

Darkness in

El Dorado

How Scientists and Journalists Devastated the Amazon

Patrick Tierney



W. W. Norton & Company New York London

Chapter 3

The Napoleonic Wars

The village I'm living in really thinks I am the be-all and end-all.—*Napoleon Chagnon, 1965*¹

The wars that made Chagnon and the Yanomami famous—the ones he wrote about with such relish in *The Fierce People*—began on November 14, 1964, the same day the anthropologist arrived with his shotguns, outboard motor, and a canoe full of steel goods to give away.²

“A war started between groups which had been at peace for some time on the very first day Chagnon got there, and it continued until he left,” said Brian Ferguson, a Rutgers anthropologist who is an expert on violence in primitive societies. “I don’t think that was an accident.” Ferguson’s book *Yanomami Warfare*, published in 1995, is perhaps the most comprehensive account ever written about tribal conflict. Two of its chapters are devoted to Chagnon’s own role in fomenting warfare among the Yanomami.³ “I originally considered calling my book *The Napoleonic Wars*,” Ferguson said.⁴

Ferguson’s work is part of a growing consensus that Westerners, including

scientists, profoundly disrupt tribal health, life, and politics on arrival. The 1998 Pulitzer Prize for nonfiction went to the UCLA medical researcher Jared Diamond and his book *Guns, Germs, and Steel: The Fates of Human Societies*,⁵ a meditation on the worldwide spread of Eurasian war, disease, and trade goods. No tribal society could withstand their onslaught. Historians who have revisited the role of European scientists in the exploration of Africa (in *Dark Safari*) and New Guinea (in *First Contact*) have documented widespread devastation, caused almost unconsciously by specialists convinced of their own objectivity. In some cases, an expedition was not needed. Diamond, who did field research in the South Pacific, recounted how a single British sailor, Charlie Savage, drastically altered Fiji society in 1808 with the help of a couple of old muskets. “The aptly named Savage proceeded single-handedly to upset Fiji’s balance of power. . . . His victims were so numerous that surviving villages piled up the bodies to take shelter behind them, and the stream beside the village was red with blood.”⁶

Far-traveled Carib tribes that gave their name to the Caribbean once settled the Orinoco. They lived in large, fortified towns and plied the great river in hundred-foot canoes. The wars and disease that accompanied spasmodic efforts of Europe’s colonial empires to locate El Dorado exterminated their civilization. An enterprising Dutch governor of Suriname, Gravesande, launched the final quest in the first half of the eighteenth century. He formed a military-slaving alliance with a Rio Negro tribe, the Manau, whose leader, Ajuricaba, styled himself king of Gran Manoa (an alias for El Dorado) while flying the Dutch flag.⁷ Brazil’s colonial authorities sent an army that crushed the Manau, captured Ajuricaba (who committed suicide by leaping into a river in chains), and supplanted the Dutch as the leading entrepreneurs in the slave business. The Portuguese kidnapped or purchased over five thousand Indian slaves between 1725 and 1750 on the Upper Orinoco alone.⁸

The earliest mention of the Yanomami came from a multidisciplinary expedition of engineers, surveyors, naturalists, and artists who worked for the Portuguese boundary commission. In 1786, Lobo de Almada described the Yanomami as the “remnant” of a “nation,” whose survivors were “still living” in the inaccessible headwaters between Venezuela and Brazil. Almada, who brilliantly directed the collection of new plant species and the cataloging of Indian cultures, contributed to genocide by relocating the Yanomami’s eastern neighbors, the Macuxi, to a reservation a thousand miles away, where most of them died in what the historian John Hemming styled “a grotesque experiment.”⁹

Other experiments were also underway. In 1784, Alexandre Rodrigues Ferreira, whom Hemming called “the first great naturalist to study the Amazon,” began an ambitious scientific enterprise that conscripted hundreds of native guides, porters, paddlers, and servants. “Such navigation is fatal to the Indians, most of whom generally die or are incapacitated for life,” a local bishop complained. Thousands perished or fled from the main rivers to escape Ferreira’s botanical enthusiasm, leaving whole stretches of the Rio Negro on the Yanomami’s southern border devoid of inhabitants.¹⁰

The Yanomami’s strategy of hiding in the hills was more successful—reportedly some three thousand managed to escape the slavers and naturalists and the plagues that accompanied both of them.¹¹ It was an accident of geography. Europeans failed to reach the source of the Orinoco because the river narrowed to a swift, stone channel—a granite flume only six feet wide in stretches, with wild waters broken by impassable cataracts.¹² Farther upriver, after the portaging of a dozen waterfalls but still far from the source, the going became excruciatingly slow. The Orinoco spilled out into a labyrinthine swamp, choked by rotting logs and densely matted vegetation, where navigation was out of the question. It was miserable going. Even in the so-called dry season, from January to March, downpours fell forty-eight days out of fifty.¹³ There were few stands of rubber or cacao trees, nothing to excite collectors. And, along the Orinoco’s final stages, the only thing that obviously glittered was mica, fool’s gold. Given the surfeit of pain and the apparent absence of reward, every European expedition for two centuries turned back without reaching the Orinoco’s source. It was actually a tiny catch basin, a few feet in diameter, situated on the rim of a dark, steep gorge above granite escarpments, and it was finally located in 1951 by a Franco-German expedition. Nevertheless, earlier explorers left their mark and contributed to the creation of a Yanomami myth of unbridled ferocity.

The first American to attempt the Orinoco’s origin was the noted geographer Hamilton Rice, on assignment for the Royal Geographical Society. He camped above the turbulent Guaharibo Rapids, considered the border of Yanomamiland, on January 21, 1921. There, seeing his abundant supplies, a group of about sixty Yanomami came begging for food and trade goods. This was the Yanomami’s typical approach to outsiders,¹⁴ but it startled Rice, who decided to take no chances. He opened fire with his Thompson machine gun and did not bother to count the dead. The Rice expedition fled downriver. He later wrote in Royal Geographical Society’s *Journal* that the Yanomami

were cannibals who ate raw flesh and that, given the danger of becoming dinner, it had been “necessary to fire to kill.”¹⁵

The next incursion of Americans on the Upper Orinoco came during World War II. A team of U.S. Army engineers and surveyors did a feasibility study on a super-canal to join the Amazon and Orinoco watersheds.¹⁶ Although the canal, which would have dwarfed Panama’s, was never built, the friendly engineers got along well with the Indians. The Yanomami eagerly ate the army people’s leftovers and shared their cigarettes before returning home with priceless machetes—and deadly contagion. The new respiratory diseases decimated *shabonos* far from the Orinoco, while sparking wars over witchcraft accusations, the double whammy that outside infections have historically brought to Amazon tribes.¹⁷

The wars and epidemics that shadowed these expeditions profoundly altered the Yanomami landscape. According to local colonists, Rice’s machine-gun “massacre against unarmed Indians”¹⁸ provoked Yanomami raids against the only remaining settlements on the Upper Orinoco between 1921 and 1931.¹⁹ Although the Yanomami did not kill any whites, they stole all the steel goods they could find and wreaked so much havoc that colonists abandoned the area altogether. For the first time since the Spaniards arrived in 1750, there were no garrisons or trading posts within hundreds of miles. The jungle reclaimed old towns, missions, and forts. Another American geographer, Earl Hanson, reported on the phantasmagoric victory of the rain forest. “It is probable that the present regression of the region is the most complete in its history since the first advent of the Spanish,” he wrote. “An interesting spectacle is taking place . . . affording an opportunity for some ethnologist to record a brand-new primitive culture in the making.”²⁰

There was no one better equipped than Chagnon to record this “brand-new primitive culture in the making.” *The Fierce People* was written in a fresh, unfettered voice. After giving an account of a man who beat his brother with the blunt edge of an ax, Chagnon confided that the victor was “one of few Yanomami that I feel I can trust.”²¹ The anthropologist admitted he would have preferred studying some other, kinder group, but cautioned, “This is not to state that primitive man everywhere is unpleasant.”²² He described Yanomami women over the age of thirty as having “a vindictive and caustic attitude toward the external world.” There was no puritanical preaching, no concession to the ideal of the Noble Savage. Another reason for the book’s popularity was that Chagnon combined two favorite undergraduate

themes—violence and sex—into a single theory about Yanomami warfare: Yanomami men fought over women, a message that has resonated on American campuses.

Chagnon survived a nighttime murder attempt by his hosts, whom he frightened off with his flashlight, and a close encounter with a jaguar, which sniffed him in his hammock. He hollowed out his own log canoe to ride down the Mavaca River, after a Yanomami guide abandoned him, and pushed on into unknown territory in spite of repeated death threats. You had to admire his courage—though it was harder to admire the Yanomami as Chagnon depicted them. By the end of the story, many readers concluded the Yanomami were, well, pretty awful.

Perhaps Chagnon's most brilliant achievement was fitting his grimly fascinating adventures into a clear, simple Darwinian framework that seemed to shed new light on human origins. *Time* magazine summarized Chagnon's theory: "the rather horrifying Yanomami culture makes some sense in terms of animal behavior. Chagnon argues that Yanomami structures closely parallel those of many primates in breeding patterns, competition for females and recognition of relatives. Like baboon troops, Yanomami villages tend to split into two groups after they reach a certain size."²³ You had to be fierce to survive and reproduce.

Chagnon said he had to become fierce himself in order to survive among the Yanomami: "I soon learned that I had to become very much like the Yanomami to be able to get along with them on their terms: sly, aggressive, and intimidating." Otherwise, they would have pushed him around unmercifully and stolen him blind. He learned to shout at them "as loudly and as passionately as they shouted at me." "I had to establish my position in some sort of pecking order of ferocity at each and every village."²⁴

Pecking orders of violence were popular in the 1960s, in part because of Konrad Lorenz's influential book *On Aggression*, published in 1966. Lorenz, a Nobel Prize-winning biologist at the Max Planck Institute, made many crucial contributions to understanding the behavior of rats and geese—two very aggressive animals—and a few equally crucial mistakes in applying his laboratory observations to human behavior. He concluded that humans were a simian species gone awry, great apes deformed by hunting and technology to kill without inhibition unlike any other animal.²⁵ Thus, original sin was reinvented, and man became known as a killer ape. Chagnon's Fierce People resembled killer apes: Amazonian primates, similar to baboons, whose perfect amorality turned murder and treachery into tribal ideals.

Today even Chagnon's strongest supporter, the Harvard sociobiologist Edward O. Wilson, recognizes that humans are probably less violent than any other species, at least as measured by common homicide and infanticide: "The murder rate is far higher than for human beings, even taking into account our wars."²⁶ Humans are not killer apes, nor are the Yanomami "fierce people."

There are Amazonian tribes, like the Huarani and Achuar, that have levels of violence far higher than that of the Yanomami.²⁷ Among the Huarani, for example, over 60 percent of all men are killed,²⁸ compared with 30 percent among the Yanomami Chagnon studied.²⁹ But the Yanomami have four regional dialects and are spread out over 80,000 square miles. All other Yanomami subgroups have homicide levels much lower than those Chagnon recorded.³⁰ The adult male homicide rate for the entire tribe might be 12–14 percent. There are villages where no one has been killed in generations and others where a high percentage of the men have been slain.³¹ Therefore, rates of adult male war deaths could be engineered in a range from zero to over 40 percent, depending on the village and the time frame. And, if the approximate Yanomami homicide rate appears high when compared with *domestic* rates for wealthy, democratic societies, it is unfair to say, as Chagnon often does, that the Yanomami have a higher homicide rate than the city of Detroit.³² Such comparisons are dubious, not only because the data is so uneven but because tribal violence conflates war and common murder—categories that modern societies keep strictly separate. (If murder rates for the Soviet Union or Poland were computed like the Yanomami's—tallying *all killings* over several generations—they would also be high, since they would include millions of male "murders" during World Wars I and II.) In any case, the overall level of violence among the Yanomami is undoubtedly modest for a tribal society without written laws or police.³³

The question is no longer why the Yanomami are so fierce, but why Chagnon's Yanomami have homicide rates so much higher than those of other Yanomami groups. Although Chagnon has portrayed his home village, Bisaasi-teri, as a "typical Yanomami village,"³⁴ it was exceptional. By the time Chagnon met the Bisaasi-teri, they were living at the juncture of the Orinoco (400 yards wide) and the Mavaca River (100 yards wide). From the air, the area looks lovely, with its riverine forests shading the muddy Orinoco's banks and granite foothills fingering their way out of the luxuriant growth. But the aerial view is deceiving, for this is a miserable, sticky, malaria-ridden place. No traditional Yanomami village was located anywhere near such a

wide stretch of river.³⁵ Archaeological excavations at Bisaasi-teri have uncovered pottery shards and manioc strainers commonly used in Carib cultures but unknown in the Yanomami's mountain redoubt.³⁶ The Yanomami penetrated this far down the Orinoco only because the Carib tribe that traditionally dwelt there was driven off or enslaved. Two thousand Carib speakers were pressed into servitude by a band of adventurers while an energetic Frenchman set up a trading village in the 1830s at the same spot where Chagnon met the Bisaasi-teri.³⁷

All experts, including Napoleon Chagnon, agree that the existing Yanomami groups originated in the Parima and Siapa highlands, which they populated "during untold centuries." The first scientist to live with the highland Yanomami was a University of Pittsburgh geographer, William Smole. After experiencing the Yanomami in their ancestral habitat in 1969–70, Smole began to publicly dispute the "fierce people" appellation for the Yanomami. In the Parima Mountains, Smole settled near a large village that had been at peace for two generations. There were no headmen to speak of, and much less squabbling over marriageable females. Whereas Chagnon's villages had a dramatic shortage of women, the highland villages had a slight surplus. Sorcery was the main cause of what warfare did occur; capturing women was secondary.³⁸ Smole concluded that Chagnon's Yanomami differed so markedly from the villages in the tribes' more tranquil homeland that they could not be considered traditional Yanomami at all.

Even within the subgroup where Chagnon worked, there is a sharp split between highland and lowland villages. In fact, when Chagnon surveyed five mountain *shabonos* from his own linguistic group in 1990–91, he learned that only about one-fourth as many men had participated in killings as among the lowland groups (11 percent as opposed to 44 percent).³⁹ Chagnon has yet to reveal the actual homicide statistics for these mountain villages contiguous to the Mavaca River. Nevertheless, his more recent findings confirm what William Smole has been saying for decades—that violence is spacially variable in the Yanomami world, the villages living at low elevations along the Orinoco-Mavaca drainage being the most violent known. These dozen *shabonos*, with a population of 1,394,⁴⁰ comprise less than 6 percent of the 25,000 Yanomami alive today. As Smole put it, "Certainly the Yanoama who have moved to sites on or near navigable water are not representative. They are outside their niche in the broadest sense, caught in a squeeze between various adverse influences of 'civilization.'" ⁴¹ Smole believed that steel goods, disease, and the divisive influence of outsiders altered such émigré groups be-

yond recognition. Ferocity and fighting over women "might apply to a lowland zone of acculturation and acute cultural instability."⁴²

Almost all subsequent researchers have echoed Smole's criticisms, including most of Chagnon's own students. Chagnon blamed these attacks on romantics trying to create a prettified version of Yanomami culture. Having met with some assaults myself for graphic description of violence among Amerindian groups, I initially sympathized with Chagnon. Once I reached Yanomamiland, however, I found it increasingly difficult to accept Chagnon's version of their culture.

Brazil's nomadic gold miners, whose cross-continental wanderings have brought them into contact with dozens of tribes, have often remarked on how friendly the Yanomami are compared with other Amazonian Indians. The Yanomami at first welcomed me with a kindness that was disconcerting—tied my hammock, brought me food and water, lugged my heavy equipment, and lit lights all around me at night. I soon realized they were desperate for medicines and for someone to take their dying children upriver to a medical clinic.

Later, I was robbed at gunpoint by several young Yanomami who were working with gold miners. Had I wanted to render a heroic, Chagnonian version of the incident, it might have gone like this:

When we came to the big curve of the Mucajaí River, white water sprayed us as we dodged in and out of eddy currents. Just after escaping the last whirlpools, we confronted a new danger: a canoe of belligerent warriors heading straight toward us. They pulled even. Then a vicious and powerfully built man leapt into our boat and pointed a shotgun at my head. "I kill gold miners!" he shouted as he beat his chest to establish his dominance. He swayed from side to side, proclaiming his murderous intentions. I stared him down, knowing that a true warrior will never display fear. I also knew the real motive for the treacherous assault: the Yanomami's perpetual suspicion that outsiders wanted to steal their women.

Actually, I had happened on a Yanomami funeral ritual, in which the ashes of the dead are taken out and shared in a tribal communion, a time when the feared ghosts from the past are honored and when old scores can be settled. My boat was boarded in midstream by a twenty-year-old who was drunk on imported whiskey, and he was soon supported by other drunken youngsters with guns of their own. The gold miner, named Cícero Hipólito

dos Santos, and I were forced out of the boat at gunpoint, and, as a crowd of warriors and women gathered around, there ensued a debate about whether they should kill us. The surprising thing was that the Yanomami did not kill the gold miner, or me, for that matter; they just stole all our stuff. The local chief, painted red and black, with macaw feathers in his ears, planted himself between the adolescents' guns and me. He yelled, "Go away! Go down the river! The Indians here are all drunk. Indians are very dangerous when they're drunk."

I realized that my own actions, as well as the Yanomami's needs and the bizarre twists of the gold rush, had created situations from which I could have fashioned either a romantic or a Darwinian image of the Yanomami. Of course, either one would have been a distortion, like the portrait in *The Fierce People*.

The Yanomami I met on the Mucajaí were certainly no proverbial saints. But in sixty years they launched only two raids; on two other occasions, a few Mucajaí men joined allied raiding parties. That was it. Yet Chagnon took one of the two raids that the Mucajaí people initiated, and turned it into both the prime example of Yanomami treachery and a case study of a war fought exclusively to capture women. In *The Fierce People*, he claimed that the Mucajaí Borabuk "had a critical shortage of women" and proceeded to describe "the treacherous means by which the group alleviated its problem":

The headman of the group organized a raiding party to abduct women from a distant group. They went there and told these people that they had machetes and cooking pots from the foreigners, who prayed to a spirit that gave such items in answer to the prayers. They then volunteered to teach these people how to pray. When the men knelt down and bowed their heads, the raiders attacked them with their machetes and killed them. They captured their women and fled.

Treachery of this kind, called nomohori (dastardly trick) is the ultimate form of violence.⁴³

But the demographer John Early and the sociologist John Peters, who spent over eight years on the Mucajaí, have put this raid into a wholly different perspective. In the first place, the Mucajaí Borabuk (People of the Waterfall) were not trying to capture women. "They did not view themselves as having a sex ratio problem as such."⁴⁴ It is true that they had fewer women than men, but they were not overly concerned about it, because the

Yanomami can acquire wives through trade and bride service (such as providing game for a marriageable woman's parents). So the temporary imbalance, common in tribal populations, was taken in stride. In the meantime, they simply shared wives. Chagnon perceived "a critical shortage of women," but the Borabuk did not. In fact, they had not raided anyone in over twenty years.

What really disturbed them were the devastating illnesses that came with first contact, which had arisen from their desire for steel goods. "Previously such tools had been obtained by exchange with or raids upon other indigenous groups." But the Mucajaí group had been isolated since their last raids to obtain steel in the mid-1930s. "The tools they had were wearing out and in need of replacement. They had moved to the banks of the Mucajaí River in the hope of making contact with Brazilians from whom they could obtain the tools. At the time of contact this appeared to be their most preoccupying problem."⁴⁵

In 1955, an amazing event changed their lives: missionaries flew a small plane over the Mucajaí Borabuk and dropped fishhooks. The Borabuk sent a party of men in search of the source of steel. They built canoes for the first time and dispatched them far downstream, where, in late 1957 and again in late 1958, they made contact with Brazilian peasants and received some trade goods. Unfortunately, on both occasions the Mucajaí people also "contracted respiratory infections from the Brazilians and many died after they returned upstream. They had no immunity due to their previous isolation." "The resulting sickness and death was a new and frightening experience for the Mucajaí community."⁴⁶

Two months after the second wave of imported illness, the missionaries arrived, who treated the sick and contained the epidemics. Then the second act in the tragedy of contact began. On the pretext of going on a long hunt, the Mucajaí Borabuk borrowed a gun from the unsuspecting missionaries and traveled upriver, searching for the sorcerers who they believed had caused all the deaths. They investigated the Marashi-teri, on the Couto de Magalhães River, who accused another distant group, the Shiri-teri, of being the agents of witchcraft against the Borabuk. Finally, in a confused encounter characterized by mutual misunderstanding, the Borabuk and the Marashi-teri attacked the Shiri-teri, although they did not kill them with machetes as Chagnon reported. One Shiri-teri was actually shot with a gun, showing how radically the impact of first contact had changed warfare on the Mucajaí. Their tricking the Shiri-teri into "praying" for metal goods also under-

scored what a strange new brew of outside influences was working on the Borabuk.⁴⁷

Shortly afterward, the Borabuk sent peace offerings to the Shiri-teri, and they have been on good terms for the last thirty-five years. Although the Borabuk live in some half-dozen different *shabonos* spread out over a wide area of the Mucajaí River, with a population of over three hundred, there have been no raids between any of these *shabonos*. Between about 1935 and 1985, a total of three Borabuk men were killed violently; two others disappeared.⁴⁸ By the standards of the Amazon, or the world, the Borabuk form a fairly peaceful tribal society.

I also visited over thirty Yanomami *shabonos*, including several in the Parima Mountains. Of all the varied landscapes of Yanomamiland, I loved these inaccessible highlands best. The *altiplano* has majestic scenery, splendid waterfalls, and a blessedly temperate climate. Mosquitoes are not as horrible a nuisance there as elsewhere. Until recently, the Parima Yanomami did not suffer from colds or malaria.⁴⁹

Why, then, did the Bisaasi-teri end up at a malaria trap exposed to Western diseases on the main course of the Orinoco?

The Bisaasi-teri splintered from a larger block, the Namowei, which had been torn apart by the respiratory infections that coincided with the U.S. Army expedition of 1942–43. The outbreak killed off most of the tribal elders, giving power to immature and aggressive young men—like the ones who robbed me on the Mucajaí—who plunged the Bisaasi-teri into a fratricidal war. As usual, the killing started over suspicions that rival Yanomami had sent lethal new diseases through witchcraft. But the strife also involved competition to secure the trading routes to a new Protestant mission—the first permanent source of steel goods in Yanomamiland—which opened in 1948.⁵⁰

Defeated by both disease and war, the Bisaasi-teri relocated and adapted to river life, learning canoe travel and line fishing. As upland Yanomami, they did not even know how to swim. Nor did they have any clothes to keep off the clouds of gnats and dive-bomber mosquitoes. Bisaasi-teri was a village created by the catastrophe of first contact, and it first coalesced, six years before Chagnon's arrival, in 1958, around a government malaria post, without whose medicine the Bisaasi-teri could never have survived the unhealthy lowlands.⁵¹

Chagnon's exciting narrative edited out these unfortunate details. Prior to the arrival of the U.S. Army and Protestant missionaries in the 1940s, the

Namowei Yanomami had lived in peace for a generation. Their only raiding parties had gone out searching for whites in order to steal machetes. But since there were no whites in the area, nothing happened. Other Yanomami journeyed three hundred miles to the Rio Negro in order to steal *madobe* (stuff): axes, machetes, knives, pots, and cloth.⁵²

On one of these epic forays near the Rio Negro, the raiders captured a young white girl, Helena Valero, while she was traveling with her family on a hunting trip. "It was not to rob women but to seize the goods my family was carrying; they were not interested in women," Valero recalled. "They carried me off because they found me abandoned. But the Indians did not want to capture women, just *madobe*."⁵³

During her twenty-four years as a wife and mother among the Indians, from 1932 to 1956, Valero witnessed the epidemics that carried off the Namowei leaders and the subsequent killings over sorcery suspicions. She described how the Namowei's young men had to be trained in the art of raiding because they had never fought anyone. In the beginning, they were comically incompetent, unable even to locate enemy *shabonos*.⁵⁴ But in the terrible struggle that followed the arrival of the first missionaries, Helena Valero's husband became the Namowei war chief. He was murdered in 1949; the other war leaders were all killed by 1951. The group split up into two villages—Bisaasi-teri and Patanowa-teri. Peace ensued.

After settling on the Orinoco, the Bisaasi-teri gained fitful access to Western manufactures. They traded a trickle of metal goods to villages in the hill country and received a bounty of young brides in exchange. From 1951 to 1964, no Namowei were killed in warfare. Then Chagnon arrived.

During Chagnon's brief, thirteen-month residence, ten Yanomami were killed in a war that once again pitted the people of the Bisaasi-teri alliance against their old Namowei cousins, the Patanowa-teri. These deaths constituted a third of all the war fatalities over a fifty-year period for the Namowei villages, according to Chagnon's Ph.D. thesis. All of the remaining male war deaths in these villages occurred during another brief period, 1949–51, when Protestant missionaries first established their bases on the Upper Orinoco.

The missionaries initially made serious mistakes. They distributed machetes to win converts and unknowingly provoked bloody battles for monopoly rights to their supplies. But they eventually brought stable trading relations and good medical care to the Indians. They also actively intervened to stop fighting.

Chagnon could not provide ongoing medical attention or stable terms of trade, not because his intentions were less good but because his research, which will be examined in the next chapter, required him to collect thousands of genealogies and blood samples in a short period of time. He had to buy the Yanomami's cooperation in scores of villages across an area larger than New York State.

Chagnon arrived with a boatload of machetes and axes, which he distributed within twenty-four hours; the delighted recipients of this instant wealth immediately left the village unattended and went to trade with equally delighted allies. For the steel-poor villages of the Yanomami hill country, Chagnon was a one-man treasure fleet. The remote villages of Patanowa-teri and Mishimishimabowei-teri began sending messengers begging Chagnon to come and visit,⁵⁵ but their ambassadors were driven away by Bisaasi-teri and its closer allies, who fought to maintain their monopoly of Chagnon's steel wealth.

Within three months of Chagnon's sole arrival on the scene, three different wars had broken out, all between groups who had been at peace for some time and all of whom wanted a claim on Chagnon's steel goods. "Chagnon becomes an active political agent in the Yanomami area," said Brian Ferguson. "He's very much involved in the fighting and the wars. Chagnon becomes a central figure in determining battles over trade goods and machetes. His presence, with a shotgun and a canoe with an outboard motor, involves him in war parties and factionalism. What side he takes makes a big difference."⁵⁶

Chagnon has dismissed this charge as "the 'bad breath' theory of tribal warfare."⁵⁷ Yet Chagnon brought more than breath with him into Yanomami territory. He introduced guns, germs, and steel across a wide stretch of Yanomamiland—and on a scale never seen before. The Yanomami's desire for steel is as intense as our longing for gold. Westerners became the Yanomami's metal mines, local El Dorados that dispensed machetes, axes, and fishhooks that instantly increased agricultural production by 1,000 percent and protein capture by huge amounts. Yanomami groups made heroic odysseys in search of a single secondhand machete. Remote groups traded their daughters for a worn machete or a blunt ax. Villages with more steel always acquired more women. The sociologist John Peters, who lived among the Brazilian Yanomami for eight years, was offered two young girls in exchange for a couple of stainless steel pots. He refused the offer.

Chagnon did not wait to be asked, according to his closest friend and main informant—Kaobawa, the Bisaasi-teri headman, who was videotaped

by Mark Ritchie, author of the 1995 book *Spirit of the Rainforest*. Kaobawa's picture formerly graced the cover of *The Fierce People*, where he held a pole with his right hand and jabbed an angry right index finger at the world. Chagnon has long considered this "unobstrusive, calm, modest, and perceptive" man as "the wise leader" of the Bisaasi-teri. Kaobawa's decision to help Chagnon sort out his interviews with dozens of informants "was perhaps the most important single event in my fieldwork," Chagnon wrote, adding, "Kaobawa's familiarity with his group's history and his candidness were remarkable. His knowledge of details was almost encyclopedic."⁵⁸

Therefore, Kaobawa's videotaped statements raised a number of questions—about both men. Kaobawa claimed that Chagnon offered him a special deal. "That's my picture there," Kaobawa said when Mark Ritchie showed him a copy of *The Fierce People*. "When he was taking my picture he said, 'If you'll really help me, I'll give you a motor.' . . . He said, 'Father-in-law, I'm going to really be a Yanomami and you're going to get me a wife.' That's what he said. But although he said that, he just left. . . ."⁵⁹

According to Ritchie, "The story of Chagnon trying to get a wife from Kaobawa is a comedy of errors. As Kaobawa explains it, Shaki—Chagnon—wanted to buy a wife from a distant village, and Kaobawa kept trying to stop him because Kaobawa didn't want Chagnon and his trade goods to move away. Apparently, Chagnon wanted a Yanomami wife, but far enough away from the missionaries so that they wouldn't find out."⁶⁰

Chagnon suddenly went from being an impoverished Ph.D. student at the bottom of the totem pole to being a figure of preternatural power. His first letter from the field revealed this: "The village I'm living in really thinks I am the be-all and the end-all. I broke the final ice with them by participating in their dancing and singing one night. That really impressed them. They want to take me all over Waicaland to show me off. Their whole attitude toward me changed dramatically. Unfortunately, they want me to dance all the time now. You should have seen me in my feathers and loincloth! They were so anxious to show me off that they arranged to take me to the first Shamataru village so that I could dance with them."⁶¹

Chagnon's status was enhanced by a pair of shotguns. The geneticist James Neel described Chagnon firing off his gun preemptively to scare off young men they suspected might steal some goods. "At dusk Nap casually blasted the tips of a tree branch overhanging the *shabono* where we were sleeping, and we retired with the shotgun leaning against his hammock—to a quiet night."⁶² Of course, this was an old conquistador strategy, one employed

over the centuries to keep the natives cowed. In 1531, when Francisco Pizarro reached his first Inca city, Tumbes, at the Bay of Guayaquil, a soldier named Pedro de Candia “astounded the inhabitants by firing an arquebus at a target.”⁶³ For the Spaniards, it became a standard technique of forced entrance.

The American Anthropological Association first got word of Chagnon’s shotgun diplomacy when, in 1991, the anthropologist Terence Turner, head of its Yanomami survival commission, interviewed Davi Kopenawa, the Yanomami’s most visible spokesperson and a winner of the UN Global 500 Award for defending the rain forest. Kopenawa told of reports that had come to his community of Chagnon’s threatening behavior—walking around villages brandishing firearms and showing himself as a warrior. “Chagnon is fierce,” Kopenawa said. “Chagnon is very dangerous. He did crazy things. *Ele tem a própria briga dele.*” This literally means “He has his own personal war.”⁶⁴

That is what Brian Ferguson concluded.

“Chagnon’s role is a strange thing for me,” admitted Ferguson, whose *Yanomami Warfare* breaks a professional taboo by scrutinizing a field-worker as though he were a native. “One of the things I’m saying is that anthropologists need to be looked at. Anthropologists have been trained to screen out their own effects on their subjects. Their behavior is also a fit subject for investigation. The influence of Chagnon in the Yanomami area is a fit subject for investigation.”⁶⁵

Chagnon found himself in a difficult predicament, having to collect genealogical trees going back several generations. This was frustrating for him because the Yanomami do not speak personal names out loud. And the names of the dead are the most taboo subject in their culture.

“To name the dead, among the Yanomami, is a grave insult, a motive of division, fights, and wars,” wrote the Salesian Juan Finkers, who has lived among the Yanomami villages on the Mavaca River for twenty-five years.⁶⁶

Chagnon found out that the Yanomami “were unable to understand why a complete stranger should want to possess such knowledge [of personal names] unless it were for harmful magical purposes.”⁶⁷ So Chagnon had to parcel out “gifts” in exchange for these names. One Yanomami man threatened to kill Chagnon when he mentioned a relative who had recently died. Others lied to him and set him back five months with phony genealogies. But he kept doggedly pursuing his goal.

Finally, he invented a system, as ingenious as it was divisive, to get around

the name taboo. Within groups, he sought out “informants who might be considered ‘aberrant’ or ‘abnormal,’ outcasts in their own society,” people he could bribe and isolate more easily. These pariahs resented other members of society, so they more willingly betrayed sacred secrets at others’ expense and for their own profit. He resorted to “tactics such as ‘bribing’ children when their elders were not around, or capitalizing on animosities between individuals.”⁶⁸

Chagnon was most successful at gathering data, however, when he started playing one village off against another. “I began traveling to other villages to check the genealogies, picking villages that were on strained terms with the people about whom I wanted information. I would then return to my base camp and check with local informants the accuracy of the new information. If the informants became angry when I mentioned the new names I acquired from the unfriendly group, I was almost certain that the information was accurate.”⁶⁹

When one group became angry on hearing that Chagnon had gotten their names, he covered for his real informants but gave the name of another village nearby as the source of betrayal. It showed the kind of dilemmas Chagnon’s work posed. In spite of the ugly scenes he both witnessed and created, Chagnon concluded, “There is, in fact, no better way to get an accurate, reliable start on genealogy than to collect it from the enemies.”⁷⁰

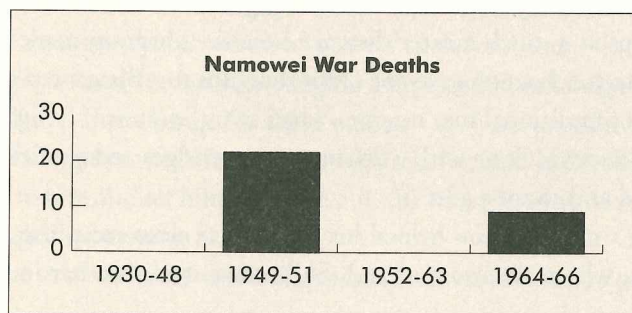
His divide-and-conquer information gathering exacerbated individual animosities, sparking mutual accusations of betrayal. Nevertheless, Chagnon had become a prized political asset of the group with whom he was living, the Bisaasi-teri. He took a Bisaasi-teri raiding party partway to their enemies’ *shabono* with his outboard motor; later he helped Bisaasi-teri’s allies leapfrog their enemies and avoid an ambush. By making one man, Kaobawa, the principal funnel of his largesse, Chagnon effectively created him “headman,” a pattern he would repeat at other villages. With Chagnon established at Bisaasi-teri, minding the store with his shotguns, the Bisaasi-teri could raid other groups at a much greater distance because Chagnon made them immune to attack. Chagnon gave one of his shotguns to a Bisaasi-teri guide who was afraid of traditional foes nearby. “I had two shotguns. . . . I gave one of them to Bakotawa, along with a dozen or so cartridges and a quick lesson in how to load and shoot a gun.”⁷¹

Another time Chagnon helped his Bisaasi-teri allies recapture a woman, Dimorama, whose abusive husband, Shiborowa, had shot her in the stom-

ach with a barbed arrow. “They were going to Momaribowei-teri to take Dimorama away from her protectors by force, if necessary, and asked me to come along knowing that I always traveled with a gun, presuming that my presence, with a gun, would aid in their objective.” Their presumption was correct. They recaptured the girl and gave her back to Shiborowa.⁷²

Although any Westerner bringing piles of steel goods would have disrupted Yanomami culture, Chagnon’s role was arguably unique. Not only did the Bisaasi-teri have first choice of Chagnon’s seemingly endless supply of steel goods; they also had a Western chief of sorts. “Dancing in another village is a part of politics—one way of displaying strength,” Ferguson noted. “The participation of a white man in feathers and loincloth, virtually declaring his identification with Bisaasi-teri in intervillage relations, would represent a major coup.” He added, “And it was during these first months of Chagnon’s fieldwork that the Bisaasi-teri’s conflicts with the Shamatari and Mahekoto-teri transpired. . . . But while he was behaving more like a Yanomami big man in his interpersonal relations, his other actions—his quest for the taboo names of the dead ancestors, his moving back and forth between antagonistic villages, and, above all, his being the source of Western goods that every village wanted to monopolize—created a very different and ‘un-Yanomami’ context for his behavior. Chagnon thus became something of a wild card on the local political scene.”⁷³

It is precisely the “un-Yanomami” context of the Napoleonic wars that makes them so problematic. Chagnon now recognizes that Yanomami violence is “actually quite low” by world standards of tribal culture.⁷⁴ And it is undeniably connected to the fluctuating impact of Western technology and disease. Whatever else can be said about Yanomami warfare, it is not “chronic,” as hundreds of articles, documentaries, and books still insist. All of the violence among Chagnon’s subjects can be spelled out in two stark spikes, both corresponding to outside intrusion. This is the picture of



Yanomami ferocity that actually emerges from Chagnon’s own Ph.D. thesis, the only complete accounting of Yanomami war deaths he has published for any group.⁷⁵

An “uncertainty principle” pertains to these wars. Would they have occurred at all without the germs, steel, and guns brought by strangers?