



THE STRUGGLE FOR HEALTH: Medical Brokerage and the Power of Care in Brazil's Amazon Estuary

MATTHEW ABEL

Washington University in St. Louis

 <https://orcid.org/0000-0003-3433-1265>

Three months before the onset of the COVID-19 pandemic in March 2020, I was discussing the state of Brazil's public health system with Camila, a community health agent along the lower Tocantins River near the mouth of the Amazon estuary. Camila was born in a riverine village in the Islands of Abaetetuba, a peninsula that juts out into the Bay of Marajó. Camila moved to the eastern Amazonian capital of Belém as a young woman to study as a nurse. Afterward she returned home to work for Brazil's Unified Health System (Sistema Única de Saúde, or SUS). Similar in structure to the United Kingdom's National Health System, the SUS is a public network of hospitals and clinics established in 1989 that provides medical care to Brazilian citizens and residents free of charge. In each of Abaetetuba's seventy-three island communities, health agents like Camila work to gather epidemiological data and administer basic health services. By linking preventative care to local health monitoring, the SUS's Health Agents Program has drawn together an impressive network of public servants and is globally heralded as a model for community-based care (Castro et al. 2019). Yet for many of its employees, the mood has turned increasingly bleak.

Camila and I spoke in late 2019,¹ three years after the government of former President Michel Temer (2016–2019) instituted a series of neoliberal policies that

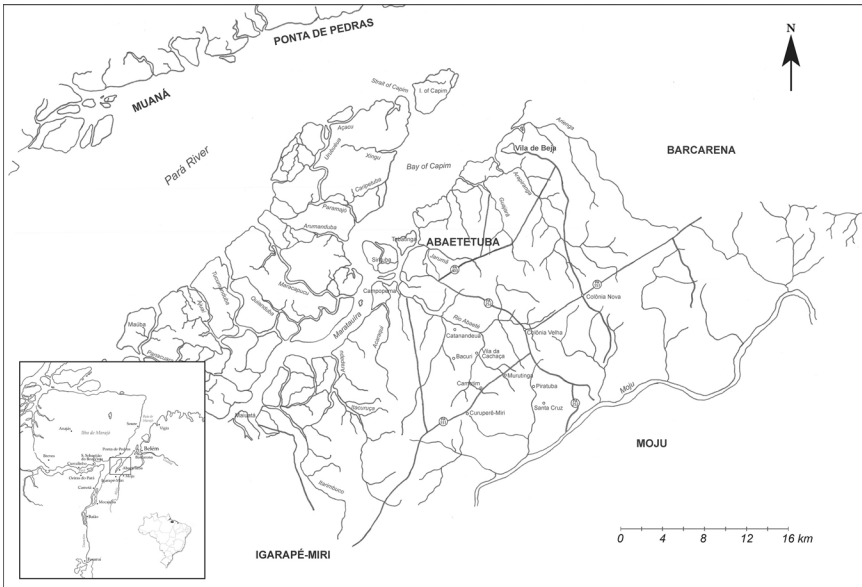


Figure 1. Map of Abaetetuba and its riverine islands. By Matthew Abel.

reduced federal public health spending. Austerity measures exert a palpable influence on Amazonian municipalities like Abaetetuba, where residents depend on the public system to avoid the predatory costs of private clinics in the city. Camila explained that she was constantly fending off her neighbors' requests for remedies. She was certainly capable of providing basic treatment, she said. But the state had never equipped her with the facilities to do so. Austerity policies generate long wait lists at public hospitals and clinics, often relegating primary and secondary care to the private sphere. Camila asserted that if the SUS received enough funding, it would be the best health system in the world. But there are people in power who make sure that it does not.

Camila's suggestion that medical care is intertwined with political power may seem intuitive to anthropologists. Ethnographers working in clinical settings are often trained to recognize power in the regulatory institutions and forms of knowledge that mediate medical interactions. For instance, in her pathbreaking ethnography of *sans papiers* asylum-seekers in France, [Miriam Ticktin \(2011, 3\)](#) introduces the concept of a "regime of care" as a "set of regulated discourses and practices grounded" in the "moral imperative to relieve suffering." The concept of a care regime draws on Michel Foucault's formulation of "biopolitics" to describe medicine as a *dispositif*, or "instrument," that diffuses the project of state administration on and through the social body. By chronicling how asylum-seekers pursue

diagnoses with life-threatening illness to gain legal residency, Ticktin contributes to a body of literature that examines how power is not simply reflected but also actively reproduced through medical institutions (Redfield 2005; Petryna 2004; Varma 2020). Elsewhere, João Biehl (2013, 420) has drawn on a similar framework to suggest that the expansion of Brazil's public health network through the SUS has institutionalized a form of biopolitics "from the bottom up," in which patients are reconfigured as consumers within the global medical marketplace. Power, in both cases, is understood via analogy to government: as a self-reinforcing system of regulation and social control.

Yet as I continued my conversation with Camila, she began to describe a series of local political relationships that did not square well with the decentralized, capillary understanding of power promoted by modern-day Foucaultians. For instance, Camila told me the story of Dr. Edmilson Batista and Tio Nelson, her uncle. Nelson is seventy-eight years old and struggles with heart disease. But because of long waitlists at SUS clinics, he frequents the private practice of Dr. Batista, the former vice-mayor of Abaetetuba and one of the only cardiologists in the municipality. Tio Nelson pays for regular consultations with Batista, who prescribes him statins to lower his cholesterol. Each time he refills his medication he is required to go in for a new consultation. Camila acknowledged Batista's excellent reputation, noting that he cares for his patients and "listens to the people." But he also has his own interests, she said. His consultations and local renown are in large part what won the governing coalition its municipal seat. At the same time, Camila suggested, Batista's position of *poder público*, or "public power," allows him to direct the flow of federal health spending in ways that benefit his own private practice. He was, in other words, a *broker*, whose influence over the local health system and ability to direct the day-to-day health struggles of others stem from his control over medical infrastructure.

While anthropologists frequently draw on Foucault's notion of biopolitics to discuss the relationship between coercion and medical care, there are many scenarios in which a diffuse understanding of power deflects attention from the powerful themselves. In a stratified society, there are certainly doctors, health officials, and patients who participate unwittingly in what Foucault (2003, 244) called the "subtle, more rational mechanisms" that discipline and manage a population. However, there are also those who bestow, throttle, or even artificially limit health access in ways that reinforce that society's class structure and dominant system for distributing medicine. Whereas the twentieth century was characterized by the emergence of biopolitical institutions like the World Health Organization

and Brazil's SUS, the increasing concentration of medical infrastructure in the hands of private capital has, during the twentieth-first century, provoked profound transformations in the relationship between modern health administration and the medical industry (Brown, Cueto, and Fee 2006). As patients and healers are integrated along hierarchical chains of suppliers, manufacturers, insurance conglomerates, and biotech firms, the concentrated forms of power wielded by figures like Batista have become an increasingly important feature of the global health landscape.

In this article, I examine the role of local elites in brokering access to medical services in Brazil's Amazon estuary and the significance of this practice for anthropological understandings of public health governance. *Medical brokerage*, or the ability of some to direct the health struggles of others through their control of medical resources, draws important analytical attention to the day-to-day health exchanges that constitute broader regimes of care and their embeddedness in regional histories of exploitation and social conflict. As I came to learn over the course of my fieldwork, the story of Batista and Tio Nelson is more than a simple tale of corruption or medical malpractice. It reflects the historical dynamics of a region in which elites have long mediated access to health services. During the nineteenth and twentieth centuries, Amazonian merchants garnered wealth, power, and prestige through a system of exchange and debt-peonage known as the *aviamento*. Similar to the trapping system used during the North American fur trade, merchants advanced tools, consumer goods, and household necessities to rural workers in exchange for forest products and the labor to extract them. Yet medicine also played a key, if largely unstudied, role in mediating debt relationships under the *aviamento*. In Abaetetuba, the extraction of forest products was frequently remunerated by the counter-prestation of medical services, curatives, and pharmaceuticals, "gifted" by merchants to their deserving clients. During the 1980s, local health activists fought to overturn this paternalistic system for distributing medicine. By reconceptualizing health care as a human right, these activists institutionalized the SUS's universal health network: a decentralized, self-reinforcing system of medical governance that broke the authority of the region's merchant elites. But as merchants and their families entered an emerging professional class of lawyers, doctors, and politicians, they exercised a growing influence over regional health infrastructure, reproducing an analogous set of relationships to the ones they once maintained with their riverine clients.

In the following sections, I draw on interviews with activists and rural health-seekers to recount an intergenerational history of health struggle in Abaete-

tuba and the persistent role of local elites in mediating access to medical services. After situating the concept of medical brokerage within the regional literature on health, power, and clientelism in Latin America, I demonstrate how modern medical technologies articulated with Amazonian healing traditions as regional elites carved out positions of brokerage between riverine farmers and an emerging global medical industry during the mid-twentieth century. In the second half of this article, I examine the breakdown of the *aviamento's* care regime during the 1980s and the institutionalization of health care as a universal right under Brazil's 1988 constitution. Since its foundation in 1989, Brazil's universal health system has made unprecedented strides in almost all measures of human development. But as the private medical industry has captured a growing share of Brazil's public health resources, austerity measures and new forms of medical brokerage threaten to reverse these gains (Paim et al. 2011).

The concept of medical brokerage, I argue, is indispensable for interpreting these developments in light of broader changes to the global health system. One of the more stubborn assumptions regarding biopolitics is the notion that the self-reinforcing, coercive dimensions of regulatory institutions are necessarily reproduced at all times and all places, and that this reproduction offers a self-evident explanation of the policy direction undertaken by public authorities. Yet more than any other health crisis in recent history, the COVID-19 pandemic has illuminated the vulnerability of public health administration and its susceptibility to a range of competing financial and political interests. In this article's final sections, I narrate the collapse of the east Amazonian hospital system and the responses of local actors as COVID-19 rapidly spread throughout the region. As community health agents like Camila attempted to respond to an unprecedented public health crisis, their efforts were repeatedly undercut by profiteering, corruption, and political obstructionism that extended from the local level to the highest echelons of federal administration.² Explaining these events will require sustained dialogue with the insights of classical political theory to examine how and under what conditions the instruments of public health administration are mobilized towards particular ends.

TWENTIETH-CENTURY MEDICINE AND "PUBLIC POWER" IN LATIN AMERICA

In his study along the Colombian Putumayo, Michael Taussig (1987, 142) suggests that every interchange between "affliction and cure" depends on "an active construction of the past original to every new present." And indeed, from the outset of the Amazon's colonization, the spread of Old World diseases was linked

to the extractive trade in forest products (Bunker 1988). In the early seventeenth century, Catholic religious orders missionized the Indigenous societies that peopled the Amazonian floodplains, organizing them into sedentary villages (Sommer 2005). These settlements became “efficient machines for propagating disease” (Cleary 2001, 86–88) as the Portuguese drew on enslaved Indigenous and later African labor to harvest the so-called *drogas do sertão*, or “drugs of the interior.” These drugs included a complex of forest medicinals and confectionary products such as chinchona bark, andiroba, copaiba, cacao, and sarsaparilla. Meanwhile, the pharmacopeias and syncretic knowledge systems that developed in the colonies were exported to the metropole, contributing to emergent biomedical institutions in Europe (Walker 2013). Illness and remedy, in other words, never made for independent variables. They were two sides of a historical motion that produced biomedicine as Western while naturalizing disease along South America’s “lugubrious, pestilent Ganges.”³



Figure 2. Andiroba oil extracted from *Carapa guainensis*, a colonial-era *droga do sertão* and household remedy for inflammation also once used for lantern oil.
Photo by Matthew Abel, January 2020.

World systems and dependency theorists have long examined the ways that global markets concentrate knowledge, infrastructure, and political power in the centers of the capitalist system while artificially limiting access to their benefits in the periphery (Hornborg 2001). In his writing on “structural suffering,” the

anthropologist [Paul Farmer \(1996\)](#) drew on these theoretical traditions to describe how the unequal relationship between a society's capacity to meet the basic needs of its population and the actual distribution of resources inflicts a form of violence on day-to-day health-seekers. In regions where infrastructure has been systematically underdeveloped for the benefit of elite and private interests, this tendency influences not only access to medical services but also perceptions of the public sphere itself. For instance, Camila's reference to Batista's position of "public power," or *poder público*, in this article's opening vignette reflects a pragmatic, common-sense understanding of state authority as mediated by outside interests. In a context like Abaetetuba, where elites often undermine state capacity to maintain positions of brokerage between government and the population, "public power" is not some diffuse instrument of social control. It can be seized, wielded, lost, and contested.

This local understanding of state power is embedded within a regional history that interweaves the expansion of public authority with the often unacknowledged contributions of Latin America to the science of global health. [Marcos Cueto and Steven Palmer \(2014\)](#), for instance, have argued that many of the technologies characterizing today's world health system originated, or were in some cases perfected, in Latin America. Disease control measures such as prophylaxis, vaccination, and quarantine reached some of their highest levels of sophistication at the turn of the twentieth century in the rural backlands and commercial entrepôts of Mexico, Cuba, Brazil, Argentina, and Peru. As poverty and enclave economic development provoked successive disease outbreaks along ports and agricultural frontiers, Latin American modernizers began to conceptualize medicine as a "means to achieve social and public health reforms that would assist in the integration of national societies" ([Cueto and Palmer 2014](#), 168).

Brazil is a particularly illustrative case. The historians [Gilberto Hochman \(1998\)](#) and [Nísia Lima \(2007\)](#) recount the growth of Brazil's nascent public health apparatus at the turn of the twentieth century. Under Brazil's Old Republic (1889–1930), the two largest national exports were coffee, grown along the southeastern frontier region, and latex, extracted from rubber trees in the Amazon under the *aviamento* system. After the abolition of African slavery in 1888, rural elites increasingly drew on indentured Europeans and migrants from Brazil's drought-stricken northeast to quell labor shortages along the coffee and rubber frontiers. But when the growing circulation of laborers and commodities provoked successive disease outbreaks in port cities, threatening national exports, the ruling

class enlisted a cohort of applied medical scientists known as the “sanitarians” to confront the burgeoning epidemiological crisis.

During the early 1900s, sanitarians like Oswaldo Cruz, Carlos Chagas, and Belisário Penna embarked on a series of high-profile disease-eradication campaigns to prepare the country for capital investment.⁴ These figures not only laid the foundations of Brazil’s medical system but many also went on to play key roles in the construction of the Pan-American Health Organization in 1902 and the World Health Organization in 1948 (Cueto and Palmer 2014). By “dilating the boundaries” (*dilatando as fronteiras*) of public power, the sanitarians sought to resolve the contradictions of capitalism’s liberal era by configuring the modern state as a legitimate steward of affliction and cure (Hochman 1998). However, they never succeeded in overcoming the inequalities that defined their own nation’s position within the world system. While Brazil contributed disproportionately to the emerging science of public health, the popular benefits of new technologies were often stymied by policies that limited access to care in an effort to institutionalize new opportunities for private medical markets (Paim 2008).

This exemplifies a key tension that defined the twentieth-century history of medicine in the region. While clinical institutions, research centers, and other instruments of what Foucault referred to as biopolitics certainly proliferated in Latin America during the twentieth century, this did not imply a unilateral inscription of state power over the body politic. The emergence of biopolitics was less of an autonomous social force and more of a pact—one that reflected society’s internal contradictions and conflicts. At times, medicine took on a populist dimension as public health policy articulated with popular demands for reform. For instance, Charles Briggs and Clara Martini-Briggs (2009, 549) discuss the long-standing tradition of Latin American social medicine as promoting “collective rather than individual approaches to health care” and underscoring “the importance of political-economic and social determinants of health.” Here, medicine was conceptualized as a vehicle for confronting U.S. imperialism and overcoming induced underdevelopment. This view was famously articulated in Ché Guevara’s (1968) treatise on revolutionary medicine in Cuba, which served as a rallying cry for health reformers across the continent (Brotherton 2012).⁵ Yet by drawing more health-seekers into the market for medical supplies and pharmaceuticals, public health reforms also created new opportunities for elites to broker access to emerging medical technologies.⁶

Immanuel Wallerstein (1974) famously argued that the axial inequalities that characterize a nation-state’s position within the world capitalist system are often

reproduced at the local level as political and economic elites carve out positions of brokerage in relationship to the global market. The embeddedness of health-seekers and providers within the global political economy of medicine situates the administration of care within a similar set of relationships. In Brazil, ethnographers have demonstrated how patronage ties shaped the outcomes of federal anti-poverty legislation (Ansell 2014), while others have drawn on the concept of brokerage to examine how elites mediate access to public services such as health and education (Koster and Eiró 2022). In her ethnography of “Peabiru,” a favela in the northeastern Brazilian state of Ceará, Jessica Jerome (2015) demonstrates how employers leverage access to medical services to draw what she defines as “reciprocal” relationships of care between neighbors into hierarchical arrangements between patrons and clients. These observations echo João Biehl’s (2013) account of the growing role of lawyers and judicial authorities in determining patient access to pharmaceuticals through the Brazilian SUS, as well as Dr. Batista’s role as a medical broker in Abaetetuba.

The presence of these brokerage relationships leads Biehl (2013, 431) to portray state biopolitics as “an insecure enterprise” and “more a symptom of the limits of government than a marker of its presence and control.” Yet what Biehl defines as the “limits of government” may speak more to the limits of an analytic framework that assumes coherence and consistency in state administration while bracketing the local contests over wealth, power, and prestige that direct government intervention towards particular aims and outcomes. From this perspective, Jerome’s characterization of care as “reciprocal” is more evocative. As health-seekers draw on social ties and reciprocal obligations in their efforts to resolve affliction through remedy and cure, they trace a dyadic motion, or “perpetual interchange” (Mauss 1954), between illness and the moral imperative to relieve suffering. Yet these day-to-day health struggles are also projected across a deeper historical register as efforts to broker access to medical services draw health-seekers into a broader terrain of social conflict.

1900s–1970s: THE AVIAMENTO’S REGIME OF CARE

Despite its origins in the colonial “forest drugs” trade, the medical dimensions of the Amazonian *aviamento* system remain remarkably understudied. The anthropologist Márcio Meira (2018) has argued that the seventeenth- and eighteenth-century extraction of the *drogas do sertão* (forest drugs) gave rise to a deadly syncretism between European notions of barter and Indigenous systems of reciprocal exchange. Over the course of the following centuries, the trade in forest

botanicals such as chinchona bark (an anti-malarial) and andiroba seeds (an anti-inflammatory) gave way to the extraction of cacao, rubber latex, animal hides, and Brazil nuts. During the nineteenth-century rubber boom, these transactions became institutionalized under a system of double-entry bookkeeping in which elites and foreign-owned trade houses advanced processed commodities to rural workers in exchange for forest goods (Weinstein 1983, 15–31).

Throughout its tenure, the *aviamento* structured exchange across a diversity of production systems. But in Abaetetuba, trade centered around sugar mills that produced *cachaça* or *aguardante*, styles of rum produced in the Amazon from the colonial era until the 1980s. Tio Nelson, Camila's uncle from the Islands of Abaetetuba, has a sharp recollection of life under the *aviamento* system. In one of our conversations in 2019, he shared with me his childhood memories of "Old" Velho Luciano Araújo, a prominent merchant and *cachaça* miller. Araújo owned a trade post at the mouth of the Ururubuea River during the 1960s, and advanced coffee beans, dried beef, manioc flour, rum, and machetes to the mixed-race Indigenous, African, and European-descendant farmers who lived along Abaetetuba's riverine islands.⁷ These advances were recorded as debts in the merchant's store ledger. "But no one saw any money," Nelson explained. In exchange for processed commodities, Araújo demanded payments of oilseeds, timber, cut sugarcane, and smoked latex harvested by the islands' riverine farmers. But no matter how much they harvested, the farmers always remained in debt. In addition to serving as the main employer and food supplier, Araújo was also the local physician. "He was everything," Nelson said. "He was the merchant. He was the doctor. He was everything. If a sting ray stuck somebody, if a snake bit them, you'd go there. He'd provide the treatment."

In 1965 Abaetetuba's merchants managed sixty-six *cachaça* mills in the floodplain islands, as well as the large sailing canoes, steamships, and diesel boats that controlled the flow of commodities in the region. Throughout the week, smallholders would unload bundles of sugarcane at the merchants' docks. For every bundle of cane, the farmer was credited one third of the resultant *cachaça* (Anderson 1993). The merchants were, as one farmer put it to me, "the dudes who gave the orders." But the *aviamento* was also cloaked in a language of reciprocity and care. Merchants may have been the ones who "gave the orders," but many also remember them as the ones who "took care of the people." Elites often maintained godparent ties with their clients, and there was duality to these relationships reflected in the language of the *aviamento* itself.⁸ The merchants would *aviar* (lend, but also dispatch) a prescription or remedy to their *fregueses* (customers,

but also subjects) in the same way that they would “lend” out machetes and coffee grounds in exchange for bundles of sugarcane from their workers. When residents of the riverine islands took ill, their families would seek out the aid of the rural merchants. If the merchants were unable to provide an appropriate remedy, they would dispatch a confidant to transport the patient to the city. There, they would be attended by one of Abaetetuba’s *grandes farmacêuticos*, or renowned pharmacists.

Seu Eduardo, a riverine farmer and Tio Nelson’s brother-in-law, told me the story of two such pharmacists: Old Velho Armando and José Coelho, whose dispensaries manufactured remedies in the city center. The latter, Coelho, served as a municipal councilman during the 1970s and 1980s, and he opened one of the first medical laboratories in Abaetetuba’s town center. His father, Raimundo Coelho, was also a city councilman, a self-styled “lawyer,” a miller, and a former slave owner. Velho Armando, on the other hand, was Abaetetuba’s most well-known twentieth-century pharmacist and the son of a nineteenth-century slave owner turned abolitionist. He is remembered as a local benefactor who opened the town’s first apothecary in 1923. He served as both doctor and pharmacist, diagnosing patients from the rural interior and dispatching prescriptions for traditional remedies and injections. Velho Armando was later elected mayor of the municipality. “Tinha força,” explained Seu Eduardo; he was powerful.

Although the *grandes* certainly held power, they were not the only healers. Cueto and Palmer (2014) argue that during the twentieth century, Latin American medicine was characterized by the spread of biomedical technologies across new frontiers, as well as their rivalry with popular healing traditions. The historian Aldrin Figueiredo (1996), for instance, chronicles the early twentieth-century dispute between Belém’s medical elite and its popular shamans, or *pajés*. Shamanism, or *pajelança*, refers to a diverse complex of Indigenous healing practices, African religious traditions, and folk Catholic curing rites that is often contrasted with Western medicine.⁹ In practice, however, these popular healers frequently maintained complex, and sometimes symbiotic, relationships with merchants and the emerging medical elite.

During one of my visits to Abaetetuba, Seu Eduardo told me the story of Toninho, a *pajé* who lived along the Rio Xinguzinho during the 1970s and whose medicines “sempre davam certo”—they always worked. The charismatic Toninho would recommend medicine to his clients that they would then buy from Valdico Costa, a *cachaça* miller along the Paramajó River who traded remedies with Velho Armando. Toninho had a close relationship with Costa, who later offered up one of his homes to the aging shaman. Eduardo recounted how one day his daughter

Sônia developed a cyst on her upper lip. It exploded and became dangerously infected. Drawing on a godparent connection, Eduardo secured a boat from one of the less powerful merchants along the river and took her to see José Coelho in the city. But when Eduardo arrived, Coelho refused, saying he could not do anything to help her. Instead, they decided to try Toninho, who gave her an aspirin, a medicine that Seu Eduardo said had become quite famous in Abaetetuba. He then ordered they go right away to Valdico Costa to have him administer an unknown injection and, on returning home, immediately douse Sônia in a bath of cacao butter. His instructions were followed to a tee and by the end of the night Sônia had recovered.

Stories of *pajés* and *grandes farmacêuticos* have a definite vintage feel for today's residents; it's the stuff of old-timers and anthropologists. But as Toninho and his hodgepodge prescription of aspirin, injections, and cacao butter suggest, the authority of local pharmacists and traditional healers intertwined with the history of the emerging medical industry. Velho Armando's apothecary still operates today, owned by one of Armando's sons. One corner of the now fully modern pharmacy hosts a shrine to the medicines of yesterday. Along an old wooden shelf, traditional Amazonian remedies sit side by side with aging bottles of phosphoric acid, methylene blue, and potassium guaiacolsulfonate. Some of these are labeled by Merck, the German multinational drug company, while a 1950s-era advertisement for Bayer, the first global aspirin manufacturer, hangs beside them on the wall.

As modern medical technologies arrived in the Amazon, they were integrated into a complex social field that structured Amazonian health-seekers' struggle for health. By drawing on social ties between fictive and genealogical kin, Seu Eduardo and his daughter embarked on a journey that carried Sônia's pathway from illness to remedy along the reciprocal ties between kin, as well as the forms of exploitation and social conflict that characterized the relationship between merchants and their riverine clients. The ability of medical brokers like Coelho, Costa, and Armando to direct the course of day-to-day health struggles outlined the social scaffolding that defined the *aviamento's* regime of care. Yet as Sônia's example also shows, this scaffolding was by no means stable. Although her health struggle resolved itself in a way that reproduced dominant understandings of paternalistic authority and integrated charismatic figures like Toninho into the social logic of the *aviamento*, horizontal relationships between health-seekers also reveal novel pathways for resolving affliction, challenging the dominant care regime. After all, what if Toninho's prescriptions and his connections to the upper crust had not



Figure 3. Old medicine cabinet at “Velho Armando’s” riverine pharmacy, founded in 1923.
Photo by Matthew Abel, October 2021.

“always worked”? And what authority would “take care of the people” if the merchants retired their trade posts along the river?

1980s–2000s: DEMOCRATIZATION AND THE STRUGGLE FOR THE SUS

The final decade of Brazil’s twenty-year military dictatorship (1964–1985) would present nothing short of a breakdown of the old *aviamento* system. By drawing horizontal networks of kinship and care into broader institutional configurations, Abaetetuba’s riverine islanders increasingly began to seek out remedies in the warren of state administration, reconceptualizing public power as a legitimate steward between affliction and cure. As paternalistic relationships between patrons and clients were steadily displaced by the biopolitical relationship between state and citizen, the language of the *aviamento* underwent a subtle inversion. Whereas the merchants once conjured up the labor of their *fregueses* to collect their debts, Abaetetuba’s river dwellers now sought to collect the remedies owed to them by a different authority: the government.

By the 1940s Brazil’s sanitarians had already undertaken several high-profile disease-eradication campaigns in the Amazon. In 1943, efforts by the United States and Brazil to secure U.S. rubber interests led them to establish one of the world’s first bilateral health agencies: the Special Service on Public Health, or SESP, which

maintained health clinics and maternity wards throughout the region, including in Abaetetuba. However, the program was rapidly defunded following World War II. By the 1970s, the policies of Brazil's U.S.-backed military dictatorship had provoked a wave of infectious disease outbreaks in the estuary. Spurred on by government incentives, timber companies and palm-heart manufacturers stripped açai groves along the floodplains, undermining the nutritional health of rural dwellers. Rural population density expanded in Abaetetuba's floodplain islands and refuse from the growing city polluted tidal streams. With no formal sewage system or water-treatment facility, stomach infections multiplied. In 1974, more than a tenth of infants perished during their first year of life (Anderson 1993, 135).

Yet when island residents sought aid from merchant elites, paternalistic ties had either dissolved or attenuated. As the municipality was integrated into the national road network in the 1960s and 1970s, Abaetetuba's merchant millers were forced to compete with imported *cachaça* from São Paulo. At a time of expanding investments in urban health and education, most merchants chose to abandon their properties and move to Abaetetuba's growing city center or to Belém. When the mills shut down, they took with them one of the few forms of remuneration afforded to the islands' rural workforce, however meager. Without steady access to transportation, river dwellers relied on merchants' trade posts as a source of food, pharmaceuticals, and medicine. Leonardo, a social movement activist who grew up along the river Bacuri in the 1980s, explained that back then, they did not have health posts along the rivers. "We had some people that provided services to the community. They provided cures. And for this they charged (*cobravam*). But we didn't have any health agents, which today is a state policy." As Paulinho, another activist, explained to me, the millers had closed most of their trade posts by the end of the decade, and the era of *cachaça* had ended in economic decline, or "decadence" (*decadência*). Everybody who still lived in the islands, he said, was poor and wanted access to basic health services and education. At this point the real enemy, Paulinho explained, was the government. It was the government that refused to provide adequate health facilities to the population. "That's why we needed to create a new movement," he explained. "We were collecting (*cobrando*) on the government for the decadence [of the sugar mills]."

Both Paulinho and Leonardo are members of a social movement organization known as AMIA, the Residents Association of the Islands of Abaetetuba. Founded in 1986, AMIA took as its primary aim the fight for access to health care and education for island residents. It is remembered today as one of the principal "instruments of struggle" that residents developed to pressure the state for access to

health resources. Although movements like AMIA operated at the intersection of a range of political and ideological influences,¹⁰ leaders insisted that the success of their activism be measured in terms of specific conquests. These ranged from the establishment of squatters' rights over informal neighborhoods to wresting power from corporatist union structures allied with the military government. But the most important conquest was the inauguration of the Santa Rosa Hospital: a public hospital and maternity ward constructed during the mid-1980s. Drawing on the memory of SESP's rural health programming during the 1940s, local leaders mobilized to pressure the government for renewed investment. By collecting signatures, activists successfully lobbied for the construction of Abaetetuba's first public hospital.

During the subsequent decade, organizations like AMIA took on a double character as understandings of debt and exchange inherited from the *aviamento* were articulated alongside demands for universal rights. Alexandra Coutinho, one of AMIA's founders, explained how in 1986, organizers helped elect delegates to Brazil's constitutional assembly. There they fought alongside national leaders to "collect on" public authorities and enshrine the right to health in Brazil's 1988 constitution. By 2009, Abaetetuba's municipal government had hired hundreds of community health agents and constructed SUS health posts in rural communities throughout the lowland islands. Infant mortality declined by more than 50 percent over a twenty-year period and the urbanization rate reversed as families returned to the countryside, in part due to increased rural health access. These local developments coincided with the growing availability of generic pharmaceuticals and Brazil's partial rejection of the 1994 Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement during the HIV epidemic. Biehl (2004) documents how Brazil managed to obtain a 40 to 60 percent cost reduction in the patented components of AIDs medication by threatening to violate international laws governing intellectual property. This led to more concentrated negotiating power for Brazil's federal drug-regulation agency, increased domestic production of patented pharmaceuticals, and an expanded perception of the "state as transparent, ethical, and with a universal reach" (Biehl 2004, 118).

For many, the election in 2002 of the former Brazilian President Luiz Inácio Lula da Silva marked a new chapter in the early twentieth-century sanitarians' vision of public power through medicine. Under Lula's left-leaning Workers' Party, the federal government increased funding for the federal health ministry throughout its thirteen-year tenure from 2003 to 2016 (Loureiro 2020). Supported by AMIA and other community leaders, Abaetetuba elected its first Workers' Party

mayor to the municipality in 2005. Health movement conquests came to symbolize an emerging pact between state and citizenry in which access to care challenged the long-standing hierarchies between Abaetetuba's elite and its popular classes. The expansion of the regional health system and growth of public power, in other words, formed part of the broader terrain in which individuals sought to make sense of dominant social divisions and antagonisms. One former attendant at a rural health post explained the feeling of pride that he had working his first day at the community's newly constructed SUS post, contrasting the new health system to the paternalism that prevailed under the *aviamento*. "No matter who you were or where you came from, you could be attended," he said. "We were equals."



Figure 4. SUS Health Post "Dr. Jair Nery," named after one of Abaetetuba's first laboratory technicians and a well-respected municipal pharmacist. Photo by Matthew Abel, October 2019.

2010s–PRESENT: THE PRIVATE LIFE OF PUBLIC POWER

In the 1990s and early 2000s, the ongoing construction of the SUS and efforts of local health movements expanded the boundaries of public power to encompass a growing circle of rural and urban health-seekers. Yet the private medical industry was by no means excluded from the party. Many segments of the private health sector welcomed increased federal health spending, and the largest beneficiaries of Brazil's ostensibly "post-neoliberal compromise" were undeniably capital and the ascendant middle class (Saad-Filho 2020). Even under the Workers'

Party government, health policy consisted of a “two-pronged approach in which an underfunded public system coexisted with a subsidized private one” (Loureiro 2020). Between 2003 and 2013, tax exemptions, subsidies for employer-provided health plans, and incentives for private hospitals and medical suppliers increased by 70 percent, amounting to a third of the federal Ministry of Health’s budget. Buttressed by fiscal incentives, the profits of private health insurers tripled between 2003 and 2011 (Loureiro 2020).

The government representatives, whom Abaetetuba’s social movement leaders lobbied for access to health resources in the 1980s and 1990s, while cloaked in the veil of public power, were often the direct descendants of the municipality’s former merchant bosses. Although there are no longer any millers in the municipality, the merchants’ children found themselves in a relatively advantageous position in the decades following the sugar mills’ decline. Located close to Belém and with the necessary social capital to take advantage of connections in the city, the children of local elites found their way into medical schools, law programs, and the reconstituted commercial class. Newly credentialed, some took positions in the law firms, pharmacies, and businesses that multiplied in Abaetetuba’s urban center. Some entered politics and took their seats in local government. Others opened private practices. Others, including the children of Old Velho Armando and José Coehlo, began to contract their medical services with the SUS. By brokering transactions between the municipal government and the private medical industry, these figures exercised increased influence over local health administration.

The growth of the private health sector is visible in many Amazonian towns. In Abaetetuba, the city’s riverine market is interspersed with national pharmaceutical chains like Drogasil and Extrafarma. These are flanked by a myriad of independent pharmacies and private clinics that provide access to primary and secondary care.¹¹ One morning, I stood overlooking this jumble of private health clinics and riverine apothecaries with Valdamir, Seu Eduardo’s son. Valdamir remarked on what he saw as an absurdly large number of pharmacies in the city. Much of the medicine was contraband, he explained, trafficked or sold illegally to avoid taxation. He claimed that most of the islands lacked health posts capable of delivering medicine, so people came to the city to buy it from clandestine pharmacists along the river. I later learned that several of these individuals had garnered a reputation as informal clinicians and distributors. Some, like Valdamir, saw them as corrupt opportunists, but others viewed them as the only authorities who took care of the population when the SUS broke down. All of a sudden, Valdamir spun me around by the shoulders and pointed out a well-dressed man straddling a motorcycle and



Figure 5. The “Popular Pharmacy of the Islands,” one of Abaetetuba’s many private pharmacies which models its name after a famous SUS program. Photo by Matthew Abel, October 2019.

conversing with a woman in front of a gas station. The man was a candidate for the city council and he traded medical services for votes, Valdamir explained. He had connections in Belém and secured hospital beds for people unable to gain access to an ICU. By doing this, Valdamir explained, politicians not only won the vote of the person they helped but also the votes of their entire family.

Aaron Ansell (2014) and John Collins (2008) have each observed how social democratic policies in Brazil have remained limited in their ability to break the persistence of patron-client ties. Yet, as both authors suggest, patronage continues to thrive in part because government policy incentivizes it. In the case of the SUS, the devolvement of administrative responsibility to resource-starved municipalities has instituted a systemic vulnerability to these sorts of exchanges. As one former city councilman in Abaetetuba explained to me, control over the flow of federal funding is one of the few ways that elected officials gain leverage. The municipal secretaries of education, health, and social security are all charged with disbursing federal funds and coordinating national health and anti-poverty programs. Not only do these secretaries provide well-paying jobs to political allies but they also make contracts with businesses and broker access to public funds. By building clout within the city council, politicians can push for services to be delivered to their constituent communities. But to keep their seat, they also have to make promises to prominent professionals, doctors, and businesspeople.

Over time, these political contests have led to the systemic underdevelopment of regional health infrastructure. In the late 2000s, the state and municipal government undertook an effort to refurbish the old Santa Rosa Hospital. At the time of the proposed project, the Workers' Party controlled the municipal, state, and federal government. Yet when the party lost the local elections in 2008, the new governing coalition terminated the agreement. In 2011, the center-right Simão Jatene (PSDB) won the state government, and the funds were diverted to repurpose a private hospital in Belém. The Santa Rosa Hospital, a conquest of the 1980s health movements, remained indefinitely shuttered. These events coincided with Brazil's 2013 economic downturn and a legislative coup that ousted Workers' Party President Dilma Rousseff in 2016. Rousseff's successor, Michel Temer, subsequently capped health spending at the federal level.

For many of Abaetetuba's residents, the vacant hospital stood as a powerful symbol of Brazil's general state of economic and political decadence. The artificial scarcity of public spending has had tangible impacts on health-seekers, directing individuals along new, yet familiar, pathways in search of remedy. For instance, Katiane, Tio Nelson's niece, makes frequent hospital appointments through the SUS for her chronic condition. She explained to me how if you play by the rules of the public system, you end up in a situation where your access to care is indefinitely delayed. Instead, she finds relatives, godparents, or friends who work in hospitals. She sends them gifts at work: farm-raised ducks, baskets of fruit, or açaí from the countryside. If you make sure they know where these gifts come from, suddenly spaces open up to you. It's ugly, she said. But it's the only way to navigate the SUS without having to pay out of pocket for private care. Katiane's struggle for health outlines a triad all-too-familiar to the members of her uncle's generation: her illness, its remedy, and the need to ingratiate herself to an authority that holds that remedy just out of reach.

PUBLIC HEALTH CRISIS AND THE ARRIVAL OF SARS-COV-2

The capacity of day-to-day health struggles to be governed by something recognizable as biopolitics, with all its administrative rigidity and state authority, is not a unidirectional process; it hinges on health-seekers' willingness to recognize in public power a more reliable solution to their ills. In the previous sections, this article followed three generations of health-seekers as they navigated the collapse of the *aviamento* and its transition to a new regime of care. By reconfiguring the state as an authoritative source of remedy, local social movements pressured public power to institute a series of reforms that overturned the existing system of med-

ical brokerage. However, this did not override the economic and political power of local elites. Nor did it successfully confront the power of an increasingly monopolized global medical industry. By drawing a growing number of health-seekers into the private medical market and creating new opportunities for brokerage, the two-tiered model of public and private care eroded the universality of state medicine and induced a systematic vulnerability to crisis.



Figure 6. Pará's governor Helder Barbalho (right) and mayor 'Chita' Negrão (left) hold grand reopening of Santa Rosa Hospital, just weeks before COVID-19 reached community spread. Screenshot of promotional video, March 2020.

Just four weeks before COVID-19 cases began to skyrocket in late March 2020, Abaetetuba's Santa Rosa Hospital held its grand reopening. The local government inaugurated the new facility with a performance by the municipal string orchestra. The mayor released a promotional video to his YouTube channel. But many on the old left were skeptical. "There are no machines inside!" proclaimed the former Workers' Party mayor. "How can you call it a hospital if it doesn't have machines?!" There were some machines at Santa Rosa, but the skepticism was justified. When COVID-19 spread throughout the Amazon estuary four weeks later, the situation rapidly deteriorated. Santa Rosa's ICUs were not yet fully equipped, and COVID patients were crammed into the old municipal infirmary or crowded around Abaetetuba's only public urgent-care facility. Neighboring municipalities such as Moju and Igarapé-Miri found themselves in the same situation, with no regional hospital to attend to the growing number of patients. By early April, COVID had filled more than 90 percent of ICU beds. Unprepared for the emer-

gency and with little incentive to have planned for one, private hospitals in Belém and Abaetetuba closed their doors to the public. They reopened only when mandated by the state.

The disorderly and heartbreaking responses from COVID patients and their families reflected a broader scenario of breakdown as public and private medical authorities directed health-seekers along divergent and sometimes mutually contradicting pathways toward care. Some health-seekers waited to be attended by the public system, posting on social media in search of an ICU bed. Others sought out traditional remedies from local curers: baths of cacao butter, lemon balm, and andiroba to sooth inflammation. Others turned to the clandestine pharmacists along the municipal docks. Some doctors took to prescribing so-called preemptive treatments to COVID-19. Despite being disproven as efficacious remedies for COVID, pharmaceuticals like hydroxychloroquine and ivermectin were promoted by President Jair Bolsonaro and a fringe group of surgeons, anesthesiologists, and clinicians. These figures gained influence within Bolsonaro's so-called parallel health ministry: a coalition of scientists, medical YouTubers, and generic drug manufacturers who marketed these unsubstantiated remedies as an underdog solution to the ongoing crisis (Silva 2021).



Figure 7. Luciana Cruz (right), anesthesiologist from Belém, Pará, and an online promoter of the so-called “preventative treatments” for COVID-19, presents at the “Brazil Overcomes COVID-19” meeting in August 2020, a summit of pro-preventative treatment clinicians and doctors attended by Brazilian President Jair Bolsonaro (center).

Photo by Marcos Corrêa, August 2020.

The vaccination campaign was equally chaotic. Whereas Foucault once saw the eighteenth-century invention of smallpox vaccination as emblematic of a new form of population governance and biopolitical control, Brazil's COVID-19 vaccination strategy did more to illustrate the competing array of interests that sought to manipulate public power to their benefit. Under previous ruling coalitions, concentrated executive authority had provided an expedient means for negotiating favorable contracts with pharmaceutical firms and medical suppliers (Biehl 2004). But under a right-wing administration, it proved a disaster. The Bolsonaro administration actively sought to obstruct the purchase of the Pfizer, Sputnik V, and Sinovac vaccines. Meanwhile, state governments scrambled to establish independent contracts with suppliers as competition among a handful of pharmaceutical corporations galvanized subnational antagonisms.¹² This not only undermined Brazil's considerable productive capacity for vaccine manufacture; it sowed confusion and misinformation among the public. Egged on by contradictory reporting and fake news, some health-seekers began to identify individual vaccines with the political alliances that coalesced around their development. In a country where vaccine hesitancy had been virtually eliminated, it reemerged as a legitimate public position and was stamped with a presidential seal.¹³

The troubles plaguing Brazil's national vaccine campaign reflected the broader field of non-governmental organizations, private medical firms, and multilateral institutions that exercised their influence over the global pandemic response. Compared to prior epidemics of HIV, H1N1, and Zika, the international response to COVID-19 handed an unprecedented degree of power to the private medical industry.¹⁴ By enforcing the 1994 TRIPS agreement, corporations like Pfizer and Moderna leveraged their control over the novel mRNA technology to exact concessions from world governments and prioritize access to more lucrative medical markets, artificially limiting the global supply of vaccines (Rizvi 2021). Although Pfizer's and Moderna's vaccines were developed using funds from the U.S. and German governments, both companies refused to transfer the technology to research centers in the Global South, preventing expanded production at what some estimate could be more than a hundred sterile injectable factories with the capacity to produce the shot (Prabhala and Alsalhani 2021). From this perspective, the decision of world leaders to abandon a coherent global inoculation plan in favor of a bidding war for vaccine contracts is just one geopolitical expression of the increased power of monopoly capital over public health institutions worldwide.¹⁵

CONCLUSION

The Sinovac and AstraZeneca vaccines finally began to arrive in Abaetetuba in early April of 2021. Camila, the local health agent, helped coordinate their distribution. Through its various subtle and rational mechanisms, the SUS and its local health agents organized vaccination according to age, preexisting condition, and relative occupational risk. Yet before arriving in the hands of SUS agents in Abaetetuba, these vaccines passed through a hierarchical chain of brokers and intermediaries that embedded illness and remedy within a global political economy of medicine. Similar to the distribution of remedies under the *aviamento*, medicine was suspended in a larger web of political relationships that brokered access to care. By the time that Tio Nelson and members of his generation received their second shot, Brazil had already gone through its second, and most deadly, wave of the pandemic. For 460,000 Brazilians, it was already too late.

The story of the *aviamento*'s care regime contains important lessons for today's global struggle for health. Understanding the forces that broker, throttle, and delay access to care is one of the most pressing areas of inquiry for social scientists of medicine. Yet as the history presented in this article makes clear, these forces cannot be understood via analogy to government alone. Biopolitics, as a mode of governance, is embedded in a broader terrain of social conflict that must be understood in light of the political contests that condition the scope and content of government intervention at particular places and times. Insofar as the concept of medical brokerage draws attention to the ways that these contests intervene to influence health-seekers' pathways from illness to remedy, I have suggested its utility as a fruitful analytic for medical anthropologists. However, this utility will also depend on analysts' willingness to parse the relationship between the bureaucratic instruments of government and the broader field of power in which they are embedded. Blanket pronouncements as to the nature of state intervention amount to little more than speculation if we fail to pay equal attention to entities that exercise an inordinate influence in directing those interventions toward particular aims and outcomes: the Pfizers, Dr. Batistas, and *grandes farmaceuticos* of the world.

ABSTRACT

This article examines the relationship between medicine and the aviamiento, a system of debt-peonage that structured exchange along the Brazilian Amazon during the nineteenth and twentieth centuries. Under the aviamiento, merchant elites leveraged control over health resources to broker an unequal exchange between generalized suffering and limited access to care. In the 1980s, health activists mobilized to overturn

the aviação's care regime and institutionalize health care as a universal right and state obligation. Despite subsequent growth in medical infrastructure, interviews with contemporary health-seekers demonstrate the public system's increasing susceptibility to private appropriation, as well as the limitations of biopolitics as a framework for understanding medicine's relationship to power under the COVID-19 pandemic. Rather than a diffuse instrument of social control, medicine is conceptualized here as a perpetual interchange, one in which brokers' ability to direct health-seekers' pathways from affliction to cure situates day-to-day health struggles within a regional history of social conflict. [public health; unequal exchange; biopolitics; Amazon; Brazil]

RESUMO

Este artigo aborda a relação entre a saúde e o aviação: um sistema de servidão por dívida que estruturou a economia mercantil ao longo do rio Amazonas durante os séculos XIX e XX. Sob o aviação, comerciantes usavam controle sob medicamentos para manter uma troca desigual entre o sofrimento generalizado e o acesso limitado às curas. Durante a década de 1980 militantes da reforma sanitária brasileira se mobilizaram para derrubar o regime curatorial dos comerciantes e instituir a saúde como um direito universal e obrigação do estado. Apesar do crescimento subsequente do sistema sanitário, entrevistas com trabalhadores rurais mostram a crescente susceptibilidade do sistema público aos interesses particulares e as limitações de biopolítica como uma ferramenta analítica para interpretar a relação entre medicina e poder debaixo da pandemia de COVID-19. Mais do que um instrumento difuso de controle social, a medicina é conceituada aqui como um intercâmbio perpétuo, no qual a capacidade dos agentes de direcionar os caminhos dos buscadores de saúde da aflição à cura situa as lutas cotidianas pela saúde dentro de uma história regional de conflito social. [saúde pública; troca; biopolítica; Amazônia; Brasil]

NOTES

Acknowledgments This article owes an enormous debt to discussions with and critiques from Glenn Stone, Bret Gustafson, Talia Dan-Cohen, John Bowen, Grace Ward, Oguz Alyanak, Lee Gensler, and the members of Washington University in St. Louis's Department of Anthropology Writing Group. It also owes much to the insightful comments of three anonymous reviewers. This research was funded through generous grants from the National Science Foundation, the Beinecke Foundation, the Brazilian Fulbright Commission, and Washington University's Graduate School of Arts & Sciences. These parties bear no responsibility for any mistakes, errors, or analytical missteps taken in this article.

1. Fieldwork was conducted over seventeen non-consecutive months between July 2017 and December 2021 under the approval of Washington University in St. Louis's Human Subjects Review Board and Brazil's Conselho Nacional de Desenvolvimento Científico e Tecnológico. Research included sixty-six formal interviews with riverine householders, activists, and state employees, as well as innumerable informal conversations and participant-observation in urban and rural communities. I was also aided by previous ethnographic studies of the municipality conducted in the 1980s (Anderson 1993; McGrath

- 1989). Following the onset of the COVID-19 pandemic, I returned to the United States in March 2020. In July 2021, I returned to Belém, Pará, to conduct archival research at the Arquivo Público do Estado do Pará, ethnography at a distance, and intermittent field visits following declining case numbers and increased vaccination rates. To preserve confidentiality, I use pseudonyms throughout this piece, and scramble some details of local history and geography without distorting their analytical significance.
2. For a discussion of COVID-19 death toll and infection rates in the Amazon, see “The Amazon, Giver of Life, Unleashes the Pandemic,” *New York Times*, July 25, 2020, <https://www.nytimes.com/interactive/2020/07/25/world/americas/coronavirus-brazil-amazon.html>
 3. The Brazilian journalist and writer Euclides da Cunha used this descriptor to refer to the epidemiological impacts of the Amazonian rubber boom on the region’s rubber tappers in his unpublished manuscript, “Um paraíso perdido,” first published in 1909 (da Cunha 2006).
 4. In 1916, the sanitarian and physician Miguel Pereira famously declared the Brazilian countryside an “enormous hospital” in need of state remedy (Lima 2007).
 5. In her ethnography of Venezuela’s Barrio Adentro program, for instance, Amy Cooper (2019) examines how this understanding of medicine was encoded in the “macropolitics” of doctor-patient interactions under Hugo Chávez’s Bolivarian government.
 6. In anthropology, the concept of brokerage can be traced to a synthesis between classical political theory and the Maussian study of exchange. During the second half of the twentieth century, figures like Eleanor Leacock, Eric Wolf, and Robert Murphy sought to examine how the integration of colonial and postcolonial economies into the world market institutionalized positions of brokerage that mediated between regional labor regimes and global commodity chains. For a foundational Amazonian and North American comparison of brokerage, commodity markets, and culture change, see Murphy and Steward 1956.
 7. Riverine society along the lower Tocantins grew up around the institutions of African and Indigenous slavery (Salles 1971; de la Torre 2018). For a discussion of the relationship between the *aviamento*, Amazonian racial ideology, and class see, Wagley 1952 and his noted divergences from Gilberto Freyre’s (1933) analysis of race in Brazil.
 8. For discussions of riverine kinship and marriage patterns in the Amazon, see Harris 2000, 83–112 and Lima 1992, 212–56.
 9. For discussions of Amazonian popular shamanism see Galvão 1955 and Maués 1990.
 10. Despite its secular designation, AMIA has deep roots in Catholic Liberation Theology. During the 1970s, a cohort of Xaverian priests and nuns had set to work forming Abaetetuba’s urban and rural hamlets into Ecclesial Base Communities (*Comunidades Eclesiais do Base*), or CEBs. These functioned as local centers for worship, social assistance, and political education. Many maintained tenuous alliances with local chapters of what became Brazil’s most important insurgent political organization: the left-leaning Workers’ Party. For an indispensable account of the rise of the Workers’ Party, as well as an alternative interpretation of the brokerage concept, see Pace 1998.
 11. Whereas old-timers like Seu Eduardo remember a grand total of three private pharmacies that operated in the municipality during the 1960s, in 2021 I counted twenty-seven private health clinics and twenty-four private drug stores and pharmacies operating along the riverine wharf within a six by three block radius.
 12. This, it has been reported, was not only the result of a blatant disregard for the population and a series of anti-science commitments but also of a single-minded preference to pursue a sweetheart deal with the British biotech company AstraZeneca. See John McEvoy, Nathalia Urban, and Daniel Hunt, “Strategic Partners: Britain’s Secret Lobbying of Bolsonaro for Big Pharma, Oil, and Mining,” *BrasilWire*, December 16, 2020, <https://www.brasilwire.com/strategic-partners-britains-secret-lobbying-of-bolsonaro-for-big-pharma-oil-and-mining/>
 13. See “Picky ‘Vaccine Sommeliers’ Undermine Brazil’s Inoculation Campaign, Experts Say,” *Reuters*, July 9, 2021, <https://www.reuters.com/world/americas/picky-vac->

- cine-sommeliers-undermine-brazil-inoculation-campaign-experts-say-2021-07-09/. Public trust was further eroded as Jair Bolsonaro's cabinet was embroiled in a corruption investigation surrounding attempts to privately broker the purchase of the AstraZeneca and Covaxin vaccines. See "Brazil Vaccine Scandal Imperils Bolsonaro as Protest Spreads," *New York Times*, July 3, 2021, <https://www.nytimes.com/2021/07/03/world/americas/brazil-bolsonaro-vaccine-scandal.html>
14. For comparison to public responses to the HIV and Zika epidemics, respectively, see Biehl 2004 and Diniz 2017.
 15. On September 2, 2021 Brazil's congress amended the Brazilian Patent and Trademark Act to allow for compulsory licensing of mRNA technology. However, President Bolsonaro vetoed provisions that obliged patent owners to facilitate the exchange of know-how and expertise, rendering enforcement impossible and foreshadowing the World Trade Organization's (WTO) June 2022 decision to loosen patent restrictions while circumventing the authority of states to mandate technology transfers. This strategy has contrasted sharply with one of the World Health Organization's (WHO) oldest initiatives: the Global Influenza Programme. Since 1948, the WHO has pooled data on emerging virus strains in an international effort to ramp up vaccine production in response to emerging flu variants. Yet as Theodore Brown, Marcos Cueto, and Elizabeth Fee (2006) document, the influence of the World Bank and foundation funding on the WHO has rendered such centralized, coordinated initiatives a political impossibility.

REFERENCES

- Anderson, Scott Douglas
 1993 "Sugarcane on the Floodplain: A Systems Approach to the Study of Change in Traditional Amazonia." PhD dissertation, University of Chicago.
- Ansell, Aaron
 2014 *Zero Hunger: Political Culture and Antipoverty Policy in Northeast Brazil*. Chapel Hill: University of North Carolina Press.
- Biehl, João
 2004 "The Activist State: Global Pharmaceuticals, AIDS, and Citizenship in Brazil." *Social Text* 22, no. 3: 105–32. https://doi.org/10.1215/01642472-22-3_80-105
 2013 "The Judicialization of Biopolitics: Claiming the Right to Pharmaceuticals in Brazilian Courts." *American Ethnologist* 40, no. 3: 419–36. <https://doi.org/10.1111/amet.12030>
- Briggs, Charles L., and Clara Mantini-Briggs
 2009 "Confronting Health Disparities: Latin American Social Medicine in Venezuela." *American Journal of Public Health* 99, no. 3: 549–55. <https://doi.org/10.2105/AJPH.2007.129130>
- Brotherton, Pierre Sean
 2012 *Revolutionary Medicine: Health and the Body in Post-Soviet Cuba*. Durham, N.C.: Duke University Press
- Brown, Theodore, Marcos Cueto, and Elizabeth Fee
 2006 "The World Health Organization and the Transition from 'International' to 'Global' Public Health." *American Journal of Public Health* 96, no. 1: 62–72. <https://doi.org/10.2105/AJPH.2004.050831>
- Bunker, Stephen G.
 1988 *Underdeveloping the Amazon: Extraction, Unequal Exchange, and the Failure of the Modern State*. Chicago: University of Chicago Press.
- Castro, Marcia C., Adriano Massuda, Gisele Almeida, Naercio Aquino Menezes-Filho, Monica Viegas Andrade, Kenya Valéria Micaela de Souza Noronha, Rudi Rocha, et al.
 2019 "Brazil's Unified Health System: The First Thirty Years and Prospects for the Future." *The Lancet* 394, no. 10195: 345–56. [https://doi.org/10.1016/S0140-6736\(19\)31243-7](https://doi.org/10.1016/S0140-6736(19)31243-7)

- Cleary, David
 2001 "Towards an Environmental History of the Amazon: From Prehistory to the Nineteenth Century." *Latin American Research Review* 36, no. 2: 65–96. <https://www.jstor.org/stable/2692088>
- Collins, John
 2008 "Public Health, Patronage, and National Culture: The Resuscitation and Commodification of Community Origins in Neoliberal Brazil." *Critique of Anthropology* 28, no. 2: 237–55. <https://doi.org/10.1177/0308275X08090546>
- Cooper, Amy
 2019 *State of Health: Pleasure and Politics in Venezuelan Health Care under Chávez*. Oakland: University of California Press.
- Cueto, Marcos, and Steven Palmer
 2014 *Medicine and Public Health in Latin America: A History*. Cambridge: Cambridge University Press.
- da Cunha, Euclides
 2006 *The Amazon: Land without History*. Translated by Lúcia Sá. New York: Oxford University Press.
- de la Torre, Oscar
 2018 *The People of the River: Nature and Identity in Black Amazonia, 1835-1945*. Chapel Hill: University of North Carolina Press.
- Diniz, Debora
 2017 *Zika: From the Brazilian Backlands to Global Threat*. London: Zed Books.
- Farmer, Paul
 1996 "On Suffering and Structural Violence: A View from Below." *Daedalus* 125, no. 1: 261–83. <https://www.jstor.org/stable/20027362>
- Figueiredo, Aldrin Moura
 1996 "A Cidade dos Encantados: Pajelanças, feitiçarias e religiões Afro-Brasileiras na Amazonia; A Constituição de um campo de estudo 1870-1950." MA thesis, UNICAMP.
- Foucault, Michel
 2003 *"Society Must Be Defended": Lectures at the Collège de France, 1975-76*. Translated by David Macey. New York: Picador.
- Freyre, Gilberto
 1933 *Casa-Grande & Senzala*. São Paulo: Maia & Schmidt.
- Galvão, Eduardo
 1955 *Santos e visagens: Um estudo da vida religiosa de Itá, Amazonas*. São Paulo: Companhia Editora Nacional.
- Guevara, Ernesto "Che"
 1968 "On Revolutionary Medicine." In *Venceremos: The Speeches and Writings of Che Guevara*, edited by John Gerassi. New York: Macmillan.
- Harris, Mark
 2000 *Life on the Amazon: The Anthropology of a Brazilian Peasant Village*. Oxford: Oxford University Press.
- Hochman, Gilberto
 1998 *A era do saneamento: As bases da política de saúde pública no Brasil*. São Paulo: Hucitec/Anpocs.
- Hornborg, Alf
 2001 *The Power of the Machine: Global Inequalities of Economy, Technology, and Environment*. New York: Altamira Press.
- Jerome, Jessica Scott
 2015 *A Right to Health: Medicine, Marginality, and Health Care in Northeastern Brazil*. Austin: University of Texas Press.

- Koster, Martijn, and Flávio Eiró
 2022 "Clientelism in Northeast Brazil: Brokerage within and outside Electoral Times." *Contemporary Social Science* 17, no. 3: 222–34. <https://doi.org/10.1080/21582041.2021.1876244>
- Lima, Deborah de Magalhães
 1992 "The Social Category Caboclo: History, Social Organization, Identity, and Outsider's Social Classification of the Rural Population of an Amazonian Region (the Middle Solimões)." PhD dissertation, University of Cambridge.
- Lima, Nisia Trindade
 2007 "Public Health and Social Ideas in Modern Brazil." *American Journal of Public Health* 97, no. 7: 1168–77. <https://doi.org/10.2105/AJPH.2003.036020>
- Loureiro, Pedro Mendes
 2020 "Social Structure and Distributive Policies under the PT Governments: A Poverty-Reducing Variety of Neoliberalism." *Latin American Perspectives* 47, no. 2: 65–83. <https://doi.org/10.1177/0094582X19881986>
- Maués, Raymundo Heraldo
 1990 *A ilha encantada: Medicina e xamanismo numa comunidade de pescadores*. Belém: NAEA/UFGPA.
- Mauss, Marcel
 1954 *The Gift: The Form and Reason for Exchange in Archaic Societies*. Translated by Ian Cunnison. Glencoe, Ill.: Free Press.
- McGrath, David
 1989 "The Paraense Traders: Small-Scale, Long-Distance Trade in the Brazilian Amazon." PhD dissertation, University of Wisconsin-Madison.
- Meira, Márcio
 2018 *A persistência do aviamento: Colonialismo e história Indígena no noroeste Amazônico*. São Carlos, São Paulo: Editora da Universidade Federal de São Carlos.
- Murphy, Robert F., and Julian H. Steward
 1956 "Tappers and Trappers: Parallel Process in Acculturation." *Economic Development and Cultural Change* 4, no. 4: 335–55. <https://www.jstor.org/stable/1151854>
- Pace, Richard
 1998 *The Struggle for Amazon Town: Gurupá Revisited*. Boulder, Colo.: Lynne Rienner Publishers.
- Paim, Jairnilson Silva
 2008 *Reforma sanitária brasileira: Contribuição para a compreensão e crítica*. Rio de Janeiro: Fiocruz.
- Paim, Jairnilson, Claudia Travassos, Celia Almeida, Ligia Bahia, and James Macinko
 2011 "The Brazilian Health System: History, Advances, and Challenges." *The Lancet* 377, no. 9779: 1778–97. [https://doi.org/10.1016/S0140-6736\(11\)60054-8](https://doi.org/10.1016/S0140-6736(11)60054-8)
- Petryna, Adriana
 2004 "Biological Citizenship: The Science and Politics of Chernobyl-Exposed Populations." *Osiris*, 2nd series, 19: 250–65. <https://www.jstor.org/stable/3655243>
- Prabhala, Achal, and Alain Alsahlani
 2021 "Pharmaceutical Manufacturers across Asia, Africa, and Latin America with the Technical Requirements and Quality Standards to Manufacture mRNA Vaccines." AccessBSA Project. <https://accessbsa.org/mrna/>
- Redfield, Peter
 2005 "Doctors, Borders, and Life in Crisis." *Cultural Anthropology* 20, no. 3: 328–61. <https://doi.org/10.1525/can.2005.20.3.328>
- Rizvi, Zain
 2021 "Pfizer's Power." Public Citizen, October 19. <https://www.citizen.org/article/pfizers-power/>
- Saad-Filho, Alfredo
 2020 "Varieties of Neoliberalism in Brazil (2003–2019)." *Latin American Perspectives* 47, no. 1: 9–27. <https://doi.org/10.1177/0094582X19881968>

- Salles, Vicente
 1971 *O Negro no Pará: Sob o regime da escravidão*. Rio de Janeiro: Fundação Getúlio Vargas.
- Silva, Victor Hugo Viegas
 2021 "A experiência: Tratamento precoce no Brasil." Medium, August 15. <https://negativando.medium.com/a-experiencia-tratamento-precoce-no-brasil-511891c5b228>
- Sommer, Barbara
 2005 "Colony of the Sertão: Amazonian Expeditions and the Indian Slave Trade." *The Americas* 61, no. 3: 401–28. <https://doi.org/10.1353/tam.2005.0053>
- Taussig, Michael
 1987 *Shamanism, Colonialism, and the Wild Man: A Study in Terror and Healing*. Chicago: University of Chicago Press.
- Ticktin, Miriam
 2011 *Casualties of Care: Immigration and the Politics of Humanitarianism in France*. Berkeley: University of California Press.
- Varma, Saiba
 2020 *The Occupied Clinic: Militarism and Care in Kashmir*. Durham, N.C.: Duke University Press.
- Wallerstein, Immanuel
 1974 "The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis." *Comparative Studies in Society and History* 16, no. 4: 387–415. <https://www.jstor.org/stable/178015>
- Wagley, Charles
 1952 "Race Relations in an Amazon Community." In *Race and Class in Rural Brazil: A UNESCO Study*, by Charles Wagley, 116–41. New York: Columbia University Press.
- Walker, Timothy D.
 2013 "The Medicines Trade in the Portuguese Atlantic World: Acquisition and Dissemination of Healing Knowledge from Brazil (c. 1580–1800)." *Social History of Medicine* 26, no. 3: 403–31. <https://doi.org/10.1093/shm/hkt010>
- Weinstein, Barbara
 1983 *The Amazon Rubber Boom, 1850-1920*. Stanford, Calif.: Stanford University Press.