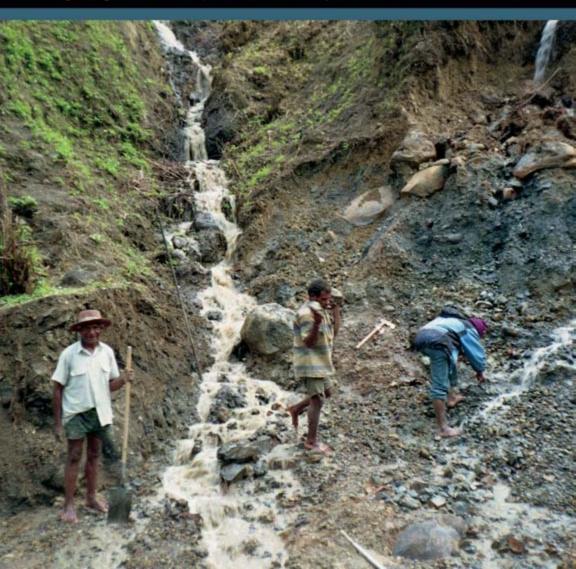


LEVIATHANS AT THE GOLD MINE

Creating Indigenous and Corporate Actors in Papua New Guinea ALEX GOLUB



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Alex Golub

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יועם זהו

הכתם ישנא הטו

תשתפכנה אבני קדש

בראש כל חוצות

בני ציון היקרים

המסלאים בפז איכה נחשבו לנולי הרש

מעשה ידי יוצר

בועשוויוייוו

גם תנין חלצו שד

היניקו הןגורי

בת עמי לאכזר

כיענים במדבר

האכלים למעדנים

נשמו בחוצות

האמנים עלי תילע

חבקו אשפתות

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PREFACE

Before we begin, here are some quick points on terminology and language use.

In this book I use highly racialized language to distinguish between "black," "white," and "mixed-blood" or "half-caste" people. These terms are drawn from the lifeworld I encountered in Porgera. Papua New Guineans regularly use terms like these because Australian colonialism has left in its wake an extremely racialized imagination of difference. Please understand them as local terms, not my endorsement of some bizarrely racist ideology.

There is also the issue of describing the differences between Ipili culture and the culture of Europe and its settler colonies. Benjamin Whorf's term "Standard Average European" does well but is awkward. The term "the West" is problematic for reasons now known from decades of scholarship on Eurocentrism. A frequent alternative, "the global North" is unpalatable in the context of Papua New Guinea, where the white metropole is below Papua New Guinea on a map and Australians leaving Papua New Guinea are said to "go south." "Euroamerican" is frequently used by Melanesianists as a substitute for "white," but this is a mere fig leaf and

makes no sense in the context of Australian colonialism, since Australia is neither American nor European. I have opted for the more accurate "Eurochristian," which is a nonraced and frankly more accurate way to designate those societies importantly shaped by the culture of Latin Christendom.

Most anthropologists will recognize the specialized kinship terminology I employ. The exception is the term "enate," which some readers of the manuscript did not know. Following Peter Lawrence's definition in *The Garia* (1984, 256), I use this term to refer to a person connected to a cognatic stock through a female. Lawrence got the term from Meyer Fortes, who got it from Justinian.

There is a standard orthography for Ipili developed by the linguist and missionary Terry Borchard. However, few Ipili people use it. Throughout this book I have spelled Ipili names as their owners spell them. Other terms are spelled as I encountered them in the valley. They all sound pretty much as you'd expect—t and t tend to be tapped.

Over time, the government office responsible for overseeing matters relating to mining has undergone several name changes. Throughout this book I refer to it as the Department of Mining, since that was what it was called during my time here. Throughout, I refer to Papua New Guinea as a colony of Australia, despite the fact that many Australians consider their activity in Papua New Guinea a form of "imperial administration" rather than settler colonialism. I follow here the wider, academic use of the term "colony" to subsume all of these activities.

Many of my respondents asked that I use pseudonyms to identify them. Some, however, did not, and some were insistent that their proper names be used so that their fame and fortune would increase. Some are public figures, elected officials, or government employees who are well known and not entitled to anonymity. In this book I have decided to handle this complex mix of publicity, privacy, and desire for recognition by using pseudonyms to refer to all living participants in the Yakatabari negotiations—even the ones who requested that their actual names be used. This will appear ridiculous to many in Papua New Guinea, who will hardly be deceived about the identity of the people I discuss. Nevertheless, I believe consistency in the use of pseudonyms is ultimately the best policy. The names of ethnic groups and institutions have not been changed.

The Yakatabari negotiations and much of the other action described here took place in a context that was almost exclusively, if not totally, male. Some Porgerans have opinions about and engage in conduct towards women which may not agree with the sentiments of my readers. I would like, there-

fore, to emphasize that the focus on men's lives in this book is the result of the situation I described rather than any gender chauvinism on my part.

Finally, a note on terminology: throughout this book, *Leviathan* refers to the book by Thomas Hobbes, Leviathan to the mythological chaos beast of ancient Near Eastern political theology, and leviathan to any sort of blackboxed corporate entity.

ACKNOWLEDGMENTS

After I presented an early version of a chapter in this book at Jonathan Friedman's seminar in Paris, one of the students asked: "You talk about Leviathans, but aren't you making your own mythology?" He was right, of course. But the difference between corporations and scholars is that we academics acknowledge the networks out of which we are composed.

This book began as a dissertation at the University of Chicago, where Marshall Sahlins, Michael Silverstein, Danilyn Rutherford, and Manuela Carneiro da Cunha generously served on my dissertation committee. Ira Bashkow, Rupert Stasch, Lise Dobrin, Tom Strong, and Debra McDougall helped me both prepare for the field and live in it. Ken Hopper taught me institutional politics, Jim Nitti taught me the art of the short con, and AKMA taught me agape. Thank you all.

My account of Yakatabari could never have been written if both sides of the negotiations had not wanted me to tell their story. My thanks to Jeffrey, Kurubu, Jonathan, Graham M., Graham T., Ken, Craig, Fritz, Mel, Ila, Evert, Daniel, Koeka, Pakiru, Guy, and Sam.

I particularly wish to thank Anginape Mapia, Sawa Yawini, Jordan Iso, Andrew K., Kambo Olape, and the rest of Waiwa *yame* for hosting me.

My fellow Porgera-ists deserve special thanks for their generosity and collaborative spirit—not all anthropologists have the opportunity to share a valley with such amicable colleagues. Thanks to Glenn Banks and Jerry Jacka. Special thanks go to Aletta Biersack, the senior scholar in my area. When I first met Aletta, I found her incredibly intimidating. In the years that have passed since then I've discovered her to be a model of professional ethics: demanding, judicious, impartial—and intimidating.

Several sources funded this research. I thank the US Department of Education for the Fulbright-Hayes Doctoral Dissertation Research Abroad Fellowship Po22A990042, which made my dissertation fieldwork possible. Follow-up research was made possible by a Research Relations Grant from the University Research Council of the University of Hawaii at Manoa and a CIBER Interdisciplinary Research Grant.

There are worse things in life than shuttling between Honolulu and Paris. Thanks to Marie Salaun, Jonathan Friedman, and Albin Bensa for hosting me at the École des Hautes Études en Sciences Sociales where a good portion of this book was revised. In Marseille, Laurent Dousset and Serge Tcherkézoff were very kind hosts.

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Special thanks to Eleanor Kleiber, Stu Dawrs, and the rest of the staff of the Pacific Collection at the Hamilton library here at UH Mānoa for allowing me free access to the material that formed a central part of chapter 4. Kathy Creely helped support an early trip to the Melanesian Collection at the University of California San Diego, which was in part supported by a small grant from the Friends of the Library there. Thanks also to all the archivists and librarians at the National Archives of Papua New Guinea, the National Library of Australia, and the National Archives of Australia.

I never sweat the small stuff and, unfortunately, I seem never to sweat the medium-sized stuff either. Thanks so much to the three (!) hard-working editors who turned my manuscript into a readable book: Melinda "From Ohio" Eakin, Jeanne Ferris, and Sara Leone. Thanks also to the Robert S. and Mary M. E. Lingley Charitable Foundation for Childcare for allowing me the free time necessary to polish the manuscript in the congenial environs of the Bangor public library. And thanks, obviously, to Kate for being so supportive.

All the errors in this book are my own.

INTRODUCTION

"A set of principles necessarily includes a political attitude," Henri said. "And on the other hand, politics is itself a living thing."

"I don't think so," Lambert replied. "In politics, all you're concerned with are abstract things that don't exist—the future, masses of people. But what is really concrete is the actual present moment, and people as separate and single individuals."

"But each individual is affected by collective history," Henri said.

"The trouble is that in politics you never come down from the high plateau of history to the problem of the lowly individual," Lambert said. "You get lost in generalities and no one gives a damn about particular cases."

-Simone de Beauvoir, The Mandarins

How does a discipline that studies "what is really concrete in the actual present moment" come to understand "abstract things"? How do we move from our experience of "people as separate and single individuals" to the "high plateau of history"? These were crucial questions for de Beauvoir's characters as they struggled to rebuild postwar France. But these are our questions as well: anthropology today oscillates uneasily between two different imaginations of our contemporary situation that are only tenuously linked. On the one hand, there is a Foucauldian scrutiny of global regimes of governance that grow ever more panoptic, neoliberal technologies of subjectification that shape individuals ever more strongly, and lives that appear increasingly proscribed, described, and inscribed in proliferating technoscientific imaginaries. On the other hand, there is a Deleuzian enthusiasm for evanescent assemblages of actors, an enthusiasm which discerns trajectories of hope

and desire that gainsay the pretension to omnipotence that currently structures our world. Whatever the ties between Foucault, Deleuze, and other authors might have been, I cannot help feeling that there is something incoherent about an anthropological vision that sees the world as both more controlled and less controlled than it has ever been before. Is there a better way to do justice to a contemporary scene characterized by both spontaneity and regime?

This book attempts to answer this question by examining the relationship between two entities that, with differing degrees of success, attempt to transform themselves from a collection of "separate and single individuals" into "abstract things": the Porgera gold mine and the Ipili-speaking people on whose land the mine is located. In 1939 the Ipili were one of the last major ethnic groups to be contacted by the Australian administration of what was then the Trust Territory of New Guinea. Gold was discovered on that initial patrol, and after fifty years of prospecting and small-scale alluvial mining, the third largest gold mine in the world opened in Porgera. It has been in operation ever since, and Porgerans have gone from a world without metal or textiles to one in which trucks carrying hundreds of tons of rock operate nonstop in a huge open pit that was once their mountain. Since its establishment in 1962, the Porgera government station has been transformed from a remote airstrip to a bustling "wild West" boomtown with—if the census can be believed—roughly 20,000 inhabitants (Government of Papua New Guinea 2002). The valley's past is littered with spectacular industrial accidents, large-scale civic unrest, and one particularly well-remembered beheading. In sum, Porgera fulfills every stereotype of Papua New Guineans' living "10,000 years in a lifetime" (Kiki 1968), and going "from stone to steel" (Salisbury 1962) or "from the stone age to the jet age" (Biersack 1992) in one generation.

Porgera is both easy and hard to understand. It is easy to understand because it is the kind of place that people like to tell stories about. Anthropologists and activists, for instance, like to tell stories of global capital destroying untouched cultures and pristine environments, and of valiantly resisting, agentive indigenes. Mining companies and development agencies, on the other hand, like to tell stories of progress and development, of the benefits that mining brings to its Third World stakeholders. But Porgera is also hard to understand because neither of these narratives fit very well with the reality of life in the valley—or perhaps because they both do, but simultaneously and in unexpected ways. In this book my goal is to do justice to Porgera by complicating the stories that are told of it, not out of an obscu-

rantist impulse to confound or an ideographic insistence that cases cannot be generalized, but because Porgera deserves a story that will do justice to its complex reality.

Simplicity in narrative, the rhetorician Kenneth Burke might have noted, is best achieved by keeping the number of characters small. One of the reasons that stories about Porgera are so straightforward is that they usually feature only two actors: the mine and the Ipili. These stories have simple plots with obvious heroes and villains. In this book, in contrast, I seek to describe the morally ambiguous reality of life in the valley by crafting a narrative that examines the proliferation of actors in valley politics.

Who, specifically, acts in the name of "the mine" and "the Ipili"? By what semiotic and political processes are these abstractions made to appear unproblematically as actors? What sorts of conflicts occur as people vie to become spokespeople for these groups, challenging each other's right to speak in their name? How does recognition of corporate identity claims affect people's entitlement not only to money and resources, but also to dignity? It is with this perspective, with identities unstuck, that I will examine the relationship between "the mine" and "the Ipili."

Finding answers requires asking some of the oldest questions about human social life: How do individuals come to represent groups? How is action coordinated across time and space? How do macro orders of determination interface with micro levels of human interaction? How do human beings form social totalities, and how do the methods that are used today compare with those of the past? This book does not pretend to solve the constitutive problems of social science, but I do at least hope to provide answers to these questions that will help us make sense of Porgera and possibly other similar places as well.

In this book, I attempt to answer these questions by analyzing two topics that are normally treated separately: the creation and maintenance of a large corporation (and, by extension, global capital) on the one hand, and the creation and maintenance of an ethnic group (and, by extension, indigenous identity) on the other hand. Each topic has its own massive body of literature, yet studies of the corporations (Welker, Partridge, and Hardin 2011) and of kinship (Carsten 2000) rarely interact with each other (the one great, and largely-unread, exception being Smith, M.G. 1975). Neither of these literatures articulates with studies of the cultural construction of the state (for an overview, see Sharma and Gupta 2006) despite the fact that such studies have done much to clarify how de Beauvoir's "abstract things" are created "in the actual present moment."

And yet all three of these literatures are converging around a similar set of issues. 1990s bedazzlement with the inscrutability of global capitalism has given way to a movement which is "directly engaging with the global as a specific cultural formation and unpacking the global ethnographically from its black box" (Ho 2005, 88; see also Knorr Cetina and Preda 2005; Rajak 2011; Downey and Fischer 2004). The study of the state has transitioned from James Scott's (1998) image of the state as a monolithic knower of facts to an anthropology that examines the "repetitive re-enactment of everyday practices" through which "the coherence and continuity of state institutions is constituted and sometimes destabilized" (Sharma and Gupta 2006, 13, see also Feldman 2008, Hull 2012b). In the Pacific, studies of indigenous identity have moved beyond the literature on the invention of tradition and the concept of kastom (Lindstrom 2008) and alternate modernities (Knauft 2002). Instead, they have developed accounts of social change that focus on political innovation (Hviding and Rio 2011), a new native cultural studies which holds that identity is always contingent and achieved (Diaz and Kauanui 2001; Clifford 2013), and most importantly for this book, a powerful account of social organization and land tenure as it interacts with governmental forms (Weiner and Glaskin 2007). In the study of business, government, kinship, and indigeneity, then, scholars are examining how larger, stable social units are made in social processes that extend across time and space.

Although these literatures do not always talk to one another, I hope to develop a framework that can subsume them all. This is not a new move. The literature is littered with different terms for the sort of entities "the mine" and "the Ipili" hope to become: collective subjects, social persons, social totalities, macro actors, mass collectivities, and so forth. In recognition of the antiquity of these phenomena, I will refer to all of those kinds of collective entities as leviathans and attempt to understand how, generally, they come to be "concrete in the actual present moment," represented by particular people in particular offices and particular boardrooms—how, in other words, "the mine" can sign an agreement given the fact that, strictly speaking, it has no hands.

But before this complexity, exposition: who are these two leviathans I am about to unknit?

The Mine

Mention mining in the Third World, and people's imaginations will often conjure haunting images of sulfur mining in Indonesia and gold rushes in Brazil: stark portraits of primitive, dangerous conditions and Third Worlders whose lives are shaped by the backbreaking misery of mining. Porgera is nothing like that.

Porgera is an enormous, technologically sophisticated, and highly mechanized operation. It is also a world-class mine: in 1992—its second year of production—it produced 1,485,077 ounces of gold, making it the third most productive gold mine on the planet and the most productive outside of South Africa (Banks 1997, 121). In 2000—the ethnographic present of this book—it produced 910,434 ounces of gold (Placer Dome Asia Pacific 2001, 1). Porgera is an open-cut mine: huge excavators dig away at the side of the mountain, moving roughly 200,000 tons of earth daily. Ore is dumped into an enormous crusher and then gradually refined and treated in enormous autoclaves. Over 95 percent of the ore becomes tailings (residue), which are discharged into the Pongema River. The rest becomes gold bars. In this way what was once a mountain has become a giant pit.

The mine is owned by the Porgera Joint Venture (PJV). The financial arrangements of the joint venture are complex, but during my fieldwork shares in the PJV were basically owned by Placer Dome (a transnational mining company based in Vancouver, Canada), the national government of Papua New Guinea, the Enga provincial government, and local landowners. Placer, the main shareholder, has a history in Papua New Guinea that goes back to the 1930s (Healy 1967); in 2000 it operated two properties in Papua New Guinea, the Misima and Porgera gold mines. Placer had been a key partner in prospecting and exploration in Porgera even before the mine opened, and after twenty years in the valley its name has become synonymous with the mine. Thus although employees of the Porgera Joint Venture wear uniforms with "PJV" on them, in the minds of most Porgerans "PJV" and "Placer" were synonymous. Although Placer was purchased by Barrick in 2006, this book will continue to refer to Placer, since this is the company that was operating the mine when the events recounted in this book took place.

In 2000, Placer described itself as "the world's gold leader" and employed 12,000 people at fifteen mining operations in six countries on five continents; its shares were traded on the Toronto, New York, Swiss, and Australian stock exchanges. In Porgera, the PJV employed 1,972 people, of whom 1,724 were citizens of Papua New Guinea and 248 were expatriates. Roughly half (1,046) of the "national" workers were drawn from points of hire within Porgera itself, while 182 came from elsewhere in Enga Province and 496 from other areas of Papua New Guinea (Placer Dome Asia Pacific 2001, 12). The result was a multiethnic, if stratified, workforce. Senior management

positions (including that of mine manager) and highly specialized technical positions were held by white expatriates (typically from Europe, Australia, or other Commonwealth countries), while most midlevel positions that require education and expertise were filled by Papua New Guineans from outside of Enga—typically people with experience working in other mines in the country. The bulk of the staff members who operated equipment and provided custodial services are hired in Porgera, although—as we shall see—whether or not this means that they are "Porgeran" is a constant topic of debate (Placer Dome Asia Pacific 2001, 12).

The person most centrally responsible for the mine was the mine manager. Like the captain of an eighteenth-century ship, the mine manager was given considerable latitude by his distant superiors in managing his operations, and in many ways he was single-handedly responsible for the safety of thousands of employees and an operating budget that runs into the hundreds of millions of US dollars. The position of mine manager is often a steppingstone for senior management jobs at the national, regional, or even international level. This seems to be particularly the case for Porgera. Before its acquisition by Barrick, four of the nineteen members of Placer Dome's senior management in Vancouver had been involved in Porgera, and two had been mine managers. As one member of senior management told me, there was a strong informal sense in the company that "if you could survive Porgera, you were ready for anything." In fact, the person who was mine manager during the majority of my time in the valley eventually became the executive vice president of operations for Placer Dome—essentially the second most powerful person in the company's global organization.

The mine and its manager were just one node in a network of sites that together made up Placer's global organization. As the senior official living on site in Porgera, the mine manager reported to Placer Niugini, the branch of Placer Dome incorporated in Papua New Guinea whose offices were located in Port Moresby. The Port Moresby office was headed by the managing director, who is responsible for Placer's activities in the country at the national level. Two other senior executives in that office—chosen for their experience and connections—specialized in relationships with industry and government representatives. People in this office reported back to both Placer Dome Asia Pacific (whose headquarters was in Sydney) and the company's international headquarters in Vancouver.

At the mine site itself, a small group of senior managers were in charge of overseeing different aspects of the mine's operations. Most of these people did not directly deal with the Ipili in any capacity other than as coworkers.

The two branches of the mine that dealt with the Ipili community in Porgera were loss control, which includes site security, and community affairs, whose staff members served as the interface between the mine and the Ipili. The director of community affairs oversaw a group of roughly five people who are in charge of different units. One man, for instance, was responsible for relations with groups downstream of the mine, which he visited by helicopter. Another was in charge of the office where Ipili complaints about land and compensation were handled. Although the director of community affairs had an office in the mine's main administration building, which requires security clearance to enter, most other community affairs officers had publicly accessible offices and thus became the people who most frequently represented "the mine" to Porgerans.

A central theme of this book is the logistical difficulty of keeping a mine like Porgera up and running. The mine is a complex sociotechnical system made up of a variety of human and nonhuman actors—employees, autoclaves, and of course the mountain itself—and maintaining its operations requires an extraordinary amount of coordination. Most central to the mine's operations were two "lifelines" critical for its continued operation: first, a seventy-eight-kilometer power line that supplied electricity from a natural gas plant in a neighboring province; and second, the road on which semitrailers take two days to wind their way up from the coastal city of Lae, carrying containers full of supplies (Lavu 2007). The mine's operations could have been easily disrupted if the road or power line were damaged, either by natural incidents like landslides or by disgruntled Papua New Guineans cutting down the guy wires that supported the power line. The mine was powerful, influential, and important—but it was also vulnerable.

Thus the mine has a dual existence: as an engineering project digging away at the side of a mountain, it deals with the most brute of brute facts, and is hostage to the material conditions required to operate it. At the same time, however, "the mine" is a remarkable semiotic accomplishment. Defining who "the mine" is can be ambiguous and tricky. If a security guard shoots an Ipili trespasser in the back, has "the mine" or "an employee" shot someone? Do community affairs officers speak for "the mine"? Does the mine manager? The country manager in Port Moresby? Even "the facts" about the mine can be contentious: does the price of gold merit large royalty payments or small ones from the company to the government? Does the answer differ if the question comes from a shareholder in Canada instead of a minister in Port Moresby? Are the tailings that are released into the river toxic? How much does it cost to produce an ounce of gold? Logistics require semiotic

work to clarify and coordinate the complex technical work of the mine—and to use ambiguity and uncertainty to the mine's advantage.

The Ipili

Just as the stereotypes of mud-smeared miners emerging from rough-hewn pits fail to capture the sophistication of the Porgera mine's engineering, preconceptions of the Ipili as ecologically noble savages (Buege 1996) who are trampled on and degraded by global capitalism do not capture the complexity of Porgera's politics. Gold was discovered in Porgera in the late 1930s, and both outsiders and Porgerans had been working the alluvial deposits for decades before a large-scale mine seemed feasible at Porgera. It was at this point, in the 1980s, that the copper mine in Bougainville closed in the face of massive community unrest. The loss of revenue from Bougainville left a massive hole in the government's budget, and Porgera was quickly seized on as a solution. At the same time, the failure of the Papua New Guinea Defense Force to keep Bougainville open demonstrated that the government lacked the capacity to operate a mine in the face of local opposition. The result was a moment of opportunity that the Ipili seized, becoming one of the most active and successful groups in pressing claims against the state and transnational capitalism. Indeed, so thoroughgoing were Ipili attempts to extract benefits from the mine that Timothy Andambo, a Porgeran mining engineer, has described the tangle of trust funds, equity companies, and committees that manage the Ipili's numerous investments as "social technology to extract rent from the Porgera lode" (2002). The benefits package the Ipili negotiated with the government and the company has now been exceeded by other landowning groups in Papua New Guinea such as those at Lihir (Bainton 2010), but Porgera set the standard. In the beginning, then, Porgerans welcomed a mine—provided that it agreed to their terms.

Who should receive benefits from the mine? What sort of assent is needed for the mine to claim that it has a social license to operate in Porgera? Answering these questions means deciding who counts as "the Ipili" or, to be more exact, that subset of them known as "landowners."

Linguistically and culturally, the Ipili are part of a wide ethnic galaxy that includes the Huli (to the south) and the Enga (to the east), both of which are larger in population than the Ipili by an order of magnitude or more (for regional overviews, see Biersack 1995a, Wiessner, Tumu, and Pupu 1998; for Porgera itself, see Jacka 2003). In practice, boundaries between ethnic groups are not clearly defined in the area, and the Ipili are a "hinge"

or "intermediate" group wedged between the two much larger groups. Like their neighbors, the Ipili prefer to live in dispersed homesteads and practice mounded sweet potato agriculture. Ipili culture—like that of many other groups in Papua New Guinea—is preoccupied with fertility and wealth: one of the best-known symbols of Ipili identity is the bullhorn-shaped wigs that young men make out of their own hair (for more on fertility, ritual, and beautification among the Ipili, see Biersack 1998). Very roughly, we can say that their kinship system is cognatic, similar to that of the Huli described by Robert Glasse (1969) and the Garia described by Peter Lawrence (1984). In contrast to the more corporate-minded Enga or the Hagen people of Western Highlands Province, the Ipili believe that anyone with a single Ipili grandparent has a good claim to affiliate with the cognatic stock with which that grandparent is affiliated, as long as the descendant demonstrates some sort of solidarity with other members of the stock through work and consociation. As in other areas in Papua New Guinea, affines and nonconsanguines are often incorporated into local groups that are theoretically based on descent (Langness 1964).

Beyond these generalizations, it is not easy to separate "Ipili culture" from "the mine." Decades of mining in Porgera have made kinship and landownership contested topics, even in areas not directly affected by mining. Ipili speakers live in two adjacent valleys, the Porgera and the Paiela. Although the Porgera Valley has been transformed by the mine, the Paiela Valley to its west has felt the impact only indirectly, and lack of access to direct benefits from the mine is often a source of resentment. Many people in Paiela pin their hopes on the potentially large Mt. Kare gold deposit in the south of their valley, but until this project pans out, Paielans will remain the country cousins of Porgerans. To the east of Porgera, near the road that runs out of the valley, is the hamlet of Tipinini. The inhabitants are known as the East Ipili, and have been studied by Jerry Jacka (2003). This group is in many ways transitional between the Ipili speakers of Porgera proper and the Western Engans from the area around Laiagam. The East Ipili's dialect is slightly different from that of people in Porgera, and intermarriage between East Ipilis and Engans is common. Downstream of the mine, the people of the Lower Porgera remember when their area was a hotbed of alluvial mining, dream of returning to their former prominence in valley affairs, and attempt to cope with the bright red water discharged from the mine that now flows through their territory (Biersack 2006). Paiela, Tipinini, and the Lower Porgera receive a number of spin-off benefits from the Porgera mine, but see these benefits less as perks and more as bitter reminders of the minederived affluence that an arbitrary fluke of geography has bestowed on their relatives nearby.

The question of benefits—which "mine" the mine belongs to—is central. Legally, the subsoil gold is the property of the national government, while the land above it is under the customary title of seven landowning clans. Under Papua New Guinea's Land Act, Ipili land is inalienable, may not be sold, and must be safeguarded for future generations. However, the government may issue a lease to outsiders if it decides that such a lease is in the best interest of its citizens—whether they consent or not. Thus the clearest definition of "Ipili landowners" is the people whose land is the subject of the special mining lease (SML) on which the mine operates: land the Ipili own but cannot sell or legally prevent the government from leasing to others.

Relations between the SML landowners, the national and provincial governments, and the mine are regulated by a series of legal agreements. The first is a compensation agreement—required by law—between the mine and landowners. This describes the price the mine must pay for land and plants damaged by its activities. An additional set of agreements called the Porgera Agreements were signed by the Ipili landowners and representatives of the Enga provincial government and the national government. These agreements obliged the national government to include certain clauses in the Mineral Development Contract that regulates the relationship between the government and the mine. Thus the Porgera Agreements effectively represent concessions made by the mine and the national government to the Enga provincial government and the Ipili, even though the mine is not party to the Porgera Agreements. These agreements were without precedent and arose largely from the initiative of the Porgera landowners and the Enga provincial government. The strength of the Ipili position, along with the government's desire to do the right thing, created a situation in which for the first time the state signed an agreement with landowners who permitted the state to issue a special mining lease to a developer. The Porgera Agreements were thus both unprecedented (a new mining act was passed to ensure that they were technically legal) and extremely lucrative, and they are the source of many of the most important benefits that the SML landowners receive.

Measuring exactly how much compensation the Ipili have received from the mine is difficult because of the variety of benefit streams that affect the Ipili—everything from direct monetary compensation for damaged land to indirect economic activity generated from the mine's presence and the market value of the Ipili equity in the mine might be included under the rubric of

"benefit." According to mine statistics, the Ipili have received K66,000,000 the currency of Papua New Guinea is the kina—in compensation for land lost from the mine's opening up to the time of my fieldwork—roughly, the mine's first decade (Placer Dome Asia Pacific 2001, 12). This is a difficult figure to appreciate due to the kina's fluctuation in value: in the late 1980s a kina was worth US\$1, but in 2001 it was worth less than US\$0.25. In 2000 the mine estimates it spent roughly K20,000,000 on donations to groups within the valley for education and community infrastructure and K113,700,000 in wages and salaries—although what percentage of those wages went to ethnic Ipili is difficult to say. In addition, the Ipili own 2.5 percent of the PJV (Banks 2003, 226-29). They receive quarterly royalties from gold sales, and the government has given them a multitude of new services, including a hospital and roads. Indeed, the Ipili are not only the lessors of the special mining lease on which Placer operates the Porgera gold mine, but they also own the highrise building in Port Moresby where Placer Niugini has its corporate headquarters (for data on economic benefits up to 2012 see Johnson 2012).

The Ipili also signed a relocation agreement with Placer. In the 1980s the future site of the Porgera gold mine was inhabited by landowners—indeed, when it became clear where the mine would be located, people quickly moved there and built houses and gardens in anticipation of future compensation. As a result, Placer undertook a relocation program that was without precedent in modern mining history—roughly 3,400 people were moved off the future mine site and into 420 new houses (Bonnell 1999; Banks 1999). For many people, new relocation houses made of tin and timber replaced homes based on traditional materials from the bush, and a relocation house was often the greatest benefit that a Porgera landowner would receive from the mine. These new nucleated "relocation communities" were built inside the special mining lease area, and each one was meant to be home to one of the seven landowning clans. Thus "villages" based on "clan ties" were created. Some of the mining operation is shielded by fencing, but much of it is not. In order to enter the open pit in 2000, for instance, Ipili landowners needed only to walk up the ridge on whose side their houses are built, cross to the other side, and then descend into the pit.

But even these people are not the epitome of the term "landowners." The benefits of mining have not been distributed equally, and an elite of "big men" has emerged in Porgera. It is composed of the people appointed to positions of power on the various boards of directors and those who receive lucrative contracts from the mine to provide security, janitorial, and other

services. When people speak of "landowners," it is really these people who they have in mind—large, well-fed men with reputations for prodigality who drive Toyota Land Cruisers with windows tinted to make them opaque.

Despotic Assemblages and Other Assemblages

Both "the mine" and "the Ipili," then, share a common feature: at a distance they appear to be unproblematically existing actors, but the closer you come to them, the more their coherence and integrity begins to falter. For this reason, this book will repurpose the old trope of the Pacific Islands as laboratories (for a critique of this trope, see Terrell, Hunt, and Gosden 1997). Margaret Mead, for example, argued that New Guinea's "densest jungles" created "untouched societies" in which "the student of human nature was guaranteed one kind of laboratory" (1954, 6–8). Similarly, James Barnes wrote that the highlands of Papua New Guinea "could be seen to provide, as it were, laboratory conditions for the investigation" of "the general characteristics of human culture and social institutions" (1969, 3).

Rather than argue that the geography of Papua New Guinea creates ideal conditions for causal inference, I will claim that Porgera resembles the laboratory as revealed to us by science studies: the closer one approaches, the more one sees conditions of novelty and innovation, the proliferation of controversies, and—as Michel Callon (1980) would put it—struggles and negotiations to define what is problematic and what is not (for a similar argument see Mullaney 2011, 62). Or, to speak the language of ethnohistory, Porgera is a middle ground (White 1991), contact zone (Pratt 1992), or frontier, "a kind of 'interstitial space' in which some human enterprise, such as warfare, trade, or religious conversion, has extended beyond the effective control of established institutions" (Parker and Rodseth 2005, 23). Because "the Ipili" and "the mine" are still being fashioned in Porgera, the valley presents us with an opportunity to demonstrate the broader utility of a "sociology of associations" (Latour 2005, 13) by bringing the frontier to the laboratory.

Science studies is also a good place to begin tracing the work the figure of the Leviathan has done in our anthropological imaginations. Calling both "the Ipili" and "the mine" leviathans allows us to, as Callon and Latour put it, "unscrew" them (1981). Such unscrewing reveals a macro actor's ability to "translate" "all the negotiations, intrigues, calculations, acts of persuasion and violence, thanks to which an actor or force takes, or causes to be conferred on itself authority to speak or act on behalf of another actor or force"