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**NOTA BENE: I inserted the images as there were none in the review. It is a first rate review of a wildly depressing book.. Amazonian Conservationists must have a medical before being allowed to read it. I wonder if there will be a Portuguese version.....**

Just lovely characters!!!!!!

The Price of Paradise

By [Joshua Hammer](#)

**Fordlandia: The Rise and Fall of Henry Ford's Forgotten Jungle City**

by **Greg Grandin**

Metropolitan, 416 pp., \$27.50

In the summer of 1927, a thirty-seven-year-old Ford Motor Company executive named Willis Blakeley arrived in the Brazilian port of Belém, at the mouth of the Amazon River, following a tedious, two-week boat journey from New York City. Employed as a personnel manager in Henry Ford's Services Department, a union-busting operation run by Ford's chief enforcer, Harry Bennett, Blakeley had been sent to Brazil on a secret mission. He was to negotiate concessions with the Brazilian government and establish a rubber plantation and settlement on land the company had identified along a tributary of the Amazon, the Tapajós, six days and 650 miles upriver from Belém.

The plan, two years in the making, was the most ambitious example of Henry Ford's "village industry" project—the building of small, self-sustaining settlements in which industry and agriculture would coexist and benefit each other, freed from the corrosive forces of market capitalism. As Ford envisioned them, they were quintessentially middle-American communities, consisting of clapboard houses set around village squares, with sawmills and hydroelectric plants, and organized activities such as golf and square dancing providing moral uplift to their inhabitants.

Beginning in the early 1920s, Ford launched several of these communities in the US—including Greenfield Village, Alberta, Iron Mountain, and Pequaming. Now, in this remote and inhospitable location on the equator, he set out both to free his company from its dependence on foreign rubber—the project, called Fordlandia, would be one of the first examples of vertical integration in corporate America—and to import his midwestern values to the jungle. It would offer nothing less, said Ford's son Edsel, than the "redemption" of the Amazon.

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As the representative of this noble experiment, however, Blakeley cut a less than impressive figure. On board the boat down to Belém, Blakeley, though he had been told to keep mum, bragged to fellow passengers about Ford's plans. Upon his arrival in Belém, a boomtown described by the Brazilian writer José Maria Ferreira de Castro as

the "Mecca of the world's harlotry," Blakeley caroused, drank heavily, and became involved in a scheme with the US consul to buy up bonds issued by Pará state's bankrupt treasury, then resell them at a huge profit once word got out about the project. He stayed in a corner suite on the second floor of the opulent Grande Hotel with a verandah and floor-to-ceiling windows, walking around naked and having sex with his wife in plain view of the pedestrians on the central square below. "It's the talk of the town," said the hotel's manager, who tried unsuccessfully to throw Blakeley out.

Then, after obtaining virtually everything that Ford wanted from the Brazilian government—tax breaks, concessions on timber and minerals—and purchasing a vast tract of land along the Tapajós for the bargain price of \$125,000, Blakeley immediately made himself unpopular, setting himself up in a comfortable *fazenda*, or hacienda, while lodging his foremen in a dilapidated bunkhouse and his laborers in hammocks and lean-tos. Blakeley's inattention to sanitation turned the construction site into a breeding ground for mosquitoes, causing an outbreak of malaria that stopped work for a month. The crews began felling trees at the height of the wet season, and daily rains soaked their attempts to burn the felled trees, leaving the ground covered with heaps of charred scrub. To clear the land, they doused the fields with kerosene and set them alight, causing the biggest conflagration seen up to that time in the Amazon. Thousands of birds and jungle animals died in the flames. "They burned hundreds of hectares of primitive forest," remembered one witness, who watched it from across the river. "They started a fire that lasted for days and days.... It terrified me."

By the time the Ford company dismissed Blakeley the following October, Fordlandia was in chaos. In November, after the camp's cooks served up an inedible meal of rotten meat and fish, riots broke out, and the American managers on site were chased into the jungle by machete-wielding marauders.

Blakeley's misadventure set the tone for much of what would follow. It is also one of the most memorable episodes in *Fordlandia: The Rise and Fall of Henry Ford's Forgotten Jungle City*, Greg Grandin's richly detailed history of the automaker's misbegotten enterprise. Grandin, a professor of Latin American history at New York University and the author of several books about the region, has assembled an account of Ford's twenty-year effort to wrest profits out of the jungle—a struggle that pitted his assembly-line efficiency against a chaotic environment that resisted all attempts to tame it. Indeed, the same year that Ford set his sights on Brazil, Percy Fawcett, the British explorer, vanished in the jungles of Mato Grosso state while

searching for the ruins of an ancient Indian civilization.<sup>[\*]</sup> And several years earlier, Ford's longtime nemesis, former President Theodore Roosevelt, had emerged shattered from an Amazon expedition and had written a memoir about the experience.

Yet Ford approached the project with blithe self-confidence and a disregard for detail. Ineffectual managers like Blakeley were delegated to recruit a labor force to clear the jungle, plant rubber trees, build housing, and develop a self-sustaining enterprise. (Ford himself never visited the community.) Brazilian politicians used Ford to arouse nationalist passions, revoking the company's tax exemptions and impounding cargo and rubber seeds. By the time Ford's project gathered momentum and more sensible people took charge, Grandin argues, it was too late to salvage it, and Ford's would-be utopia instead became a metaphor for American provincialism and overconfidence—for hubris.

Ford's life story has been told any number of times, in his own autobiography, published just before his death at the age of eighty-three in 1947, and in numerous

biographical accounts, including Robert Lacey's *Ford: The Men and the Machine* and Douglas Brinkley's *Wheels for the World: Henry Ford, His Company, and a Century of Progress, 1903-2003*. Drawing on many sources, Grandin traces the familiar story of Ford's rise. Born in 1863 on a Michigan farm, he showed a genius for mechanics as a boy and, he later told reporters, he found his inspiration for the assembly line~workers remaining at one location and performing a single task using interchangeable parts~while watching the "disassembly process" at slaughterhouses in Chicago and Cincinnati.

Success came to him late: he founded the Ford Motor Company in 1903, at age forty, and introduced the first Model T five years later. In 1910, Ford opened his innovative automobile plant at Highland Park, just north of downtown Detroit. By 1920, more than two million Model Ts were rolling off his assembly lines every year~half the cars produced and sold in the United States. Grandin quotes the British journalist Julian Street, who visited the Highland Park plant and was overwhelmed by the impersonal, powerful nature of American mechanization:

The whole room, with its interminable aisles, its whirling shafts and wheels, its forest of roof-supporting posts and flapping, flying, leather belting, its endless rows of writhing machinery, its shrieking, hammering, and clatter, its smell of oil, its autumn haze of smoke, its savage-looking foreign population~to my mind it expressed but one thing and that was delirium.

The figure who presided over this colossus emerges in Grandin's book as an initially sympathetic figure. Early in his career Ford was a conservationist, an internationalist, a progressive who pioneered the Five Dollar Day, and a pacifist whose opposition to World War I placed him at odds with Woodrow Wilson. Although he didn't like to read (many suspected that he was illiterate), Ford was a man of unique ideas and enthusiasms: he believed the foundations for human progress lay in "constructive, rationally ordered activity" that could be "transplanted to any country to help mute political passions."

Influenced by both Ralph Waldo Emerson's creed of self-reliance and his own farm background, Ford maintained that a symbiotic relationship between agriculture and industry would solve urban poverty, soften the drudgery of field labor, and free men from inevitable economic downturns. "We cannot eat or wear our machines," said Ford.

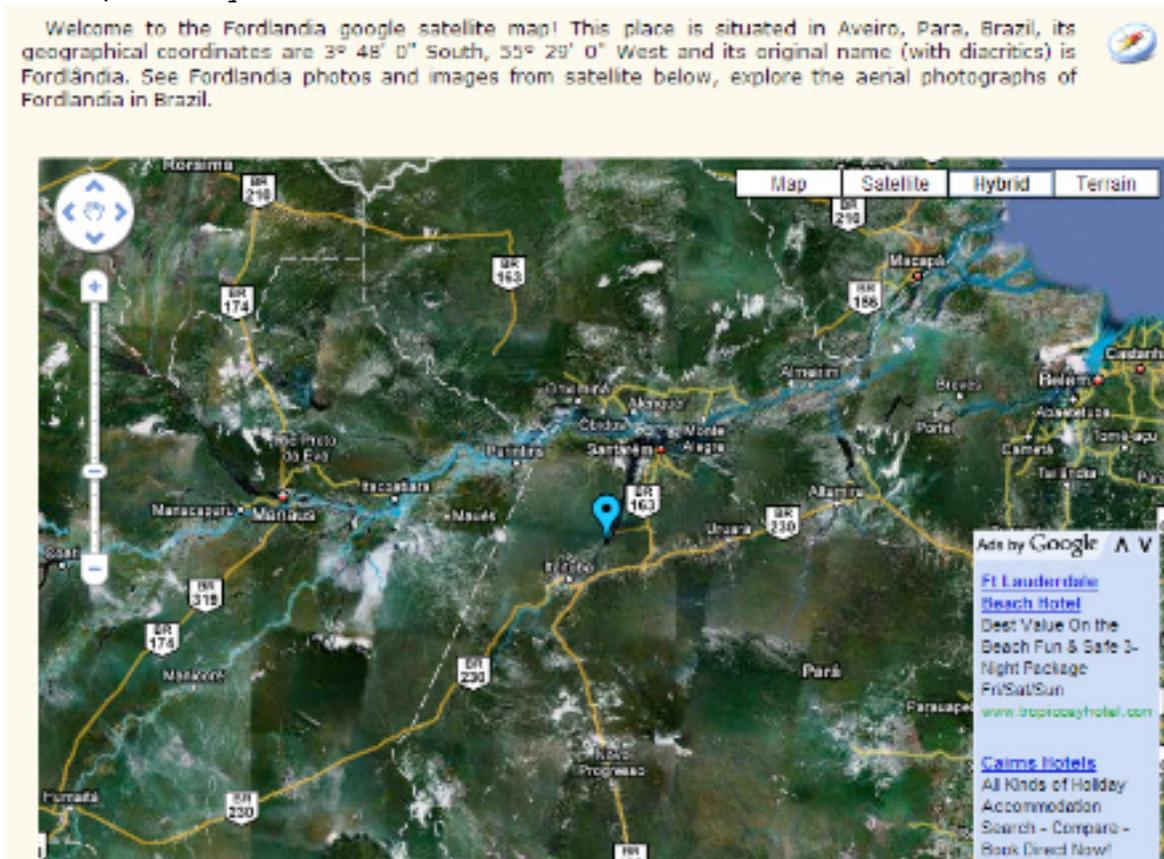
If the world were one vast machine shop it would die. When it comes to sustaining life we go to the fields. With one foot in agriculture and another in industry, America is safe.

To that end, Ford launched his village industry program, and ordered company chemists to invent industrial uses for plants and vegetables. Many of his ideas, such as his quest to extract every possible use out of the soybean, were "harebrained, an industrial version of medieval alchemy," writes Grandin:

Ford even began to talk about the possibility of "growing cars" and had the body of one made entirely of plastic [derived from soybeans]. Dubbed the "soybean car," it was ditched soon after it became clear that the strong mortuary smell from the formaldehyde used to process the plastic was not going to subside.

Ford also promoted soy as a wonder food.... He forced his associates to eat soy "biscuits," described by one employee as the "most vile-tasting things you ever put in your mouth," and served his dinner guests soy

banquets, course after course of dishes made from soybeans, including puree of soybean, soybean crackers, soybean croquettes with tomato sauce, buttered green soybeans, pineapple rings with soybean cheese, soybean bread with soybean butter, apple pie with soy crust, roasted soybean coffee, and soymilk ice cream.



Ford's Brazil venture began to take shape on a summer afternoon in 1925, when he had lunch at his Dearborn, Michigan, home with Harvey Firestone, the tire company founder and one of his closest friends. One of the subjects of discussion was a proposal by Sir Winston Churchill, Great Britain's secretary of state for the colonies, to create a rubber cartel among British-owned plantations in Southeast Asia, which then exercised a near monopoly over latex production. The proposal had met with disapproval from US politicians; Speaker of the House Nicholas Longworth had denounced it as an "international swindle." Secretary of Commerce Herbert Hoover had warned American manufacturers that they could face surcharges of up to half a billion dollars if Holland and France joined the British scheme and had urged them to consider growing their own rubber in Latin America. Ford—dependent on rubber for the manufacture of gaskets, valves, insulation, and other parts of his Model Ts—had explored, but dropped, the notion of creating plantations in the Florida Everglades. At the lunch, however, after Firestone denounced Churchill and the cartel, the idea came up again. At the end of the meal, Ford asked his longtime personal secretary, Ernest Liebold, to "find out where is the best place to grow rubber." Liebold soon picked out the Amazon jungle.

## Dearborn-on-Amazon



Photograph from "Fordlandia"

Blueside Avenue in Fordlandia, with the Tapajós River to the right

It seemed a logical choice. For most of the nineteenth century, the Amazon had been the world's sole producer of rubber. Impoverished tappers known as *seringueiros*, dwelling in isolation in the jungle, formed the first link in a primitive production and distribution chain that was the antithesis of the assembly-line superefficiency that Ford would pioneer. Waking before dawn—when the sap ran the quickest—the tappers slashed into giant *Hevea brasiliensis* rubber trees, and collected the sap as it dribbled into tin cans or cups. They then smoked the latex over a spit until it formed a black ball of rubber, and handed it over to a merchant who, in turn, shipped it downriver to Belém.

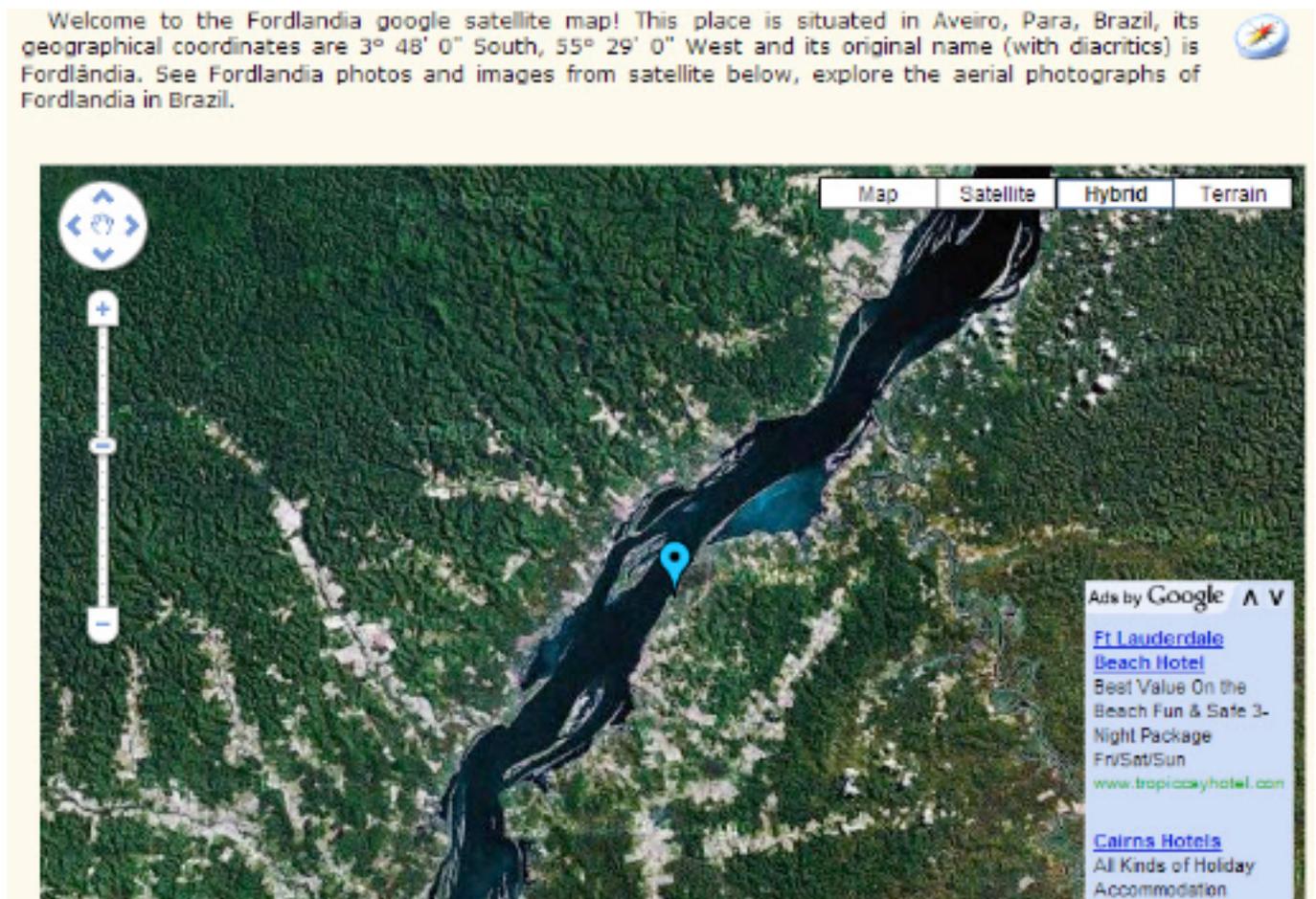
At its peak in the late nineteenth century, the backbreaking labor of the *seringueiros* created cities such as Belém and Manaus, whose opera house became a symbol of rubber-boom opulence. By then, however, the collapse of the industry had already begun: Henry Wickham, a British-born drifter, after a series of failed ventures in South America, absconded with thousands of rubber seeds in 1876 and brought them to the Royal Botanic Gardens in London. The seedlings nurtured there, Grandin writes, "provided the genetic stock of all subsequent rubber plantations in the British, French, and Dutch colonies." Without natural predators, the rubber trees thrived there in densely forested plantations: in 1912, Malaya and Sumatra exported 8,500 tons of latex, compared with the Amazon's 38,000 tons. A decade later, the Southeast Asian colonies exported 370,000 tons—more than fifty times as much—and Brazil's rubber trade evaporated. (Wickham's theft left a bitterness among Brazilians that lingers today, and is largely responsible for the raft of anti-"biopiracy" laws that have hampered the work of foreign scientists in the country.)

Brazilian officials regarded Ford as the industry's potential savior, and welcomed his agents when they began to scout out possible territory. Ford was still bitter about the collapse of his plan to build a seventy-five-mile-long "industrial arcadia" along a river in Muscle Shoals, Alabama, that the US Congress rejected in 1924,

despite his five-year lobbying effort. "Having been denied the opportunity to redeem a poor rural river valley in Appalachia," writes Grandin, "he would find another in the Amazon."

Grandin describes the wrongheaded decisions made by Ford officials sent down from Michigan. Einar Oxholm, Blakeley's successor, a Norwegian whom one colleague called a "big man" with a "weak mind," had a reputation for "absolute honesty" that led him astray in the Amazon. Determined not to seem an easy mark, he refused a reasonable offer from a Brazilian cargo company to unload his ships—then spent six times as much money trying to accomplish the same task on his own. He antagonized Brazilian customs officials who demanded standard expenses for traveling upriver for days to examine his cargo holds—accusing them of asking for bribes. "Little contretemps that could have been settled with a bit of charm in his hands turned into an exhausting fight that lasted three years," Grandin writes.

Oxholm also did little to clean up the mess that Blakeley had left behind. Bad housing, abusive foremen, and inedible food kept the turnover rate high. So did Ford's edict from Michigan that workers were to be paid in cash rather than credit for goods, which made it hard to attract workers for the long term. "There was nothing to stop those who did come from melting back into the jungle once they earned enough to live for a few months without work."



Then there was Ford's insistence that Fordlandia observe Prohibition, which had been established in Michigan in 1916 and across the United States in 1920. "If we were to

permit promiscuous use of liquor on our plantation," recalled Ford's secretary, Ernest Liebold, "why, the employees might on certain occasions get beyond our control." These efforts to legislate morality in the Brazilian jungle were predictably unsuccessful, and as an enforcer Oxholm hardly set a fine example: he developed a fondness for *cachaça con limão*, rum and lemon, and often ducked out of work early on weekday afternoons to sip rum in a swaying hammock and watch Fordlandia's bustle from across the river. Despite Ford's attempts to turn Fordlandia into one of his model Michigan towns, it wound up looking more like Deadwood, North Dakota: "a mecca for all undesirables, even criminals, of the entire Amazon Valley," as one company executive who visited from Dearborn put it.

Like his predecessor, Blakeley, Oxholm ended his tenure at Fordlandia in disgrace. A handful of lightbulbs flickered on a "few bedraggled streets he had carved out of the jungle," tools and other equipment lay scattered on the ground, black stumps covered the cleared and burned acres, the hospital barely functioned, and the workforce remained unstable. Instead of turning Fordlandia into a self-sufficient enterprise, Oxholm depended on a detachment of Brazilian troops with machine guns to keep order. He required cash infusions from the Bank of London and South America in Belém to pay his restive workers, and had to beg local Indians to provide food. "Over and over, Fordlandia's managers found themselves reliant on outside support," writes Grandin, "unable to replicate either the extreme independence pioneered by Ford...at the [River] Rouge [auto plant] or the Emersonian ideal of self-reliance embodied in Ford's community factories and mills."

Everything fell apart in 1930. By this point, writes Grandin,

it seemed as if Fordlandia had made it through its rough start and had settled into a workable routine. Most of the physical plant was built, and crews were pushing into the jungle, clearing more land, planting more rubber, and building more roads.

But a Ford decree forcing workers to eat the swill served in the company dining hall, and then deducting the cost of the meals from their paychecks, resulted in another riot. Workers destroyed machinery and vehicles, and smashed the plantation's time clocks—a another senseless manifestation of American corporate culture. The Brazilian government dispatched troops to restore order, but by then, Fordlandia had been destroyed.

Grandin's story can be episodic, with one Ford manager after another shuttling down to the Amazon, botching the job, and then disappearing, and a succession of mishaps derailing progress. The automaker himself remains a distant figure whose force of personality and vision shape the Brazil project but who rarely seems engaged with it. As a result, the book lacks narrative drive. Moreover, it is packed with detail about tree nurseries and grafting techniques and hospital construction that sometimes gives the book the feel of an in-house corporate history. But Grandin skillfully juxtaposes the jungle meltdown with Henry Ford's own dissolution.

As his pet project floundered in Brazil, Ford was becoming unpopular at home. His progressive qualities had always been shadowed by resentments: he was an admirer of fascists and Nazis, an anti-Semite (he did much to popularize *The Protocols of the Elders of Zion*), and a deadly enemy of labor unions. His aide-de-camp, Harry Bennett, a former boxer, ran a three-thousand-man private army that spied on Ford workers and attacked employees suspected of union sympathies with guns, whips, blackjacks, and other "persuaders."

The onset of the Great Depression deepened Ford's antipathies and intensified his

search for scapegoats. He became an admirer of the anti-Semitic radio host Father Coughlin, who defended Nazi violence against the Jews during *Kristallnacht* in 1938. His battle against workers' rights grew more brutal. On March 7, 1932, Bennett's "service men" opened fire on laid-off Ford employees marching to his River Rouge plant to demand jobs and food relief, killing five. Reporters and photographers on scene recorded the killings.

Ford, who had fallen out of favor with both American workers and leading journalists, was scorned by Edmund Wilson in *Scribners* as the "despot of Dearborn." Sinclair Lewis wrote an exposé about Bennett, describing him as a "general of the gangster army, and boon companion of the old man sitting in his estate on the hill, well within hearing of the shooting." Ford was caught up in a tangle of contradictions:

He was a suffragist who didn't offer women the same five-dollar-a-day wage he did men. He passionately advocated placing US sovereignty under the authority of the League of Nations and talked about the need to establish a "world government" well into the 1940s, but then condemned Jews for their "internationalism." He called for the nationalization of the railroads and telegraph and telephone service, yet he hated Franklin Delano Roosevelt and refused to abide by New Deal regulation. He exalted the dignity of the worker and fashioned himself a scourge of the "capitalist" but was violently opposed to unionism. And he was a radical pacifist who once conceded that one last great war might be needed to finally bring about world disarmament.

Ford clung to his vision of the industrial-agricultural utopia. He regarded Fordlandia as an idyllic counterpoint to troubled America, and he exhorted his administrators and scientists to perfect the new society. As Grandin writes:

Ford fully expected that chemists would turn the minerals, oils, and plants found on his estate into lubricating grease, fuels, paints, soaps, rope, fertilizers and insecticides. Fordlandia's managers sent hundreds of samples back to Dearborn, as well as Chicago's Field Museum, and today one can find dusty boxes in the Ford Archives filled with seeds, barks, and leaves of a variety of tropical flora, accompanied by notes indicating their acidity and nitrogen levels, as well as their ash, sodium, and lime content.

Just as Ford hoped his village industries would achieve self-sufficiency through hydroelectricity, he thought that the Tapajós would provide enough power to limit the use of purchased gasoline; that the sawmill would cut hardwood not just for local use but for sale to support the plantation; that not just proper hygiene and decent health care but flower gardens and square dancing—which Ford would promote in Fordlandia as a response to the December 1930 riot—would cultivate virtuous workers.

Yet Fordlandia never recovered from its destruction in 1930. By March 1931, Brazilian politicians had thrown up so many obstacles that

sixteen thousand tons of Ford goods—paint, steel, train rails, shelving, furniture, tools, stationery, hospital machines, surveying equipment, lab instruments, electrical parts, enameled sinks, and many other things—still sat unused in a customs warehouse.

New elections in Brazil brought more pliant officials to power and the supplies began flowing smoothly. But Ford managers remained oblivious to their difficult

environment—spurning the help of native naturalists, for example, who might have prevented or reduced the infestations of caterpillars, fungi, and bugs that destroyed Fordlandia's rubber crop. When construction teams finally began building permanent housing, they followed designs suited to rural Michigan, not the Amazon:

Metal roofs lined with asbestos, chosen by Ford engineers to repel the sun's rays, in fact kept the heat in. The "workers' houses were hotter than the gates of hell," recalled a priest who ministered in Fordlandia, "because some faraway engineer decided that a metal roof was better than something more traditional like thatch." They were "galvanized iron bake ovens," said Carl LaRue, commenting on Fordlandia's foibles years later. "It is incredible that anyone should build a house like that in the tropics."

Eventually the company decided to abandon much of the site, building a new plantation and settlement further upstream at a place called Belterra. There Ford managed to produce some rubber, and the new community developed into a tidy, middle-American village that earned admiring comments from visiting celebrities such as Walt Disney. (Disney even released a documentary called *The Amazon Awakens*, which included images of Ford workers playing golf on a well-manicured course, and used the Ford town as an example of one of the Amazon's four great cities, along with Iquitos, Manaus, and Belém.)

But Belterra was a Potemkin village. After Henry Ford II, Ford's grandson, was named the company's president in 1945, one of his first acts was to sell off the failing enterprise. After nearly twenty years and \$20 million in investments, the price it fetched from the Brazilian government was \$244,200—exactly the amount that the company owed its plantation workers as severance pay. Henry Ford by then was a broken man, senile, sick, and crushed by the early death of his son, Edsel. The Brazilian government abandoned Fordlandia in the 1950s, leaving it to decay in the jungle heat. Its rubber plantations were broken up into tiny plots worked by subsistence farmers. And as Grandin points out at the conclusion of his fascinating book, Ford's vision of an agriculture-industrial paradise in the jungle has been appropriated by agro-industry giants such as Cargill, with devastating results: today, in the same region where Fordlandia and Belterra once stood, timber mills and vast soybean plantations are bringing much of the Amazon to ruin.

#### Notes

[\*] Fawcett's story is recounted in David Grann's *The Lost City of Z: A Tale of Deadly Obsession in the Amazon* (Doubleday, 2009). See my review in these pages, May 14, 2009.