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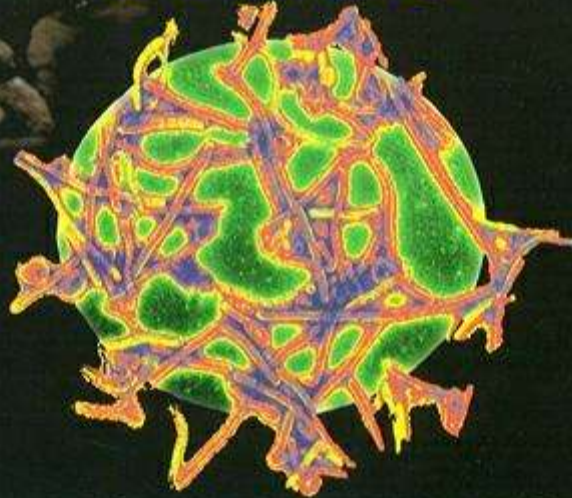
eBooks

The Hot Zone

Richard Preston

FROM DEEP IN THE RAIN FOREST,

A KILLER VIRUS



STALKS THE HUMAN RACE.

Praise for RICHARD PRESTON and THE HOT ZONE

“One of the year’s ten best books.”

—PEOPLE

“A riveting nonfiction thriller ... swashbuckling reading.”

—NEW YORK TIMES

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—TIME

“A bone-chilling account of a close encounter with a lethal virus ... a totally convincing page-turner, proving that truth is scarier than fiction.”

—KIRKUS REVIEWS

“Mesmerizing.”

—LOS ANGELES TIMES

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—USA TODAY

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—PUBLISHERS WEEKLY

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—CHICAGO SUN-TIMES

“Fascinating—and frightening.”

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—WIRED

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—BOSTON GLOBE

“Preston’s great skill is in turning interviews and scientific data into a compelling human story.”

—SAN ANTONIO EXPRESS-NEWS

“More chilling than fiction.”

—SCIENCE NEWS

BY RICHARD PRESTON

First Light
American Steel
The Hot Zone

THE HOT ZONE



**RICHARD
PRESTON**

**ANCHOR BOOKS
A DIVISION OF RANDOM HOUSE, INC.
NEW YORK**

FIRST ANCHOR BOOKS EDIT ION, AUGUST 1995

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TO FREDERIC DELANO GRANT, JR.,
ADMIRER BY ALL WHO KNOW HIM

THE AUTHOR GRATEFULLY ACKNOWLEDGES A RESEARCH GRANT FROM
THE ALFRED P. SLOAN FOUNDATION.

This book describes events between 1967 and 1993. The incubation period of the viruses in this book is less than twenty-four days. No one who suffered from any of the viruses or who was in contact with anyone suffering from them can catch or spread the viruses outside of the incubation period. None of the living people referred to in this book suffer from a contagious disease. The viruses cannot survive independently for more than ten days unless the viruses are preserved and frozen with special procedures and laboratory equipment. Thus none of the locations in Reston or the Washington, D.C., area described in this book is infective or dangerous.

The second angel poured his bowl into the sea, and it became like the blood of a dead man.

—APOCALYPSE

TO THE READER

This book is nonfiction. The story is true, and the people are real. I have occasionally changed the names of characters, including “Charles Monet” and “Peter Cardinal.” When I have changed a name, I state so in the text.

The dialogue comes from the recollections of the participants, and has been extensively crosschecked. At certain moments in the story, I describe the stream of a person’s thoughts. In such instances, I am basing my narrative on interviews with the subjects in which they have recalled their thoughts often repeatedly, followed by fact-checking sessions in which the subjects confirmed their recollections. If you ask a person, “What were you thinking?” you may get an answer that is richer and more revealing of the human condition than any stream of thoughts a novelist could invent. I try to see through people’s faces into their minds and listen through their words into their lives, and what I find there is beyond imagining.

RICHARD PRESTON

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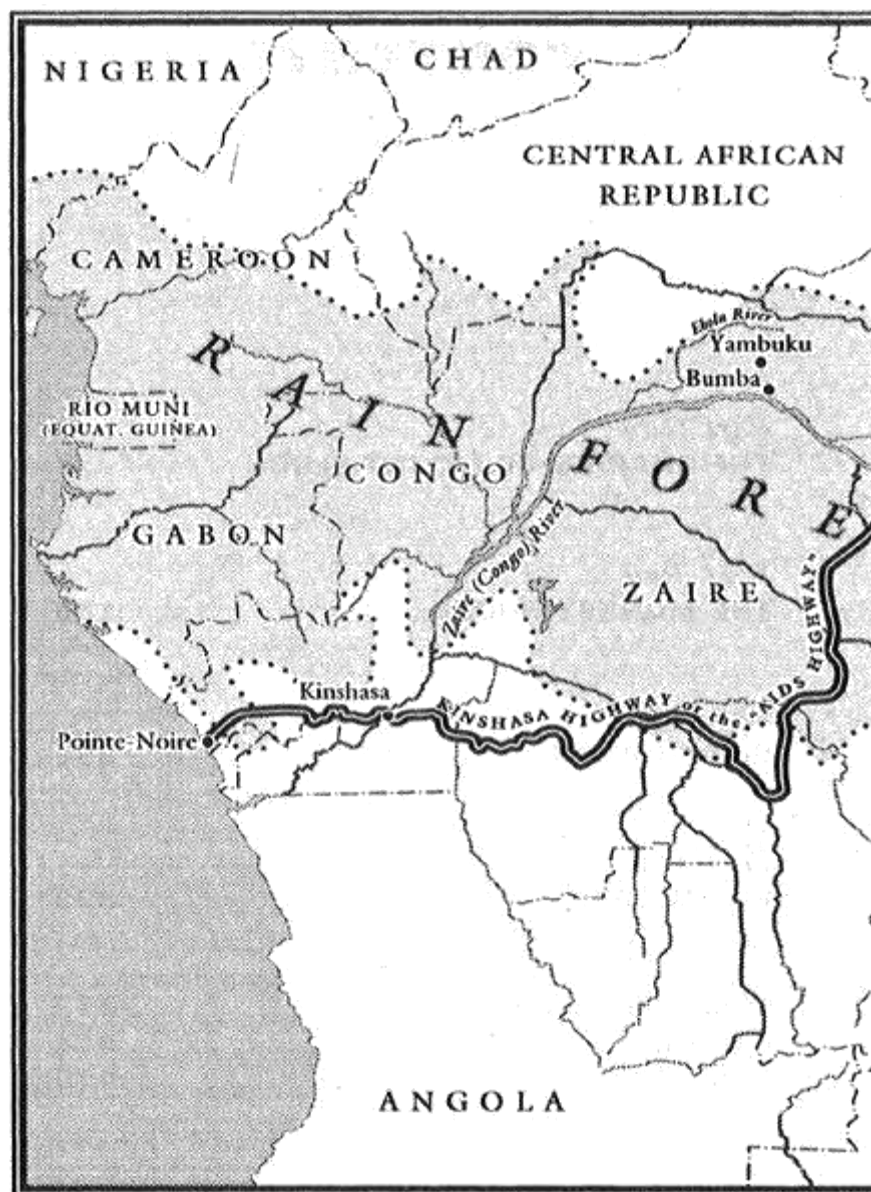
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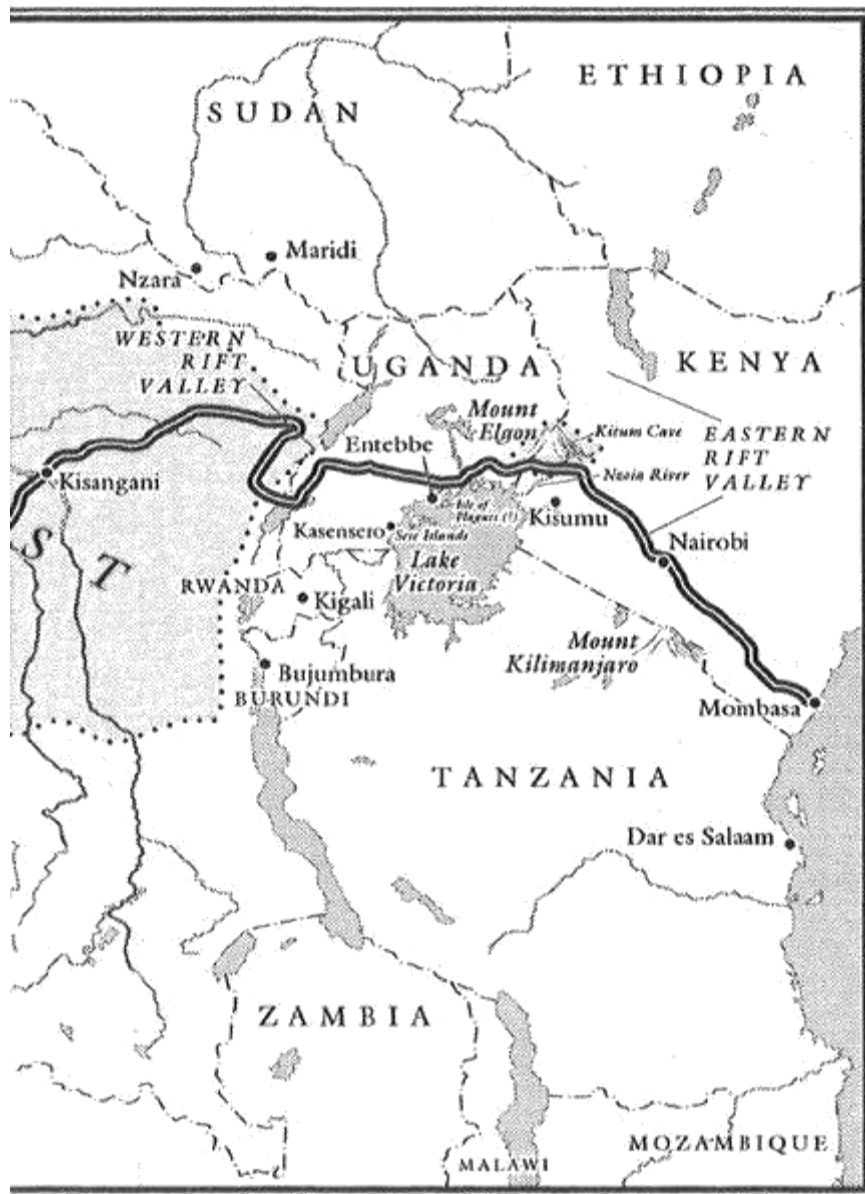
KITUM CAVE

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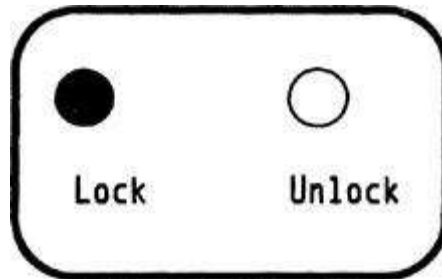




INFECTIOUS AREA

NO UNAUTHORIZED ENTRY

TO OPEN THIS DOOR,
PLACE ID CARD ON SENSOR.



PROCESSING ...
YOU ARE CLEARED TO ENTER....

SUITE AA-5

INVESTIGATOR:

COL. NANCY JAAX

AGENTS IN USE:

UNKNOWN

PROCEED FORWARD.

BIOSAFETY LEVEL



LOCKER ROOM

STATUS:

FEMALE

REMOVE EVERYTHING TOUCHING THE SKIN: CLOTHING, RINGS, CONTACT LENSES, ETC.

CHANGE INTO STERILE SURGICAL SCRUBS.

YOU ARE CLEARED TO ENTER....

BIOSAFETY LEVEL

2

CAUTION:
ULTRAVIOLET LIGHT

BIOSAFETY LEVEL

3

STAGING AREA

ALARMS:

ENABLED

SPACE-SUIT STATUS:

READY

CAUTION



BIOHAZARD

BIOSAFETY LEVEL

4

AIR-LOCK DOOR/DECON SHOWER

DO NOT ENTER WITHOUT WEARING SPACE SUIT

ID CODE PLEASE?

YOU ARE CLEARED TO ENTER....

PART ONE



THE SHADOW OF MOUNT ELGON

SOMETHING IN THE FOREST

1980 NEW YEAR'S DAY

Charles Monet was a loner. He was a Frenchman who lived by himself in a little wooden bungalow on the private lands of the Nzoia Sugar Factory, a plantation in western Kenya that spread along the Nzoia River within sight of Mount Elgon, a huge, solitary, extinct volcano that rises to a height of fourteen thousand feet near the edge of the Rift Valley. Monet's history is a little obscure. As with so many expatriates who end up in Africa, it is not clear what brought him there. Perhaps he had been in some kind of trouble in France, or perhaps he had been drawn to Kenya by the beauty of the country. He was an amateur naturalist, fond of birds and animals but not of humanity in general. He was fifty-six years old, of medium height and medium build, with smooth, straight brown hair; a good-looking man. It seems that his only close friends were women who lived in towns around the mountain, yet even they could not recall much about him for the doctors who investigated his death. His job was to take care of the sugar factory's water-pumping machinery, which drew water from the Nzoia River and delivered it to many miles of sugar-cane fields. They say that he spent most of his day inside the pump house by the river, as if it pleased him to watch and listen to machines doing their work.

So often in a case like this, it's hard to pin down the details. The doctors remember the clinical signs, because no one who has seen the effects of a Biosafety Level 4 hot agent on a human being can ever forget them, but the effects pile up, one after the other, until they obliterate the person beneath them. The case of Charles Monet emerges in a cold geometry of clinical fact mixed with flashes of horror so brilliant and disturbing that we draw back and blink, as if we are staring into a discolored alien sun.

Monet came into the country in the summer of 1979, around the time that the human immunodeficiency virus, or HIV, which causes AIDS, made a final breakout from the rain forests of central Africa and began its long burn through the human race. AIDS had already fallen like a shadow over the population, although no one yet knew it existed. It had been spreading quietly along the Kinshasa Highway, a transcontinental road that wanders across Africa from east to west and passes along the shores of Lake Victoria within sight of Mount Elgon. HIV is a highly lethal but not very infective Biosafety Level 2 agent. It does not travel easily from person to person, and it does not travel through the air. You don't need to wear a biohazard space suit while handling blood infected with HIV.

Monet worked hard in the pump house during the week, and on his weekends and holidays he would visit forested areas near the sugar factory. He would bring food with him, and he would scatter it around and watch while birds and animals ate it. He could sit in perfect stillness while he observed an animal. People who knew him recalled that he was affectionate with wild monkeys, that he had a special way with them. They said that he would sit holding a piece of food while a monkey approached him, and the animal would eat from his hand.

In the evenings, he kept to himself in his bungalow. He had a housekeeper, a woman named Johnnie, who cleaned up and prepared his meals. He was teaching himself how to identify African birds. A colony of weaverbirds lived in a tree near his house, and he spent time watching them build and maintain their baglike nests. They say that one day near Christmas he carried a sick bird into his house, where it died, perhaps in his hands. The bird may have been a weaverbird—no one knows—and it may have died of a Level 4 virus—no one knows. He also had a friendship with a crow. It was a pied crow, a black-and-white bird that people in Africa sometimes make into a pet. This crow was a friendly, intelligent bird that liked to perch on the roof of Monet's bungalow and watch his comings and goings. When the crow was hungry, it would land on the veranda and walk indoors, and Monet would feed it scraps of food from his table.

He walked to work every morning through the cane fields, a journey of two miles. That Christmas season, the workers had been burning the fields, and so the fields were scorched and black. To the north across the charred landscape, twenty-five miles away, he could see Mount Elgon. The mountain displayed a constantly changing face of weather and shadow, rain and sun, a spectacle of African light. At dawn, Mount Elgon appeared as a slumped pile of gray ridges receding into haze, culminating in a summit with two peaks, which are opposed lips of the eroded cone. As the sun came up, the mountain turned silvery green, the color of the Mount Elgon rain forest, and as the day progressed clouds appeared and hid the mountain from view. Late in the afternoon, near sunset, the clouds thickened and boiled up into an anvil thunderhead that flickered with silent lightning. The bottom of the cloud was the color of charcoal, and the top of the cloud feathered out against the upper air and glowed a dull orange, illuminated by the setting sun, and above the cloud the sky was deep blue and gleamed with a few tropical stars.

He had a number of women friends who lived in the town of Eldoret, to the southeast of the mountain, where the people are poor and live in shacks made of boards and metal. He gave money to his women friends, and they, in return, were happy to love him. When his Christmas vacation arrived, he formed a plan to go camping on Mount Elgon, and he invited one of the women from Eldoret to accompany him. No one seems to remember her name.

Monet and his friend drove in a Land Rover up the long, straight red-dirt road that leads to Endebess Bluff, a prominent cliff on the eastern side of the volcano. The road was volcanic dust, as red as dried blood. They climbed onto the lower skirts of the volcano and went through cornfields and coffee plantations, which gave way to grazing land, and the road passed old, half-ruined English colonial farms hidden behind lines of blue-gum trees. The air grew cool as they went higher, and crested eagles flapped out of cedar trees. Not many tourists visit Mount Elgon, so Monet and his friend were probably driving the only vehicle on the road, although there would have been crowds of people walking on foot, villagers who cultivate small farms on the lower slopes of the mountain. They approached the frayed outer edge of the Mount Elgon rain forest, passing by fingers and islands of trees, and they passed the Mount Elgon Lodge, an English inn built in the earlier part of the century, now falling into disrepair, its walls cracked and its paint peeling off in the sun and rain.

Mount Elgon straddles the border between Uganda and Kenya, and is not far from Sudan. The mountain is a biological island of rain forest in the center of Africa, an isolated world rising above dry plains, fifty miles across, blanketed with trees, bamboo, and alpine moor. It is a knob in the backbone

of central Africa. The volcano grew up seven to ten million years ago, producing fierce eruptions and explosions of ash, which repeatedly wiped out the forests that grew on its slopes, until it attained a tremendous height. Before Mount Elgon was eroded down, it may have been the highest mountain in Africa, higher than Kilimanjaro is today. It is still the widest. When the sun rises, it throws the shadow of Mount Elgon westward and deep into Uganda, and when the sun sets, the shadow reaches eastward across Kenya. Within the shadow of Mount Elgon lie villages and cities inhabited by various tribal groups, including the Elgon Masai, a pastoral people who came from the north and settled around the mountain some centuries ago, and who raise cattle. The lower slopes of the mountain are washed with gentle rains, and the air remains cool and fresh all year, and the volcanic soil produces rich crops of corn. The villages form a ring of human settlement around the volcano, and the ring is steadily closing around the forest on its slopes, a noose that is strangling the wild habitat of the mountain. The forest is being cleared away, the trees are being cut down for firewood or to make room for grazing land, and the elephants are vanishing.

A small part of Mount Elgon is a national park. Monet and his friend stopped at the park gate to pay their entrance fees. A monkey or perhaps a baboon—no one seems to remember—used to hang out around the gate, looking for handouts, and Monet enticed the animal to sit on his shoulder by offering it a banana. His friend laughed, but they stayed perfectly still while the animal ate. They drove a short way up the mountain and pitched their tent in a clearing of moist green grass that sloped down to a stream. The stream gurgled out of the rain forest, and it was a strange color, milky with volcanic dust. The grass was kept short by Cape buffalo grazing it, and was spotted with their dung.

The Elgon forest towered around their campsite, a web of gnarled African olive trees hung with moss and creepers and dotted with a black olive that is poisonous to humans. They heard a scuffle of monkeys feeding in the trees, a hum of insects, an occasional low huh-huh call of a monkey. These were colobus monkeys, and sometimes one would come down from a tree and scuttle across the meadow near the tent, watching them with alert, intelligent eyes. Flocks of olive pigeons burst from the trees on swift downward slants, flying at terrific speed, which is their strategy to escape from harrier hawks that can dive on them and rip them apart on the wing. There were camphor trees and teaks and African cedars and red stinkwood trees, and here and there a dark green cloud of leaves mushroomed above the forest canopy. These were the crowns of podocarpus trees, or podos, the largest trees in Africa, nearly as large as California sequoias. Thousands of elephants lived on the mountain then, and they could be heard moving through forest, making cracking sounds as they peeled bark and broke limbs from trees.

In the afternoon, it would have rained, as it usually does on Mount Elgon, and so Monet and his friend would have stayed in their tent, and perhaps they made love while a thunderstorm hammered the canvas. It grew dark; the rain tapered off. They built a fire and cooked a meal. It was New Year's Eve. Perhaps they celebrated, drinking champagne. The clouds would have cleared off in a few hours, as they usually do, and the volcano would have emerged as a black shadow under the Milky Way. Perhaps Monet stood on the grass at the stroke of midnight and looked at the stars—neck bent backward, unsteady on his feet from the champagne.

On New Year's morning, sometime after breakfast—a cold morning, air temperature in the forties, the grass wet and cold—they drove up the mountain along a muddy track and parked in a small valley

below Kitum Cave. They bushwhacked up the valley, following elephant trails that meandered beside a little stream that ran through stands of olive trees and grassy meadows. They kept an eye out for Cape buffalo, a dangerous animal to encounter in the forest. The cave opened at the head of the valley, and the stream cascaded over its mouth. The elephant trails joined at the entrance and headed inside. Monet and his friend spent the whole of New Year's Day there. It probably rained, and so they would have sat in the entrance for hours while the little stream poured down in a veil. Looking across the valley, they watched for elephants, and they saw rock hyraxes—furry animals the size of groundhogs—running up and down the boulders near the mouth of the cave.

Herds of elephants go inside Kitum Cave at night to obtain minerals and salts. On the plains, it is easy for elephants to find salt in hardpans and dry water holes, but in the rain forest salt is a precious thing. The cave is large enough to hold as many as seventy elephants at a time. They spend the night inside the cave, dozing on their feet or mining the rock with their tusks. They pry and gouge rocks off the walls, and chew them to fragments between their teeth, and swallow the broken bits of rock. Elephant dung around the cave is full of crumbled rock.

Monet and his friend had a flashlight, and they walked back into the cave to see where it went. The mouth of the cave is huge—fifty-five yards wide—and it opens out even wider beyond the entrance. They crossed a platform covered with powdery dry elephant dung, their feet kicking up puffs of dust as they advanced. The light grew dim, and the floor of the cave rose upward in a series of shelves coated with green slime. The slime was bat guano, digested vegetable matter that had been excreted by a colony of fruit bats on the ceiling.

Bats whirled out of holes and flicked through their flashlight beams, dodging around their heads, making high-pitched cries. Their flashlights disturbed the bats, and more bats woke up. Hundreds of bat eyes, like red jewels, looked down on them from the ceiling of the cave. Waves of bat sound rippled across the ceiling and echoed back and forth, a dry, squeaky sound, like many small doors being opened on dry hinges. Then they saw the most wonderful thing about Kitum Cave. The cave is a petrified rain forest. Mineralized logs stuck out of the walls and ceiling. They were trunks of rain-forest trees turned to stone—teaks, podo trees, evergreens. An eruption of Mount Elgon about seven million years ago had buried the rain forest in ash, and the logs had been transformed into opal and chert. The logs were surrounded by crystals, white needles of minerals that had grown out of the rock. The crystals were as sharp as hypodermic syringes, and they glittered in the beams of the flashlights.

Monet and his friend wandered through the cave, shining their lights on the petrified rain forest. Did he run his hands over the stone trees and prick his finger on a crystal? They found petrified bones sticking out of the ceiling and walls. Bones of crocodiles, bones of ancient hippos and ancestors of elephants. There were spiders hanging in webs among the logs. The spiders were eating moths and insects.

They came to a gentle rise, where the main chamber widened to more than a hundred yards across—wider than the length of a football field. They found a crevice and shined their lights down to the bottom. There was something strange down there—a mass of gray and brownish material. It was the mummified corpses of baby elephants. When elephants walk through the cave at night, they navigate by their sense of touch, probing the floor ahead of them with the tips of their trunks. The babies sometimes fall into the crevice.

Monet and his friend continued deeper into the cave, descending a slope, until they came to a pillar that seemed to support the roof. The pillar was scored with hatch marks and grooves, the marks of elephant tusks. If the elephants continued to dig away at the base of the pillar, it might eventually collapse, bringing down the roof of Kitum Cave with it. At the back of the cave, they found another pillar. This one was broken. Over it hung a velvety mass of bats, which had fouled the pillar with black guano—a different kind of guano from the green slime near the mouth of the cave. These bats were insect eaters, and the guano was an ooze of digested insects. Did Monet put his hand in the ooze?

Monet's friend dropped out of sight for several years after that trip to Mount Elgon. Then, unexpectedly, she surfaced in a bar in Mombasa, where she was working as a prostitute. A Kenyan doctor who had investigated the Monet case happened to be drinking a beer in the bar, and he struck up an idle conversation with her and mentioned Monet's name. He was stunned when she said, "I know about that. I come from western Kenya. I was the woman with Charles Monet." He didn't believe her, but she told him the story in enough detail that he became convinced she was telling the truth. She vanished after that meeting in the bar, lost in the warrens of Mombasa, and by now she has probably died of AIDS.

Charles Monet returned to his job at the pump house at the sugar factory. He walked to work each day across the burned cane fields, no doubt admiring the view of Mount Elgon, and when the mountain was buried in clouds, perhaps he could still feel its pull, like the gravity of an invisible planet. Meanwhile, something was making copies of itself inside Monet. A life form had acquired Charles Monet as a host, and it was replicating.

The headache begins, typically, on the seventh day after exposure to the agent. On the seventh day after his New Year's visit to Kitum Cave—January 8, 1980—Monet felt a throbbing pain behind his eyeballs. He decided to stay home from work and went to bed in his bungalow. The headache grew worse. His eyeballs ached, and then his temples began to ache, the pain seeming to circle around inside his head. It would not go away with aspirin, and then he got a severe backache. His housekeeper, Johnnie, was still on her Christmas vacation, and he had recently hired a temporary housekeeper. She tried to take care of him, but she really didn't know what to do. Then, on the third day after his headache started, he became nauseated, spiked a fever, and began to vomit. His vomiting grew intense and turned into dry heaves. At the same time, he became strangely passive. His face lost all appearance of life and set itself into an expressionless mask, with the eyeballs fixed, paralytic, and staring. The eyelids were slightly droopy, which gave him a peculiar appearance, as if his eyes were popping out of his head and half-closed at the same time. The eyeballs themselves seemed almost frozen in their sockets, and they turned bright red. The skin of his face turned yellowish, with brilliant starlike red speckles. He began to look like a zombie. His appearance frightened the temporary housekeeper. She didn't understand the transformation in this man. His personality changed. He became sullen, resentful, angry, and his memory seemed to be blown away. He was not delirious. He could answer questions, although he didn't seem to know exactly where he was.

When Monet failed to show up for work, his colleagues began to wonder about him, and eventually they went to his bungalow to see if he was all right. The black-and-white crow sat on the roof and

watched them as they went inside. They looked at Monet and decided that he needed to get to a hospital. Since he was very unwell and no longer able to drive a car, one of his co-workers drove him to a private hospital in the city of Kisumu, on the shore of Lake Victoria. The doctors at the hospital examined Monet, and could not come up with any explanation for what had happened to his eyes or his face or his mind. Thinking that he might have some kind of bacterial infection, they gave him injections of antibiotics, but the antibiotics had no effect on his illness.

The doctors thought he should go to Nairobi Hospital, which is the best private hospital in East Africa. The telephone system hardly worked, and it did not seem worth the effort to call any doctors to tell them that he was coming. He could still walk, and he seemed able to travel by himself. He had money; he understood he had to get to Nairobi. They put him in a taxi to the airport, and he boarded a Kenya Airways flight.

A hot virus from the rain forest lives within a twenty-four-hour plane flight from every city on earth. All of the earth's cities are connected by a web of airline routes. The web is a network. Once a virus hits the net, it can shoot anywhere in a day—Paris, Tokyo, New York, Los Angeles, wherever planes fly. Charles Monet and the life form inside him had entered the net.

The plane was a Fokker Friendship with propellers, a commuter aircraft that seats thirty-five people. It started its engines and took off over Lake Victoria, blue and sparkling, dotted with the dugout canoes of fishermen. The Friendship turned and banked eastward, climbing over green hills quilted with tea plantations and small farms. The commuter flights that drone across Africa are often jammed with people, and this flight was probably full. The plane climbed over belts of forest and clusters of round huts and villages with tin roofs. The land suddenly dropped away, going down in shelves and ravines, and changed in color from green to brown. The plane was crossing the Eastern Rift Valley. The passengers looked out the windows at the place where the human species was born. They saw specks of huts clustered inside circles of thornbush, with cattle trails radiating from the huts. The propellers moaned, and the Friendship passed through cloud streets, lines of puffy Rift clouds, and began to bounce and sway. Monet became airsick.

The seats are narrow and jammed together on these commuter airplanes, and you notice everything that is happening inside the cabin. The cabin is tightly closed, and the air recirculates. If there are any smells in the air, you perceive them. You would not have been able to ignore the man who was getting sick. He hunches over in his seat. There is something wrong with him, but you can't tell exactly what is happening.

He is holding an airsickness bag over his mouth. He coughs a deep cough and regurgitates something into the bag. The bag swells up. Perhaps he glances around, and then you see that his lips are smeared with something slippery and red, mixed with black specks, as if he has been chewing coffee grounds. His eyes are the color of rubies, and his face is an expressionless mass of bruises. The red spots, which a few days before had started out as starlike speckles, have expanded and merged into huge, spontaneous purple shadows: his whole head is turning black-and-blue. The muscles of his face droop. The connective tissue in his face is dissolving, and his face appears to hang from the underlying bone, as if the face is detaching itself from the skull. He opens his mouth and gasps into the bag, and the vomiting goes on endlessly. It will not stop, and he keeps bringing up liquid, long after his stomach should have been empty. The airsickness bag fills up to the brim with a substance known as

the vomito negro, or the black vomit. The black vomit is not really black; it is a speckled liquid of two colors, black and red, a stew of tarry granules mixed with fresh red arterial blood. It is hemorrhage, and it smells like a slaughterhouse. The black vomit is loaded with virus. It is highly infective, lethally hot, a liquid that would scare the daylights out of a military biohazard specialist. The smell of the vomito negro fills the passenger cabin. The airsickness bag is brimming with black vomit, so Monet closes the bag and rolls up the top. The bag is bulging and softening, threatening to leak, and he hands it to a flight attendant.

When a hot virus multiplies in a host, it can saturate the body with virus particles, from the brain to the skin. The military experts then say that the virus has undergone “extreme amplification.” This is not something like the common cold. By the time an extreme amplification peaks out, an eyedropper of the victim’s blood may contain a hundred million particles of virus. During this process, the body is partly transformed into virus particles. In other words, the host is possessed by a life form that is attempting to convert the host into itself. The transformation is not entirely successful, however, and the end result is a great deal of liquefying flesh mixed with virus, a kind of biological accident. Extreme amplification has occurred in Monet, and the sign of it is the black vomit.

He appears to be holding himself rigid, as if any movement would rupture something inside him. His blood is clotting up—his bloodstream is throwing clots, and the clots are lodging everywhere. His liver, kidneys, lungs, hands, feet, and head are becoming jammed with blood clots. In effect, he is having a stroke through the whole body. Clots are accumulating in his intestinal muscles, cutting off the blood supply to his intestines. The intestinal muscles are beginning to die, and the intestines are starting to go slack. He doesn’t seem to be fully aware of pain any longer because the blood clots lodged in his brain are cutting off blood flow. His personality is being wiped away by brain damage. This is called depersonalization, in which the liveliness and details of character seem to vanish. He is becoming an automaton. Tiny spots in his brain are liquefying. The higher functions of consciousness are winking out first, leaving the deeper parts of the brain stem (the primitive rat brain, the lizard brain) still alive and functioning. It could be said that the who of Charles Monet has already died while the what of Charles Monet continues to live.

The vomiting attack appears to have broken some blood vessels in his nose—he gets a nosebleed. The blood comes from both nostrils, a shining, clotless, arterial liquid that drips over his teeth and chin. This blood keeps running, because the clotting factors have been used up. A flight attendant gives him some paper towels, which he uses to stop up his nose, but the blood still won’t coagulate, and the towels soak through.

When a man is getting sick in an airline seat next to you, you may not want to embarrass him by calling attention to the problem. You say to yourself that this man will be all right. Maybe he doesn’t travel well in airplanes. He is airsick, the poor man, and people do get nosebleeds in airplanes, the air is so dry and thin ... and you ask him, weakly, if there is anything you can do to help. He does not answer, or he mumbles words you can’t understand, so you try to ignore it, but the flight seems to go on forever. Perhaps the flight attendants offer to help him. But victims of this type of hot virus have changes in behavior that can render them incapable of responding to an offer of help. They become hostile, and don’t want to be touched. They don’t want to speak. They answer questions with grunts or monosyllables. They can’t seem to find words. They can tell you their name, but they can’t tell you the

day of the week or explain what has happened to them.

The Friendship drones through the clouds, following the length of the Rift Valley, and Monet slumps back in the seat, and now he seems to be dozing.... Perhaps some of the passengers wonder if he is dead. No, no, he is not dead. He is moving. His red eyes are open and moving around a little bit.

It is late afternoon, and the sun is falling down into the hills to the west of the Rift Valley, throwing blades of light in all directions, as if the sun is cracking up on the equator. The Friendship makes a gentle turn and crosses the eastern scarp of the Rift. The land rises higher and changes in color from brown to green. The Ngong Hills appear under the right wing, and the plane, now descending, passes over parkland dotted with zebra and giraffes. A minute later, it lands at Jomo Kenyatta International Airport. Monet stirs himself. He is still able to walk. He stands up, dripping. He stumbles down the gangway onto the tarmac. His shirt is a red mess. He carries no luggage. His only luggage is internal, and it is a load of amplified virus. Monet has been transformed into a human virus bomb. He walks slowly into the airport terminal and through the building and out to a curving road where taxis are always parked. The taxi drivers surround him—"Taxi?" "Taxi?"

"Nairobi ... Hospital," he mumbles.

One of them helps him into a car. Nairobi taxi drivers like to chat with their fares, and this one probably asks if he is sick. The answer should be obvious. Monet's stomach feels a little better now. It is heavy, dull, and bloated, as if he has eaten a meal, rather than empty and torn and on fire.

The taxi pulls out onto the Uhuru Highway and heads into Nairobi. It goes through grassland studded with honey-acacia trees, and it goes past factories, and then it comes to a rotary and enters the bustling street life of Nairobi. Crowds are milling on the shoulders of the road, women walking on beaten dirt pathways, men loitering, children riding bicycles, a man repairing shoes by the side of the road, a tractor pulling a wagonload of charcoal. The taxi turns left onto the Ngong Road and goes past a city park and up a hill, past lines of tall blue-gum trees, and it turns up a narrow road and goes past a guard gate and enters the grounds of Nairobi Hospital. It parks at a taxi stand beside a flower kiosk. A sign by a glass door says CASUALTY DEPT. Monet hands the driver some money and gets out of the taxi and opens the glass door and goes over to the reception window and indicates that he is very ill. He has difficulty speaking.

The man is bleeding, and they will admit him in just a moment. He must wait until a doctor can be called, but the doctor will see him immediately, not to worry. He sits down in the waiting room.

It is a small room lined with padded benches. The clear, strong, ancient light of East Africa pours through a row of windows and falls across a table heaped with soiled magazines, and makes rectangles on a pebbled gray floor that has a drain in the center. The room smells vaguely of woodsmoke and sweat, and it is jammed with bleary-eyed people, Africans and Europeans sitting shoulder to shoulder. There is always someone in Casualty who has a cut and is waiting for stitches. People wait patiently, holding a washcloth against the scalp, holding a bandage pressed around a finger, and you may see a spot of blood on the cloth. So Charles Monet is sitting on a bench in Casualty, and he does not look very much different from anyone else in the room, except for his bruised, expressionless face and his red eyes. A sign on the wall warns patients to watch out for purse thieves, and another sign says:

PLEASE MAINTAIN SILENCE.
YOUR COOPERATION WILL BE
APPRECIATED.
NOTE: THIS IS A CASUALTY
DEPARTMENT.
EMERGENCY CASES WILL BE
TAKEN IN PRIORITY.
YOU MAY BE REQUIRED TO WAIT
FOR SUCH CASES
BEFORE RECEIVING ATTENTION.

Monet maintains silence, waiting to receive attention. Suddenly he goes into the last phase—the human virus bomb explodes. Military biohazard specialists have ways of describing this occurrence. They say that the victim has “crashed and bled out.” Or more politely they say that the victim has “gone down.”

He becomes dizzy and utterly weak, and his spine goes limp and nerveless and he loses all sense of balance. The room is turning around and around. He is going into shock. He leans over, head on his knees, and brings up an incredible quantity of blood from his stomach and spills it onto the floor with a gasping groan. He loses consciousness and pitches forward onto the floor. The only sound is a choking in his throat as he continues to vomit blood and black matter while unconscious. Then comes a sound like a bedsheet being torn in half, which is the sound of his bowels opening and venting blood from the anus. The blood is mixed with intestinal lining. He has sloughed his gut. The linings of his intestines have come off and are being expelled along with huge amounts of blood. Monet has crashed and is bleeding out.

The other patients in the waiting room stand up and move away from the man on the floor, calling for a doctor. Pools of blood spread out around him, enlarging rapidly. Having destroyed its host, the hot agent is now coming out of every orifice, and is “trying” to find a new host.