swept with conflagration, Hiroshima grew hotter and hotter. Many refugees, attempting to escape the heat, drowned in the rivers, and the "crush of fleeing people overflowed the bridges, making fatal bottlenecks of the only escape routes." (Culver Pictures)

"A fifteen- or sixteen-year-old girl suddenly popped up alongside our boat and as we offered her our hand to pull her on board, the front of her face suddenly dropped off as though it were a mask. The nose and other facial features suddenly dropped off with the mask, leaving only a pink, peachlike face front with holes where the eyes, nose and mouth used to be. As the head dropped under the surface, the girl's black hair left a swirling black eddy. . . ."

Here Nukushina mercifully lost consciousness. He came to five hours later as he was being transferred into a launch that carried him, with other wounded, to an emergency first-aid station set up on the island of Ninoshima in the harbor. There he found safety, but no medical care. Only twenty-eight doctors were left alive and able to work in a city of a quarter million people, fully half of whom were casualties.

When Hayano Susukida tried to get up off the ground onto which she and the other members of her tile-salvaging labor gang had been thrown, she thought she was going to die. Her whole back, bared by the blast, burned and stung when she moved. But the thought of her four-year-old daughter Kazuko, who had been evacuated from the city after Hayano's husband was sent overseas and the family home had been marked for destruction in the firebreak program, made her try again. This time she got to her feet and staggered home. The blast had not leveled her house, about a mile and a quarter from the zero point, and the fire had not yet reached it. Hurriedly she stuffed a few things—a bottle of vegetable oil, some mosquito netting, two quilts, a small radio—into an old baby carriage, and started wheeling it toward the nearest bomb shelter. After going a few

feet, she had to carry the carriage, for the street was choked with debris. She reached the shelter and passed the oil around to those inside, using the last of it to salve her own burns, which had not blistered or peeled but were nevertheless strangely penetrating and painful. She wondered what time it was. Her wrist watch was gone, so she walked home again to get her alarm clock. It was still running; it showed a little after ten. Back at the shelter, she just sat and waited. At noon someone handed out a few rice balls. As the survivors ate, an Army truck miraculously appeared and carried them to the water front, just beyond the edge of the bomb's destruction. Then they were ferried over to the emergency hospital on Ninoshima Island.

Dr. Imagawa, a little further from the center of the blast, was not seriously injured, although he was cut by flying glass in a number of places. His first reaction was annoyance. His clothes were in tatters, and he wondered how he would find the new pair of shoes which he had left at his patient's front door. Helping the small boy down off the five-foot rubble pile that had been the sickroom, he asked the youngster to take him to the front door. Oddly enough, they could not even find where the front of the house had been. Imagawa, much to his disgust, was out a new pair of shoes. At an artesian well with a pump that was still operating, he washed as best he could and set out for suburban Furue where his wife and children should be. He stopped frequently in response to appeals for help from the injured. One was a woman who wandered aimlessly in the street holding her bare breast, which had been split open. She pleaded with him to tell her whether she would live. The doctor, although positive she could not survive, assured her that a mere breast injury would not be fatal. Later, he drew water for a score of wounded from another well pump. Down the street, a trolley car burned briskly. Finally he got clear of the city and climbed the hill to Furue, where he found his family safe and uninjured. The walls of the house had cracked, in some places fallen, but his wife and the two little children had escaped injury, while the oldest girl had walked home from school without a scratch after the blast. The doctor ate, washed thoroughly, painted his cuts with iodine and worked till dark with his wife cleaning up their house. That evening the somewhat sybaritic physician sat down to dinner and then relaxed, as he had done the night before in Hiroshima—twenty-four hours and an age earlier—over a few cups of wine.

The doctor sipping his wine that night had one thing in common with Mrs. Susukida and Michiyoshi Nukushina, both lying injured and untended in the emergency hospital on Ninoshima Island. None of them knew what it was that had destroyed their city. Nor did they yet have either time or inclination to wonder.

But others, outside Hiroshima, were anxiously trying to find out what the *Enola Gay* had dropped on the city. The search for information was a frustrating one.

At first there had been no indication that anything unusual had happened in Hiroshima. A moment after 8:16 A.M., the Tokyo control operator of the Japanese Broadcasting Corporation noticed that his telephone line to the radio station in Hiroshima had gone dead. He tried to re-establish his connection, but found that he could not get a call through to the western city.

Twenty minutes later the men in the railroad signal center in Tokyo realized that the mainline telegraph had stopped working. The break seemed to be just north of Hiroshima. Reports began to come in from stations near Hiroshima that there had been some kind of an explosion in the city. The railroad signalmen forwarded the messages to Army General Headquarters.

It was almost ten o'clock when Ryugen Hosokawa, managing editor of the *Asahi* vernacular newspaper in Tokyo, received a telephone call at his home. It was the office, reporting that Hiroshima had "almost completely collapsed" as the result of bombing by enemy planes. Hosokawa hurried to the office and sifted through the reports collected by *Asahi*'s relay room. Every one of them sounded to him like something quite different from any previous bombing.

This must have been caused, he thought to himself, by very unusual bombs.

At about the same time Major Tosaku Hirano, a staff officer of the II Army Corps, was in General Headquarters in Tokyo. He had come up from Hiroshima a week earlier to report on the status of military supplies in the port city, and had been scheduled to fly back on Sunday. But he had put his departure off for a day or two and thus was still in the capital.

Now his telephone rang. It was a call from Central Command Headquarters in Osaka, an installation under the control of the II Army Corps in Hiroshima, reporting that its communications to Hiroshima and points west had failed.

Tokyo GHQ tried several times to raise the Hiroshima communications center, in the earth-and-concrete bunker next to the moat of the old castle, but could not get through. There was no explanation. The succession of reports from the radio network, from the railroad signal center, from *Asahi*'s newsroom and from Osaka indicated that something serious had happened, but no one could find out what it was.

Then, shortly after 1 P.M., General Headquarters finally heard from the II Army Corps. The message was short but stunning: "Hiroshima has been annihilated by one bomb and fires are spreading."

This flash came not from Corps Headquarters but from the Army shipping depot on the Hiroshima water front, which was outside the blast area and was not reached by the fire that followed. There was considerable damage at the shipping depot, something in the neighborhood of 30 per cent, but officers there were able to get a message out as far as Kure, where the naval station relayed it to Tokyo. There was no word at all from the II Army Corps Headquarters at the old castle in the northern part of town.

Reports continued to trickle in. By the middle of the afternoon, the Army knew that only three enemy planes had been over Hiroshima when the bomb exploded. It had been told that two of these did not drop any bombs. This information supported the startling assertion in the first flash that there had been only one bomb exploded. Something very big, and very frightening, had hit Hiroshima.

In mid-afternoon the managing editors of the five big Tokyo newspapers, plus their counterpart in the Domei news agency, were called to the office of the government Information and Intelligence Agency, which had charge of press and radio censorship. An Army press officer addressed the little group of newsmen:

"We believe that the bomb dropped on Hiroshima is different from an ordinary one. However, we have inadequate information now, and we intend to make some announcement when proper information has been obtained. Until we issue such an announcement, run the news in an obscure place in your papers and as one no different from one reporting an ordinary air raid on a city."

In other words, the lid was on. The Army already had a strong suspicion that the Hiroshima bomb might be an atomic weapon. Japanese Naval intelligence had reported U.S. work on the bomb in late 1944, noting the interest of the American government in buying up all available pitchblende (uranium ore). Thus, although the best scientists in Japan had agreed that there was no chance of the United States producing a fission bomb in less than three to five years, there was now immediate suspicion that an atomic bomb had fallen. But the Army, anxious to keep the war going so it could fight a showdown hand-to-hand battle with the Americans on Japanese soil, was determined to withhold the news from the Japanese people as long as it could.

The editors protested mildly, but the decision stood. At six o'clock that evening, the radio gave the people of Japan their first hint that Hiroshima had been chosen for a place in history as the spot where man first proved he could tear apart the basic structure of his world. A listener, however, would have been hard put to deduce the true story from the first news item as it was read:

> A few B-29s hit Hiroshima city at 8:20 A.M. August 6, and fled after dropping incendiaries and bombs. The extent of the damage is now under survey.

This cryptic item was repeated several times between six and nine o'clock without further explanation. On the nine o'clock program in Osaka, the sound of the musical chime that signaled the switch from national to local news was followed by this item:

> An announcement by the Osaka railway bureau in regard to changes in various transportation organs and changes in handling of passenger baggage:
>
> First of all, the government lines. Regarding the down train, trains from Osaka will turn back from Mihara on the Sanyo line. From Mihara to Kaitichi, the trains will take the route around Kure. . . .

Mihara was about halfway from Osaka to Hiroshima. Kaitichi was on the southeastern edge of Hiroshima. Trains headed there from Osaka on the main line ordinarily ran through the Hiroshima yards and station before swinging back to the smaller community.

The morning *Asahi* in Tokyo on August 7 carried a long front-page story with a sizable headline reporting "Small and Medium Cities Attacked by 400 B-29s." At the end of this story, there was a four-line item tacked on. It read:

> *Hiroshima Attacked by Incendiary Bombs*
>
> Hiroshima was attacked August 6th by two B-29 planes, which dropped incendiary bombs.
>
> The planes invaded the city around 7:50 A.M. It seems that some damage was caused to the city and its vicinity.

Those who survived in Hiroshima still did not know what it was that had struck them so viciously the day before. They did not have much time for thinking about it. Merely keeping alive was a full-time job. Some thought, as they fled the burning city, that the Americans had deluged their homes with "Molotov flower baskets," as the unhappily familiar incendiary clusters were nicknamed. Others, sniffing the air and detecting a strong "electric smell," decided that some kind of poison gas had been dropped. Another explanation was that a magnesium powder had been sprayed on the city, exploding wherever it fell on trolley wires and other exposed electrical conductors.

The prefectural government did what it could to bring order in the city. Somehow almost two hundred policemen were found for duty on August 7. They set to work, with whatever help they could commandeer, to clear the streets of bodies and debris. Police stations became emergency food depots, doling out hastily gathered supplies of rice, salt, pickled radishes, matches, canned goods, candles, straw sandals, and toilet paper.

The governor of Hiroshima prefecture, Genshin Takano, issued a proclamation:

> People of Hiroshima Prefecture: Although damage is great, we must remember that this is war. We must feel absolutely no fear. Already plans are being drawn up for relief and restoration measures. . . .
>
> We must not rest a single day in our war effort. . . . We must bear in mind that the annihilation of the stubborn enemy is our road to revenge. We must subjugate all difficulties and pain, and go forward to battle for our Emperor.

But most people in Hiroshima, if they could overcome their pain on this second day of the atomic age, were more concerned with finding their loved ones than with battling for their Emperor.

Yuko Yamaguchi, waiting out the war in the rented suburban farmhouse while her husband served overseas in the Army, was unhurt. So were her three little children. But her father-in-law, who had driven into the city Sunday for the meeting of his gas company board of directors, and her mother-in-law, who had left early Monday morning to fetch more supplies from their requisitioned city house, had not been heard from since the bomb fell. Yuko had had no word, either, from her own parents.

So at 6:30 this Tuesday morning, she left her children and set out for the city, walking the whole way because the suburban rail lines were not running. It was a long walk. By the time she reached the Red Cross Hospital, where she thought her in-laws might have been taken, it was noon.

Yuko did not find her husband's parents there. But, by sheerest chance, she found her own father, lying untended on the floor with an ugly wound in the back of his head. He begged his grief-stricken daughter for some water. When she did her best and filled a broken cup with stagnant water from a nearby pond, the delirious eye specialist was furious, insisting that ice and a slice of lemon be added to make it more palatable. Somehow, she found both in the wrecked hospital kitchen and made him as comfortable as possible. Then she started through the littered, jammed wards and halls to search for her other relatives. Again she found no trace of her in-laws, but at five o'clock she came on her own mother, lying unconscious, her face smashed almost beyond recognition and her intestines bared by a savage stomach wound.

Daughter dragged mother through the corridors to her father's side so the two could at least be together. There was little enough time. Near dusk the mother died, and Yuko had to carry the body outside, build a crude pyre and cremate it herself. At about dawn her father also died. This time, there were enough other corpses on hand so the hospital arranged a makeshift mass cremation, and Yuko left. She spent the day searching again for her husband's parents, but there was no trace of them, and she finally walked home to the hills to join her children. It was to be more than a month before she found any trace of her in-laws. Then she got only the stub of a commutation ticket bearing her mother-in-law's name, recovered from the wreckage of the train she had been riding at 8:16 A.M. Monday. A few charred bones uncovered still later in the burned-out office of the gas company president were the only trace ever found of her father-in-law.

Some who survived seemed to accept with stoicism the death of their loved ones. Miho Sakamoto, who with her husband's parents had escaped the blast and fire because their home was protected by the city's only high hill, was told on August 7 that her husband's military unit had been completely wiped out. She shed no tears and showed no emotion. Four days later, she visited the ruins of the building in which he had died, found a bent ash tray which she recognized as his and brought it home. That night, she seemed in good spirits when she went upstairs to the room she had shared with her Tsuneo. The next morning she did not come down to breakfast. Her mother-in-law found her lying in front of a little altar, the ash tray in front of her beside a photograph of her dead husband, the razor with which she had cut her throat still clutched in her hand. She left a note of apology to "My Honorable Father and Mother":

> What I am about to do, I do not do on sudden impulse; nor is it due to temporary agitation. It is a mutual vow exchanged with my husband while he still lived. This is the road to our greatest happiness and we proceed thereon. Like a bird which has lost one wing, we are crippled birds who cannot go through life without one another. There is no other way. Please, do not bewail my fate. Somewhere both of us will again be living happily together as we have in the past. . . . My honorable Tsuneo must be anxiously awaiting me and I must rush to his side.

Sixteen-year-old Junichiro Susukida, at his factory-school dormitory in Otake, sixteen miles west of Hiroshima, had seen the fireball and the great cloud that rose over the city Monday morning. When the first refugees arrived with the news that the city had been badly hit, he was one of many students who demanded permission to go to their homes, and he was one of five finally allowed to go into the city to contact authorities at the main school building and seek news of the students' families.

By the time they reached Miya-jima, on the southwestern edge of the city, the students could see the fires still burning in the bright late afternoon. As they came closer, they began to realize the full extent of the calamity. It was dark before the boys reached their home neighborhood and began their search for relatives. Junichiro, though unable to find either his mother or younger brother, did at last encounter neighbors who told him his brother had survived, though wounded, and had been taken to the home of other relatives in Fuchu. He could learn

nothing about his mother, however, and finally headed back to his dormitory in Otake. Dead tired when he arrived at 2 A.M., he was nevertheless too distraught to sleep. He sat in the school auditorium and incongruously played the piano until fatigue finally subdued his nerves just before dawn on Tuesday, August 7.

Junichiro was not the only one who did not sleep that night. In Tokyo, the truth about Hiroshima was beginning to be revealed in ways that made it clear that the facts could not be kept from the people of Japan much longer.

A little before midnight on the sixth, the Tokyo office of Domei, the quasi-governmental news agency that served the whole nation, much as the Associated Press or Reuters do in the West, received a bulletin from Okayama prefecture, just east of Hiroshima. It was followed by a longer dispatch: the first eye-witness account of the bombing by a professional newsman.

Bin Nakamura, subchief of Domei's Hiroshima bureau, had been eating breakfast in his suburban garden when the bomb's explosion lifted him off the straw mat on which he was sitting and sent a wave of "immense" heat washing over his face. Once Nakamura discovered that the concussion and heat had not been caused by the nearby explosion of a "blockbuster"—his first reaction had been the typical one—he went to work as a reporter. On his bicycle and on foot, he spent the day in the city and talking to the refugees who streamed through his suburb. Then, at 10 P.M., like the experienced press-association man he was, he found communications at the suburban Haramura radio station and dictated a story to Okayama, the only point he could reach. In his dispatch, he said there was no way to tell what kind of a bomb had caused such havoc.

But before the night was much older the editors of Domei, and the leaders of Japan, had a way of telling much more about the bomb. In Saitama prefecture outside Tokyo, Domei operated a big monitoring station where nearly fifty workers, many of them Nisei girls born in the United States, listened to broadcasts from American stations. About 1 A.M. on the 7th of August (noon on the 6th in Washington, D.C.), Hideo Kinoshita, chief of the monitoring room, was awakened by the Japanese youth who had charge of the operation that night. The boy reported that U.S. stations were all broadcasting a statement by President Truman, describing the weapon that had been dropped on Hiroshima as "an atomic bomb." Kinoshita listened to the account and the boy's explanation of what "atomic bomb" might mean. Then he quickly called his own superior, Saiji Hasegawa, Domei's foreign news chief. Hasegawa was asleep in his hotel. When he was told of an "atomic bomb," he had no idea what it was, but although he was irritated at being awakened he hustled to his office. When he saw the text transcripts that were beginning to come through from the Saitama monitors, he was glad he had come to work. He reached for his telephone and called Hisatsune Sakomizu, chief secretary of the cabinet.

Sakomizu sleepily answered his bedside telephone, then came suddenly wide awake as he listened to the Domei executive. He already knew, from the first confused reports on the 6th, that the Americans had used some kind of new weapon. Now, learning that it was an atomic bomb, something the cabinet had discussed briefly almost a year earlier, he knew it meant just one thing: the war was over.

Sakomizu quickly called Prime Minister Suzuki, with whom he had been working in the effort to arrange a peace settlement by negotiation. They knew immediately, he said later,

> . . . that if the announcement were true, no country could carry on a war. Without the atomic bomb it would be impossible for any country to defend itself against a nation which had the weapon. The chance had come to end the war. It was not necessary to blame the military side, the manufacturing people, or anyone else—just the atomic bomb. It was a good excuse.

The Army, however, was unwilling to accept this attitude, despite the urgings of the peace group that the bomb gave military leaders a chance to save face

by blaming the "backwardness of scientific research" for Japan's inability to counter the new American bomb. The generals, sitting in an emergency cabinet meeting on the seventh, pointedly recalled an old Japanese legend about an Army commander who became a laughingstock because he mistook the fluttering of a flight of birds for the sound of the approaching enemy and fled. They argued that the bomb was not atomic but was merely a huge conventional projectile. They flatly refused Foreign Minister Togo's proposal to take up for immediate consideration the possibility of surrender on the terms of the Potsdam ultimatum, and insisted on keeping the Truman atomic statement from the Japanese people until the Army could conduct an "investigation" on the ground at Hiroshima.

The military had already started such a check. Major Hirano, the staff officer from the Hiroshima headquarters whose desire to spend a couple of extra nights in Tokyo had saved his life, called Yoshio Nishina, the nation's ranking nuclear scientist. He told him of the Truman claims and asked him to ride down to Hiroshima in his little liaison plane to investigate the matter. Nishina agreed to make the trip. The scientist was already pretty well convinced, on the basis of Hirano's report and further excerpts from the Truman statement given him a few minutes later by a reporter, that the bomb had indeed been the fission weapon which he and his colleagues had believed the United States could not manufacture so quickly. Truman's claim of a destructive power equal to twenty thousand tons of TNT coincided exactly with theoretical calculations made recently by one of Nishina's laboratory associates on the yield of an atomic bomb.

But the Army high command was keeping the lid on tight. When the Tokyo managing editors met again with the Information Agency censors that afternoon, they all had seen the text of Truman's statement. But they got nowhere with requests for permission to print it. The Army grudgingly allowed use of the phrase "a new-type bomb," but not the word "atomic." The editors argued hard this time, but to no avail. The end result of the wrangle was this communiqué from Imperial General Headquarters at 3:30 P.M. on Tuesday, August 7:

1 A considerable amount of damage was caused by a few B-29s which attacked Hiroshima August 6th.

2 It seems that the enemy used a new-type bomb in the raid. Investigation of the effects is under way.

By evening, the newsmen were stretching the Army embargo as far as they could. A home service broadcast at 7 P.M. amplified the cryptic communiqué by adding that "a considerable number of houses were reduced to ashes and fires broke out in various parts of the city . . . investigations are now being made with regard to the effectiveness of the bomb, which should not be regarded as light." The broadcast went on to attack the Americans for "inhuman and atrocious conduct" and to urge the Japanese not to be "misled" by "exaggerated propaganda" such as "an announcement regarding the use of a new-type bomb" by Truman.

One man who was not likely to be "misled" by any announcement that night was Major Hirano, who finally had started back to Hiroshima in his five-seater liaison plane late in the afternoon. He had arrived at the Tokyo airport with the hurriedly assembled team of investigators earlier in the day, but had been ordered to wait until afternoon to avoid the U.S. Navy fighter planes that were now operating over Japan daily. There was some top brass in the inspection group which apparently was not anxious to hasten the day of personal contact with American invaders. Thus it was almost seven in the evening when Hirano's plane came down over Hiroshima. It was still light, however, so he got the full picture with shocking suddenness:

> Being a soldier, my eye had been inured to the effects of bombing by that time. But this was a different sight. *There were no roads in the wastes that spread below our eyes:* that was my first impression. In the case of a normal air raid, roads were still visible after it was over. But in Hiroshima, everything was flattened and all roads were undiscernibly covered with debris.

When Hirano stepped from his plane, the first person he saw was an Air Force officer who came out on the runway to meet the team from Tokyo. His face was marked by a sharp dividing line right down the middle. One side was smooth and unhurt. The other, the one that had been toward the explosion, was burned, blistered, blackened. The investigators picked their way through the city to the wreckage of II Army Corps headquarters. Nobody was there. They finally found what was left of the headquarters—a few officers holed up in a hillside cave. By the time they began their formal investigation the next morning, the men from Tokyo knew the truth anyway. Hirano, in fact, had known it the moment he caught sight of what was left of Hiroshima from his circling plane.

QUESTIONS TO CONSIDER

1 What chance factors at Hiroshima added to the inherent destructiveness of the atomic bomb and produced more deaths and devastation than American scientists had expected?

2 Describe the sequence of destruction caused by the bomb's explosion. What were the physical effects of the bomb on human beings?

3 What was the immediate reaction of the Japanese army and government to the news of what had happened at Hiroshima? Why was the true nature of the American attack kept from the Japanese people?

4 Discuss the responsibility of the Japanese high command for prolonging the war after the bombing of Hiroshima.

5 Given the present-day proliferation of atomic weapons, what lessons can we draw from the first-hand accounts of the Japanese who experienced the horrors at Hiroshima fifty years ago?