PREFACE

This is a book about how we imagine cure, and how cure comes up against its limits. It is a book about the unexpected shapes and even more unexpected peregrinations of science and medicine. And it is, finally, a book about tuberculosis treatment in India.

It's ironic—and, as I've come to realize, entirely fitting—that a book about curative imaginations has its origins in the incurable. In 2006, I began to investigate the vexing influence of American philanthropy on HIV interventions in India. Despite the protestations of stalwart figures in public health and medical anthropology, HIV prevention and treatment continued to be viewed as separate sorts of activities.[1] Under the sway of McKinsey consultants, the Gates Foundation gambled heavily that prevention was the right way to invest their fortune in India, given the high cost of treating an incurable condition. The provision of antiretroviral drugs was left to the state, and to the many medical practitioners who operated along the porous borders of government hospitals.

To begin to understand how treatment worked in India, I traveled in 2011 to the city of Chennai, where the first diagnoses of HIV in the country had been made twenty-five years earlier. I spent my days in a small HIV clinic with doctors and nurses as they deftly rounded the inpatient wards, and with counselors who offered reassuring catechisms to patients and their families. I learned patiently about treatment in this clinic and in other, larger, government-run facilities. I learned about a way of life, which was also a mode of survival, built around the idea of a normalcy attained and maintained through dogged adherence to antiretroviral drugs. I even wrote an article about it.[2]

1. Among those advocating for approaching prevention and treatment conjointly, perhaps most notable are Paul Farmer and Jim Kim of Partners in Health.

2. Venkat, "Scenes of Commitment."

Looking back, what strikes me now is the dissonance between a promise and its fulfillment. With the introduction of antiretrovirals, I was repeatedly told, HIV had become a livable, chronic condition. I could see that this was often the case. Even so, people died. I remember a man on a gurney, rolled one morning into the inpatient ward with great haste, comatose, his family clinging to the sides of his bed. By evening, he had passed away, his family still clinging, now wailing. Many patients came in these moments of extremis, otherwise resistant to the discipline demanded by the clinic. Many other patients died despite their strict discipline.

Other than the patients themselves, the usual culprit blamed for these deaths was tuberculosis, described to me as a particularly opportunistic infection. Patients were warned that they must maintain what was described in Tamil as their *noi ethirppu sakthi*: literally, a disease-opposing power, but used by physicians as a translation for "white blood cell count" or "immune system." Tuberculosis paid little regard to such power, manifesting even in patients who registered high white blood cell counts.

As I would learn, tuberculosis was in fact the most common cause of death for those with HIV.[3] At the time, I was baffled. Tuberculosis, I was repeatedly told by the doctors at the hospital, was eminently curable. Why, then, were patients dying from it? Here, too, a dissonance between promise and fulfillment. At the same time that my research was shifting to tuberculosis—to what was purportedly a curable condition—strains of the disease described as "totally drug resistant" started to appear in Mumbai and elsewhere. In many conversations I had across the country, people began wondering aloud whether they were now living in an India after antibiotics. Had tuberculosis, a seemingly curable condition, become incurable once again? If so, it hardly made sense to ask why people continued to die from a curable condition.[4]

This book represents my effort to sort through this ambivalence or near contradiction, an attempt to understand a condition that is sometimes curable and sometimes incurable, sometimes both, and sometimes not quite either. I stopped asking why people were dying from a curable condition, and I began to ask another question, one that is at the core of this book: what does it mean to be cured in the first place?

3. The inverse is not true: the majority of people with tuberculosis in India are not HIV positive.

4. And yet this is a question that many have asked and continue to ask, a question grounded in both a humanitarian moralism and a public health pragmatism.

In our present moment, tuberculosis is a particularly appropriate condition through which to think about cure precisely because its status as a curable condition has become increasingly suspect. Back in mid-twentieth-century India, as government-operated pharmaceutical factories began churning out the antibiotic streptomycin, it was prophesied that tuberculosis would soon become a thing of the past. In this sense, a curable disease was a disease waiting to become history.

Yet, in India today, tuberculosis is both history and present, and as many have pointed out, most likely also the future.[5] At the time of my fieldwork for this book, conducted primarily in the years between 2011 and 2016, there were estimated to be just under three million new cases of tuberculosis in India—about a quarter of all new cases worldwide, more than anywhere else in the world. During that period, the government reported about 400,000 deaths from the disease each year—the sixth leading cause of death in the country.[6] Looking beyond India, the World Health Organization has estimated that a third of the world's population harbors the bacteria that cause tuberculosis—what's referred to as latent tuberculosis—but only about a tenth of that number go on to develop active symptoms of the disease.[7]

5. As Christian McMillen puts it, "History's most deadly disease remains so in the present and very likely will remain so in the future." McMillen, *Discovering Tuberculosis*, 1.

6. World Health Organization, "Global Health Observatory Data Repository." Numerous commentators have noted that such numbers are reminiscent of Western Europe in the nineteenth and early twentieth centuries. Such comparisons, while common, foreclose as much as they reveal, fueling further diagnoses of India's backwardness, organized around a figure of universal history that is imagined to culminate in a hygienic utopia.

7. In India, about 40 percent of the population is estimated to have latent tuberculosis. In general, people do not know that they have latent tuberculosis. It operates more as an epidemiological category than as a clinical or experiential one. At present, latent cases are not pursued, as physicians wait for symptomatic patients to appear at clinics and hospitals (what is often described as "passive case finding"). I was told by government physicians and bureaucrats that treating patients who are asymptomatic—who are not (yet) sick—is a poor use of limited resources. Yet the divide between latent and active tuberculosis is porous, as a latent condition might nevertheless produce effects in the body, and might eventually manifest in active symptoms (at present, it remains exceedingly difficult if not impossible to predict who will develop active tuberculosis). For this reason, the persistence of a latent reservoir of infection ensures the failure of any efforts toward eradication predicated on treating only active cases. As Erin Koch puts it, "Latency is not a biological state, but one that emerges through human-microbe social relationships. In some ways, the 'active'

Despite its global enormity, the uneven distribution and visibility of tuberculosis mean that it remains for many both vanquished and forgotten, not only curable but—having been relegated to other people in other places and times—practically eradicated.[8] But as cases of tuberculosis pop up in places where it had been thought banished (in Paris and Berlin, for example) and as drug resistance traverses bodies and oceans (as in the case of a traveler from India arriving at Chicago O'Hare Airport), tuberculosis has resurfaced as a problem for Europe and North America.[9]

Telling the story this way, in terms of a disease of the past that returns from elsewhere, risks trapping us in an entrenched pattern of thinking about both geography and history.[10] In the pages that follow, ethnography and history meet film, folklore, and fiction to tell a story that stretches from the colonial period—a time of sanatoria, travel cures, and gold therapy—into the postcolonial present, in which eugenicist concerns dovetail uneasily with antibiotic miracles. I began to turn to history in a former tuberculosis sanatorium on the outskirts of Chennai, one that teetered on the brink of existence with the rise of antibiotics before finally regaining a sense of purpose in the 1980s as a treatment center for HIV. Now, the former sanatorium treats patients harboring TB-HIV coinfections as well those with drug-resistant variants of either condition. When I arrived at Tambaram Sanatorium, as it is popularly known, I still intended to write a monograph on HIV treatment, grounded in the ethnographic present of my experience. But I couldn't shake this curiosity about where the sanatorium had come from, and none of the physicians I met there could satiate my curiosity. This was not the Swiss Alps. There was no *Magic Mountain* to behold.

My curiosity led me to the Tamil Nadu State Archives and Roja Muthiah Research Library in Chennai, and then to the National Library in Kolkata, and later to the India Office Records of the British Library in London. I would learn

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and 'latent' opposition suggests a false—or at least a forced—dichotomy that obscures the ways in which the microbe, the social context, and the body are all 'in motion.'" Koch, *Free Market Tuberculosis*, 192.

8. For example: each year, there are estimated to be approximately nine thousand new cases of tuberculosis in the United States and about five hundred deaths. These numbers suggest one reason why tuberculosis has largely fallen off the radar of both US-focused health researchers and the broader American public, as compared, for example, to a seemingly ubiquitous condition like cancer.

9. On the idea of tuberculosis as a disease banished from Europe and returned as a revenant, see Kehr, "Blind Spots and Adverse Conditions of Care"; Kehr, "Une Maladie sans Avenir"; Kehr, "The Precariousness of Public Health"; Kehr, "'Exotic No More.'"

10. On other places as metonymic of other (past) times, see Fabian, *Time and the Other*.

about the founder of Tambaram Sanatorium, David Chowry Muthu, a Tamil Christian tuberculosis specialist with a handlebar mustache and a hatred of alcohol, and I would track down his descendants in India, Britain, and the United States by following the flourishing branches of the many new sites of internet genealogy. Eventually, I would find myself in the graveyard in Bangalore where Muthu had been buried. What began with Muthu quickly became an exploration of the many pasts that have yielded our present conjuncture, an India where tuberculosis and its treatments are more than ghostly remains.

What follows then is less a straightforward ethnographic monograph and more an anthropological history.[11] In both archives and clinics, I worked with an eye to stories that told me something about what it meant to cure tuberculosis. My experiences as an ethnographer could not help but influence how I approached these stories, but they could not shape it wholesale. Sometimes I discovered threads that connected past to present—for example, in the founding of Tambaram Sanatorium—but as my research progressed I was often left with loose ends. Not every past forms part of a history of the present—at least, not in a way that is concrete, genealogical, or causal. Sometimes a story just ends. Sometimes a story refuses, as Nietzsche would insist, to serve the needs of the present. Sometimes a story wants to stay small—neither brilliant nor banal, neither scalable nor representative, but simply singular.[12]

As I've tarried with these stories, they've taught me how to write them, as well as how to read them. Much of this book tends toward a diegetic mode of presentation, one that might have all too easily been papered over by the will to explain, to theorize. For this reason, the theorizing in this book—like cure itself—is fragile, an extended meditation that dissipates as it travels rather

11. My approach to history is deeply influenced by the focus within subaltern studies on minor histories (as found in the work of Gautam Bhadra and Sumit Sarkar, for example), the strong attention to singular figures in microhistories (exemplified by the work of Carlo Ginzburg and many others since), and the questioning by anthropologists of how the past becomes (or fails to become) history (in the work, for example, of Michel-Rolph Trouillot, Ann Stoler, Michael Lambek, Brian Axel, and Mareike Winchell, among many others too numerous to list).

12. Here, my thinking is inspired by the historian Projit Mukharji's discussion of the contrast between metaphysics and pataphysics: "Metaphysics attempts to explain the world and being in terms of the universal and the particular; pataphysics, a term coined by Alfred Jarry, on the other hand, seeks to extrapolate a science of the singular, the unrepeatable and the exceptional. Metaphysics seeks out regularities and explanations; pataphysics seeks out exceptions and limits to explicability." Mukharji, *Doctoring Traditions*, 286.

than a definitive diagnosis that holds fast across space and time. It is a kind of theory that emerges from narrative description, from the juxtaposition of scenes, and from allowing oneself to be lost, at least for a time, in a sanatorium at the foothills of the Himalayas, on a coolie ship returning from a South African plantation, or in a hectic research hospital near the Mumbai coastline—in other words, in the imagination of cure.