INTRODUCTION

Understanding Political Ecologies of Risk in Puerto Rico

Puerto Rico is a combination of both [a permanent underclass and a privileged class] and many Puerto Ricans feel the awkwardness of generous but unequal treatment. All Americans should share that . . . it is a testament to the distance of Puerto Rico and the insensitivity of Americans that so few do.

—Robert Pastor (1992, 220)

Stories of accommodation, collaboration and outright defeat are just as important [as heroic stories of resistance] because they give us ways to understand our position as caused rather than just existing.

—Aurora Levins-Morales (1998, 31)

The High Cost of High Tech

The sun was disappearing and the crowd began to gather for the first night of the annual patron saint festival of Nocorá in Puerto Rico, as the air crackled with excitement and the potential for a thunderstorm. But while the locals clustered in groups around the wooden racing horse machines, bought bacalaitos (codfish fritters) and beer, and waited for the live music to start, I had finally arranged an introduction to “the biggest environmentalist in Nocorá.” Don Lirio listened attentively as I described my interests, and then hastened to invite me to the next meeting of the Comité para Defender el Ambiente Nocorenño (Committee to Defend the Environment of Nocorá, CDAN), digging in his pockets for a piece of paper on which to draw a map to their headquarters. “We can tell you much about the pharmaceuticals,” he assured me, meaning the local drug companies, “and also about the particular environmental problems of our barrio, about la planta. We have a more than 20-year struggle.” He paused. “If you have a camera, you should bring it,” he said. “We’ll show you many things . . . and then you can make up your own mind what you think.”
Figure 1.1. Life in the buffer zone. Tucked behind the first row of trees, an outpost of the pharmaceutical complex looms over my recently constructed neighborhood. Photo by the author.
The production of pharmaceuticals is among the most profitable industries on the planet, even in the midst of the recent global economic crisis.¹ Drug companies produce chemical substances that can save, extend, or substantially improve the quality of human life. However, even as they present themselves publicly as environmental stewards, their factories have long been a significant source of air and water pollution—toxic to people and the environment. In Puerto Rico, the pharmaceutical industry is generally considered the backbone of the island’s economy: in the small town of Nocorá, the main field site for this project, there are more than a dozen drug factories representing a small number of multinationals, the highest concentration per capita of such factories in the world. These corporate citizens have brought their human neighbors a degree of economic stability, paid for with longstanding acceptance of significant environmental contamination.

The problem of pollution in Nocorá has been widely recognized, and has taken many forms. The area closest to the factories, Salvador la Cruz, is a mix of industrial, commercial, and residential zoning, and the ground, air, and water have all been severely contaminated. The town’s two Superfund sites of ground pollution, the highest concentration on the island, have finally been remediated. Nocoreño public schools have been ranked in the 11th percentile of the nation’s worst schools for local air quality, and the top two sources of the implicated pollutants are drug factories.² Water contamination, too, has been significant, but it has become harder to quantify, or to tie to any one factory. Since the early 1980s, the factories have sent their liquid wastes, including a wide range of hazardous chemicals, to be processed at the regional wastewater treatment plant in the coastal neighborhood of Tipan. The treatment facility is typically referred to by local residents simply as la planta.

Ultimately both Tipan and Salvador la Cruz, and indeed all of Nocorá, have been strongly affected by the presence of the drug companies as corporate neighbors. The experience of those living in Tipan, however, is unique, because their place in the local social and cultural context is significantly different from any other group of residents. This distinct relationship has helped create a grassroots movement of protest aimed at protecting the environment, in spite of unquantifiable social pressure to quietly accept pollution as part of everyday life. The movement has had some success in holding the factories accountable for their actions, but as a result the neighborhood has paid a price. In exploring the dynamics among residents, local government officials, and corporate entities, it became clear just how embedded the pharmaceutical industry had become at every level of the community, from individually unhealthy bodies and families, to socially unhealthy politics and economic policy. This study—one of few uniting the concerns of critical medical anthropology with those
of political ecology—demonstrates concretely how the well-being of human citizens can be sacrificed for the benefit of corporate entities. By understanding how these dynamics became established and accepted by a silent majority of Nocoreños, I argue that there is potential to forge new pathways in the seemingly inevitable association between corporations and communities. But that potential will go unrealized unless fundamental changes are made that re-create social contracts, and promote trust-based mutual accountability among residents, government, and corporations.

A Complex Problem: Pollution, Health, and Corporate Accountability

I returned with my friend Benicia to our folding chairs, and I noticed she was smiling. "It will be good for you to talk to Lirio and his group," she said. "He is very, very dedicated. You'll learn a lot."

She suddenly grabbed my arm and instead of sitting down, pulled me in another direction, waving at another man I did not know. "I want to say hello to Francisco, too, and I'll introduce you. We're colleagues, but he used to work in Environmental Health. If anyone knows about la contaminación, he does."

Francisco also nodded with vague interest in my project, and when I said, "I want to learn about the impact of the pharmaceuticals on the lives of Nocoreños," he slowly drew his fingers across his neck, saying nothing, and making a tight grimace. I glanced over to Benicia, and she unhelpfully widened her eyes, but made no attempt to interrupt our conversation. I leaned closer to Francisco. "Do you mean that these are questions I shouldn't be asking?" I asked in a low voice, hoping I didn't sound nervous.

He grinned and shook his head. "It's that I can tell you in one sentence how they impact our lives." He paused, and leaned toward me until our faces were quite close. "El impacto es . . . nos matan." The impact is . . . they're killing us. He tone was calm, quite simply matter-of-fact. "Oh, not today, not tomorrow, but little by little . . . it will kill us all."

Francisco's assertion that the pollution coming from the pharmaceutical factories in Nocorá, Puerto Rico would eventually kill the town's 23,000 residents was not intended as a metaphor. However, it is notoriously difficult prove a causal connection between environmental risks and health problems using standard epidemiological research methods. To do so is not the task of this book, nor was it the goal of my 16 months of ethnographic field research undertaken in Puerto Rico between January 2004 and May 2005. Francisco's words were, however, an appropriate starting place for asking some of the
questions that would continually drive the research: What impact do people believe a demonstrably polluted environment has on their health? What evidence is there that reasonably supports these beliefs—qualitatively, if perhaps not quantitatively? These questions quickly beg two follow-up questions: How do these beliefs influence the way people view their corporate neighbors, which, in spite of their multinational corporate nature, now claim to be part of this small community? And conversely, how do those beliefs influence the actions of those same companies—actions that cannot help but structure, in turn, the society in which they are located? In a global environment of ever-increasing awareness of corporate influence, ethnographic answers to these questions have the potential to contribute to a number of important policy debates—about the environment, finance, governance, and health. There is no doubt that corporations have wrought powerful changes at every level of human society and ecology. But we are far from either understanding their full impact, or being capable of counteracting their more poisonous effects.

Although they are often criticized for their high profitability, pharmaceutical manufacturers benefit in public opinion from their association with health care. Although the pharmaceutical industry offers modern society undeniable benefits, one should never lose sight of the simple fact that they are leading members of a broader industry—the chemical industry. Chemical producers have had an unfortunate and well-documented history of turning a blind eye to the environmental and occupational consequences of their business, a process sometimes known as “externalizing.” Because of the unique relationship of Puerto Rico to the United States, the island is also a place where the enforcement of U.S. federal environmental regulations and the public trust they ensure are often violated in the name of economic development. This may seem like a harsh indictment—but both ethnographic and documentary evidence support the claim. In a striking and recent example, the Caribbean-based nongovernmental organization (NGO) CORALations successfully sued the U.S. Environmental Protection Agency (EPA), with the U.S. District Court of Puerto Rico finding abundant evidence of “actions indicative of noncompliance on the part of both Puerto Rico and the EPA” with the Clean Water Act. Local EPA officials adhere closely to the pro-development narrative that ecological issues must be harmonized with economic necessities. As the CORALations case suggests, the result is that even the local outpost of the institution charged with enforcing federal standards in Puerto Rico does so ambivalently.

As many other previous studies of Puerto Rico have demonstrated, there is much to learn by analyzing this special case. As a place that is arguably
Introduction

politically and economically midway between developed and developing, simultaneously colonial and postcolonial, what happens in Puerto Rico does not "stay in Puerto Rico." Rather, it has the potential to predict what might happen as other parts of the world become more heavily industrialized, but remain economically dependent on the larger markets of countries like the United States. The case of Nocorá in particular suggests that sacrificing the environment in the name of economic development and corporate profits ultimately produces unhealthy communities—individuals who become physically ill and lacking faith in their society. Unfortunately, as corporations are becoming so much a part of the way we view the world, the case of Nocorá also illustrates why, paradoxically, we behave as if their survival were tightly linked with our own.

Creating a Culture of Pollution

The first time I ever noticed Nocorá was the second time I drove through it. Having spent a typical family Sunday afternoon at the rural mountain home of a friend’s grandparents, we drove in the near-total darkness back down toward Route 4 to get on the AutoExpresso back to San Juan. As we emerged from the canopy of leaves covering the road, and approached the intersection of Salvador la Cruz, the night sky was suddenly lit up as if it were daylight. Through laughter at my astonished question of what this was, I was told that it was the pharmaceutical companies, which run 24 hours a day, seven days a week, making so many of the brand-name prescription drugs that we gringos take for granted. My friend Lydia, a dedicated urbanite, scoffed as she told me the ten-second version of the history of Nocorá. “This town was nothing before the pharmaceuticals came; it was basically a little barrio of Bajas (the larger town to the east).” As a medical anthropology student with a strong interest in Puerto Rico, I needed little further impetus to begin the first steps of research that would eventually bring me to understand daily life in Nocorá first hand.

Medical anthropologists\(^8\) as well as practitioners of critical medical anthropology\(^9\) have analyzed the nature and impact of legal drug products, their roles in the market and in social life, and intellectual property issues (to name a few areas). However, there has thus far been little work bridging the critical medical anthropology of pharmaceutical products with the political ecology of health. At the center of this book is the examination of the community health of Nocorá, addressing several key questions with respect to drug production. What damage is caused by (the creation of) these products? How is the damage caused, how is it assessed, and how can further damage be avoided through new public health and/or environmental policies?
In this book, by-products, rather than traditionally defined commodities, are the focus: that which is produced as a side effect of the making of those “useful” things that “can be turned to commercial or other advantage.” In the process of pharmaceutical production there are various toxic by-products, many of which are washed away in wastewater following the process of chemical synthesis, or in the flushing of solvents used to clean manufacturing equipment during routine maintenance. Important research has been directed at the environmental, health, and social impacts of what might be termed “harm industries” such as mining, tobacco, and arguably oil. But communities playing host to polluters like the pharmaceutical industry face an even more complex sociopolitical landscape. In their increasingly image-conscious associations with health care providers and public health organizations, drug manufacturers easily position themselves not just as economic saviors, but literally as lifesavers.

The research project came together as I learned more through EPA documents, newspaper reports, and even local websites about what Nocoreños refer to in their general discourse as la contaminación. Federally recognized pollution problems caused by members of an industry with the mission statement, “Disease is our enemy. Working to save lives is our job” present an interesting conflict, to say the least. Critics of corporate capitalism view such apparently contradictory public relations statements as just part of the expected behavior of corporations. Indeed, as public relations (PR) guru Edward Bernays is said to have observed, the goal of PR is to engineer consent by the broader public. Therefore, I was also intrigued by the industry’s shift toward the transformative rhetoric of “Corporate Social Responsibility” (CSR). By embracing the language of “community,” as is now common practice through CSR, corporations make themselves particularly good subjects for anthropological research. Anthropologists are now wary of the ways in which the term “community” can be used to make controversial ideas sound good and relevant to those outside the industry. But the term can still help us understand how people think about, and operate within, their local environment and social context.

It is useful to think about the key variables that influence culture, and therefore help to define particular communities, as belonging to economic, sociopolitical, and ideological segments of a society. In this sense economic variables mainly include material factors that influence how people make a living and fulfill their basic needs. The ecological environment, natural resources, technologies, and sources of labor are some examples. Sociopolitical factors include institutions through which people are organized, and through which certain groups ultimately have power over others. In most
modern societies this can include governments, educational systems, and even corporations. The ideological aspect of culture basically describes how people in that group think about things across all aspects of life and experience, and what types of models they use to understand the world. When anthropologists talk about communities, they are typically talking about groups of people who not only share these fundamental aspects of culture, but who have some intangible quality that holds them together as unique, identifiable groups. This quality has been given various names, and is usefully thought of as “social glue.” Here I will often refer to this “glue” as *communitas* (the Latin term for community), the term made popular by anthropologist Victor Turner. In research among communities, *communitas* is often most visible in the outcomes of group-shared practices, such as rituals, that produce a heightened sense of togetherness and belonging. The idea of community also acknowledges that “space and place continue to serve as important loci of struggle” providing “an important referent for the construction of memories and identities.” It is the complex combination of economic fundamentals, social organization, and how people think about things that influences how people behave. All of these aspects of culture and community also have enormous impact on the many dimensions of health.

In the case of Nocorá, corporations are embedded in *every* aspect of this community dynamic, but their ultimate impact is highly contested by the rest of those claiming membership in the community. They have both polluted the environment and improved the economy. Their philanthropic actions cement their place in political rituals and their relationship with elites, while failing to address the needs of local residents and workers. They have a powerful influence on discourses of expert knowledge in public health and environmental science, through which policymakers and other elites often question or discredit resident concerns about pollution. In this light one could argue that, on balance, the actions of corporations do more to disrupt the smooth functioning of healthy communities. Therefore, it was of particular interest to try to assess the various ways in which they participated in that community, and how they were ultimately viewed by local residents. As such, this project sought to address a question that is increasingly salient in our public debate: do corporations meet local social standards expected of responsible community members, as is becoming common parlance in their public relations?

Corporate personhood and citizenship are important concepts for thinking about how corporate entities behave in society, and how we should expect that they treat others. It is therefore important to pay attention to the points at which the pharmaceutical companies claim membership in
the Nocorá community, when they wish to be exempted from responsibilities, and when and how their acts of self-interest are justified. With these core anthropological concerns about community at the heart of this project, I argue that the health and well-being of local residents has never been assessed, discussed, or otherwise considered independently of the town's relationship with the drug industry since its establishment. As such the dominant narrative of “community health” emphasizes the relative economic impact of the drug industry, while downplaying environmental damage. In contrast, “community health” as viewed by those residents who owe the least to the pharmaceuticals is extremely concerned with long-term environmental impact.

This is by no means the first investigation into the impact of institutions into the everyday lives and bodies of Puerto Ricans. But it particularly brings the corporation into focus, analyzing the impact of one of the most important institutions of globalization within Puerto Rican society in recent decades. Many of us are used to thinking of globalization as a recent phenomenon, a mass movement of political, economic, and other cultural changes riding on a wave of technology and mass-market capitalism. But globalization has been shaping the lives of Puerto Ricans for more than 500 years, creating a society that has seen broad environmental changes, reducing old risks, and creating new ones. Therefore, the concept of risk is central to understanding the impact of the pharmaceutical industry on Puerto Rican society.

Theoretical Concerns

Environmental Risk in Anthropological Terms

The literature on risk is substantial, encompassing both “scientific” risk and perceptions of risk in a global modern society fraught with potential dangers. All risk is culturally constructed. In order to understand how risk operates in human society, we need to consider the different contexts in which different types of knowledge about risk come into play and how they ultimately influence action. Many variables can influence how people define and interpret the riskiness of a particular behavior, or substance. But one of the most significant variables is whether or not the person making that judgment trusts the source of the information about that potential risk.

An emerging public health consensus of ecologically informed multivariate risk belies the traditional description of chronic pollution as merely a “nuisance.” Nevertheless, the effects of chronic pollution can be difficult to quantify. It is particularly in the broader context of health evaluation that medical anthropology contributes to understanding risks not easily
measured. While statistics remain an important tool for addressing environmentally rooted public health problems, they cannot be the only tool. In the words of one of my informants, an epidemiologist with many years of experience in community-based research,

Health problems, some of them you can quantify, but not all. You can never quantify the impact of a health problem in all its dimensions. As a researcher you have to know that what you’re dealing with [in a statistical analysis] is just a portion of a health problem. . . . Once you’ve identified a problem, okay, then you have to ask, “What is the perception of the problem, how does it affect a person in her community?” You can’t quantify these things. This is not included in that famous p-value.

Research by anthropologists can contribute to a better understanding of community health risks in a number of ways. This book especially draws on insights from the field of Critical Medical Anthropology (CMA), which analyzes the ways in which culturally embedded social and economic structures contribute to health. Of particular interest are the processes through which patterns of harmful behavior go unquestioned, and are presumed to be somehow “natural.” More recently, anthropologists have begun to explore the health problems that are embedded in environmental inequalities. For example, the deeply interactive nature of human economic activity and global climate change has created potential for powerful “syndemic” processes to produce new epidemics of both infectious and chronic disease. The notion of syndemics, or the mutually augmenting occurrences of more than one health problem, has helped anthropologists and public health workers understand, for example, how the re-emergence of tuberculosis was intimately tied to the rise of HIV/AIDS. Changes in the environment can cause acute physiological health problems, but more insidiously, may become syndemic to a series of long-ranging problems that cause more subtle, but equally severe, damage to a community.

While environmental damage can have serious impact on ecosystems, and thus on human society, human bodies remain a key site of experience of pollution, and institutions like the state have profound impact on the control of both people and the environment. In this sense, bodies exist on many levels and are at same time an individual body, a social body, and subject to a body politic. The individual body becomes a slate onto which the actions of the state (or other power, such as a multinational corporation) may become inscribed in many forms. In the case of my research in Puerto Rico, both the bodies and the natural environment of Nocoreños bear a substantial burden
as a result of the pharmaceutical factories’ activities. These activities are not restricted to manufacturing—the companies play a multifaceted role as polluters, economic providers, and social actors.

There has been, ironically, a tendency in public health to assign too great a role in the disease process to an ahistorical, naturalized local ecology. In contrast, insights from human geography show that the places in which we live have increasingly become “spaces of vulnerability,” making the concept of adaptations to the environment far from value-free. The less control people have over their environments, the less it makes sense to view the selective processes of relying on certain behaviors, which may have additional negative consequences, as “natural.”

**Does Corporate Social Responsibility Exist?**

Ethnographic research on corporate-community relations has brought a number of key questions into relief, such as the production of what has been called “toxic uncertainty.” In their exploration of the environmental suffering in the Argentine shantytown of “Flammable,” Javier Auyero and Débora Swistun illustrate the deep contradictions inherent in living in a poisoned and impoverished environment, in which local corporate patronage (in this case of an oil company) further distorts the fabric of social relations. Published after the conclusion of my fieldwork, *Flammable* demonstrates some themes in common with the experience of Tipanecos described in the following chapters, and is groundbreaking for its illustration of the grayer areas of living a contaminated life. Residents of Flammable received radically conflicting messages about health, safety, and corporate concern. For them, making the best decisions for their families’ futures felt like a virtually impossible task. The ethnographic case of Nocorá builds on this work in a few distinct ways, providing an opportunity for scholars of environmental health and corporate dominance to draw useful comparisons of the different contexts, as well as work through ideas for future work in the field. Among the areas further explored here are the influence of the corporate social responsibility movement itself, the ritualized performance of local government actors and companies, and consideration of the significance of the industry itself (pharmaceuticals) being associated with a generalized public good. Additionally, in Nocorá the community of suffering itself is highly varied. Competing social movements that de-emphasize the environment and/or embrace the industry further complicate corporate-community relations.

When consumers begin to demand more accountability, corporations have been shown to change their behaviors. However, large institutions can
also drive social change. If corporations take the lead in sustainability, it has been argued, the expansion of that shared cultural narrative will follow. Because these narratives of community, health, economy, and environment are all very actively negotiated on the ground by companies, community leaders, and residents, the greatest impact will occur when representatives from each group of “stakeholders” all begin to advocate for change. This book identifies many barriers to such combined efforts, and therefore suggests how they might eventually be overcome.

Research Design and Methods

History

My project design included both qualitative and quantitative data collection (including participant observation, interviews, archival research, and surveys). Although most anthropologists now ground their ethnographic research in historical context, in this work a historical perspective was particularly important. Not only had previous ethnographic research been conducted, but the economic and ecological histories of Nocorá were key to understanding how the pharmaceuticals had come to have such a significant presence in the town. I gathered this material through interviews with residents and those who had worked in the industry, as well as through interviews and archival research with groups who had, at different times, taken an interest in the environmental problems of the region. The local Centro Cultural had a topical newspaper archive, and I also had access to a number of relevant files based on earlier work by the environmental advocacy group Misión Industrial. Additionally, Centro employees and the heads of several large environmental NGOs provided additional information through interviews. These sources, as well as the two previous studies, provided incomparable cultural insight into patterns still visible today, and processes that have produced the current state of both society and environment.

Defining Stakeholders

In defining stakeholders for the purposes of the research design, I initially focused on three components of the local population: (1) the companies themselves; (2) local government representatives and administrators; and (3) local residents and their interest groups. At the time of the research, the dozen or so factories were owned by four multinational pharmaceutical corporations, all of which have their headquarters in the United States (in all cases there were multiple factories located in each industrial complex,
and two companies controlled two distinct complexes each). I initially targeted my interviews with managers responsible for community relations, and through these contacts was sometimes able to interview those working directly on environmental issues. In addition to interviews, I was able to observe and sometimes participate in a number of local activities sponsored by the companies, such as educational fairs, plantings, and corporate team events such as health fund-raisers (e.g., Relay for Life).

In approaching government officials my methods were similar, and I relied on both interviews and participant observation in government-sponsored events, as well as public meetings. As with the pharmaceutical representatives, I paid particular attention to when government activities and residential or workers’ activities overlapped. Among local government officials I worked with the alcalde (mayor), municipal legislators, and local Department of Health officials, as well as “regular” employees of those agencies. I also interviewed Commonwealth-level officials in the Planning Board, Department of Health, and both local and federal environmental protection agencies.

Although not initially part of my research design, I found when I arrived that I had underestimated the importance of regional and Commonwealth-level NGOs as representing potential stakeholder positions. In the time between writing my grants and my arrival, the Corporate Social Responsibility movement had arrived in force in Puerto Rico. I conducted interviews, and was able to do extensive participant observation, including taking part in a research advisory panel, with an organization I call TransformaRSE. The organizers of this NGO were working tirelessly with corporations, including most of the pharmaceuticals located on the island, to promote transformative corporate behavior. I also found that several regional NGOs were working to promote both community development and corporate social responsibility, and I was able to work with one in particular, which I call La Vida Cristiana. Additionally, I discovered that a regional environmental NGO, which I call Grupo Uniendo Iniciativa Ambiental (GUIA), had gained national recognition for its work, and I was able to spend some time at their activities, as well as getting to know their director. GUIA was a small operation with a disproportionately high level of influence in the environmental scene in Puerto Rico, and was considered by some to be a front for the pharmaceutical industry. As we will see, the reality was far more complicated, though the organization did indeed have close ties to the industry, EPA, the Commonwealth Planning Board, and the Commonwealth Environmental Quality Board (EQB).

Finally, I attempted to focus my attention on the non-institutional level of Nocoreño society in several ways. When I initially conceived of the project,
I had assumed that any grassroots activity would be in the neighborhoods adjacent to the factories. As will become apparent, in this I was dead wrong. Having learned through a serendipitous contact in the Department of Health that the local environmental movement was located in the coastal ward of Tipan, the group I call Comité para Defender el Ambiente Nocoreño (CDAN) became a central focus in understanding the environmental, and thus cultural, impact of the pharmaceutical industry. The intertwining stories of CDAN and Tipan as a whole are emblematic of a wide range of what we might call cultural “problems” inherent in the current state of the political economy of Puerto Rico. Furthermore, in discussions with pharmaceutical representatives it became apparent that there were several factors that caused the companies to try to distance Tipanecos as potential stakeholders, in spite of their seemingly obvious environmental connection.

It was also important to gather data in locations that did not necessarily represent the unique relationship of Tipan to the pharmaceuticals. Therefore, the sampling strategy for this aspect of the study was generally purposive, with the goal of gaining a broad sample of stakeholders within the Nocorá community. I did several door-to-door samples in the ward of Tipan, the location of the pharmaceutical industry–sponsored wastewater treatment facility. This approach, using the survey described below as an entry point, served to access residents who were not actively involved in grassroots activities, counterbalancing time spent with activist residents. I also sought out conversations with other stakeholders in locations, such as the library and cultural center, where people used services that were sponsored by the companies. This group included residents of some neighborhoods near the factories that had previously been exposed to as much air pollution (in Toxic Release Inventory (TRI)-reported poundage) as the wastewater treatment plant has received water pollutants. I particularly worked in the barrio of La Planchita, which borders one of the factories, and where there is a well-organized community group, but where there has never been significant grassroots environmental activism. Finally, in seeking to supplement my qualitative methods, I conducted an opinion survey among the resident groups mentioned earlier, as well as among a majority of health care workers from the local health center (which is located in the heart of the pharmaceutical corridor), and a significant portion of the elementary school teachers and principals in the Nocorá school district. These were locations in which the companies claim to practice much of their citizenship activity/philanthropy.

In addition to in-depth interviews and surveys (which also yielded many qualitative comments and observations), I conducted participant
observation in a wide variety of community-based activities around Nocorá and in a few neighboring municipalities, as well as in the everyday social contexts that are the bread and butter of traditional ethnological fieldwork. In the quasi-industrial neighborhood in which I lived, several of my neighbors were employed by the companies, but were newcomers to Nocorá. Through them I gained a sense of how length of residence could contribute to overall attitudes. This ethnographic investigation of the community of Nocorá gives ample cause for concern about trends in corporate-community power relations, as well as developments in the growing field of “Corporate Social Responsibility” (CSR). The pharmaceuticals have shown themselves quite adept at mastering the emerging rhetoric of CSR, but both words and actions must be examined, and compared, in order to assess whether, and by what standards, a corporation acts in socially responsible ways.

While I am trained as an epidemiologist, I did not conduct a traditional epidemiological study of either Nocorá or Tipan, although I did examine health data from a variety of other sources. Given limited resources and the complexity of measuring the long-term physiological impact of pollution, attempting to measure the physical suffering of Nocoreños statistically would have distracted from the intent of the ethnographic study, and I was not convinced it would have been productive. Indeed, it would have played into the very cultural problem I was ultimately able to describe so clearly: the overemphasis on the quantification of the effects of pollution.

Organization and Chapter Summary

The following chapters present several different points at which the pharmaceutical industry has entered Puerto Rican society, as evidenced by the case of Nocorá. In addition to the usual ethnographic stories and quotations that are used to illustrate various arguments in each chapter, between chapters I have also included short vignettes from my fieldwork as introductions to the analytic theme of each chapter. These narrative pauses, structured as separate micro-chapters, serve to give readers a small story to bring into their reading of each successive full-length chapter, enhancing their understanding of why each analytic point matters to lived experience.

Chapter 1 tells the contemptible story of Tipan and its long history of struggle with pharmaceutical-related air and water pollution. It describes the emergence of a grassroots movement to improve the functioning of the regional wastewater treatment plant, where the pharmaceuticals deposited untreated chemical wastewater from 1981 through the late 1990s. I argue that Tipan has a community health burden that may not be easily quantified
through traditional epidemiological methods, but for which a variety of evidence exists. However, the pharmaceutical companies and the local government have marginalized the health and ecological concerns of Tipan in their efforts to support long-standing, environmentally insensitive methods of achieving economic progress. This theme is elaborated throughout the book. The purpose here is to draw the reader immediately in to the experience of living in a contaminated environment and to illustrate the frustration and suffering caused by a struggle against corporate giants and their local allies.

Chapter 2 elaborates on a number of key points in the history of Puerto Rico and Nocorá specifically, crucial for understanding how it is that the pollution problem developed in the first place. My experience in teaching this topic to students is that they often have trouble understanding how such a thing could be allowed to go so far, and how regulatory agencies, government, and the companies themselves could have avoided confronting the problem for so long. The economic development of the island has had significant impact on environmental and health-related ideologies and sociocultural relationships. These dynamics have created a situation in which Puerto Ricans are generally willing to trade short-term economic gains for the long-term negative potential of serious pollution.

Continuing with this theme into chapter 3, local politics play a large role in framing social relationships in Nocorá, and the relationships between the factories and residents are no exception. This chapter briefly introduces the reader to Puerto Rican electoral politics, tying them into broader observations about economic development and culture. I trace the instrumental role of the alcaldes of Nocorá in the founding of the pharmaceutical complex, and the power they wield in the community. I also explore the question of whether or not the drug companies can be, in anthropological terms, “members” of this small community, as they claim to be, and as local politicians would like them to be seen. Of particular importance is the centrality of their participation in local rituals and token good deeds, demonstrating how performance and perception drastically influenced Nocoreño beliefs about whether the companies are, on balance, beneficial or harmful.

Chapter 4 zeros in on the sometimes unexpected dynamics that exist between non-profit groups that are supposedly working toward the same goal (environmental protection). Through their cultural and political influence, the pharmaceutical companies in and around Nocorá have created a cultural perspective about the environment that serves them. However, the conflicting relationship between the Tipan activists and a larger NGO that is tied to the pharmaceuticals is not a simple one in which the larger NGO “sold out.”
This chapter introduces legal and dispute resolution theories that can help the reader think in a more nuanced way about social conflict, an antidote to perceptions that such problems exist solely as either “black” or “white.”

Continuing the discussion of power-laden relations between Nocoreños and the drug companies, chapter 5 examines the arrival of the Corporate Social Responsibility (CSR) movement in Puerto Rico in the early 2000s. A number of ethnographic examples from working with and observing Puerto Rico’s only CSR NGO, as well as the CSR-related activities of the pharmaceuticals, demonstrate the social and economic complexities masked by simplistic, feel-good CSR phrases like “triple-bottom-line” (i.e., company, customers, and community all benefit from successful business). The chapter emphasizes the unique case of Puerto Rico, while at the same time encouraging the reader to consider the many possible consequences of the global CSR phenomenon for local communities, including the problem of “greenwashing.”

The concluding chapter returns to the core issue of environmental impacts on health and brings forward the pervasive problem for activists, residents, and pharmaceutical employees alike: the knowledge required to prove that there is a relationship between the environment and poor health is in the hands of “experts,” many of whom are in some way beholden to the industry. Those who are not beholden often have “captured” perspectives: their sincere beliefs, built upon the perceived economic necessity of the drug companies, lead them to discount evidence and experience presented by non-expert citizens. Workers who live in and around Nocorá are additionally vulnerable because their own skepticism about the companies can cause them to ignore restrictive safety measures, supporting the claims that if someone is not healthy it is “her own fault.” In conclusion, I suggest strategies through which activists and educators can work to promote a more equitable redistribution and production of knowledge. This approach would benefit both residents and employees exposed to pollution and unhealthy pharmaceutical work environments. I also describe some philanthropic and programming opportunities for the drug companies to support these efforts, in the event that they are legitimately interested in changing the long-term patterns in their community relationships.

Following the main body of research, I have included an epilogue, drawing on my most recent post-field visits and contacts to briefly describe some important events in Nocorá in the years 2006–2012. These stories, in light of changing levels of global awareness of corporations, invite the reader to consider what lasting impact, in some cases if any, these social movements have had for environmental health in Puerto Rico, and for other communities with powerful corporate neighbors.