

partly because the Inka themselves, wanting to puff up their own importance, had actively concealed the glories of the cultures before them. Incredibly, the first full history of the fall of the Inka empire did not appear until more than three hundred years after the events it chronicled: William H. Prescott's *History of the Conquest of Peru* published in 1847. Prescott's thunderous cadences remain a pleasure to read, despite the author's firmly stated belief, typical for his time, in the moral inferiority of the natives. But the book had no successor. More than a century later, when Dobyns went to Lima, Prescott's was still the only complete account. (A fine history, John Hemmings's *Conquest of the Incas*, appeared in 1970. But it, too, has had no successor, despite a wealth of new information.) "The Inka were largely ignored because the entire continent of South America was largely ignored," Patricia Lyon, an anthropologist at the Institute for Andean Studies, in Berkeley, California, explained to me. Until the end of colonialism, she suggested, researchers tended to work in their own countries' possessions. "The British were in Africa, along with the Germans and French. The Dutch were in Asia, and nobody was in South America," because most of its nations were independent. The few researchers who did examine Andean societies were often sidetracked into ideological warfare. The Inka practiced a form of central planning, which led scholars into a sterile Cold War squabble about whether they were actually socialists *avant la lettre* in a communal Utopia or a dire precursor to Stalinist Russia.

Given the lack of previous investigation, it may have been inevitable that when Dobyns traced births and deaths in Lima he would be staking out new ground. He collected every book on Peruvian demography he could find. And he dipped into his own money to pay Cornell project workers to explore the cathedral archives and the national archives of Peru and the municipal archives of Lima. Slowly tallying mortality and natality figures, Dobyns continued to be impressed by what he found. Like any scholar, he eventually wrote an article about what he had learned. But by the time his article came out, in 1963, he had realized that his findings applied far beyond Peru.

The Inka and the Wampanoag were as different as Turks and Swedes. But Dobyns discovered, in effect, that their separate battles with Spain and England followed a similar biocultural template, one that explained the otherwise perplexing fact that every Indian culture, large or small, eventually succumbed to Europe. (Shouldn't there have been some exceptions?) And then, reasoning backward in time

from this master narrative, he proposed a new way to think about Native American societies, one that transformed not only our understanding of life before Columbus arrived, but our picture of the continents themselves.

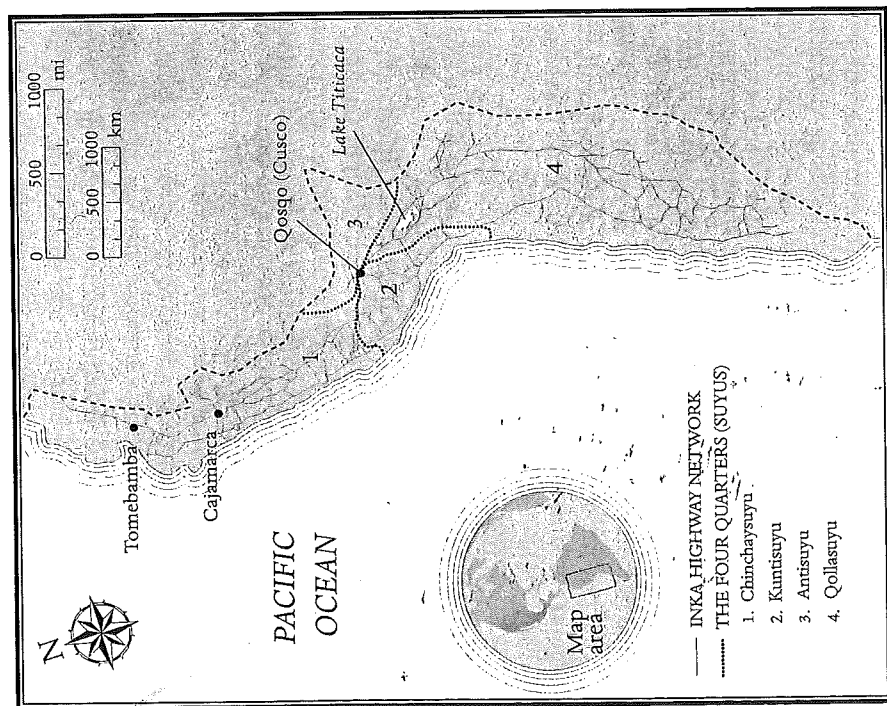
Mann, Charles. 1491

TAWANTINSUYU

In 1491 the Inka ruled the greatest empire on earth. Bigger than Ming Dynasty China, bigger than Ivan the Great's expanding Russia, bigger than Songhay in the Sahel or powerful Great Zimbabwe in the West Africa tablelands, bigger than the cresting Ottoman Empire, bigger than the Triple Alliance (as the Aztec empire is more precisely known), bigger by far than any European state, the Inka dominion extended over a staggering thirty-two degrees of latitude—as if a single power held sway from St. Petersburg to Cairo. The empire encompassed every imaginable type of terrain, from the rainforest of upper Amazonia to the deserts of the Peruvian coast and the twenty-thousand-foot peaks of the Andes between. "If imperial potential is judged in terms of environmental adaptability," wrote the Oxford historian Felipe Fernández-Armesto, "the Inka were the most impressive empire builders of their day."

The Inka goal was to knit the scores of different groups in western South America—some as rich as the Inka themselves, some poor and disorganized, all speaking different languages—into a single bureaucratic framework under the direct rule of the emperor. The unity was not merely political: the Inka wanted to meld together the area's religion, economics, and arts. Their methods were audacious, brutal, and efficient: they removed entire populations from their homelands; shuttled them around the biggest road system on the planet, a mesh of stone-paved thoroughfares totaling as much as 25,000 miles; and forced them to work with other groups, using only Runa Sumi, the Inka language, on massive, faraway state farms and construction projects.* To monitor this cyclopean enterprise, the Inka developed a form of writing unlike any other, sequences of knots on strings that

*Runa Simi (Quechua, to the Spanish) is the language of all Inka names, including "Inka." I use the standard Runa Simi romanization, which means that I do not use the Spanish "Inca."

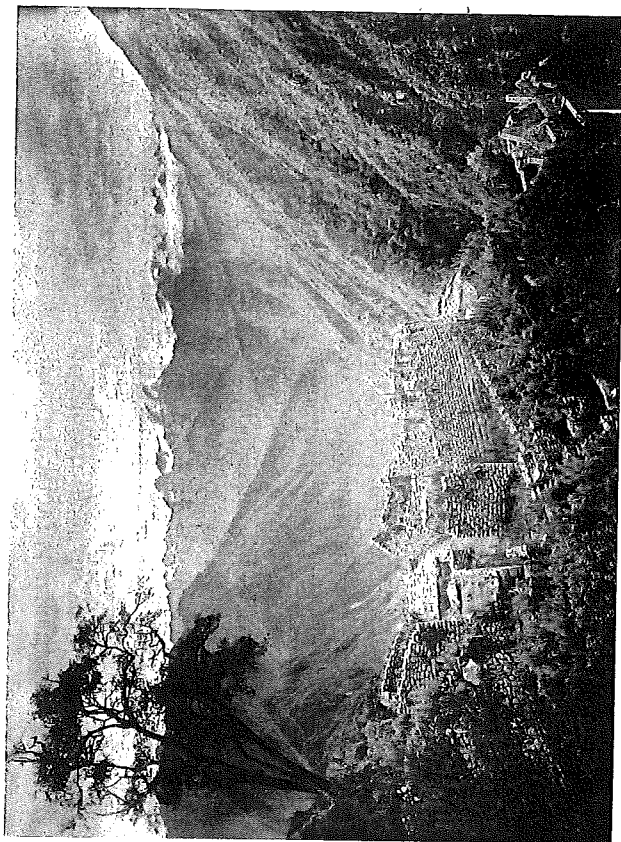


TAWANTINSUYU

The Land of the Four Quarters, 1527 A.D.

formed a binary code reminiscent of today's computer languages (see Appendix B, "Talking Knots"). So successful were the Inka at remodeling their domain, according to the late John H. Rowe, an eminent archaeologist at the University of California at Berkeley, that Andean history "begins, not with the Wars of [South American] Independence or with the Spanish Conquest, but with the organizing genius of [empire founder] Pachakuti in the fifteenth century."

Highland Peru is as extraordinary as the Inka themselves. It is the only place on earth, the Cornell anthropologist John Murra wrote, "where millions [of people] insist, against all apparent logic, on living at 10,000 or even 14,000 feet above sea level. Nowhere else have people lived for so many thousands of years in such visibly vulnerable circumstances." And nowhere else have people living at such heights—in places where most crops won't grow, earthquakes and landslides are frequent, and extremes of weather are the norm—repeatedly created technically advanced, long-lasting civilizations. The Inka homeland, uniquely high, was also uniquely steep, with slopes of more than sixty-five degrees from the horizontal. (The steepest street in San Francisco, famed for its nearly undrivable hills, is thirty-one-and-a-half degrees.) And it was uniquely narrow; the distance from the Pacific shore to the mountaintops is in most places less than seventy-five



Highland Peru, captured in this image of the Inka ruin Wiñay Wayna by the indigenous Andean photographer Martín Chambi (1891–1973), is the only place on earth where people living at such inhospitable altitudes repeatedly created materially sophisticated societies.

miles and in many less than fifty. Ecologists postulate that the first large-scale human societies tended to arise where, as Jared Diamond of the University of California at Los Angeles put it, geography provided "a wide range of altitudes and topographies within a short distance." One such place is the Fertile Crescent, where the mountains of western Iran and the Dead Sea, the lowest place on earth, bracket the Tigris and Euphrates river systems. Another is Peru. In the short traverse from mountain to ocean, travelers pass through twenty of the world's thirty-four principal types of environment.

To survive in this steep, narrow hodgepodge of ecosystems, Andean communities usually sent out representatives and colonies to live up- or downslope in places with resources unavailable at home. Fish and shellfish from the ocean; beans, squash, and cotton from coastal river valleys; maize, potatoes, and the Andean grain quinoa from the foothills; llamas and alpacas for wool and meat in the heights—each area had something to contribute. Villagers in the satellite settlements exchanged products with the center, sending beans uphill and obtaining llama jerky in return, all the while retaining their citizenship in a homeland they rarely saw. Combining the fruits of many ecosystems, Andean cultures both enjoyed a better life than they could have wrested from any single place and spread out the risk from the area's frequent natural catastrophes. Murra invented a name for this mode of existence: "vertical archipelagoes."

Verticality helped Andean cultures survive but also pushed them to stay small. Because the mountains impeded north-south communication, it was much easier to coordinate the flow of goods and services east to west. As a result the region for most of its history was a jumble of small- and medium-scale cultures, isolated from all but their neighbors. Three times, though, cultures rose to dominate the Andes, uniting previously separate groups under a common banner. The first period of hegemony was that of Chavín, which from about 700 B.C. to the dawn of the Christian era controlled the central coast of Peru and the adjacent mountains. The next, beginning after Chavín's decline, was the time of two great powers: the technologically expert empire of Wari, which held sway over the coastline previously under Chavín; and Tiwanaku, centered on Lake Titicaca, the great alpine lake on the Peru-Bolivia border. (I briefly discussed Wari and Tiwanaku earlier, and will return to them—and to the rest of the

immense pre-Inka tradition—later.) After Wari and Tiwanaku collapsed, at the end of the first millennium, the Andes split into sociopolitical fragments and with one major exception remained that way for more than three centuries. Then came the Inka.

The Inka empire, the greatest state ever seen in the Andes, was also the shortest lived. It began in the fifteenth century and lasted barely a hundred years before being smashed by Spain.

As conquerors, the Inka were unlikely. Even in 1350 they were still an unimportant part of the political scene in the central Andes, and newcomers at that. In one of the oral tales recorded by the Spanish Jesuit Bernabé Cobo, the Inka originated with a family of four brothers and four sisters who left Lake Titicaca for reasons unknown and wandered until they came upon what would become the future Inka capital, Qosqo (Cusco, in Spanish). Cobo, who sighed over the "extreme ignorance and barbarity" of the Indians, dismissed such stories as "ludicrous." Nonetheless, archaeological investigation has generally borne them out: the Inka seem indeed to have migrated to Qosqo from somewhere else, perhaps Lake Titicaca, around 1200 A.D.

The colonial account of Inka history closest to indigenous sources is by Juan de Betanzos, a Spanish commoner who rose to marry an Inka princess and become the most prominent translator for the colonial government. Based on interviews with his in-laws, Betanzos estimated that when the Inka showed up in the Qosqo region "more than two hundred" small groups were already there. Qosqo itself, where they settled, was a hamlet "of about thirty small, humble straw houses."

Archaeological evidence suggests that the Inka gradually became more powerful. The apparent turning point in their fortunes occurred when they somehow made enemies of another group, the Chanka, who eventually attacked them. This unremarkable provincial squabble had momentous consequences.

According to a widely quoted chronology by the sixteenth-century cleric Miguel Cabello Balboa, the Chanka offensive took place in 1438. The Inka leader at that time was Wiraqocha Inka. * "A valiant prince,"

*The Inka sovereign had the title of "Inka"—he was *the* Inka—but he could also include "Inka" in his name. In addition, Inka elites changed their names as they went through their lives. Each Inka was thus known by several names, any of which might include "Inka."

according to Cobo, Wiraqocha Inka had a "warlike" nature even as a young man and vowed that after taking the throne "he would conquer half the world." Perhaps so, but he fled the Chanka attack with three of his four sons, including his designated successor, Inka Urqon. A younger son, Inka Cusi Yupanki, refused to run. Instead he fought the Chanka with such bravery that (according to the legend) the very stones rose up to join the fray. Inka Yupanki won the battle, capturing many Chanka leaders. Later he skinned them in celebration—Pizarro saw the trophies on display. But first Inka Yupanki presented the captives to his father, so that Wiraqocha Inka could perform the victory ritual of wiping his feet on their bodies.

Fearing that Inka Yupanki was becoming too big for his britches, Wiraqocha Inka chose that moment to remind his younger son of his subordinate status. The foot-wiping honor, he proclaimed, actually belonged to the next Inka: Inka Urqon. "To this," Betanzos wrote, "Inka Yupanki answered that he was begging his father to tread on the prisoners, that he had not won the victory so that such women as Inka Urqon and the rest of his brothers could step on them." A heated argument led to a standoff. In a Shakespearean move, Wiraqocha Inka decided to settle the issue by murdering his inconvenient younger son. (It was "a crazy impulse," one of Wiraqocha Inka's generals later explained.) Inka Yupanki was tipped off and the scheme failed. The humiliated Wiraqocha Inka went into exile while Inka Yupanki returned in triumph to Qosqo, renamed himself Pachakuti ("World-shaker"), and proclaimed that the ruling Inka families were descended from the sun. Then he went about conquering everything in sight.

Hey, wait a minute! the reader may be saying. This family story makes such terrific melodrama that it seems reasonable to wonder whether it actually happened. After all, every known written account of the Inka was set down after the conquest, a century or more after Pachakuti's rise. And these differ from each other, sometimes dramatically, reflecting the authors' biases and ignorance, and their informants' manipulation of history to cast a flattering light on their family lines. For these reasons, some scholars dismiss the chronicles entirely. Others note that both the Inka and the Spaniards had long traditions of record-keeping. By and large the chroniclers seem to have been conscious of their roles as witnesses and tried to live up to them. Their versions of events broadly agree with each other. As a

result, most scholars judiciously use the colonial accounts, as I try to do here.

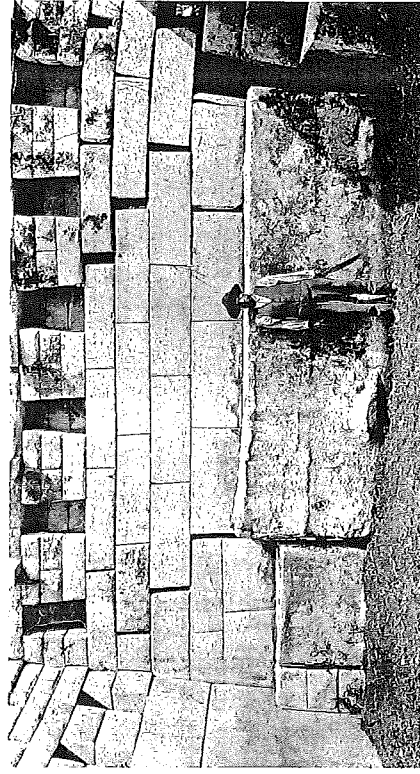
After taking the reins of state, Pachakuti spent the next twenty-five years expanding the empire from central highland Peru to Lake Titicaca and beyond. His methods were subtler and more economical with direct force than one might expect, as exemplified by the slow takeover of the coastal valley of Chincha. In about 1450 Pachakuti dispatched an army to Chincha under Qhapaq Yupanki (Ka-pok Yu-panki, meaning roughly "Munificent Honored One"), a kind of adopted brother. Marching into the valley with thousands of troops, Qhapaq Yupanki informed the fearful local gentry that he wanted nothing from Chincha whatsoever. "He said that he was the son of the Sun," according to the report of two Spanish priests who investigated the valley's history in the 1550s. "And that he had come for their good and for everyone's and that he did not want their silver nor their gold nor their daughters." Far from taking the land by force, in fact, the Inka general would give them "all that he was carrying." And he practically buried the Chincha leadership under piles of valuables. In return for his generosity, the general asked only for a little appreciation, preferably in the form of a large house from which the Inka could operate, and a staff of servants to cook, clean, and make the things needed by the outpost. And when Qhapaq Yupanki left, he asked Chincha to keep expressing its gratitude by sending craftspeople and goods to Qosqo.

A decade later Pachakuti sent out another army to the valley, this one led by his son and heir, Thupa Inka Yupanki ("Royal Honored Inka"). Thupa Inka closeted himself with the local leadership and laid out many inspired ideas for the valley's betterment, all of which were gratefully endorsed. Following the Inka template, the local leaders drafted the entire populace into service, dividing households by sex and age into cohorts, each with its own leader who reported to the leader of the next larger group. "Everything was in order for the people to know who was in control," the Spanish priests wrote. Thupa Inka delegated tasks to the mobilized population: hewing roads to link Chincha to other areas controlled by the Inka, building a new palace for the Inka, and tending the fields set aside for the Inka. Thupa Inka apparently left the area in charge of his brother, who continued managing its gratitude.

The next visit came from Pachakuti's grandson, probably in the 1490s. With him came escalating demands for land and service—the veneer of reciprocity was fading. By that point the Chíncha had little alternative but to submit. They were surrounded by Inka satrapies; their economy was enmeshed with the imperial machinery; they had hundreds or thousands of people doing the empire's bidding. The Chíncha elite, afraid to take on the Inka army, always chose compliance over valor, and were rewarded with plum positions in the colonial government. But their domain had ceased to exist as an independent entity.

In 1976 Edward N. Luttwak, now at the Center for Strategic and International Studies, in Washington, D.C., published a short, provocative book about imperial Rome that distinguished between *territorial* and *hegemonic* empires. Territorial empires directly occupy territories with their armies, throw out the old rulers, and annex the land. In hegemonic empires, the internal affairs of conquered areas remain in the hands of their original rulers, who become vassals. Territorial empires are tightly controlled but costly to maintain; hegemonic empires are inexpensive to maintain, because the original local rulers incur the costs of administration, but the loose tie between master and vassal encourages rebellion. Every conquest-minded state is a mixture of both, but all Native American empires leaned toward the hegemonic. Without horses, Indian soldiers unavoidably traveled slower than European or Asian soldiers. If brigades were tied up as occupiers, they could not be reassigned quickly. As a result, the Inka were almost forced to co-opt local rulers instead of displacing them. They did so with a vengeance.

Pachakuti gave command of the military to his son Thupa Inka in 1463 and turned his attention to totally rebuilding Qosqo in imperial style, in the process becoming one of history's great urban planners. Although he drew on Andean aesthetic traditions, Pachakuti put his own stamp on Inka art and architecture. Whereas the buildings of Sumer and Assyria were covered with brilliant mosaics and splendid pictorial murals, the Inka style was severe, abstract, stripped down to geometric forms—startlingly contemporary, in fact. (According to the Peruvian critic César Paternosto, such major twentieth-century painters as Josef Albers, Barnett Newman, and Mark Rothko were inspired by Inka art.)



Inka masonry amazed the conquistadors, who could not understand how they put together such enormous stones without mortar or draft animals. And it was astonishingly durable—the U.S. explorer Hiram Bingham photographed the citadel of Machu Picchu in 1913, and found it in near-perfect condition despite four centuries of neglect.

At the heart of the new Qosqo was the plaza of Awkaypata, 625 feet by 550 feet, carpeted almost in its entirety with white sand carried in from the Pacific and raked daily by the city's army of workers. Monumental villas and temples surrounded the space on three sides, their walls made from immense blocks of stone so precisely cut and fit that Pizarro's younger cousin Pedro, who accompanied the conqueror as a page, reported "that the point of a pin could not have been inserted in one of the joints." Across their facades ran enormous plates of polished gold. When the alpine sun filled Awkaypata, with its boldly delineated horizontal plain of white sand and sloping sheets of gold, the space became an amphitheater for the exaltation of light.

In Pachakuti's grand design, Awkaypata was the center of the empire—and the cosmos. From the great plaza radiated four highways that demarcated the four asymmetrical sectors into which he divided the empire, Tawantinsuyu, "Land of the Four Quarters." To the Inka, the quarters echoed the heavenly order. The Milky Way, a vast celestial river in Andean cosmology, crosses the Peruvian sky at an angle of about twenty-eight degrees to the earth's orbit. For six months the stream of stars slants across the sky from, so to speak, northeast to

southwest, the other six months it slants from southeast to northwest. The transition roughly coincides with the transition between dry and wet seasons—the time when the Milky Way releases life-giving water to Pacha Mama, Mother Earth—and divides the heavens into four quarters. Awkaypata, reflecting this pattern, was the axis of the universe.

Not only that, Qosqo was the center of a *second* spiritual pattern. Radiating out from Awkaypata was a drunken spiderweb of forty-one crooked, spiritually powerful lines, known as *zeq'e*, that linked holy features of the landscape: springs, tombs, caves, shrines, fields, stones. About four hundred of these *wak'a* (shrines, more or less) existed around Qosqo—the landscape around the capital was charged with telluric power. (The *zeq'e* also played a role in the Inka calendar, which apparently consisted of forty-one eight-day weeks.) So complexly interrelated was the network of *wak'a* and *zeq'e*, Columbia University archaeologist Terence D'Altroy has written, "that many otherwise diligent scholars have been reduced to scratching their heads and trusting someone else's judgement." Each *wak'a* had its own meaning, relative status, social affiliation, and set of ceremonial uses. One big stone outside town was believed to be the petrified body of one of the original Inka brothers; Inka armies often carried it with them, dressed in fine fogs, as a kind of good-luck talisman. To keep track of the florid abundance of shrines and lines, Cobo observed, the empire "had more than a thousand men in the city of Qosqo who did nothing but remember these things."

Not only did Pachakuti reconfigure the capital, he laid out the institutions that characterized Tawantinsuyu itself. For centuries, villagers had spent part of their time working in teams on community



Around the Inka capital of Qosqo (modern Cusco) were more than four hundred *wak'a*, places in the landscape charged with spiritual power. Many of these were stones, some carved in elaborate representations, perhaps of the areas they influenced.

projects. Alternately bullying and cajoling, Pachakuti expanded the service obligation unrecognizably. In Tawantinsuyu, he decreed, all land and property belonged to the state (indeed, to the Inka himself). Peasants thus had to work periodically for the empire as farmers, herders, weavers, masons, artisans, miners, or soldiers. Often crews spent months away from home. While they were on the road, the state fed, clothed, and housed them—all from goods supplied by other work crews. Conscripts built dams, terraces, and irrigation canals; they grew crops on state land and raised herds on state pastures and made pots in state factories and stocked hundreds of state warehouses; they paved the highways and supplied the runners and llamas carrying messages and goods along them. Dictatorially extending Andean verticality, the imperium shuttled people and materiel in and out of every Andean crevice.

Not the least surprising feature of this economic system was that it functioned without money. True, the lack of currency did not surprise the Spanish invaders—much of Europe did without money until the eighteenth century. But the Inka did not even have *markets*. Economists would predict that this nonmarket economy—vertical socialism, it has been called—should produce gross inefficiencies. These surely occurred, but the errors were of surplus, not want. The Spanish invaders were stunned to find warehouses overflowing with untouched cloth and supplies. But to the Inka the brimming coffer signified prestige and plenty; it was all part of the plan. Most important, Tawantinsuyu "managed to eradicate hunger," the Peruvian novelist Mario Vargas Llosa noted. Though no fan of the Inka, he conceded that "only a very small number of empires throughout the whole world have succeeded in achieving this feat."

When Tawantinsuyu swallowed a new area, the Inka forcibly imported settlers from other, faraway areas, often in large numbers, and gave them land. The newcomers were encouraged to keep their own dress and customs rather than integrate into the host population. To communicate, both groups were forced to use Ruma Suni, the language of their conquerors. In the short run this practice created political tensions that the Inka manipulated to control both groups. In the long term it would have (if successful) eroded the distinctions among cultures and forged a homogeneous new nation in the imprint of Tawantinsuyu. Five centuries later the wholesale reshuffling of popu-

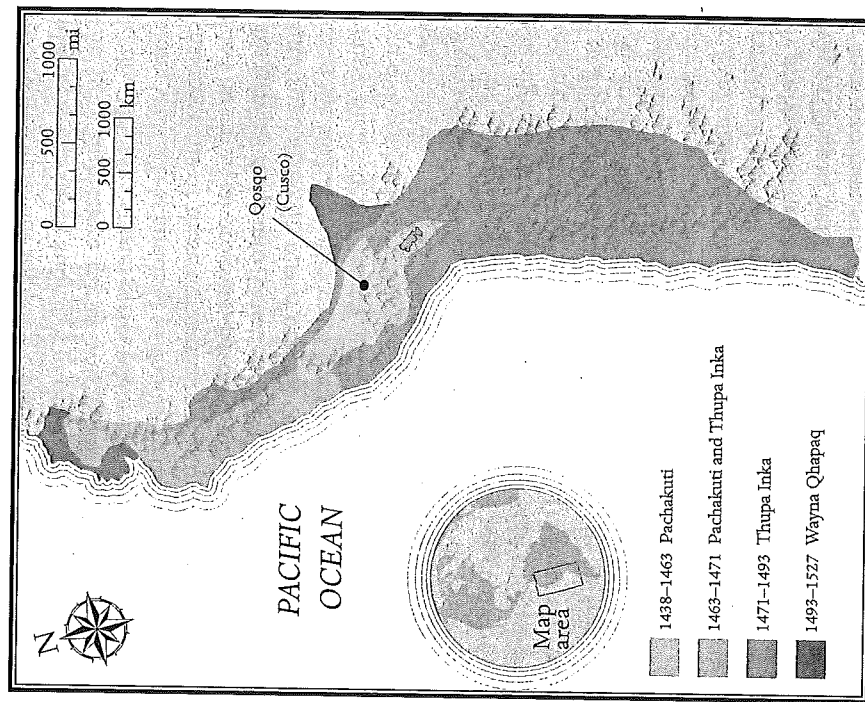
lations became an infamous trademark of Stalin and Mao. But the scale on which the Inka moved the pieces around the ethnic checkerboard would have excited their admiration. Incredibly, foreigners came to outnumber natives in many places. It is possible that ethnic clashes would eventually have caused Tawantinsuyu to implode, Yugoslavia-style. But if Pizarro had not interrupted, the Inka might have created a monolithic culture as enduring as China.

THE GILDED LITTER OF THE INKA

How did Pizarro do it? Sooner or later, everyone who studies the Inka confronts this question. Henry Dobyns wondered about it, too. The empire was as populous, rich, and well organized as any in history. But no other fell before such a small force: Pizarro had only 168 men and 62 horses. Researchers have often wondered whether the Inka collapse betokens a major historical lesson. The answer is yes, but the lesson was not grasped until recently.

The basic history of the empire was known well enough by the time Dobyns began reading the old colonial accounts. According to Cabello Balboa's chronology, Pachakuti died peacefully in 1471. His son Thupa Inka, long the military commander, now took the imperial "crown"—a multicolored braid, twisted around the skull like a headband, from which hung a red tasseled fringe that fell across the forehead. Carried on a golden litter—the Inka did not walk in public—Thupa Inka appeared with such majesty, according to the voyager Pedro Sarmiento de Gamboa, that "people left the roads along which he had to pass and, ascending the hills on either side, worshipped and adored" him by "pulling out their eyebrows and eyelashes." Minions collected and stored every object he touched, food waste included, to ensure that no lesser persons could profane these objects with their touch. The ground was too dirty to receive the Inka's saliva so he always spat into the hand of a courtier. The courtier wiped the spittle with a special cloth and stored it for safekeeping. Once a year everything touched by the Inka—clothing, garbage, bedding, saliva—was ceremonially burned.

Thupa Inka inaugurated the Inka custom of marrying his sister. In fact, Thupa Inka may have married two of his sisters. The practice was



TAWANTINSUYU

Expansion of the Inka Empire, 1438-1527 A.D.

Tawantinsuyu is known to have risen and fallen with breathtaking rapidity, but the exact chronology of its trajectory is disputed. Most researchers regard the account of Miguel Cabello Balboa as approximately correct. It is the source for this map, though the reader is cautioned against regarding it as either exact or universally accepted.

