the Qing weakened and the foreigners came again after 1860, sugar production on Taiwan boomed again; and when the Japanese took over in 1895, they did much to push sugar production, too. But even then, the island kept a base of rice production and diversified agriculture—Japan, short of rice itself by the twentieth century, could hardly afford to have its colonies become rice importers. Sugar mills (and roads and port facilities) came, but monoculture never did. That danger, in retrospect, had probably been greatest in the 1600s—and had been warded off, thanks to a wild-eyed trader turned would-be king maker.

4.11 How the Cows Ate the Cowboys

First there was Argentina's wide-open, fertile, treeless prairie known as the Pampa that stretched for hundreds of miles. Then came an expedition of Spanish conquistadors seeking precious metals. They found no wealth in the ground, but they left behind them some cattle that would bring Argentina future riches. With no natural predators and endless pasture, the number of bovines grew astoundingly. The Spanish population on the Pampa, however, rose slowly. Devoid of silver and gold, but rich in a hostile, intractable nomadic population, the Pampa held few charms for the Spanish. Until the nineteenth century, the Pampa remained very much a frontier, a huge area contested by the native indigenous peoples and the few Spaniards and ruled over by the swelling herds of cattle.

This land gave birth to the Argentine cowboy, the "gaucho." If ever a man was made for his work, it was the mixed-blood gaucho who roamed the Pampa—gypsy-like, trailed by his string of horses—herding cattle. Legs bowed by his almost permanent residence on horseback, his job literally shaped him; eating little other than beef, he consumed his work. Today the gaucho occupies the same romantic position in Argentine national mythology as does the cowboy in the United States: a symbol of individualism, freedom, masculinity, he became the quintessential Argentine.

In the nineteenth century, however, foreign visitors and the Argentine elite scorned him as idle, disorderly, "half horse, half man." He was both held in awe and disdained for his equestrian brilliance. One visitor noted, "In some respects they are the most efficient Cavalry in the world—dismount them and they are nothing, for they are scarcely able to walk."

The gaucho did almost everything from horseback—wash, fish, attend mass, draw water, beg. In fact, his boots left an open space in front for the toes so they could grip their stirrups better. These boots were relatively useless on the ground.

But until the last part of the nineteenth century, the Pampa needed horsemen, not peons. The cattle industry was essentially an organized hunting party. Semi-wild cattle, mostly left to fend for themselves, roamed the vast fenceless land holdings, some as large as 800,000 acres. Real estate in this sparsely settled frontier was largely a legal fiction. The rancher was much more a merchant than an agro-industrialist. His only contribution to the cattle industry was to provide the gaucho with a few cherished goods, such as tobacco, *mate* tea, alcohol, and sugar, in return for the hunted cattle carcasses and hides.

The gaucho owned his means of production and enjoyed his independence. The quality of the cattle in this system was unimportant; fresh meat would spoil aboard sailing ships long before it reached Europe, and cattle were so plentiful and people few in Argentina that there was essentially no home market. Only salted meat, prepared in salting houses (*xarquerias*, which, corrupted, produced the word "jerky") could be exported. But its quality was so poor that the major market were the slaves of Brazil and Cuba who had little choice over what they ate. This was a small market. In fact, most cattle carcasses were left to rot on the Pampa; the gaucho just cut out the tongue to eat and skinned the hide for export. Returns per cattle were of course low, but costs were virtually zero.

The gaucho began to slowly lose his way of life and freedom in the nineteenth century. Independence from Spain was a long, bloody, drawn-out affair that gave rise to many local warlords. Fighting became endemic. Now the gaucho's horsemanship, and his ability with the lasso, knife, and bolas became valuable military weapons. The Argentine cowboys, however, were truly self-interested. Not much concerned about questions of partisanship or patriotism, they had to be forcefully conscripted. Governors began issuing passports to confine their movement and pass vagrancy laws to force into the army those not employed on ranches. But it was Europe's hunger for beef that most doomed the gaucho lifestyle. Ironically, the growth of the cattle industry brought the decline of the cowboy.

Several forces combined to make Argentina one of the world's greatest meat exporters. Demand had grown in urbanizing Europe. The steamship made the Atlantic passage faster and more reliable and, with its larger carrying capacity, reduced freight rates.

Cattle on the hoof could be brought to Europe, but that was still a risky and expensive proposition. A major breakthrough was one of the miracle foods of the nineteenth century: Liebig's Meat Extract. Beef bouillon brought the taste of meat to tens of thousands of poor European households where it previously had been a rare visitor.

More revolutionary yet was the experimentation being done in Chicago with refrigerated railcars. Applied to ships, refrigeration permitted great

amounts of dressed, chilled, or frozen beef to be transported across the Atlantic. Refrigerator ships, known as *frigoríficos,* proliferated in the last two decades of the nineteenth century and were perfected in the beginning of the twentieth.

But to take advantage of the new technology, Argentina had to improve the quality of its livestock. No longer admired were the creole cattle that were so well adapted to the wild Pampa. Ranchers began importing plumper, fatter European shorthorns. To ensure selective breeding, they erected fences across the plains.

The fences, with their palpable boundary limits, eventually put an end to the gaucho way of life. In a real sense, they created property. Ranchers who invested in improving their herds became much more concerned about branding their herds to prevent rustling (which gauchos considered simply hunting). Labor contracts were increasingly written to constrict the gaucho's freedom of movement. The draft and jail constantly hung over him.

The gauchos became an underclass on the plains where they once reigned, as being a migrant ranch hand became virtually a crime. Rued one observer in 1904: "The poor creole class that has lost all idea of the right to own land, sees it as unalterable patrimony of the grandees and vegetates with no other possibility than to be a soldier, a ranch peon or a rustler." And there was ever less need for ranch peons. A man with a herd dog in an enclosed pasture could do the work of four or five men on the open range. Some of the Pampa became populated by the cowboy's nemesis: the sheep. Most gauchos could find no more than part-time work.

The final insult came when the need for alfalfa pasture convinced ranchers to let out parts of their land on shares to farmers who would prepare the ground for feed. Believing "the gaucho on foot is fit only for the manure pile," ranchers attracted Italian and Spanish immigrants to till the pampa, marginalizing the gaucho even further. As the cattle industry prospered and fat domesticated herds filled the countryside, the gaucho passed into history. The need to feed beef cattle cost the gaucho his freedom and his existence. And that is how the cattle came to eat the cowboys.

4.12 The Tie That Bound

Chaos theory tells us that a butterfly beating its delicate wings in the Amazon can create a monsoon in India. Actions can have completely unexpected and distant consequences. So it was with the American wheat farmer, who, mechanizing his Midwestern farm with the most modern technology, unintentionally and unknowingly brought cruel archaic slavery to the Maya Indians in Mexico's tropics.