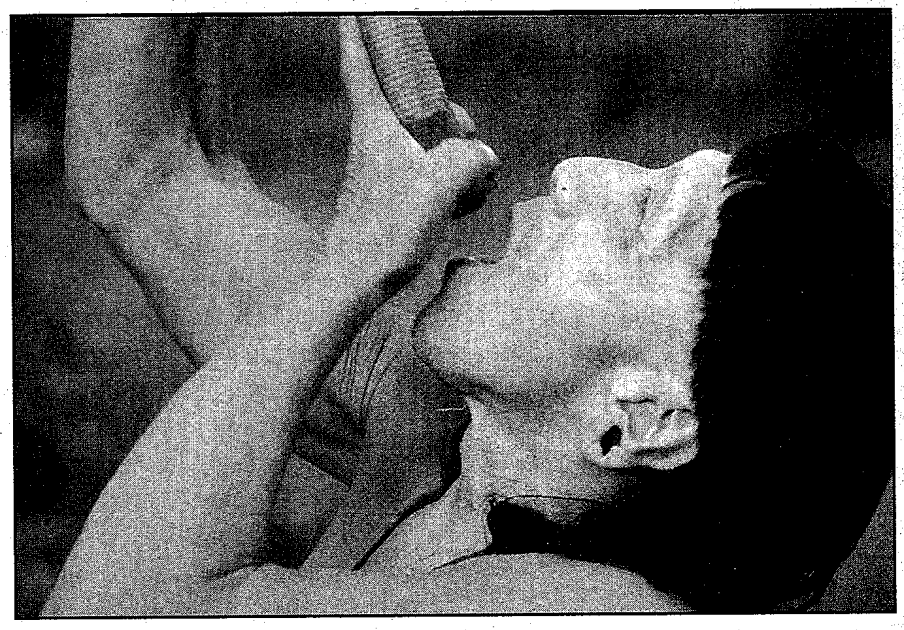
CHAPTER NINE

Among the Waorani



THROUGHOUT THE REST of the afternoon, as we arranged equipment and made plans for the collecting, I continued to struggle with the symbols of a culture that had been so misunderstood by the outside world. Walking around Quiwado at dusk, as clouds gathered and cool winds heralded a coming storm, I saw a woman milking her breast to feed a baby monkey, children with jaguar teeth hanging from their necks, and young boys shooting darts at a captured bird. By the river I came upon Jim's eldest girl, Natasha, and several of her Waorani friends frolicking like seaside children in shallows that no doubt concealed several species of piranha. As I wandered about the village enjoying a

strange and unfamiliar anonymity, I tried to reconcile the tranquillity of the scene with the certain knowledge that there was not a woman over twenty-five who had not lost a parent or close relative to a spearing raid, or a man who had not been responsible for such a deed.

It was not until that evening after the storm had passed and the last of the visitors had returned to their homes that I learned from Jim something of the history of the Waorani. Sitting around the fire, chewing on the stringy flesh of a monkey killed that day, I felt as if transported through a looking glass that finally revealed the world as seen from the other side.

No one, including the Waorani, knows how long they have lived in the forest. For the Waorani experience and time cannot be divided into discrete elements. There are no abrupt transitions between night and day, between sleep and wakefulness. When the sun rises, mist envelops the morning, and the children move toward the warmth of the fire. Songs that begin and end with an explosive burst of air, two or three notes to a tune, the same words sustained over hundreds of repetitions, lead the darkness into the day. By night there is always movement, feet shifting the logs of a fire, voices discussing dreams or the memory of a raid, a man and woman coupling in a hammock.

There is a sense of the moon, its position in the sky, the ebb and flow of its shadow. Yet the year itself has no mathematical associations. All reference points are to the natural landscape, and the seasons, such as they are, are measures of the productivity of the forest. The year begins in our month of April when the fruiting cycle of the *chonta,* or peach palm, ends. May and June correspond roughly to the three phases of the fat season, the time when spider monkeys and howlers gorge on fruit, start to get fat, are fat, and begin to get lean. The summer is marked by the Atta ant season, a one-week period when the ants emerge to establish new colonies and the people gather to roast them as a delicacy. There follows a long unnamed gap in the Waorani year until the *chonta* season, which lasts six months, comes again in November.

For the Waorani the universe is a disk, an undulating surface surrounded by great waters and covered by a dome that lies just beyond the clouds. Below the earth is the underworld, a replica of this life, complete with trees, rivers, and hills but inhabited by *babitade,* mouthless creatures that cannot speak or eat. Above are the heavens, the destiny of the dead. Each Waorani has a body and two souls. At death the flesh rots or is transformed into jungle animals. The soul that lives in the heart becomes a jaguar, the one lodged in the brain ascends to the sky where it meets a sacred boa at the base of the clouds. If and

only if its nostrils have been pierced and decorated by the finest of feathers can the soul enter heaven. If turned away, it falls back to earth and is consumed by worms. Once accepted into heaven, the Waorani live as they always did, hunting, fishing, and spearing. The animals of heaven are themselves the souls of creatures that once inhabited the earth, and thus by killing in this life, a Waorani hunter ensures a good supply of food in the life to come. It is to accompany deceased elders on this perilous journey that the Waorani occasionally buried children alive.

Both in this life and the next, the Waorani perceive themselves as a people of the forest. In heaven as on earth, the rivers are the domain of the *cowode,* the outsiders, all of whom are cannibals. Traditionally, the Waorani lived on the ridge tops between the rivers, deliberately avoiding the valley floodplains. Fishing only in the small feeder streams of the upland forest, they tabooed catfish, most waterfowl, turtle eggs, and many sources of food commonly eaten by other Amazonian peoples. They did not swim, and they did not use paddles, rafts, or dugouts. So rudimentary was their knowledge of canoe building that Jim once met a Waorani elder who had cut down a hollow tree, hoping to avoid having to burn out the wood. It had not occurred to him that there might be a problem sealing both ends of the vessel.

Linguistic evidence suggests that at the time of contact the Waorani had been isolated in the forest for many generations. Once their language was understood, only two words were found that had been borrowed from surrounding tribes. Trade with the *cowode* was nonexistent. As late as 1957 the Waorani had yet to adopt metal tools.

If the Waorani were uncertain about the world beyond their borders, the people on the outside viewed the Waorani as savages, symbols of the demon heart of the wild. Although the tribe before contact never numbered more than five hundred, Ecuadorian officials regularly estimated a population of several thousand, partly because of the vastness of the Waorani lands and partly due to sheer hysteria. Waorani raiding parties regularly covered as much as forty miles a day through the forest. Within a week the same Indians might be responsible for incidents occurring two hundred miles apart, killings that the government attributed to different groups of raiders. What's more, each Waorani carried several spears and thrust more than one into a victim. No corpse was left with fewer than eight. In 1972 the body of a cook for an oil company was discovered stuck with eight spears; the authorities suggested that twenty Waorani had been involved but, in fact, the killing was the work of only three.

In many ways the vast extent of the Waorani territory, roughly fifteen

square miles for every man, woman, and child, proved to be a curse for the people. At any one time they occupied but a small part of their land. Typically a settlement consisted of two or three houses built in a clearing cut from the forest. Thirty minutes away would be another house site, settled by closely related kin. A series of such settlements formed the community of extended kin with whom one interacted throughout life. At the time of contact there were four major neighborhood clusters —the Guiquetaidi, Baiwaidi, Ñiwaidi, and Wepeida—all of them mutually hostile, none of them certain where the others lived. They referred to each other simply as upriver people, downriver people, overland people, and people of the ridge. Cut off from the world outside by generations of conflict and buffered from one another by great stretches of forest, the Waorani, by their own accounts, lived in almost constant fear and suspicion, certain that at any moment an enemy might bear down on them.

The reasons for killing were many: the death of a child at the hands of a distant shaman, the birth of a deformed baby, frustration at the loss of a woman, the simple need to avenge earlier killings. On the eve of a raid the men prepared the spears, decorating each with a specific pattern, ensuring that the victims would know the identity of the killers. Then, in the morning of a night with no moon, in the wake of a thunderstorm with lightning to carry the souls of the intended victims to heaven, the raiders departed, traveling for days or even weeks through the forest. Upon reaching the enemy settlement, they watched for known relatives. If none were present, the attackers would remain hidden until dark, when their silhouettes could not be seen against the night sky. Approaching with stealth in the early hours of the morning, the raiding party would slip into the shelters and kill indiscriminately. Once the village was destroyed, the victorious raiders returned home, whereupon they beat their own young sons so that the boys would be certain to mature into powerful warriors.

This cycle of war and vendetta determined the settlement pattern of the tribe. For months following a raid attackers lived in fear of retaliation. Abandoning their old fields, they relocated to another clearing where they dwelt within barricaded walls, protected by harpy eagles and caracaras tethered as guard animals at the approaches to the settlement. Thus each extended family required several living sites, and the structure of the household units was constantly shifting as individual couples and their children moved about. This fluidity left little room for hierarchy. There were no chiefs. A Wao could be a leader for a specific act, but each man remained intensely independent, and the society as a whole was completely egalitarian.

Balancing the authority of the individual was the obligation of kinship. Marriage for the Waorani was a relatively simple affair, an arrangement between parents formalized at a public celebration. The two people to be wed were often the last to know. Without notice a mother or aunt would lead a young girl to a hammock. A boy would be eased to the front of a line of dancers and then taken to be seated next to the girl. A marriage song would seal the arrangement.

The rules of kinship, however, were far more complex. A Waorani child addressed his father and his father's brothers by the same term. Similarly, his mother and his mother's sisters fell into an identical kinship category; therefore, the brothers of one's father became the husbands of one's mother, and after a long journey it was common for a man to share his wife with a brother. The children of one's father's brothers and mother's sisters—what we call first cousins—were considered siblings by the Waorani. But the children of a mother's brothers and father's sisters—again to us first cousins—were not viewed as siblings but indeed as cousins, or *qui.* For the Waorani to marry any sibling was to commit incest. Yet to marry someone not *qui* was to have a "wild" union. All marriages were expected to be between what anthropologists call cross-cousins.

The result was an astonishingly tight network of relationships. Among the current population of 630, Jim had found that only 20 individuals could not trace their ancestry to some common source. Hence the importance of names. Knowing a person's lineage determined how one was expected to relate. Thus the first thing the Waorani discuss when they gather is genealogy, with the challenge being to discover the other's bloodline before he or she uncovers yours. It was by tracing kinship through time that Jim first understood the extent to which warfare had dominated the lives of the people. To his astonishment he learned that over the last five generations, no less than 54 percent of all Waorani men and 40 percent of the women died as the result of spearing raids. One in five was shot or kidnapped by outsiders. Over 5 percent of the mortality was due to individuals fleeing by their own volition to the lands of the *cowode.* Presumably they felt that life even among cannibals was preferable to the world they knew. In his seven years with the tribe Jim heard of only three instances of what we might consider natural death. For months the Waorani implied that the individuals in question had grown old and passed away. Then one day a young Wao inadvertently let slip that one of the men had indeed grown old, so old that the people decided to spear him anyway and throw his body into the river. The man, the youth explained, had "died becoming old."

• • •

There was a half-moon, and I awoke to the sounds of the forest: cicadas and tree frogs, the piercing notes of a screech owl, the caw-caw-caw of bamboo rats. At one point I thought I heard a jaguar but wasn't sure. I looked about, saw smoke seeping out of the thatch of Kowe's house, heard soft voices and the swoosh of a feather fan bringing a fire to life. Someone was singing on the other side of the village, a far-off nasal chant, difficult to distinguish from the other sounds.

It was good to wake up in a house without walls. I glanced at Jim and Kathy's children, squirreled away in their hammocks, sleeping peacefully, and saw in the distance a woman in a calico dress walking to the forest, a burning ember in one hand, a pot in the other, an empty basket on her back. The forest on the other side of the clearing was still in shadow, but there was a thin streak of violet above the kapok trees and colors moving slowly in the east. The grasses and sedges by the river's edge had been flattened by the rain, the red clay glistened, and the canoes at the landing moved up and down slowly with each surge of the river. A hunter with a blowgun passed by just below my hammock.

Another Waorani was standing at the foot of the ladder. I assumed he was Wepe, who was going to guide us into the forest. Our plans were straightforward. In the seven years that Jim had been living among the Wao he had recorded the name of every plant he had seen used. We would begin by working our way through his list, knowing that the process itself would elicit from the people additional information, other plant names and uses. My task—collecting voucher specimens and seeing that they were properly identified—promised to be relatively simple. The only challenge was to cross-reference the names and collections with Waorani men and women from each of the major dialects. For that Quiwado was an ideal locality, for living at the clearing were representatives from all regions of Waorani territory.

Wepe, I would learn, had killed at least fifteen enemies. His people had, within memory, lived north of the settlement at Tiwaeno, close to the site of the Palm Beach massacre. Long before that tragedy his group had been pushed out of the region by a raid from the north. Fleeing downriver toward the Tiputini and Yasuní rivers, they had met Kowe's people. The bands lived together peacefully until the early 1960s when Wepe's group raided one of Kowe's house sites. Wepe and his people then retreated deeper into the forest. Becoming known as the Ridge Waorani, they lived undisturbed until the early 1970s when Texaco thrust exploration roads across the Río Napo into the heart of their

land. There was a killing, and the government pressured the S.I.L. to pacify the Ridge Waorani and relocate them to Tiwaeno.

At the time, Wepe's half-brother Toño, whom he had never met, was living at the Tiwaeno mission. To draw Wepe and his people out of the forest, the S.I.L. equipped Toño with a radio and dispatched him to make contact. After a year of garbled radio messages, word reached Tiwaeno that Toño was dead. His mistake had been to arrive at Wepe's clearing wearing clothes. His ears were not pierced, further proof that he was *cowode,* an outsider. His fluency in the language had made no difference. As far as Wepe was concerned, all human beings spoke Waorani. Within hours of Toño's arrival, the Ridge Waorani killed him with an ax. The voice on the radio throughout the following months was that of a nephew, Kiwa, imitating Toño. When the S.I.L. arrived by military helicopter, Wepe said that the nephew was Toño, a lie soon exposed by Toño's widow. Wepe was then shown a map indicating the network of roads projected for his territory. Once he understood the implications, he fainted. When he came to, Wepe agreed to move.

None of this history showed on his face that morning as he led us into the forest. From time to time the narrow trails broke out onto an open beach, but for the most part they followed the ridges, dropping away only to cross streams and climb again into the forest. Unlike the cautious pace of most other lowland hunters, Wepe moved quickly along a trail, becoming more and more animated. Every sign of game—a broken twig, the pungent odor of a deer, scratchings of wild pigs in the mud—provoked memories that erupted into loud frantic monologues, certain to scatter any wildlife. Wepe's behavior, Jim noted, was typical. So abundant was game that the Waorani hunted less by stealth than movement, finding their prey purely by sound and smell. In the midst of the rain forest they could detect the scent of animal urine at forty paces and correctly identify the species from which it came.

Wepe, like all the Waorani I met, turned out to be not only a keen observer but an exceptionally skilled naturalist. He recognized such conceptually complex phenomena as pollination and fruit dispersal, and he understood and could accurately predict animal behavior. He could anticipate the flowering and fruiting cycles of all edible forest plants, list the preferred foods of most forest animals, and identify with precision the places where they slept. It was not just the sophistication of his interpretations of biological relationships that impressed me; it was the way he classified the natural world. He often could not give you the name of a plant, for every part—roots, fruit, leaves, bark—had its own name. Nor could he simply label a fruit tree without listing all the animals and birds that depended on it. His understanding of the forest

precluded the narrow confines of nomenclature. Every useful plant had not only an identity but a story: a pungent leaf used for fever, a poison capable of killing fish in half a mile of river, a solanum first planted by the jaguar, another employed as a treatment for scorpion bites.

Late in the day, just after we had feasted on the fruits of a wild cacao, we came upon a three-toed sloth climbing slowly through the upper branches of a cecropia tree. The two creatures, animal and plant, are in many ways the perfect symbols of the Amazon. Every species of cecropia has living within the hollow nodes of its trunk a distinct species of fire ant. The ants live on protein nodules secreted by the plant, and in exchange they protect the tree from its major predator, the Atta leaf-cutting ants.

The three-toed sloth is a gentle herbivore. Its slow movements, together with its cryptic coloration, protect it from its major predator, the harpy eagle. Viewed up close, the sloth appears as a hallucination, an ecosystem unto itself that softly vibrates with hundreds of exoparasites. The animal's mottled appearance is due in part to a blue-green alga that lives symbiotically within its hollow hairs. A dozen varieties of arthropods burrow beneath its fur; a single sloth weighing a mere ten pounds may be home to over a thousand beetles. The life cycles of these insects are completely tied to the daily round of the sloth. With its excruciatingly slow metabolism, the sloth defecates only once a week. The animal climbs down from the canopy, excavates a small depression at the foot of the tree, voids its feces, and then returns back up. Mites, beetles, and even a species of moth leap off the sloth, deposit an egg in the dung, and climb back onto their host for a ride up the tree. The eggs germinate, and in one way or another, the young insects find another sloth to call home.

Why would this animal go down to the base of the tree, exposing itself to all forms of terrestrial predation, when it could just as easily defecate from the treetops? The answer provides an important clue to the immense complexity and subtlety of the Amazonian ecosystem. Biologists have suggested that in depositing the feces at the base, the sloth enhances the nutrient regime of the host tree. That such a small amount of nitrogenous material might actually make a difference suggests that this cornucopia of life is far more fragile than it appears. The tropical rain forest, though home to tens of thousands of species, is in a sense a counterfeit paradise, a castle of immense biological sophistication built quite literally on a foundation of sand.

Faced with the wonder of these creatures, I watched to see how Wepe would react. Without hesitation he blew a dart into the sloth. As soon as the poison took effect and the animal fell to the forest floor, he

borrowed a machete and cut down the tree. He called the cecropia fruit *mangimeowe* and noted that it is eaten and dispersed by toucans and piping guans. He stripped the fruit from its stem and passed me a moist handful. It had the luscious taste of ripe figs.

In the evening we bathed with the children and then lay in the sand watching the lazy flight of herons against the soft light of the forest. Across the river and downstream, Kowe—the old Waorani I'd met on my first day in the village—and an old woman appeared, walking cautiously along the river's edge, stirring the water before them with a stick.

"Stingrays," Jim said. "It's about the only thing they're afraid of. You can't see them even in the clearest water. They lie just beneath the sand."

Something splashed along the bank—perhaps a turtle or caiman, maybe just a falling branch. Kowe glanced toward the sound and then continued to walk, poking the water as he went.

"But the current's too fast," I said. Jim nodded.

"I don't know why he's worried here. Maybe just an old habit."

"Do they get hit often?" I asked.

"Just look at their legs," Jim said. "It's a very serious wound, extremely painful. Even morphine won't do any good. The tail has a barbed spike like a saw tooth that drives right into your leg. The wound always gets infected. Even with antibiotics it can take weeks to heal. Without drugs, the wounds fester for months, leaving a hole a couple of inches across. It's about the only serious infection the Waorani ever get."

"How do they treat it?"

"They have a few plants. One's a big tree with enormous leaves. They call it *boyomo*. It means stingray leaf."

"Do they make a poultice?" I asked.

"No, they suck the fruits."

The next morning when we went looking for the plant, I found that it was the shape and size of the leaf, not the properties of the fruit, that mattered to the Waorani. Their logic was similar to that underlying the famous Doctrine of Signatures elaborated to such a high degree in medieval Europe. People believed that God in leaving his mark on creation had provided clues as to the medicinal properties of plants. Thus European monks treated liver ailments with hepatica because its leaf was shaped vaguely like the human liver. Although discredited by

Western medicine, this intuition appears often in folk traditions around the world.

As we moved through the forest, other Waorani notions of health and healing came into focus. With us was Geke, a youth who just three weeks before had been mauled by a wild boar. Evacuated by air to the hospital at Limoncocha, his spirit had collapsed, and physicians feared for his life. Once back with his family, however, his morale had soared. Younger and more enthusiastic than Wepe, he led us through the jungle, pointing out dozens of plants as he scrambled up trees with an agility and grace born of the wild. At one point he reached into a tangle of lianas and was almost struck by a poisonous viper. He leaped to my side and stood laughing as he pointed to a small scar on the back of his hand.

"He's been bitten before," Jim said, "just like everybody else."

There were, I discovered, no fewer than nine venomous snakes native to the Waorani lands. The most toxic but the least dangerous is the coral. Its fangs are at the back of the throat, and to inject the venom it must take hold of the prey and slowly gnaw the flesh. If struck, one always has time to tear the snake away.

"You have to fight to get bitten by a coral snake," Jim said, "and as for a bushmaster, it can only hurt a blind man. It's ten feet long and as fat as a fire hose."

The fer-de-lance was something else indeed. Just twenty inches long, quick and aggressive, it had struck over 95 percent of adult Waorani. Nearly half the men had been bitten twice. It was the highest rate of snakebite ever recorded for a human population. One death in twenty-five among the Waorani was caused by a serpent.

This talk of poison led back to plants and the various antidotes. Geke showed us four different species used to treat snakebite. Two were renealmias, tall, lush, and aromatic herbs in the ginger family. In each case the stems were pounded, mixed with water, and drunk each day until the victim was well. The stem and root of a Philodendron, crushed in hot water and administered thrice daily, was employed specifically to treat the bites of a snake called *cayatamo*. The fourth antidote was a stinging nettle. The botanical origins of these plants, together with the way in which they were used, suggested that their value was not based on pharmacology but on their magical resonance as perceived by the Waorani. As Geke explained, the strong scent of these plants, their inherent spirit power, repelled the symptoms, forcing them to leave the body.

The full significance of his comment did not become clear until later

in the day. By then we had collected a number of other medicinal plants. The Waorani used the sap of a tree fern as an anesthetic to soothe toothache. They dealt with botflies, a noxious parasite that burrows beneath the skin, by suffocating the larvae with a topical application of latex obtained from a forest tree. The bark of a tree in the bean family served as both a fish poison and a medicine to treat fungal infections. We also found *oonta, Curarea tecunarum,* the dart poison that provided the basis of the hunting technology. These collections revealed another side of Waorani knowledge: the ability both to identify pharmacologically active plants and to treat certain ailments symptomatically in a manner more or less consistent with the practices of modern scientific medicine.

Waorani medicine, in other words, operates on two quite different levels: the material and the immaterial. At the root of their system is a non-Western notion of the origin and nature of disease. For the Waorani, as for many indigenous peoples, good or bad health results not from the presence or absence of pathogens alone but from the proper or improper balance of the individual. Health is harmony, a coherent state of equilibrium between the physical and spiritual components of the individual. Sickness is disruption, imbalance, and the manifestation of malevolent forces in the flesh.

In general, physical ailments that can be treated with herbal remedies are considered less serious than the troubles that arise when the spiritual harmony of an individual is disturbed. In such cases it is the source of the disorder, not its particular manifestation, that must be challenged. For the Waorani the origin of all such evil and misfortune is the *ido,* dark shamans who invoke from the heavens the *wenae,* the malevolent spirit helpers who dispense the magic arrows of disease and death. The Waorani solution, and in a sense their ultimate medical act, is to seek out these rival shamans and spear them.

The means by which an *ido* elevates his spirit and enters the realm of death is a plant known as *mii.* With some reluctance and trepidation young Geke took us to a place at the edge of the forest where it grew. To my surprise it was *Banisteriopsis muricata,* a relative of *ayahuasca* never before reported as a hallucinogen in the Amazon. Geke explained that when he was a boy, his grandfather had taken the windpipe of a toucan and blown a small piece of wadded *mii* into his lungs, thus ensuring that he would grow up to become a great hunter. His grandfather, he added, had been a Snake Shaman, a healer capable of drawing a viper out of the forest to find out if it had left poison in a wound.

• • •

Tomo was one of the Waorani hunters who could smell prey and know from the sound of a rustling leaf whether an animal was worth killing. As an infant he had impaled spiders with tiny pieces of broom straw. He had snared bumblebees, tethered them with a thin piece of fiber, and wandered about his village flying them like model airplanes. By the time he was five he could hit with a blowgun targets of hanging fruit at thirty paces. At ten he could shoot a small bird out of the air. Before he reached puberty he knew how to imitate the call of almost every bird in the forest. He understood nesting habits and breeding behaviors, anticipated feeding cycles, and could list the trees where each bird preferred to dwell. Before he married he had killed a wild pig with a twenty-foot palm lance, skewering the creature from a distance of 4 feet, pinning it to the ground with one arm while the other thrust a second and third spear into its flank. With a blowgun he could drive a dart clear through a squirrel at 40 feet, knock a hummingbird out of the air, and hit a monkey in the canopy 120 feet above the forest floor.

The day before the hunt, in Kowe's house, we had watched Tomo prepare curare, scraping the bark, placing the shavings into a funnel of palm leaves suspended between two spears, slowly percolating the water through, and collecting the drippings in a small clay vessel. He had then heated the dark liquid over a fire, slowly bringing it to a frothy boil, letting it cool, and then firing it again until a thin viscous scum formed on the surface.

All this time Kowe sat quietly on a wooden stool, his feet resting on a steel ax, as he twisted the stems of a vine into a large gathering basket. The ground around him was littered with fish bones, wads of cotton, dry leaves, and small bits of paper. Spears decorated with brilliant feathers hung in the black and smoky rafters.

Kowe had ignored Tomo. Then, just as the curare had congealed and the darts lay bare on the dirt, he moved to Tomo's side, displacing him by the fire as he reached for a dart and spun it in the liquid poison. He was, Jim had explained, a Jaguar shaman, the one best prepared to empower the darts. He was the one who could sing the forest into being, sliding his voice up and down, falling away into a chant that only the Jaguar mother had the power to translate for the world. One by one Kowe placed the poison darts in the earth by the fire. Slowly the tar hardened into a jet-black lacquer, ready to be used.

The next morning Tomo had these darts in his bamboo quiver. Hanging from his neck was the piranha jaw he would use to notch the tip of each one. This ensured that the poisoned tip would remain embedded in the flesh even if the rest of the dart was swatted away by the prey. Squatting by the fire, he drank a calabash of *tepae,* the thick and mildly

fermented beverage prepared by the women from the masticated roots of manioc. Like most adult Waorani, Tomo would drink almost two gallons a day. Although *tepae* is the major source of carbohydrate in the diet, no Waorani considers it food. No matter how they are consumed, all fruits, roots, and seeds are said to be drunk. Similarly, a garden is not harvested, it is drunk. Only meat is eaten, for it is the only true food in the forest.

From the rafters, Tomo selected a short blowgun, just over six feet long. Without a word or gesture to his family he led us out of the shelter and onto the narrow path that led away from the airstrip and into the forest. The sun was high but the air cool and still beneath the canopy. For an hour or so we walked slowly along a trail, effortlessly gathering useful plants. There were any number of fruits and edible seeds, several dye plants, a wild grass employed as a paintbrush, leaves that served as dishes and serving bowls. A number of palms provided food, thatch, and wood for blowguns and spears. Two different species of pipers were used to blacken teeth and prevent tooth decay; two other plants yielded latex that treated tooth decay once it had occurred. Finally, growing alongside the trail was a short bambazoid grass whose inner shoot yielded a razor-sharp knife. It was this plant that women sought when they were about to give birth.

When a woman was ready, Jim explained, she carried her wedding hammock into the forest and hung it between trees. Straddling a hole cut into its tough fibers, her feet firmly on the ground, she leaned forward and waited for the infant to drop on a mat of heliconia leaves spread beneath the hammock. After it was born, she sliced the umbilical cord with the bamboo shoot and then carefully examined the child. If deformed, unwanted, or a twin, she would bury the newborn alive in a shallow hole in the soil. If the baby was to be kept, she held the child to her breast, carried it to the river to wash, and placed it in the bark cloth sling that served both as blanket and diaper. Once the baby was accepted, it was never put down. Loved and cared for, it received all the mother's affection.

The trail opened into the harsh light of a clearing. The plantings rose over an undulating hill to a ridge of dead snags and peach palms and the distant wall of the forest. Tomo hesitated and then skirted the field to one side, avoiding the sun. Later we would return here with the schoolteacher Nange and his wife, Oncaye, and find among the chilies, yams, peanuts, plantains, and bananas no fewer than twenty varieties of manioc, many named for forest animals. The field, Tomo explained as we climbed through a tangle of deadfall, was almost exhausted. The family that owned it would already have begun to farm another site—

the men working in the shade of the trees, clearing the underbrush, planting cuttings, felling the largest trees, leaving the leaf litter on the ground to protect the soil from the rain and sun. It was slash and rot, as opposed to slash and burn. Rarely did the Waorani torch a field. Manioc grown in these soils matured in nine months, and the roots would remain in the ground without rotting for a year. Harvested once, the land would be abandoned and never used again.

We had barely entered the forest again when Tomo froze, dropped into an attack crouch, and slipped away from us, moving silently and steadily through a thicket of heliconia until stopping at the base of an enormous tree sixty feet from the trail. In a single gesture he had withdrawn a dart, notched its tip, deftly spun the kapok fiber around the base, and placed it in the mouth of the blowgun that now hovered motionless above his head. His cheeks suddenly puffed out with tremendous pressure, which was released in an instant. A moment later he was lunging through the vegetation, laughing and shouting. By the time we caught up, he held a rufous mot mot in his hand. The bird was still alive. Tomo had managed to reach it before the poison took effect. He dropped the frightened creature into his basket and placed the dart conspicuously in the notch of a tree so that all would know an animal had been taken.

As we continued along the trail, still amazed by the accuracy of the shot, Tomo snapped off a small branch, broke it open, and rubbed the inner cavity on the inside of his cheek. The plant was *Duroia hirsuta,* a common tree in the coffee family. Ants live within the stems, and the Waorani, it turned out, apply their concentrated pheromones topically to relieve the pain that sometimes results from using the blowgun too much.

"It's a macho thing." Jim smiled. "Often they don't really have to blow as hard as they do." He then explained that the volume of air in a typical blowgun is less than a tenth the capacity of the lungs. Thus it is not force but control that counts, judging the distance to the prey, the angle of ascent, the proper trajectory.

"The longer the blowgun, the greater the velocity of the dart. Up to a point. Then resistance takes over. Finding that perfect balance, the right length is something they're always looking for."

Though a gifted hunter with a dart, Tomo confessed that he, like most Waorani, preferred shotguns. It was something that had initially confused and concerned Jim. When he first arrived, the entire tribe possessed only three shotguns. Six years later one hunter in three owned one. For the most part they were miserable weapons: single-shot breechloaders cursed with weak firing springs that rarely lasted a year.

A small box of shells cost the equivalent of three blowguns, as much cash as a Waorani could earn in a week if there was work. To make the purchase required a journey of four days. It just didn't make any sense. At close range a shotgun was useful for large terrestrial animals, provided that it worked, but for birds and monkeys and anything that lived in the canopy, the blowgun was by far the superior weapon. One day it finally dawned on Jim that the Waorani affection for shotguns had little to do with efficiency. It was the intrinsic attraction of the object itself, the clicking mechanisms, the polished stock, the power of the explosion. As one Waorani hunter explained, "It makes such a beautiful noise."

The trail reached a small creek. As Tomo demonstrated the proper way of poisoning fish, smashing the liana on a log, placing the bark in a small pool of water, he noticed a footprint in the mud on the far bank. Moving to examine it closely, he named the person who had left it. Sure enough, a mile or two up the trail we heard shouting and came upon the man in question and his wife, standing over a collared peccary that he had run down and speared. He acted as if we had been expected. Swatting away the flies and sweat bees, the hunter launched into a full account of the kill, evidently sparing no detail, for it was fifteen minutes or more before we finally pushed on. By then Tomo was wired. The trail climbed high onto a ridge of boulders and moss and twisted lianas. Suddenly he began to shout.

"It was here. It was here. It was here that I speared it!" He then explained to Jim that he and two friends had once tracked a wild pig to these rocks. They had heard something just below them and in their excitement had jumped off the bluff, fully expecting to land just behind the pig, ready for the kill. Instead, they came down face-to-face with an immense jaguar. Each of them had three wooden spears. They had no choice but to try to kill it, which they did.

"Have you ever seen a jaguar up close?" Jim asked me.

"Once, but just for a second. Then it ran away."

"The teeth are sunk into an incredible jaw, perfectly designed for tearing flesh." We both looked at Tomo, who was still laughing at the memory.

Only later in the day did I realize that Tomo was as intensely interested in my world as I was in his. We had just collected *Jessenia bataua*, a lovely palm known to the Waorani as *petowe*. Each part of the tree had a name and a separate use. One of Schultes's students, Mike Balick, had studied the palm and discovered that the oil in the seed was, in terms of both taste and chemistry, indistinguishable from olive oil.

Single-handedly he had offered the Brazilian government the opportunity to reduce its annual trade deficit by hundreds of millions of dollars.

It was hot, and we were resting. I was thinking of Mike when I realized Tomo was asking me a question.

"What was that?" I said.

"He wants to know how many brothers and sisters you have," Jim said.

"Two."

"So few." Tomo was laughing again. He spoke and Jim listened.

"He wants to know if you have to buy your wives."

"No, not that I know of."

"It's because the Quichua do. There's a bride price, and they tell the Waorani it's the civilized thing to do," Jim said, turning toward me. "You have to understand that every contact he's had with the outside has left him utterly perplexed."

Tomo's first exposure, Jim explained, had occurred in 1975 during a shamans' war between two rival groups of lowland Quichua. Knowing that the Waorani were eager to establish trading relations, one side asked three Waorani men, including Tomo, to kill a rival shaman, assuring them that such a murder was acceptable among the Quichua. The only stipulation was that the deed be done with spears. Tomo agreed and was promised a radio, a pair of boots, a shotgun, and ongoing access to trade goods of all sorts. As soon as the shaman was dead, those who had contracted the murder betrayed the Waorani to the authorities. The military flew in by helicopter to the Quichua village where Tomo was staying. The soldiers landed, weapons in hand, firing indiscriminately into the treetops. Tomo was on the ground watching, but he soon fled and remained on the run for more than a year.

Undaunted by the experience, Tomo retained a genuine hunger for the outside world. Invariably his encounters were bitter, especially once he began, like so many of the Waorani, to work for the oil companies. Hired by an agent of Texaco to cut trail, he worked for three months, living on a diet of white bread; in the end he received no pay. It was only then that he denounced the *cowode* and returned to the forest.

Tomo's father had died at the hand of his own brother, Dabo. Now Dabo is Tomo's father, and Tomo addresses the killer of his natural father as father. Tomo's mother's sister is Meñemo. Four times in her life spearing raids had forced her to flee to the forest. When she was five, she survived three months alone in the forest. The insects were so terrible that she buried herself in the swamps to sleep. For food she ate clay. She lost all of her hair, but she lived. When she married, she once

again found herself on the run, this time with two children. One kept crying and had to be choked to death so that the other might live. It was a harsh world but one that Tomo at least understood.

Now Tomo himself was a father. He had six children, including a stepson whose real father, Néngkiwi, had been one of the Waorani who killed the missionaries in 1956. Néngkiwi was a boastful character, always threatening to spear people. Finally one day Giketa, a respected elder, asked, "Who is going to take care of this guy?" A Wao called Dyowe killed Néngkiwi with a spear, and Tomo married his widow. Thus Tomo's word had weight when he spoke to us that afternoon of the history of the massacre of the missionaries. It was all a terrible mistake, he explained. George, whose real name was Gimari, was angry and jealous that Delilah, or Naenkiwi, was flirting with the white strangers. He told the Waorani at Terminal City that the missionaries were evil. The women disagreed, but Gimari's opinion held. Thus, the entire time the five Americans waited on Palm Beach, there was never a doubt that they would be killed.

On Easter Sunday I awoke to soft voices and hymns sung in a gentle manner, innocent and pure. I looked up and saw Kathy and her children huddled by the fire. The morning was cold. Thick ground fog hung over the village. I fell back into my hammock and lifted the thin blanket over my shoulders. Drifting back to sleep, I heard other voices from the night before, the slow back-and-forth rhythm, the subtle tone shifts of the Waorani chants, songs so old the people no longer understand their meaning—like singing hymns in Middle English. For several hours we had danced at the house of a Waorani named Kento, forward and back, sweaty hands on one another's shoulders, feet flat on the ground lifting dust that mingled with the scent of the aromatic plants the Wao had crushed onto their skin. Then the songs had seemed to emerge from a trance. Now in the uncertainty of dawn, hymns did not seem out of place.

Breakfast brought me back to the forest: smoked meat, a calabash of thick banana drink, and beetle grubs roasted over the fire. The day before, Tomo had killed four monkeys and Kento bagged two. Jim figured they had each covered sixty miles of ground. They would have shot more, but they had broken taboo by drinking *chicha* the morning they made the poison.

"It's sort of like eating your cousin," Jim said, smiling, as I worked my way through the forearm of a howler monkey. By this time I had

eaten them all—capuchin, howler, woolly, spider—and I still couldn't tell the meat apart.

"There's a squirrel that lives on one kind of palm nut," Kathy said. "That's what the Wao really like. They roast the stomach in ashes and eat the whole thing."

"It's pretty good," Natasha added. I laughed. She was a sweet girl, strong and very brave. Two nights before she had been struck by a scorpion, and she didn't cry, not even when all the Wao gathered around her and the old lady had rubbed the solanum fruit on the wound.

After breakfast we wandered over to the small church the Waorani had built by the airport. Many of them were already inside—Tomo and Kento, Kowe, Geke, Wepe, and their families—all seated stiffly on the wooden benches, talking casually, apparently oblivious to the bossy young woman who paced back and forth in front, barking orders and dismissing them as savages. It was disconcerting to see the numb faces of the Waorani men enduring the taunts of this woman, dressed stiffly in a fresh cotton smock. She, too, was Wao, but her manner betrayed her. She was Wepe's daughter, and for the last two years she had lived outside, working as a maid for a *mestizo* family in Puyo. Throughout the Oriente, owning a Waorani is something of a status symbol. They speak no Spanish, are subject to rape, and after several months are dismissed, with perhaps a dress as payment. Wepe's daughter was wearing hers.

Jim and Kathy and their kids sat quietly on a bench at the back. I took a place beside young Natasha. It all seemed strange. I remembered Betty Elliot's accounts of the first Waorani church services, with Dayuma very much in the role of Wepe's daughter. Before dawn she would shout to the clearing, "Everyone come out. I am going to speak about God." The people would then gather. For them the idea of sitting and listening was ridiculous. Waorani speak when they have something to say. So Dayuma kept telling them all to shut up. Then, since there was no word for prayer in the language, she would announce that it was time for them all to sleep. "Close your eyes and sleep!" she would yell. For the Waorani, a church service meant having this odd woman wake you before dawn just to tell you to go back to sleep.

The humor of it was not lost on Betty Elliot, Jim Elliot's widow, who emerges from the pages of her memoirs as an amazing woman, possessed of a simple faith, tempered by tragedy. Rachel Saint, by contrast, was a zealot, informed by fear. Welcomed at the Waorani settlement at Tiwaeno in part because they were women and thus no threat to the Wao, Saint and Elliot—one a spinster, the other a young mother—had completely different experiences. Surrounded by men

singing love songs, young girls slipping into hammocks, guiltless love-making all around, Rachel Saint was soon writing home of the "scum of heathens" and the need of Christian marriage. Elliot saw the positive. Intoxication was unknown, men never beat their wives, criticism was public, and relations between husbands and wives were equitable. "Many of our civilized sins," she wrote, "were conspicuous by their absence. There is no gossip, vanity, personal pride, stinginess, or avarice. I was faced with the fact that socially I had nothing whatever to offer the Aucas."

Inevitably, Elliot and Saint would clash, and there was never a doubt who would come out on top. "Rachel," Elliot later wrote, "is 100 percent dogmatic. I couldn't discuss anything rationally with her. She simply would not give way on anything." The final split occurred over a trivial matter: whether or not the Waorani ought to be exposed to communion. Elliot maintained you could use grape juice, though the Bible specified wine. The very idea of introducing a Catholic ceremony deeply offended Saint. For Betty Elliot it was the final straw. Having lost her husband to the Waorani and raised her daughter among them, Betty Elliot left Tiwaeno in 1961. Perhaps more than anyone she understood the people. "The Auca," she would later write, "has no form of religion. He knows nothing of prayer, sacrifice, worship, placating evil spirits, or adoring the good. He is not consciously seeking after anything."

With Elliot out of the way, Saint installed herself and Dayuma as power brokers, mediating not only the delivery of new religious ideas to the Waorani but, more important, the flow of goods from the outside. For the next decade, as more groups of Waorani were drawn to Tiwaeno, swelling its population to three hundred by 1969, virtually all contact with the Waorani filtered through Rachel Saint. In 1964, when the Ecuadorian government established a reserve for the tribe, an area of less than half of 1 percent of their former territory, it was officially known as "Dayuma's Auca Protectorate." Journalists began to write of the Auca queens, and the myth of the Auca matriarchy was born. By the early 1970s, Saint had become almost psychotically attached to her tribe. She built a little empire in the forest, controlled by a select number of women whose power derived strictly from the Waorani hunger for goods and information about the world outside.

Saint's downfall began when Jim Yost, then a young anthropologist, issued a report criticizing Dayuma's monopoly and urging that the flow of trade goods be more carefully monitored. He also pointed out the danger of concentrating the Waorani in a single settlement, citing the polio epidemic that had swept through Tiwaeno in 1968, killing sixteen

and paralyzing six. Saint was livid. She had herself been stricken by the disease and knew it to be the judgment of God. Without her presence, she maintained, the Waorani would kill each other. Without her protection, they would kill Yost and his family. Jim called her bluff. The S.I.L. leadership backed him, and Saint was discreetly retired.

Wepe's daughter finally sat down, and in her place stood the schoolteacher Nange. I tried to imagine what he was saying. Jim had explained how difficult the translation work had been. How do you give English words to a language so rich in onomatopoeia and punctuated with the sounds of the forest? How do you translate the Bible when nothing in it—places, names, objects, let alone themes—makes any sense? The Waorani had no words or reference points for rich people and poor, for specialized labor, hierarchy, prayer, buying and selling, towns, kingdoms, or nations. So coins become "fish scales." Paper and bread become "wasp's nest." But even if one can understand the sounds of Waorani and forge them into words, how do you translate the words into meaningful phrases? Take a basic Waorani sentence: *Bitö maomomi hemoi.* Literally it says, "You carrying in hand come give you take I you follow." What it means is simply, "Bring it to me." Add in the challenge of a tonal language, and you have, in Jim's own words, "Fellini in the forest."

I looked around at the congregation standing stiffly as they mouthed a melancholy hymn. Clearly, I thought, it had not been the promise of the afterlife that drew the Waorani to Christianity. They already believed they would go to paradise when they died, and their heaven had animals in it. As Jim had written, the magic of Christianity was its potential to break the vendetta and end the cycle of violence. And it had. Looking around this small gathering provided ample evidence. A generation ago Tomo would have had to avenge Toño's death by killing Wepe. Wepe's group had been raided by Kento's father, Ñíiwa. Wepe in turn had raided Kowe. None of them could be sitting together. Whatever else it had wrought, Christianity had stopped the spearing raids, the killing of innocent women, infanticide, and the live burial of children.

Christianity also provided a model for interacting with the world. Rachel Saint may have thought she was in control, but in many ways it was the Waorani. Even before contact they had been fascinated by the possessions of the *cowode.* Once they knew they could trade in peace, their hunger for goods and their insatiable curiosity drove the entire dynamic. Just the summer before while in the capital Jim had received

a phone call from the Presidential Guard at the National Palace. Three Waorani whom no one understood were sleeping on the sidewalk waiting, it turned out, to ask the whereabouts of a minor government official they had met in the forest.

When Jim had tried to encourage the Waorani to disperse, both to establish their inherent rights to the land and to stem the flood of goods that he thought threatened their way of life, the Waorani became furious. In 1975, when the S.I.L. did attempt to control the flow of radios, T-shirts, sunglasses, and baseball hats, the Waorani responded by seeking other trading contacts in the oil camps south of the Río Napo or among the tourists Dayuma was bringing in each year to see the "wild Auca savages." At Tzapino the Waorani cleared their own airstrip. They invented rituals, imitated the activities of an oil camp, and sang songs to the helicopters, with the hope that they would unleash a rain of gifts.

Finally, Jim realized that he could no more control the flow of goods than he could reverse the process begun so long before on Palm Beach. "As romantics," he told me, "we idealize a past we never experienced and deny those who knew that past from changing. We forget perhaps the most disturbing lesson of anthropology. As Lévi-Strauss said, 'The people for whom the term cultural relativism was invented, have rejected it.' "

It was at the end of my third week in the village that Jim and I noticed a peculiar pattern in our work. By then we had managed to collect at least 80 percent of the plants he had recorded over the years as well as many others. Some of these, including a new species of basidiolichen reputedly employed as a hallucinogen by shamans four generations ago, were exceedingly rare and had never been seen by Jim. But it was a very common plant that tipped us off—that plus a serendipitous visit from an old lady. The plant was *Brunfelsia grandiflora* ssp. *schultesii,* the admixture that had given Schultes such a headache at Conejo when he took *ayahuasca* with the Kofán and that Tim later named for him. Used by dozens of tribes to treat fever, it is one of the most prized medicinal plants of the Amazon. The Waorani agreed that it was useful but only as wood. It seemed incredible to me that a people who had such a profound knowledge of the forest would have failed to recognize the medicinal properties of the plant. When I later reviewed my notes, I discovered to my surprise that, out of all our collections, there were only thirty-five medicinal plants.

It was early evening, and Jim had been playing a tape of a group of

Waorani discussing a spearing raid. Several of the Quiwado people had gathered around and were arguing with the machine. One of them was a thin, elderly woman. Suddenly she exploded in rage, flung her arms in the air, and then lifted her blouse for all to see. There were two neat scars where the razor-sharp triangular spear had perforated her belly and emerged from her back. It had happened years before, Jim explained, when the woman was young. The raiders had left her for dead, but when her kin returned, they treated her. Because of the reversed barbs on the spear, they could not risk removing the weapon. Instead, they cut it off back and front and, leaving the remainder of the spear in her, plastered the wound with the standard treatment: mud from the watering hole of a peccary. They then carried the woman to her hammock, where she remained for a couple of weeks. As the tissue around the wound became necrotic, she felt well enough to return to work in the gardens. One day as she bent over to harvest manioc, the long spear fragment slipped out.

I asked the obvious question: "What about infection?"

"Wasn't any," Jim said. "She was lucky. No internal organs were hit. But I've heard similar stories. And I've seen lots of hunters accidentally skewer their feet on punji sticks on the trail."

"Again no infection?"

"No. They were a healthy people."

"How healthy?" I asked.

"Very. It's one of the few societies that we really know about."

Jim explained that not only had the Waorani access to Western medicine since their first sustained exposure to Western disease but a team of medical experts had compiled a complete profile of their health at the time of contact.

"I have copies of their papers here," he added. "I can dig them out for you."

Later that night I had a chance to read several of these reports, the most important of which had been written by James Larrick of Duke University Medical Center. Jon Kaplan of the University of New Mexico and Jim were coauthors. The results were astonishing. Among the Waorani the medical team had found no evidence of hypertension, heart disease, or cancer. There was no anemia. Hemoglobin values were equal to or better than North American standards. The common cold was absent. The Waorani ranked as one of the few populations in the world where blood pressure does not increase with age. The people had practically no internal parasites and virtually no secondary bacterial infections. They had never been exposed to polio or pneumonia, nor was there any evidence that smallpox, chicken pox, typhus, or typhoid

fever affected the tribe. There was no syphilis, tuberculosis, malaria, or serum hepatitis.

Although on the whole the Waorani were remarkably healthy, the medical researchers found a number of chronic ailments. Yellow fever was endemic, as was hepatitis A and herpes simplex. The Waorani also suffered from fungal infections and external parasites such as lice and scabies. They had terrible teeth. Naturally they experienced burns, wounds, and various bites, ranging in severity from that of a congo ant, which could paralyze an arm for a day, to a snakebite, which could kill.

With this information in hand, Jim and I had a closer look at our botanical collections. Of the thirty-five medicinal plants, thirty were used to treat one of six conditions: fungal infections, snake bite, dental problems, fevers, insect stings, pains and traumatic injuries such as animal bites, spear wounds, and broken bones. The remainder were valued for treating some idiosyncratic ailment. Two species of hot peppers, for example, were used by a shaman's wife to bring him down from a hallucinogenic intoxication. In each of the six conditions the Waorani had sought a set of medicinal plants representing many distinct botanical families. In other words, they had very carefully sampled their forest to find treatments for the ailments they suffered at the time of contact. In the end they had needed and come up with very few preparations.

This limited and highly selective use of medicinal plants stood in marked contrast to that of neighboring tribes such as the Canelos Quichua, a people who have been repeatedly exposed and ravaged by Western diseases for hundreds of years. The Quichua have hundreds of plants used for dozens of conditions, including such vague and possibly European concepts as "bad air," "kidneys," and "liver." The difference between the two tribes forced us to consider a basic question: Was the Waorani use of plants an anomaly, or might it represent the pre-contact state of affairs throughout the Amazon? I knew, and told Jim, that ethnobotanists working among the Yanomamo, another recently contacted group, had reported low numbers of medicinal plants. If the Waorani and other isolated groups are in fact indicative of the pre-contact era in regard to their use of medicinal plants, it would seem that the vast pharmacopoeias reported for the more acculturated tribes reflect, at least in part, the chaos of contact and the accelerated experimentation that took place in response to the arrival of Western diseases. This idea, while challenging the notion that indigenous knowledge of medicinal plants necessarily developed slowly, over hundreds of years, in no way denigrates native healing practices. On the contrary, it revealed native healers, including those of the Waorani, for what they

are: active scientific experimenters whose work reflects social needs and whose laboratory happens to be the rain forest.

On the day before I left Quiwado, Jim and I poled upriver with young Geke and Kento to collect bark cloth, a specimen of yam bean, and a number of other plants I had yet to find. Kento pointed out the places on the bank where animals had drunk that morning, and a clearing where an old man had died and been buried, accompanied by his three-year-old son, who was buried alive. We passed a youth fishing on the shore and watched as he lunged his spear into the water and then whipped it out, a bright fish spinning on the sharp tip. Around the next bend in the river we came upon a red caracara perched on a branch. Kento shot it with a dart.

"I thought you said they were taboo," I said to Jim.

"You're not allowed to eat them. That doesn't mean you can't kill them."

We passed a quiet eddy, and Geke wanted to fish. He reached into his fiber bag and pulled out a stick of dynamite. Jim told him to put it away. They argued. Jim prevailed, and Geke sulked the rest of the morning.

"They get it from the local officials," Jim explained, "a fuse connected to a blasting cap. Jam it into a stick of dynamite, tie it to a rock, light it, and let her rip. The concussion kills all the fish. The rivers around Tena are all wiped out. If it's not dynamite, it's DDT."

"What do you mean?"

"All the villages get sprayed. The World Health Organization gives it to the Ecuadorian government. Health officials bring it in for malaria, and then they sell it by the hundred-pound sack to the Waorani, who use it as fish poison."

"Don't the Indians know?"

"Know what?"

"Can't they see what it does to the rivers?"

"Sure. And I've asked them. I once asked Kowe if he had noticed anything about yields. 'Yes,' he said. 'When we first started using it, we got lots of fish. Now not so much.' What about your children? I asked. Without the slightest sign of remorse he calmly said, 'Oh, they won't have any fish, but we will.' "

"What does that tell you?" I asked.

"Do you remember when we got the honey?"

"Sure." I could still see the excitement on Tomo's face, his head and sweaty body covered by thousands of stingless bees, his hand uncov-

ering the red cone of cecropia seeds made solid by saliva and wax, the outer casing of the hive, the thick black wax prized by the Waorani as resin and glue. Then the massive comb itself, great cavities of thick honey, poured onto maranta leaves and carried home to the children.

"Tomo must have eaten a quart of it," I said.

"When he was in the middle of cutting down that tree, do you remember what he said?"

"I remember you saying something."

"Suddenly, in all his excitement, he turned to us and said, 'One time I killed a howler monkey, and it was no farther than from me to you.' Then he went right back to cutting the tree. There was this wild association between hunting and cutting the tree. It's what they most like to do."

"It wasn't just the honey."

"No, I don't think so. I've seen it so often. Nothing thrills the Waorani more than killing game and cutting down big trees. It's what so many people don't understand who haven't lived in the forest. You don't have to conserve what you don't have the power to destroy. Harming the forest is an impossible concept for them. The fact that they use every part of an animal has nothing to do with a conservation ethic, and everything to do with hunger."

"They don't know what it means to destroy."

"They have no capacity to understand. In a world of such abundance, the word 'scarcity' has no meaning. It's what makes them most vulnerable. It's the same with their culture. When you've lived in complete isolation, how can you understand what it means to lose a culture? It's not until it is almost gone and when people become educated that they realize what's being lost. By then the attractions of the new way are overpowering, and the only people who want the old ways are the ones who never lived it."

Late in the afternoon, just after we had returned to Quiwado, there was a Waorani visitor waiting for us. He had come from downriver, five hours away, not far from the military outpost on the Curaray. He wore wraparound shades, canary yellow trousers, a white polyester shirt, bright sneakers, and a hat emblazoned with the logo of a German company. The immaculate condition of his clothes revealed that he had changed at the edge of the clearing, just before entering Quiwado. He had a huge silver watch without hands and an Instamatic camera that didn't work. His name was Nénkiwi. He couldn't read and so had

no way of knowing that scrawled across his chest was the lettering AMOR-ECUADOR MILITARY POST # 5.

Nénkiwi had come because he had something to sell: a stone ax that Jim identified as Late Napo phase, A.D. 800–1200.

"Might as well buy it," Jim said. "Otherwise someone else will."

I bought it for a few dollars, and Nénkiwi was delighted.

That night I sat alone in my hammock and held the ax in my hands. It seemed incredible to me that just a generation before, during the years when Schultes lived and traveled in the Amazon, these Indians were still using such an implement to clear their land. I imagined a Waorani man standing in the shade of the forest and pulverizing the cambium of some tree. They did not even know how to carve stone. They found the ax heads in the jungle, gifts of their creator, *Waengongi.*

I thought of what Jim had told me and remembered that out beyond the mauritia swamps there were still Waorani who had yet to be contacted—a small band splintered from the people at Yasuni, running scared in the forest. Just three years before they had killed six oil workers, having given the intruders ample warning to get away from their land. By now they had speared or been speared by every other Waorani group. No one knows how many there are—perhaps just eight or ten, brothers and sisters, probably without children. In the moment, as I listened to the wind brush against the trees, I hoped only that somehow they would stay away.