

Brazilian Probes, African Pills: History and Resistance in Global Health

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In 1988 the CEO of a major international pharmaceutical firm held a press conference to announce that his corporation would provide the drug Mectizan free of charge for the treatment of onchocerciasis, a blinding tropical disease sometimes called river blindness. People who suffer from river blindness are almost always poor, and the parasite that causes the disease lives mostly in Africa. In the subsequent years the donation program has prospered, and it has taken a central place in the international professional imagination of global health. The Mectizan donation has become a symbol and a case study for a number of new “forms of life,” in the Wittgenstein sense: the public-private partnership, the mass drug administration, and a peculiar, new kind of public health intervention that shrugs its way between boundaries, ignoring, subverting, or making irrelevant older ideas of the “publics” involved in public health, the articulation between the corporation and the state, and the concept of health itself.

Ten years after this 1988 press conference another large pharmaceutical firm launched another large donation. This time the drug was Zithromax, a powerful broad-spectrum antibiotic, and the disease was trachoma, a blinding eye infection endemic to dry areas, mostly in Africa and Southeast Asia. Other companies followed. The landscape is shifting rapidly now—the World Health Organization (WHO), the Gates Foundation, and the United States Agency for International Development (USAID) are coordinating increasingly with drug donation programs,

and the concept of Neglected Tropical Disease has become increasingly visible and increasingly important in global health debates. Global health actors around the world have placed the drug donation program at the center of an interventionist politics of health.

In January I read a press release from GlaxoSmithKline (GSK).¹ The corporation, the press release said, was expanding its donation of Albendazole, a de-worming drug used in the treatment of intestinal parasites and lymphatic filariasis, a grossly disfiguring disease also called elephantiasis. This donation, which will disburse approximately a billion doses of Albendazole per year, began as a cooperative venture with the donors of Mectizan, since Albendazole and Mectizan together are especially useful in the treatment of filariasis, or in patients who have both lymphatic filariasis and onchocerciasis. The release went on to sketch GSK's collaboration with the Drugs for Neglected Diseases Initiative, a non-profit organization focused on developing drugs for diseases that afflict people who cannot afford drugs. Hence, Big Pharma is giving away its products and working with a humanitarian laboratory devoted to producing drugs that will never find a profitable market.

The times appear to be changing. Clearly it is time to talk about property, and to talk about the emerging episteme of public and private, as the papers in this panel do. In this paper I will attempt to sketch concepts of property, public(s) and private in the contemporary drug donations; I argue that although the mission of the donation programs is benevolent, and the verbiage surrounding the mission appears to be progressive and humanist, the drug donation program is actually a deeply conservative practice, one which elaborates and reaffirms traditional notions of public and private, intellectual, and biological ownership even as it appears to challenge them. I contrast these current donations with a case from the history of global health, the Yellow Fever Service in Brazil in the late 1920s and early 30s. The Yellow Fever Service, a

joint venture (perhaps not exactly a collaboration) between the Brazilian government and the Rockefeller Foundations International Health Board (RF-IHB), anticipated many of the relationships and practices that the architects of the donation programs of the 1980s and 90s hailed as novel. Looking at the two health interventions in tandem will reveal some enduring ideas of corporate property, and of the work that health interventions do to create useful publics, and to imagine the populations on which they work.

In New London, Connecticut, in 2006, I spoke over lunch with a research scientist on the Zithromax team—he was, as were most of the pharmaceutical company employees who I met over my three years of fieldwork, trim, vigorous, well-spoken, obviously intelligent, neatly dressed, etc. We sat in an alcove drinking coffee; he had walked me there from his office, led me there in fact, because the interior of the building lacked signs or other points of reference. Its architects had designed it with curved walls and disorienting starts and stops, and none of the usual furniture of a working office, because this was supposed to provide a physical impediment to espionage.

The researcher wondered why I wasn't asking why his company didn't donate more drugs, or other drugs. He had an answer ready for me—if the corporation began donating all its drugs it would fold within a year or so, and would be unable to pay its researchers, or to continue manufacturing its existing products. Total donation, in the doctor's conception, would remove the corporation from the sustaining cycle of for-profit research. Of the recipients of this hypothetical largesse the researcher said, "They will live and their children will have no chance at a better life."

This statement among many other similar ones, led me to ask two questions that I hope will help us relate the drug donation programs to ideas of property and ownership. One follows

Godelier and Wiener in asking, “What do the donations keep?”² The other asks, “What do the donation programs say about public and private property in humanitarian interventions?” The answers to both questions reveal what I have called the conservative nature of the donation programs; though they are novel, supposedly, and though they create new relationships (not exactly partnerships, as in Reich on so-called public-private partnerships).³ They do so in tune with the well-worn traditional values of neoliberal capital. They appear to be yoking private industry and public service, but they do not, or they do so in a way that reaffirms public and private identities, rather than bringing them into question.

The donations work relatively simply: the pharmaceutical companies manufacture drugs and ship them to client governments or sometimes to client Non-Governmental Organizations (NGOs). The clients receive and disburse the drugs through a network of volunteers, usually called Community-Directed Distributors (“CDDs”). Of course the relationships established are much more complicated than that. In my fieldwork, which took place from 2006 through 2009, and covered Pharma and public health offices in the U.S., international NGO meetings, and local distribution networks in Tanzania, I encountered two profoundly different valuations of the donation programs. Pharmaceutical executives and NGO technicians saw the donations as a generous act, a responsible public health intervention (accepted as an implicit good, without any need for criticism or even explanation), and a demonstration of their employer’s essential decency and humanity.

Recipients, who included Tanzanian government officials, local distribution network volunteers, and ordinary people who took the drugs during the once-yearly mass distribution, understood the donation programs as a means of accessing a valuable economic good and as a set

of reciprocal obligations that were never defined or fulfilled quite as clearly as they would have liked; this was a form of biological citizenship, but an unsuccessful one.⁴

Tanzanians with whom I spoke envisioned a donation program in which their health work would be rewarded—in the local conception, distributing or swallowing the drugs was a kind of labor done to repay the donor corporations, but also to invite further reciprocal gifts, very much as in Mauss, and later Godelier and Wiener. “It is true that the program has been brought to us, and that we agreed and still agree to give services to our community, but at least they should look at our case. Though we have agreed to serve the community, we should at least get something small for us, for the work we are doing,” a CDD named Penford told me; a woman who did not give her name asked, “Would you be willing to add some [other] drugs for us, since we are taking the drugs?”

Penford and the woman wanted to exchange their labor for access to goods or payment vital for health and daily expenses; for them, donation-work was work, but with an additional moral dimension, because of its connection to mysterious European or American donors. Work for the donation should have established a meaningful, durable, reciprocal relationship in which both parties could communicate their needs. Instead the donation programs established a totally unequal partnership in which pharmaceutical corporations and committees of tropical health experts invented and disseminated community drug distribution strategies, leaving local communities to carry them out, voiceless, and ultimately responsible for their own welfare and for the welfare of the drugs that they received.⁵

The drugs, and ideas of ownership and generosity attached to the drugs, are really at the center of the programs. Each pharmaceutical company very carefully defined its role in the donations—they agreed to donate drugs only in endemic areas, and only for two particular

diseases, river blindness and trachoma. The donated drug for trachoma is Azithromycin, a powerful and broadly useful antibiotic, but its parent corporation provided it only for the treatment of trachoma. Executives at the International Trachoma Initiative, the NGO that disburses the drugs, praised Azithromycin's ability to cure lung and skin infections, and genital chlamydia, but they identified this ability only as an added bonus for drug recipients who live in trachomatous areas. The ex-CEO of the company that donated Ivermectin similarly praised his drug's power over skin infections and intestinal parasites, yet the donation focused solely on areas afflicted with the particular parasite that causes river blindness.

Godelier and Wiener ask anthropologists to attend to what is kept in a gift exchange; in the pseudo-exchange of the donation programs the donor corporations give the drug, but they keep the authority to determine how it is used, and certainly its patent rights. My fieldwork convinced me that this is part of a strategy to preserve, elaborate, and reaffirm the market structures of pharmaceutical manufacture, and especially the articulation of patent ownership, social responsibility, and the market. The donation programs give the drug companies a way to bring up, and then immediately dismiss, the complex relationship between their products and people who need them, but cannot afford them. The programs provide a pantomime of humanitarian morality while refusing to engage with issues of human rights, the right to health or the essential cruelty of a market system for life-saving technologies.

I have much more to say about the drug donation programs, but I would like to shift now to another example of an international adventure in the cause of tropical health, this one from Brazil in the late 1920s and early 30s. In the 1910s and 20s the RF-IHB began to take a broad interest in the diseases of South America; I would like to focus solely on the RF-IHB-led Yellow Fever Service (YFS) of Brazil, an advisory, administrative and technical board that filled various

public health roles from the 1920s through the 40s (though again I have much more to say, and the subject in question draws on only a very small portion of the archival material that I worked with at the Rockefeller Archive Center). For about a year now I have been looking through the files of the Rockefeller Archive Center (RAC), outside New York City.

In this paper I would like to describe a mortuary focus among the American YFS officers. The Service attempted, for the whole time that it operated in Brazil, to chart precisely where yellow fever was endemic. They did this in a number of different ways, including some violent experiments involving monkeys and mosquitoes. Their most reliable tool was autopsy.

In the 1920s the cause of yellow fever had not yet been determined; Rockefeller agents, following the Rockefeller bacteriologist Hideo Noguchi, initially thought that the disease was caused by spirochetes (this was not correct, because actually a virus is the real cause). No reliable laboratory test for yellow fever existed, but the disease could be diagnosed post-mortem in humans and monkeys by examining the liver for characteristic lesions.

The Rockefeller Yellow Fever Service consequently became very interested in diagnostic autopsy. One of the central mysteries that the Service wanted to solve was the erratic flow of yellow fever through Brazil. The disease popped up here and there, but rarely in urban epidemics. Eventually RF-IHB research in Brazil helped to codify the idea of sylvatic or jungle yellow fever; at any rate Rockefeller officers found autopsy of fever victims to be the most reliable means of creating an epidemiological map of the disease.

When autopsy was impossible, they would send their agents to ask doctors about patients who had died after a short febrile illness—in 1929 they sent IHB field director, Dr. Michael E. Connor, on a long steamship voyage into the interior to do just that.⁶ The account of the journey is eerie and depressing, like something from Joseph Conrad, at times dreamlike—it also

generated rather unreliable public health data, since the physicians with whom Connor spoke impressed him as being ill-trained or moronic. Autopsy, ideally conducted by Rockefeller agents or trusted Brazilians, yielded much more reliable results.

To this end Rockefeller officers inserted themselves legally and physically into death and mourning in Brazil, and they did so with the full support of the Brazilian government; within a remarkably short time they persuaded the government to require its citizens to obtain a certificate of burial before interring their loved ones. According to the Rockefeller officers this was the first time that the Brazilian state had attempted to register death.

There are many ways to interpret the mortuary focus of the Rockefeller adventurers; one is to place it in the context of many different kinds of pastoralism, that is, the moral and physical care of bodies—in this case the bodies of mice and monkeys (used in experiments), fish (used to control mosquito larvae), mosquitoes, and human beings. Pastoral metaphors recur in the history of science, especially in scholarship, that looks at the relationship between laboratory research and human populations “outside” the lab. Foucault traced and re-traced the historical relationship between a pastoralism heavily influenced by Christian themes and the emergence of public health; Bruno Latour wittily inverted and played with this metaphor in his classic essay on the miniature pastoralism of Pasteur’s laboratory.⁷ The particular form of scientific and administrative care that district and national yellow fever managers employed is usefully thought of in the context of this pastoralism.

I would like to guide this inquiry into darker regions by investigating the sinister aspects of this care, a paternalistic and sweetly overwhelming management of “people and things”⁸ that arranged its objects, be they mice, fish, yellow fever “Guardas,” (a paramilitary public health police), doctors, car wheels, flashlight batteries or autopsy equipment, with constant precision.

I organize this evidence around the “viscerotome,” a probe designed by Dr. Elsmere R. Rickard in 1930 and placed into wide use by the Rockefeller Yellow Fever team immediately afterwards.⁹ The viscerotome, or “liver punch,” was a steel implement with a sliding blade that could be used to puncture the abdomen of a corpse in order to obtain a roughly cylindrical sample of the liver. The liver could then be tested at a Rockefeller lab for yellow fever. The viscerotome cost little to manufacture and could be used successfully by people without a medical education. By 1933 the Yellow Fever Service had established more than eight hundred viscerotomy posts in the interior of Brazil.¹⁰ They had also persuaded the Brazilian government to alter legislation governing burial and autopsy; it was no longer possible to die and be buried without encountering the viscerotome (those who died violent deaths and people who died obviously from causes other than yellow fever were exempt).

Shortly before the invention of the viscerotome, yellow fever Guardas, local men paid to monitor potential mosquito “foci” in the form of standing water (in and out of houses, for all possible uses), began haunting cemeteries and tipping over vases of funerary flowers so that they would not breed pestilent mosquitoes. The emerging viscerotome service intensified the presence of the YFS in graveyards; hence YFS personnel took a census of burial places so that no suspicious corpse would be interred without yielding up a liver sample. The pastoralism of the yellow fever service extended well into the afterlife. Yellow fever control, as imagined in the 1930s by RF-IHB’s team of elite scientists, demanded penetration into secret, interior spaces, of which the human body was only one.

Early in the career of the viscerotome the Rockefeller men in Brazil began to discuss patents. On July 5, 1930, Rickard records a conversation with his colleague Soper and a Brazilian doctor named Gouveia; the trio envisioned a network of partial autopsies, performed

with forceps by local “escriboes,” who would come to Recife for a one-time educational seminar on the extraction of liver samples.¹¹ Two weeks later, July 19, 1930, Rickard has already gone through a few test models of his viscerotome and he has finally manufactured a crude example of the device, which he used on July 18, 1930 to take a liver sample from a fresh corpse. On July 19 he begins to file a patent—“Doctor Machado informs that the person who takes the ‘first step’ toward patenting an invention has precedence on the invention,” he writes.¹²

Rickard and Soper discuss this patent for a few months; they write to the Rockefeller lawyers back in New York City. For a while they abandon the patent filing. Eventually they do file a patent on the viscerotome with the Brazilian government.¹³ They do this not to market a profitable device, (they never manufactured the viscerotomes for sale, in fact) but to protect themselves from extortion—they imagine that an unscrupulous local firm could patent a similar device and then charge the YFS royalties.

You can see a concern with ownership, property and thrift operating here. These concerns are everywhere visible in the YFS files. Rickard spends days writing about batteries and tires; he reports, with great satisfaction, having repaired a damaged flashlight.¹⁴ Other YFS officers evaluate and re-evaluate their cars (beautiful American-made touring cars, mostly). The laboratory diaries turn this same style of evaluation on glassware, mosquito netting, and experimental animals. Governmentality is Foucault’s sense of a paternal management of people and things, which pervades the work of the Service.

In a way the Yellow Fever Service’s patent on the viscerotome is a red herring—the RF-IHB was a non-profit, unlike the drug companies that authored the much more recent drug donation programs. They were not meaningfully defending their intellectual property—they certainly had no plans to block the manufacture of rival viscerotomes, (I found no evidence that

anyone outside the YFS had any interest in them anyway) nor did they have a political agenda to press—I do not think that the patent on the liver-punch was an overt or covert attempt to defend regimes of private property or capital.

However, what is interesting about it is how well it fits into the other regimes of ownership and property that the YFS did elaborate, reinforce, and rely on. The viscerotome, which entered bodies and extracted a substance that could be translated into valuable data, was part of a sophisticated and total system of people and things, an all-embracing management of physical tools and biological forms that was a key part of the Rockefeller officer's mental equipment and their way of doing business. It was governmentality, but also pastoralism, in Foucault's sense, a paternalistic system of guidance that embraced laboratory research as well as daily life; I have elsewhere called this power formation scientific sovereignty.¹⁵

There is a great interest in many different kinds of science operating here, but also a practical interest, in effective, small, self-developed techniques that make working with intractable animals, microbes and substances easier. The YFS officers write volubly on laboratory glassware, specimen jars, breeds of mice or monkeys, and types of fish that could be used in "fishing" water supplies for larva control, the design of basins for the keeping of fish, types of automobile tires, office equipment, the physical apparatus of the Guardas, poisons, mosquito netting, the design of animal cages, travel routes, forms, and so on.

This focus on technical efficiency necessarily embraces an interest in materials and tools; it all has a kind of modernist feeling, an ordering of natural chaos. The natural world consists of vague, contradictory, or nonsensical signs, and the YFS officers seek something logical beneath it, something that they can dig up with enough patience and enough specialized equipment. Their mission is archaeological; it is certainly not unduly moral, or at all sentimental. The surviving

Yellow Fever Service and International Health Board literature scarcely mentions why they are fighting fever in Brazil. Human rights do not come into the discussion, and humanitarianism remains tacit.

The viscerotome, Azithromycin and Mectizan share a great deal in common—they are technologies that impress their own inventors with their power and convenience (Rickard and Soper express muted appreciation of the ease of use of viscerotome, and of the high quality of the liver samples it produces; ex-employees of Mectizan’s parent firm eagerly told me of the power and beauty of their product; a retired chemist sketched the molecule for me, from memory). They are all technologies that demand wide application, and that became part of public health systems whose primary goal we might describe, without too much perversity, as the dissemination of objects. A 1938 RF annual report triumphantly records the vast number of viscerotome posts in South America, and announces that the device has moved to Rockefeller fever labs in West Africa; a casual visit to the websites of the Mectizan and Zithromax donations reveals a similar triumphant narrative about the number of pills handed out, and the number of client countries, and perhaps more significantly, how this is not enough and how the programs plan to expand.

The pills and the epidemiological probe are all technologies of health employed by minimally trained locals in rural settings. It somehow goes without remark that we would never expect to see un-credentialed volunteers trained at a short seminar handing out prescription medicine or conducting partial autopsies in Copenhagen, or Manhattan. The objects constitute public and geographical orbits around themselves.

A force operates here, a morally-branded, virtuous obsession with simultaneously advancing the career of a tool and creating a good epidemiological map, at least partially defined

as a map of where the tool operates. Distribution maps for the drugs are absolutely central to technical and PR discussions of the donation programs; you can find hundreds with a quick Google search. During my fieldwork I watched tropical health officers project them on screens and discuss them for dozens of hours at international meetings. The Rockefeller files contain annual reports, year after year, filled with beautiful carefully folded hand-drawn maps, showing the red or black pinpricks of viscerotome posts on the hollow outline of Brazil.

It seems obvious to recognize these activities as an exercise of biopower, an articulation of the political and the biological, but perhaps it might be beneficial to think of them also as a public health of objects, an intervention that places a simple material object at its center, that obsessively improves and promotes the object, and that in some ways follows the contours of that object more than the needs of the people on whom the object works. Obviously, in the case viscerotome, the people on whom it works are imagined as having few if any needs, since they are dead. The needs of their affines or social connections do not factor into YFS calculations, except when they appear implicitly through violence, as in the case of the 1932 murder of a viscerotome agent—from Rickard’s journal:

We interviewed the local delegado and various eyewitnesses to the crime. We also visited the place of the murder. Doctor Figuerido’s report is quite correct. I might summarize by adding that our representative was murdered by five rum-crazed ruffians who backed him into a corner. He did not draw his gun until he had been knifed in the side by one of his assassins who was going to “tirar um pedaço de figado” [take a liver sample—AMS]. His first shot mortally wounded one of the aggressors. Unfortunately as he was using an automatic, his second shot jammed in the barrel. If he had had a revolver, he might have succeeded in killing enough of his aggressors to escape alive.

I saw in the local jail the two remaining murderers (the third died the following day). I was surprised to see that they were mere youths of eighteen or nineteen years and to learn that the two who had escaped were even younger. I feel satisfied that they will be given the usual legal penalties. Punishment in this region is quite a problem. There is no capital punishment and life in jail is better than freedom. The four hundred dollars [Brazilian Reals] per day allowed prisoners for food is really quite a blessing in a region where thousands are starving.

I recommended to Doctor Serpa that we take the following steps:

- 1) Although we had intended placing the town on a fifteen day cycle on account of low index we shall keep on for a month or two on the weekly cycle.
- 2) Although the town is of little importance and would matter little if the viscerotome service were dropped, we shall send a salaried viscerotome employee to puncture all cases during a month or two or until we can work up enough courage among the local candidates to obtain a suitable representative.
- 3) We shall obtain from the chief of police in Fortaleza two soldiers to remain in the town for the next month or so until the situation has returned to normal.¹⁶

Here, in this rupture and intrusion of violence into the orderly routine of the autopsy service, the world of the viscerotome revolves in miniature. Latour argued famously that Louis Pasteur confused the inside and the outside of the laboratory, made scale irrelevant through his microscopic husbandry of the anthrax bacillus, and introduced a new political force into the world, a force that only he could interpret, and that only he could speak for.¹⁷ This small example from the history of the viscerotome, which made it into Farley's magisterial account of the history of the RF-IHB, demonstrates the similarly complete epistemological and political value system that allowed the Yellow Fever Service to operate in its peculiar way.¹⁸

The Rockefeller officers confused inside and outside as well, in the matter of the laboratory and in the matter of the human body. Substances inside the body and liver tissues were capable of generating a reliable, valuable public health meaning when passed through Rockefeller labs (but not when buried); the outsides of bodies, the grimace of a mother at her child's funeral, the despair on the faces of the teenaged prisoners bound for prison, which to them seemed "better than freedom," do not factor.

The offer of the "rum-crazed ruffian" to sample the viscerotome agent's liver was certainly cruel, but it was also a kind of sublimated parody of the power relations obtained in the Brazilian state of 1932. Health officers, most often local Brazilian men anointed by the traveling representatives of the YFS, could take a liver sample from whomever they wished, as long as the donor had already died; the relationship between this necro-pastoralism and the actual mission of

the Brazilian organs of public health was not clear to the populations involved. In the 1920s and early 30s the Yellow Fever Service did laboratory research, created epidemiological charts, and administered mosquito control programs. They did not treat yellow fever, or vaccinate for it, since no vaccine existed.

The tools at hand, both literal tools and public health techniques, constrained the mission. In current-day drug donation programs we can still see a similar rhetoric of partial action operating, which elaborately links itself to ideas of health and development, while disavowing any responsibility for these goals writ large, and while limiting the use of their products to specific diseases. Ownership of drugs, devices, and programs is extrinsic to the local situation, and it provides in and of itself a powerful moral and political justification for action. Only the person who owns the viscerotome can puncture legally; only the person who owns the drugs can decide who swallows them.

A version of this report was also presented on the panel of Categorical Cartographies: Property, Place and Displacement in Global Health Research. Society for Social Studies of Science annual meeting: Copenhagen, Denmark, October 2012.

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The ideas and opinions expressed in this report are those of the author and are not intended to represent the Rockefeller Archive Center.

ENDNOTES:

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