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Offshore work:

Oil, modularity, and the how of capitalism in Equatorial Guinea

ABSTRACT

Oil scholarship often focuses on oil as money, as if the industry were a mere revenue-producing machine—a black box with predictable effects. Drawing on fieldwork in Equatorial Guinea, I take the industry as my object of analysis: infrastructures, labor regimes, forms of expertise and fantasy. Starting from a visit to an offshore rig, I explore the idea of “modularity”—mobile personnel, technologies, and legal structures that enable offshore work in Equatorial Guinea to function “just like” offshore work elsewhere. Anthropologists often characterize as naive the simplifications of modular processes, the evacuation of specificity they entail. Yet for the industry in Equatorial Guinea, this evacuation of specificity was neither mistake nor flaw. Tracing the making of modularity shows how corporations can appear removed from local entanglements and also helps to clarify the “how” of capitalism—the work required to frame heterogeneity and contingency into the profit and power found in many global capitalist projects. [*oil, capitalism, work, modularity, Equatorial Guinea*]

The morning of March 1, 2008, dawned warm in Bata, Equatorial Guinea's second city. At 6:00 a.m., I stood outside the headquarters of a large U.S.-based oil company with a small group of others—a Spanish woman, a man from Louisiana, and two Equatoguinean men—waiting to “go offshore” by helicopter. We stood quietly and not quite together, separated by the early hour and by uncertainty about one another's purpose for being there. Eventually, an Equatoguinean driver pulled up in a company bus. As we boarded, he requested our identification passes, to electronically register each of our exits from the company compound, and then he drove us to the company's private wing at the airport. After an airport worker searched our bags, we sat in a small room to watch a safety video on the importance of in-flight protective equipment and what to do if our helicopter were to catch fire in midair. At liftoff, the helicopter rose effortlessly, and the city of Bata spread out beneath us. Farther from shore, behind us, the Ntem River marked the edge of the continent. After a while, the scenery faded into the calm of the open ocean seen from above, a stillness muted further by the gentle vibration of the helicopter through noise-cancelling headphones. Eventually, a bright flame appeared in the distance, attached to a still-indistinct industrial atoll—an oil rig. Just as the rig came into view, the helicopter banked left, and we landed briefly on what looked like an aircraft carrier, leaving the Spanish woman on what was in fact a floating production, storage, and offloading vessel (FPSO). With the production rig visible some hundreds of yards away, the FPSO was illuminated by its own large flare, burning the crude's gaseous byproducts. This vast, self-propelling, shiplike structure floated above an oil field producing 100,000 barrels per day. Every ten days, a tanker would pull alongside the FPSO and leave with one million barrels. From subsea hydrocarbon deposit to the rig to the FPSO to the tanker to market, the production chain of Equatorial Guinea's oil was clearest to me by helicopter, far off the country's shores (see Figure 1).

In this article, I trace the work that makes the view from the helicopter possible, the work that allows Equatorial Guinea to recede into the distance, framing the production process—subsea to market—as “offshore.”



Figure 1. Offshore by helicopter: (a) Bata from above; (b) the Ntem River; (c) the rig. March 18, 2008. Photos by Hannah Appel.

I start from the assumption that “the offshore” is not given in the order of things, either as geographic location, as industrial site, or as an evocative metaphor of “placeless economic interaction” (Cameron and Palan 2004:105). Rather, the offshore is “brought into being, sustained, or allowed to wither away [through] common, day-to-day sociomaterial practices” (Mol 2002:6). Using my visit to a drilling rig I call the “TIPCO 330” as this article’s point of departure, I trace the practices that bring the offshore into being in Equatorial Guinea. In addition to the rig visit, I draw on material from 14 months of ethnographic fieldwork in and around the country’s oil and gas industry, including in-depth interviews with offshore industry personnel, near-daily presence in the industry’s gated corporate and residential enclaves, participant-observation in the country’s Extractive Industries Transparency Initiative program, and document analysis.¹

This ethnographic material enables me to think through a framing process that my rig trip made so clear: the work required for the transnational oil industry to disentangle the production of profit from the place in which it happens to find itself—in this case, Equatorial Guinea—and to structure liability and responsibility in such a way that it can seem to remove itself from local social, legal, political, and environmental entanglements.² This approach begins to pay ethnographic attention to the oil industry itself as I found it in Equatorial Guinea—its infrastructures, its labor regimes, its forms of expertise and fantasy. To the extent that scholarly literature on oil has generally focused on the effects of oil as money, the concrete specificity of the industry itself has receded into a thin portrayal of a revenue-producing machine—a black box with predictable effects. As Michael Watts writes, “What is striking in all of this resource-politics scholarship is the almost total invisibility of both transnational oil companies . . . and the forms of capitalism that oil or enclave extraction engenders” (2004:53; see also Mitchell 2009, 2011). This article is part of a wider project that takes the U.S.-based industry in Equatorial Guinea as its primary object of analysis, placing transnational oil companies and the “forms of capitalism that oil extraction engenders” at the center of ethnographic inquiry.

The article is divided into four sections. The first section offers an ethnographic sketch of the oil and gas industry’s pervasive entanglements in Equatorial Guinea’s onshore life, to render starker the work required to frame the industry as “offshore.” Through the brief account of Equatorial Guinea’s recent history that concludes the section, I suggest that the specificities of the place render the industry’s work toward disentanglement particularly visible. Bringing the focus back to the rig in the second section, I introduce modularity as a central project in the industry’s work toward disentanglement—the use of mobile, compliant, and self-contained infrastructures, labor setups, forms of expertise, and legal guidelines to enable offshore work in Equatorial Guinea to function “just like” offshore work in Ghana, Brazil, or the North Sea. Putting Anna Tsing’s (2005) concept of “friction” in conversation with the work of Michel Callon and Koray Çaliskan on disentanglement and marketization (see Callon 1998; Çaliskan and Callon 2009, 2010; see also Thomas 1991), I follow the industry’s work toward the ever-receding horizon of frictionless profit. In the third section, I turn to the evocative promises of “the offshore” for those in industry management, many of whom imagined offshore oil operations to share with offshore financial setups the idea that there are spaces where the production of profit can evade or minimize contestation. But their fantasies remained disturbed by environmental and community overflows that have long haunted the industry’s work. In the article’s final section, I turn to the micromanaged time and tasks that structure daily rig life for Equatoguinean workers. I am interested in how these routines are shaped by the industry’s mobile conceptions of risk and safety, themselves linked to shareholder value and actuarial reason. Where elaborately choreographed and audited safety rituals work to hedge companies’ financial risk, attention to Equatoguinean workers on offshore rigs asks us to think through different moments and embodiments of risk as oil and gas travel to market. For whom is the offshore arrangement disentangled? For whom does it redistribute risk, and where does that redistributed risk go? In each section, I show the considerable work required not only to animate the offshore project but also to disentangle the participating companies from the thick webs of Equatoguinean

politics, environments, and socialities in which they are so intimately implicated.

Entanglements

The distancing view from the helicopter window belies the extent to which the oil and gas industry seeps into every corner of Equatoguinean daily life. Since the discovery of commercially viable hydrocarbon deposits in the mid-1990s, Equatorial Guinea has received over \$50 billion in capital deployment from U.S. oil and gas companies alone.³ Among Africa's most important new oil producers, the long-impoverished microstate is at the center of the petroleum industry's "new Persian Gulf," from which upwards of 17 percent of U.S. net petroleum imports now come (U.S. Energy Information Administration 2010). Production sharing contracts worth billions annually to companies and the state alike require protracted negotiation and complicity between President Obiang's unopposed authoritarian regime, now the oldest in Africa, and U.S.-based oil and gas companies. Before oil, Obiang's rule was crippled by debt and threatened by an opposition coalition. Today, these contracts have been an unparalleled state-making project; Obiang is not only still in power but he also now leads the African Union. And yet, in exchange for this newfound sovereignty, the Equatoguinean state must negotiate with oil companies to modify local environmental, labor, and taxation laws and regulations that might affect the companies' profit margins.⁴

Oil and gas development subtends not only a transformed political landscape in Equatorial Guinea but a new physical landscape as well, which transmogrifies at an alarming pace. Offshore gas flares blaze against nighttime skies in an uninterrupted string that, from a plane window, seems to stretch south all the way from Nigeria. "La Planta" screams into view as planes land in Malabo's airport. Dazzlingly bright, the natural gas and methanol plant is a tangled, illuminated kingdom of pipes, some small and some big enough to fit a car inside, connecting metal vats and silos and containers and wires and more pipes and conveyor devices and cranes, weaving in and out of one another and reaching up until it seems the plane will scrape its metal belly on the highest reaches of the plant. The small capital city in the distance is dim and receding. Yet, around it, oil revenue and contractual clauses have built new cities as if overnight (Appel 2012). Malabo II sprouts beside colonial Malabo, and filaments of asphalt busy with Chinese and Egyptian construction workers extend in all directions. Stadiums, palaces, skyscrapers, and vast housing and apartment complexes rise from red dirt exposed beneath equatorial green, it seems, only days before. The small country's private property regime has been entirely remade as the president publically expropriates his own substantial private holdings "in the name of development" while oil

and gas companies rent what is still widely considered "his" land. *Los de a pie* (the masses; lit. those on foot) are expected to equate their own dispossession with the president's hollow act. Gated residential and corporate enclaves for expatriate industry personnel spring up in these spaces, serviced by their own septic, electricity, telecommunications, and food procurement systems (Appel 2012; Ferguson 2006).

In 2008, hydrocarbons accounted for 99.3 percent of the nation's exports and 98 percent of government revenues (IMF 2010; Kraus 2010; República de Guinea Ecuatorial 2010). The industry is the only large employer other than public administration, and work in and around it newly schedules people's lives, sending them to offshore platforms for weeks at a time or putting them in security guard or maid uniforms. The booming industry enables some to return from degrees earned abroad to work as government liaisons or accountants, while it consigns others to sex work or window washing. Corporate social responsibility programs subcontracted to international development firms fan across the country's cities and towns touting education reform and malaria control or proffering hospital equipment and neighborhood drinking wells.

From keeping a regime in power to the ways in which law and regulation evolve, from staggeringly vast infrastructural projects and reconfigured modes of property adjudication to new forms of employment and the education of children, the oil and gas industry is everywhere enmeshed in Equatorial Guinea's onshore life. And yet the industry creates and inhabits an eerie distance from its supply site. Boundary-making projects, including mobile offshore infrastructure and labor regimes, enclaved residential and corporate spaces, and profitable relationships built on the attenuated liability of contractual obligation, allow companies to bemoan poverty, pollution, and kleptocracy "out there," as if they have nothing to do with it, while they work furiously to disentangle their operations, residential footprints, corporate practices, legal presence, shareholder value, and moral identity from life "outside their walls." Looking at Equatorial Guinea as if from afar, expatriate industry personnel routinely talked to me about how locals should really learn to stop burning their small piles of garbage, even as industry flares blazed constantly around us; they remarked earnestly that Equatoguineans should diversify their economy, learn to "live off the land." Or they would pass me literature on an economic theory known as the "resource curse" (Auty 1993; Collier 2007; Humphreys et al. 2007), lamenting that, unless the government got its act together, the litany of pathologies posited by that body of scholarship—corruption, inflation, armed conflict, antidemocratic tendencies—was sure to follow, as if their presence had nothing to do with that potentiality. How are these aporias made?

In the sections that follow, I turn to the daily industrial practices that enable this habitation of distance. But before

returning to the rig, I highlight the ways in which the industry's entanglements, described above, and the relative ease with which those ties are attenuated, described below, are shaped in and by Equatorial Guinea's specific history. After gaining independence from Spain in 1968, Equatoguineans suffered a brutal dictatorship under Macías Nguema, in which roughly one-third of the population was killed or fled into exile. The man who eventually took power in a 1979 coup—Obiang Nguema Mbasogo—was chief of security in the previous murderous regime and was intimately implicated in its brutalities. As noted above, Obiang remains president to this day. Though the climate of outright violence has changed considerably in Obiang's more than 30-year rule, "la triste memoria" (the sad memory), as locals refer to the period of mass violence, is still present. Memories of indiscriminate violence also serve to threaten, and the vast majority of Equatoguineans today continue to talk about politics only in hushed tones and fear public political mobilization of any kind. In addition, Equatorial Guinea's postcolonial legal inheritance has been particularly consequential for the coming of the oil industry. During his tenure, Macías annulled Spanish law, producing what one Equatoguinean Supreme Court judge described to me as "a legal vacuum" that lasted until 1980. After his 1979 coup, Obiang reinstated Spanish law and began to legislate regularly, but, the judge lamented, "now there is confusion . . . The principal problem is that no one knew what law was extant in Equatorial Guinea. Then along comes oil. What law applies?" The absent presence of *la triste memoria*, coupled with ongoing political repression and legal confusion, has left Equatorial Guinea a small place thick with fear, suspicion, and public silence.

The extreme specificities of Equatorial Guinea—a mere 600,000 inhabitants living in a paranoid and claustrophobic dictatorship, a citizenry barely out from under the pall of recent mass violence, economic collapse in the late 1960s so total that there was no paper in the country (Artucio 1968)—allow certain aspects of the industry's work toward disentanglement and self-containment to pop into visibility. Open contestation in other oil-producing places, often hard-won over years of exploitation, as in Nigeria or Ecuador, has buried the industry's fantasies of frictionlessness in decades of political negotiation. But the mid-1990s in Equatorial Guinea were a moment in which an authoritarian regime already long in power, but facing increasing opposition, was happy to oblige nearly every demand of the industry, allowing everything from mobile labor regimes, comprising almost exclusively foreign workers, to exploitative contracts to proceed uncontested. This historical specificity highlights the peculiarity and intensive work required of an industrial approach that treats Equatorial Guinea as if oil and gas production could proceed as it does in Houston, Ecuador, or Nigeria. I turn now to that work.

Modularity and the making of the offshore

The helicopter touched gingerly down on the rig, and João, the rig's safety coordinator, immediately whisked me to the radio room for a safety-training minicourse on video.⁵ After an exam that tested my comprehension, João had me sign a liability waiver and then put me in my required personal protection equipment (PPE) of hard hat, safety glasses, gloves, ear plugs, coveralls, and steel-toe boots. I was to take off all rings, earrings, necklaces, the hair band around my wrist, and anything else that could snag or catch. None of these items was allowed on the rig. While walking on the rig, if a railing was available, I was to hold it at all times, especially on stairs, which, depending on their pitch, might have to be descended backward. From what João gave me to wear to what he told me to take off, from the ways he trained me to walk and climb and descend stairs to the safety videos, manuals, and waivers he required me to study and sign, my rig visit, from the moment I stepped off the helicopter, was an extended exercise in embodied and ornamental safety rituals. The offshore's saturation with practices, performances, media, and bureaucracies of risk avoidance and safety—many of them written on and enacted through the body in dress and modes of walking—gave it the immediate feeling of an immersive, hermetic environment.

João was a gregarious Brazilian capoeirista and vegetarian in his late forties who had been in the offshore oil and gas business for 28 years. He had been on the TIPCO 330 rig through a series of contracts that took him from the Irish Sea to Turkey, then Angola, the Congo, Gabon, Cameroon, Nigeria, and now Equatorial Guinea. Built in 1973 in a Texas shipyard, owned by offshore drilling contractor SeaTrekker, the TIPCO, and many of the men on board, moved around the world from contract to contract under the Liberian flag—a mobile technosocial assemblage at work today in Equatorial Guinea's offshore waters as it had been in Turkey's, as it would be in Ghana's. Operating companies—the ExxonMobils, Chevrans, and British Petroleum of the world—contract with offshore drilling contractors, including SeaTrekker, for rigs like the TIPCO, paying up to \$1 million per day for their offshore rental. With workers like João already on board, contracted rigs move into position to begin the grueling 24-hour workdays that will eventually bring crude oil to the surface.

On the day of my visit, the TIPCO was inhabited by 115 workers from 20 different nations: Australia, Brazil, Britain, Cameroon, Canada, Colombia, Croatia, Equatorial Guinea, France, India, Nigeria, Norway, the Philippines, Romania, Russia, Serbia, South Africa, Ukraine, the United States, and Venezuela. Of the workers on board, only four worked directly for the operating company, which I will call "Smith," and only 25 worked directly for SeaTrekker. The remaining 86 men were hired from 15 different subcontracting

companies, which provided everything from directional drilling experts to onboard cooks, radio operators, and mud engineers. In total, 17 different companies were at work on the rig. Within this multinational, multicompany crew, there were unambiguous working hierarchies: The offshore installation manager (OIM) was at the top, with three supervisors under him, four “leads” under them, and then a series of workers organized by “levels,” two through five, five being the lowest. On the TIPCO, as well as the other rigs I studied, Americans or Canadians of European descent held top positions almost without exception, with nationalities diversifying through the middle levels, and Equatoguinean workers at the bottom, a few of them in level three. Men were assigned sleeping quarters on the rig according to their level, with those at the top in private rooms and those at the bottom in cramped bunks that held four or more people. Robert Vitalis (2007) has argued that these racialized hierarchies, structured under the rubric of skill differentiation, have come to characterize oil operations around the world.

That morning, 19 of us sat down for the daily 7:00 a.m. meeting in a small, low-ceilinged room below deck. Everything was steel—walls, benches, and stairs. A group of four Filipinos sat together in one corner; three Equatoguineans sat along the back wall. The rest of the men stood or sat where they could in the confined quarters. The OIM—a weathered American in his midforties—led the meeting in English. He narrated the day’s work in short rhetorical bursts referring to “teams,” “strategies,” and “victories,” giving the dawn meeting the feeling of a pregame pep talk. “This is going to be a great day for our team,” he said. “We’ve had some trouble with the drilling process but we’re changing strategies, and we’re going to pull this one out!” João, seated to the OIM’s immediate left, translated his sentences several at a time into heavily Portuguese-influenced Spanish. Though I do not speak Portuguese and thus had some trouble following the nuances of João’s translation, he seemed to drop most of the sport metaphors. In translation, the OIM’s opening salvo that morning became, “We have fixed the drilling problem, and today will be a great day.” The Equatoguinean workers for whom João’s translation was intended also had trouble understanding his Spanish, and I could hear one of them translating again for the other two, “The drilling problem is over. Today work will be normal.” As the meeting’s game of telephone-translation intimates, the rig was home to a floating world of intercultural communication and miscommunication, where extremely diverse personnel lived and worked in claustrophobic and rigidly hierarchical quarters for weeks on end.

On the TIPCO and rigs around the world, workers live “rotating” lives—spending a few weeks working and sleeping on the rig and then a few weeks at home, wherever that might be. In the industry’s (English) lingua franca, each rotation is referred to as a “hitch.” My Equatoguinean informants called each shift a “*mareá*,” the Spanish word for

“tide” but also evocative of seasickness, *mareado*. International and Equatoguinean workers alike described their rotating lives as surreal temporal experiences. One Texan explained that he felt he had two parallel lives—one in Houston and one wherever he happened to be posted—each of which stopped when he left that place and started again when he came back, “like pressing stop and start on a DVD,” as he put it. While on the rig, the workers’ three- to six-week hitches were characterized by grueling 24-hour workdays in which shifts lasted 12 hours. Given that the rig ran constantly, however, everyone was on call at all times.

The 24-hour intensity of their workdays was shaped both by the material requirements of the drilling process and by the exorbitant daily rental rates on rigs. In deepwater drilling—the work being done on the TIPCO—specific stages of the process must be executed without pause. Formation collapse, for instance, is a material risk in the drilling process that demands 24-hour attention. Once you have drilled to a certain depth, you have to “case off” the hole, installing large iron tubes to stop the hole from collapsing. If the borehole is not cased off in time, the drill bit and all the “jewelry”—an industry term for the valuable technical components used in the drilling process—will be buried in the formation collapse. Twenty-four-hour work is also required to provide protection against overpressurized formations and sudden releases of gas. These biophysical requirements for constant work, coupled with daily losses in the millions of dollars if drilling cannot proceed, give a sense of the forms of sociotechnical pressure (Anand 2011) simultaneously at work on the rig.

Because uninterrupted work was required, each employee had his “back to back”: When one man left the rig to spend his 28 days off, another man with the same job description came to take over the constant work during his 28 days on. As they flew on and off the TIPCO, most of the foreign workers barely set foot on Equatoguinean soil. Though incoming workers would fly into the Malabo or Bata airport, they often then flew immediately out to a platform via helicopter or spent one night in private company compounds before leaving for the rig the next morning. As one Filipino rig worker put it to me, “I live here like I did in Angola: from the airport to the rig.” He voiced a common refrain, echoed again by a U.S. drilling manager who worked both on rigs and in his company’s private compound in Bata: “I rarely if ever go out in public. From the rig to the office. I’ve rotated into Equatorial Guinea for six years and I’ve maybe gone out for dinner 12 times. One of my [Guinean employees] says he’s disappointed I’ve never come to his house for dinner.”

Mobile technologies and mobile labor forces organized by contracts and subcontracts moved the technosocial assemblage that is the TIPCO 330 from Turkey to Equatorial Guinea to Ghana, all under the Liberian flag. Indeed, when I wrote João to request a follow-up stay on the rig, he re-

sponded with the following e-mail: “Surprise! We no longer work with SMITH but with another client named Regal Energy . . . You have to rush as we will soon leave to Congo, around the beginning of August.” In the three months between March and June 2008, the rig had not only switched operating companies (and, consequently, locations at sea) but had also gotten sailing orders for the Congo, with João and others in tow. The TIPCO’s circulation through the world’s oil-rich waters and the men flying to the mobile rig from Australia, Venezuela, and nearly everywhere in between to inhabit an immersive world of embodied safety rituals and rigid working hierarchies at least partially allow extraction, production, transport, and marketization of subsea hydrocarbon deposits to proceed in Equatorial Guinea as in the Congo as in Angola. These are the day-to-day sociomaterial practices that make the aporia of the offshore, that allow Equatorial Guinea to recede into the distance from the helicopter window.

The assemblage is hardly seamless. Linguistic and material misfires leak in, and “the offshore” requires tremendous logistical coordination and financial investment not only to contract and translocate some of the largest mobile infrastructure in the world but also to bring in the necessary labor, in the case of the TIPCO rig alone, 115 men and their labor twins from 20 different nations and 17 different companies. Nevertheless, that the TIPCO 330 is still able to simply move on to the Congo, where the OIM will have to find a French translator for the new local crew, shows how this assemblage facilitates consequential forms of disentanglement from the specificities of place. The daily working lives of these men allow them quite reasonably to inhabit a world that seems fundamentally separate from the industry’s deep ties with Equatorial Guinea’s political, environmental, and social life.

Thinking with the TIPCO, I suggest that the transnational oil and gas industry in Equatorial Guinea is a modular capitalist project: a bundled and repeating set of technological, social, political, and economic practices aimed at profit making that the industry works to build wherever companies find commercially viable hydrocarbon deposits.⁶ Whereas extraction sites around the world—from the North Sea to the Gulf of Mexico, Equatorial Guinea to Malaysia—vary radically, the people, technology, contractual regimes, and infrastructure the oil industry brings to them do not (Barry 2006). The contents of this bundle change as technologies and regulations change over time, as the relationship between companies and local power holders evolves, and in response to previous—often negative—experiences, so that the module’s instantiation in Equatorial Guinea (beginning in the 1990s) looks quite different than its instantiation in Nigeria or Angola (beginning in the 1960s). Most importantly, the making of modularity requires a tremendous amount of work, intended to navigate the specificity of each extraction site within the oil market’s le-

gal, fiscal, and regulatory conditions of possibility. In this work-intensive quest for frictionless profit, messy engagement with difference is the assumed starting point; the hoped-for framing requires massive logistical and infrastructural investment; and the intended distancing from local conditions is compromised at its core, as the industry can only animate the repeating extraction, production, and marketing processes widely accepted as standardized by seeping into every crevice of Equatorial Guinea’s daily life.

Mobile, flexible, and licit, the architecture of modular infrastructures, labor, and contracting regimes tends not toward external standardization, as so many anxious accounts of globalization feared, but, rather, internal self-containment (see also Riles 2011). Modular or prefabricated structures do not require changing the zoning code but, instead, come with an anticipatory relationship to place and time—legally compliant, mobile, without foundation, impermanent, and disposable or reusable elsewhere. So too with offshore oil platforms, contracts and subcontracts, and mobile labor forces. These are work-intensive efforts to create juridical and even geographic spaces in which companies can abide by their own rules, bring their own technologies, infrastructures, evidentiary and legal regimes, and people—laborers, lawyers, technicians, consulting firms, specialists, and managers.⁷

Tsing has written of global capitalism that “the closer we look at the commodity chain, the more every step—even transportation—can be seen as an arena of cultural production . . . yet the commodity must emerge as if untouched by this friction” (2005:51). Indeed, the technology, labor, contracts, and imaginaries that move hydrocarbons from subsea to futures market are full of the messy frictions of cultural production, not only in their entanglements with Equatorial Guinea’s political and infrastructural landscapes but also with the *mareado* temporalities and linguistic miscommunications of rotating workers and the mobility of certain forms of hierarchy and discrimination. And yet the commodity does emerge “as if untouched” by this friction. How? Modularity draws our attention to the productive though ever-incomplete work done in the name of frictionlessness and disentanglement. At issue here is the oil industry’s intentional disengagement from sociopolitical membership in Equatorial Guinea.

Anthropology has long used ethnographic research to show how the failure to engage with the specificities of place, people, politics, or history has impaired innumerable projects—developmental or humanitarian, activist or capitalist. Here, my analysis moves in the opposite direction. I follow the work of the oil companies themselves, for whom disengagement from Equatorial Guinea’s specificity was not a mistaken starting point (ready to be “exposed” by the anthropologist) but an always-unfinished project they worked daily to build. This direction of analysis starts from the “proliferation of relations” (Callon 1998:4; see also Çaliskan and

Callon 2009, 2010) and then traces the framing work that makes marketization possible.

Most broadly, ethnographic attention to the modular project urges us to consider “the how” of certain forms of global capitalism. In Marcel Mauss’s (1969) classic work on Maori gifting, the *hau* is the spirit within each gift that propels prestation to continue. By extension, the *hau* of capitalism—that which propels it to continue—is, arguably, profit. But profit alone tells us little about the processes and practices that constitute capitalism’s daily life. If profit is the *hau* of capitalism, the how still remains an open question. In this sense, modularity does not describe a new mode of capitalist production—from post-Fordist to neoliberal to modular. Rather, attention to the work of modularity in the world helps to reconcile oft-opposed theoretical approaches to “global capitalism.” In place of attributing to capitalism an autonomous systematicity, on the one hand, or denying any kind of systemic coherence in favor of contingency and heterogeneity, on the other hand, ethnographic attention to the modular project shows the work required to frame heterogeneity and contingency into the spectacular profit and obdurate power found in many global capitalist projects. Modular infrastructures, contracting, and labor regimes do not possess an inherent logic, rationality, or sameness. Rather, their intended standardization and replicability must be brought into being through the work required to build and maintain them (Barry 2006; Latour 2005; Thrift 2005). Understood in this way, modularity is not specific to the oil industry and may be useful to think with across research sites, including other resource and commodity chains, special economic zones, shipping and military installations, transnational finance, or even democratization projects, where democracy has to be made into “something that moves easily from place to place,” that can be carried in a suitcase or a Power-Point presentation “from Russia to Cambodia, from Nigeria to Iraq” (Mitchell 2011:2). Similarly, the Gulf of Guinea, Mexico’s Campeche Sound, and Kazakhstan’s Caspian Sea must be framed as places from which hydrocarbon deposits can be extracted, produced, and shipped in standardized ways, when, in fact, the entanglements required in each place are radically different. For profit to emerge “as if untouched” by the sites of production, here the rig must seem as far as possible from the deep complicity between the operating companies and the Equatoguinean state, as far as possible from communities who might make claims on companies for environmental degradation or gainful employment. This is the haunted fantasy of the offshore.

Frictionless profit?

Like offshore financial setups, offshore oil operations are predicated on the idea that there are spaces where the production of profit can evade or minimize contestation.⁸ In-

dustry advocates frame offshore operations as off the shores of political entanglements, community entitlements, discernable forms of pollution in inhabited areas, or militant attacks and bunkering focused on accessible pipelines. That the entire commodity chain, from exploration to processing to export can take place in the middle of the ocean, without ever touching land, seems to at least partially remove oil and gas companies from the most visible and most controversial consequences of their industry. For the management-level, expatriate oil company employees and Equatoguinean government appointees with whom I worked, this was the fantasy of the offshore; a fantasy always-already haunted by the very entanglements it claimed to sever. Consider the comments of a recently appointed Equatoguinean government official:

Onshore–offshore is an operation question. Socially there is more positive than negative to it. An oil infrastructure has a lot of environmental problems. When you build that onshore next to a community there is more potential for problems for that community. Environmentally, the safest way to have an oil facility is to have it removed from social settings. It’s an advantage for offshore operations. Having an onshore operation involves a lot of piping, infrastructure, which for some people may not be beautiful architecturally. It may not be impressive for environmentalists and people who care for trees.

At first, this official suggested that the difference between onshore and offshore was simply an operations question, a mere spatial designation denoting where the work of exploration and extraction gets done. But he moved immediately into the social and environmental implications of each setup, making clear that far more is at stake than mere operation location. In his estimation, the visible infrastructure of onshore production is not only aesthetically disruptive for communities (“it may not be beautiful or architecturally impressive”) but environmentally problematic as well. “An oil infrastructure has a lot of environmental problems,” he says, whether it is onshore or offshore, so it is best to get those ongoing problems away from people.

The official’s comments also flag a set of supralocal issues, including regulation and visibility. Often when “environmentalists and those who care for trees” are not “impressed” by what they see (and the ability to see onshore infrastructure is a crucial difference from what goes on offshore), there is a call for action or regulation. When the visuals of oil infrastructure and operations are in the middle of the ocean, by contrast, there is a noticeable attenuation of public and government attention, facilitating unimpeded production.⁹ Here, the modular project is facilitated by spatial deregulation, or the thinning of sovereignty in Equatorial Guinea’s offshore waters. As an Equatoguinean petroleum engineer explained,

Normally, in the United States for example, the more petroleum you extract, the harder it is to clean the water. In other sites the amount [of oil] taken is conditional on water quality. Here there is not this conditionality. Here there is no outside testing. On the platform from time to time people are told to prepare for an environmental assessment but it's always someone from within the company, and the results are always good.

For both the Equatoguinean government appointee and the petroleum engineer, the offshore enabled specific kinds of framing. The social and environmental problems long associated with oil and gas were still there—pollution, notoriously leaky piping and infrastructure, unreliable environmental testing—but offshore operations moved those problems both away from onshore communities and beyond the reach of state regulation (a reach that, given Equatorial Guinea's postcolonial legal history, was already quite short). For these two Equatoguineans differently positioned in the industry, the self-containment toward which the modular project worked was spatialized in the distance between communities and offshore platforms, but this was merely an apparent disentangling of problems that were in fact ongoing.

Expatriate managers had different anxious fantasies of offshore production, haunted less by local environmental or community outcomes and more by the human threats to their operations that come with onshore extraction. Three different managers (two Americans and one Brit) offered remarkably consonant offshore aspirations:

Offshore makes it easier. Reduces investment risk . . . You're not exposed—you're shielded from the masses. You can control the interaction and contain the asset. It's a clean containment. If a boat drifts in our area we call the navy. There's a lot less opportunity for negative interaction and distraction. In Nigeria people steal oil. We don't have that. It's clean. Less leakage, shrinkage. Controls are tight.

It's expensive offshore but it's clean. No laying pipelines through jungles, uprooting villages. There's nobody out there. We lay pipelines in the seabed and it doesn't bother anyone.

Offshore has made it easier. You're on an island if you know what I'm saying. Diamond mines in Angola are an absolute nightmare. Armies get to you. Pirates get to you. [You have to] have massive South African war vets to secure the places. When you're out there on an oil rig you've got a huge moat around you. That has made it easier. It's more expensive to get the oil out of the ground but you don't have to worry about onshore issues which are massive expenses.

For these managers, the offshore offered the possibility of control and containment of potentially volatile sociopo-

litical situations (note the comparisons with Nigerian oil and Angolan diamond mining) and of profit margins (less "leakage" and "shrinkage"). In their narratives, the offshore setup at least forestalled the risks of visible spills and attack by armies, by oil bunkerers, or by MEND, which was often rumored to be planning an attack on Equatoguinean installations.¹⁰ Avoided too in the offshore setup, as these managers narrate it, is the unpleasant task of relocating entire villages and negotiating the attendant set of community claims for employment, for reparations, for development projects, and the subsequent security problems for which "massive South African war vets" have been hired in the past to secure onshore installations. The idealized industrial offshore in these managers' descriptions coincides with the evocative promises of the financial offshore, sites "of disinterested and placeless economic interaction" (Cameron and Palan 2004:105). In avoiding the risks people bring, these managers envisioned the offshore setup as reducing contestation, even if it could not be evaded completely.

"Cleanliness" also came up repeatedly in expatriate management accounts of offshore production; by implication, onshore extraction is a dirty business. Having spent years in Nigeria, Ecuador, and other onshore sites around the world, managers looked to the increasing technological viability of offshore production as an opportunity for, as one put it, a "clean containment." Even where onshore hydrocarbons are available, the more expensive offshore becomes the preferable choice. Petroleum geologists in the field believed that Equatorial Guinea had onshore oil, for instance, but (showing modularity to be an iterative process) they would often invoke Nigeria to explain that the risks of onshore production justified the exorbitant investment of money, time, and personnel that the offshore requires. According to one expatriate geologist, whose own iterative career had taken him from Guatemala to Brazil, Venezuela, Canada, Houston, Algeria, Angola, and, finally, Equatorial Guinea,

Locals report oil seepage to the surface, so absolutely it's only a matter of time before there's onshore exploration. [But] offshore they can go after elephants. Onshore, because of the geological setting, you're looking for squirrels. That being said the cost to drill onshore is one-tenth the cost to drill offshore. The facilities construction is one-tenth [the cost] because it's easier. You don't have to build platforms. You don't have to use floating rigs. Everything is one-tenth the size. If you do find a large onshore reservoir it's very economic, but there are associated risks, political risks. If this country were to go through a civil war our structures out in the water are safe. But look at Nigeria; nothing's to stop people from coming onto your facility, stopping production, blowing up the facility.

This geologist helps us to see that the choice to go offshore is not merely a response to ecological constraints (an exhaustion of onshore resources) or dominant technological developments in the field that make subsea extraction increasingly viable. Rather, the offshore becomes a space of capitalist desire—a space where “associated political risks” seem to be avoided. While onshore reserves may be “squirrels” quantitatively, the infrastructure required for their extraction is cheap, small, and easy to construct. It requires fewer personnel, simpler logistics, and far less money. Offshore wells, by contrast, can cost over \$100 million for a six-month lease and require vast infrastructure in the middle of the ocean. Significantly riskier technologically, mechanically, and economically, the offshore setup is one in which things can and do go wrong, as the 2010 Deepwater Horizon catastrophe so ferociously showed. At ten times the price and double the personnel of onshore drilling, disentanglement can hardly be said to inhere in the model. But the distance from Equatoguinean “politics” provided by the helicopter ride is considered well worth the additional investment.

In these descriptions from Equatoguinean engineers and government appointees and expatriate managers and geologists, the fantasy of the offshore is haunted by the fears of earlier moments and places of oil production. The ongoing failures of Nigeria and the complicity with South African mercenaries in Angola re-present themselves in the desire for disentanglement. And yet, in Equatorial Guinea, the offshore enables distance only from the immediacy and visibility of these contestations, which remain unresolved. This is a partial disentanglement predicated not only on deep complicities with the very forms of Equatoguinean politics the industry claims to avoid but also on the “local politics” of rig life, as they develop in and through the lives of offshore workers.

Risk, liability, and multiple futures

Offshore production may not involve direct displacement of towns or villages or running pipelines through people’s drinking water supplies. But this does not mean that “there’s nobody out there,” as one manager claimed above. On the contrary, given the requirements of constructing, moving, operating, and maintaining the largest functional mobile structures in the world, oil and gas companies put people out there in large numbers, as the TIPCO 330 shows.

For the majority of Equatoguineans involved in it, rig work came about though “local content” contractual clauses requiring companies to hire a certain number of local workers. Unlike the mobile labor force that moves around the world and is brought in by SeaTrekker or other oil-services companies, Equatoguineans were contracted by local “body shops,” and their jobs ended once the relevant contract—in this case, a rig rental—moved beyond

national borders. For the irregular periods in which they did have work, these men’s lives came to be intimately structured by the oil industry’s efforts to abrogate the responsibilities and risks associated with their employment. Through a discussion of “typical day” narratives of rig work, this section looks at Equatoguinean workers’ embodied experiences of risk, safety, and temporality on the job and at the highly ritualized risk-avoidance practices that saturated their working days. Historically situating these risk-avoidance practices in the wake of the *Exxon Valdez* and Enron debacles, I show the ways in which notions of risk narrowly informed by shareholder value further separate the risks of rig work from the risks of daily life in Equatorial Guinea. Here, shifting industry conceptions of liability and actuarial reason become part of the modular project: licit, mobile, and self-contained guidelines for risk management that move with the rig, irrespective of location. For Equatoguinean workers, for whom shareholder value was at best a line in a business textbook, rig work only deepened their exposure to the risks of daily onshore life.

Daily platform work was regimented and exhausting, functioning as it did under the material and financial pressures associated with nonoperating time, discussed above. The low-skilled, labor-intensive positions of floorhand, roustabout, welder, pumphand, derrickhand, motor operator, and crane operator that Equatoguineans routinely undertook were closely controlled and functioned within strict, inflexible schedules. At home in Malabo, these men inundated me with talk of exacting schedules and elaborate rituals of control and safety. Wilfredo and Ramón—two workers from different companies and platforms—detailed similar schedules:

Wilfredo: We work from 6 a.m. to 6 p.m. with two half-hour breaks and one lunch break of an hour. We work for ten hours and have two hours rest . . . I have to get permission to do any type of work. There is a procedure for getting permission.

Ramón: They call me at 5 in the morning to eat breakfast. Then there is a prework meeting, to see if there are any conflicts, to see if there are any problems in any jobs, to discuss. [This meeting is from] 6–6:15 a.m. At 6:30 we sign the permits to work. You cannot work on anything without the permission of a supervisor. The risks have to be analyzed. At 7:15 you begin to prepare your tools, survey the work to be done, and begin to work. My work is complicated. If I make a mistake—if I allow the pressure in the system to rise to 100 percent, I will shut down the whole plant. On any given day we have between one and three permits to work, depending on the day. After completing three permits to work, you have to go back to the offshore installation manager, and then you can continue working. At 5 p.m., in my case, I stop working to fill out a report which I send to the supervisor about corrections or equipment that

has failed. At 5:45 or 6 p.m. it's dinner, and to sleep. If something happens during the night they come to call me in my room.

Labor schedules and tasks were monitored so closely for the explicit purposes of risk avoidance and safety. Petroleum production is widely and historically acknowledged to be a risky industry, with workers exposed to the explosion and fire hazards that come with hydrocarbons' physical properties, limb-threatening equipment, and noxious chemicals, among other perilous potentialities.¹¹ The open ocean of the offshore and the helicopter rides required to get there concentrate and exacerbate these dangers.

For Equatoguinean rig workers, this exacting fixation on safety stretched beyond bodily compartment and adornment to the system of permits to work, which Ramón mentioned above. Essentially a job permission slip, each permit detailed the job to be done, what tools would be used, whether the work was hot (welding) or cold (lifting, relocating equipment), and the possible safety risks involved and how they would be avoided. Tasks on the rig could not proceed without a permit to work, secured from supervisors at the morning meeting. If a task arose in the course of the day for which one had not gotten a permit, a worker could not proceed with the task until he secured it. Permits had to be visibly posted at each job site on the rig, so that as others circulated they could discern work in progress in any given site. Each permit had to be removed and cleared with an authority when the job was finished. Jobs that were considered complicated—those involving multiple personnel and tasks—required an additional THINK drill and a special permit.¹²

While these details are mundane, they offer a sense of the intensely regimented, hyperscheduled, and monitored working day on the rig. All of the men I talked to in in-depth interviews at home in Malabo focused on their respective companies' constant attention to safety. Talking in amazement about helicopters—historically a notoriously dangerous offshore technology—Antonio explained,

I am telling you that perhaps for you this wouldn't be so incredible, but in our environment we had never seen things like this; maybe on television. We have never had equipment like this. It makes me say, where am I? How do you control so much technology? For the helicopter we watch a safety video [that covers] emergency landings, what to do; if the helicopter falls how you can escape; where is the emergency equipment; where are the escape boats. [We wear] double auditory protection and life jackets. The pilot asks you if there has been anything that you didn't understand. There has not been a single helicopter accident.

And Rogelio, in a safety soliloquy that would make his employer proud, explained that “for [this company] safety is

first. It is worth more to finish the day without an accident than to complete the work that you have been given. [We count the] days that we are able to go without an accident.” As Antonio and Rogelio make clear, this safety-saturated atmosphere was not only experientially definitive of working offshore but also a welcome characteristic of rig work. While their gratitude for attention to safety in the face of serious hazard was readily understandable, it was an important ethnographic discovery for me, because it so directly contravened my own visceral response to safety measures in the Equatoguinean industry more generally.

In the eight months of fieldwork that preceded my visit to the TIPCO, among my strongest impressions of the oil industry in Equatorial Guinea was a corporate culture so safety-saturated that it bordered on the comedic. On one occasion, I was in a car with an expatriate industry employee who was driving painfully slowly, and an apparatus beeped loudly any time he hit 40 miles per hour. Cars whizzed past us. When I chided him, he told me that every time the apparatus beeped a report was sent to Houston headquarters. On a walk through another company's compound with the wife of an expatriate manager, I bent to tie my shoe and she joked that her husband would need three signatures to secure permission to do what I had just done. Industry offices were wallpapered with notices of safety achievements—how many “incident-free” days, how many months without a “lost-time” incident. Acronyms abounded—keep it SIMPLE, THINK drills, START.¹³ In Malabo, the T-shirts that give safety acronyms their public lives could be seen on the backs of many local men, women, and children, having found reincarnation in the used clothing markets.

Fieldwork made clear that these elaborately choreographed and audited safety rituals were at least partially the outcomes of earlier offshore fantasies run aground, including the *Exxon Valdez* spill, the Piper Alpha disaster, and the Enron–Arthur Anderson scandal, a list to which the Deepwater Horizon is now certain to be added. As many management informants explained to me, this series of disasters and their nightmarish human, environmental, public relations, and shareholder consequences motivated a corporate-culture sea change to newly manage risks, affecting everything from accounting practices to rituals of rig safety. Whereas I scoffed at beeping, speed-monitoring apparatuses and ridiculous acronyms, for my expatriate management informants, these were the procedures through which they controlled and monitored working environments. The audited outcomes of this monitoring—incident-free days, lost-time statistics—could be used in shareholder reports to reassure investors. While worker safety was indeed at issue in these sea changes as well, the work in the wake of these disasters also moved to rescind specific kinds of responsibility for workers and replace it with internal, self-regulated safety procedures intended to

keep “recorded” or “lost-time” incidents down and stock prices up. As one Equatoguinean man who lost a finger in a rig accident found out, neither the operating company to which his work provided oil nor the subcontracting company to which his salary provided profit would help when he could no longer work on a rig. For whom is the offshore arrangement simpler or safer? For whom does it redistribute risk and where does that redistributed risk go?

Alfredo was an Equatoguinean economist who had long lived abroad and had completed his postgraduate studies in London before moving home to work, first, for the Major Corporation and, later, for Regal Energy. When I asked him what he did as an economist at Regal, he responded, “Controls: audit, corporate governance, business ethics, Foreign Corrupt Practices Act. I design and implement processes and procedures for control and compliance.” When I admitted that I had no idea what “controls” meant, he offered an example, explaining that he had recently been working to implement a system that would allow company vehicles to pay tolls without having to stop at the toll booths that separate central Malabo from the airport road on which company headquarters are located. When I remarked on the apparent triviality of that project in relation to corporate governance and business ethics, he continued that he handled anything that had to do with “control and safety,” from the critical to the humdrum. “These have been the key words,” he emphasized, “*safety* since the *Exxon Valdez* and *control* since Enron–Arthur Anderson; i.e., look for what the company is trying to avoid.”

Alfredo explained that, before Enron, audits only looked at financial statements, but the Arthur Anderson scandal exposed glossy financial statements as mere window dressing prepared to allow shareholders to trust company finances. They revealed little about what was actually going on in the company, let alone about the processes that led to the figures in the financial statements. In 2002, in the wake of the Enron scandal (and others, including Tyco and WorldCom), the U.S. Congress passed the Sarbanes–Oxley Act, a law intended to strengthen corporate accounting controls. To my surprise, this piece of U.S. legislation (unknown to me before my time in Equatorial Guinea) came up repeatedly in the field. In Equatorial Guinea, Alfredo remarked, “SARBOX, or SOX 404, as we lovingly refer to it, guides what I do. [There are] procedures for absolutely everything and the procedures are standardized in almost all affiliates. The company maintains them everywhere they go. If I was to work in an accounting department anywhere in the world I would already know the procedures.” David, the manager of a major oil-services company, also brought up Sarbanes–Oxley, explaining that, nowadays, “you and I can’t do business on a paper napkin . . . But before Enron that was different. When I was in South America we did a lot of dodgy things. It used to be that the ends justified the

means. [The attitude was] go ahead and do it and we’ll fix it later.” When I asked David about the potential ramifications of paper-napkin business in the post-Enron era, he responded, “The oil industry is small, and that kind of behavior is no longer admired. It’s quite regulated. You have one scandal and they blacklist people. One scandal and can you imagine the impact on the NYMEX stock price?”

Here, the aftermath of U.S. accounting scandals and offshore tragedies in waters far from the Gulf of Guinea become part of the modular project in new mobilizations of risk, safety, and control. While the pressures for continuous production come with the material properties of sub-sea hydrocarbon deposits, the ways that those pressures are managed has changed over time. First, both the *Exxon Valdez* disaster and, later, the Enron scandal seem to have ushered in new “key words”—*safety* and *control*—in the oil and gas industry.¹⁴ Second, these key words have fundamentally changed practices on the ground, from how many signatures one needs to tie one’s shoe to audit procedures following new U.S. laws and elaborate operational risk-avoidance rituals and their tabulation in the recording of days without a lost-time incident. Third, the grounded practices to control risk—both financial and industrial—are primarily indexed to shareholder value, secondarily to human safety, and not at all to labor rights. “One scandal, and can you imagine the impact on the NYMEX stock price?” Before turning to the ways in which conceptions of safety indexed to shareholder value wrench workers’ well-being from relations of production in Equatorial Guinea, I dwell for a moment longer on risk where we find it here: at the intersection of accounting procedures and permits to work, or of financial and industrial practice.

The packaging of risk as a commodity is among the most profitable of contemporary financial endeavors (LiPuma and Lee 2004; Thrift 2005; Zaloom 2004). Indeed, in her own work on oil, Jane I. Guyer (2009) suggests that risk now be added to land, labor, and money as a fourth category in Karl Polanyi’s (2001) famous list of commodity fictions. The oil and gas industry is at once reliant on the production and sale of a tangible industrial commodity and deeply entangled in what Caitlin Zaloom calls “the productive life of risk” (2004:365). Of the approximately 200 million barrels of oil traded per day on NYMEX, much of it is “paper oil,” or the buying and selling of futures contracts (Watts 2010), themselves technologies for distributing risk.¹⁵ “Every day, more than ten times the amount of crude oil is virtually exchanged in futures markets than is combusted worldwide” (Johnson 2012:6; Yergin 2009). Companies with vested interests in the price of oil for their daily operations (including large production companies, utility companies, and refineries) buy futures—a contract on future delivery at a price agreed on now—in an effort both to hedge the risk of volatile prices and, in effect, to insure the massive capital outlays of offshore production (Johnson 2012).¹⁶ Through

her involvement in the Chad–Cameroon pipeline project, Guyer (2009:209) points out that financial instruments are inserted at multiple stages in bricks-and-mortar oil industry projects, from debt servicing to actuarial calculations. This intercalation of industrial productivity and financial productivity involves multiple moments in which to trace “risk as a problem of practice” (Zaloom 2004:368), or the “the actual ways in which risk instruments intervene in the world” (Guyer 2009:218).

On the one hand, in futures markets, risk signifies an opening; it conjures opportunities for increased profit in a zone of possibility and chance (LiPuma and Lee 2004; Maurer 2005; Miyazaki 2003; Riles 2004; Thrift 2005; Zaloom 2004). These are risks one should take, because the yields they promise outstrip and can even be increased by their dangers. On the other hand, the risks addressed by permits to work and helicopter-safety videos in the lives of temporarily subcontracted and semiskilled Equatoguinean employees evoke volatility and fear, conjuring the narrowing of opportunities and prospects. These are risks one should, but probably cannot, avoid (Ferguson 1999; Guyer 2004; Simone 2004). And yet here I suggest that these are not simply different moments or places of risk but, rather, in this case, and arguably more broadly, that profitable risk and exploitative risk are mutually dependent. To what extent is the productive, profitable, voluntary risk available to some enabled by the destructive and seemingly intractable risk shouldered by others?

As Karen Ho (2011) has pointed out, in the mortgage crisis of 2007–08, Wall Street’s professional risk takers relied on the income streams of middle- and working-class homeowners. For professional risk takers, repackaged mortgages were short-term securitization opportunities, whereas for the homeowners, they were long-term investments. The professional risk takers required the risk of the homeowners. Dick Bryan and Michael Rafferty (2011) have also recently argued that the working and middle classes are central to the profitability of risk. Their pension funds, mortgages, auto loans, and health insurance payments are securitized, packaged, and sold as commodities. The household here—one might even say, labor—is the stable source of investment. So too, I suggest, with subcontracted rig labor. The risks that temporary Equatoguinean rig workers take on in agreeing to tenuous and underpaid subcontracting arrangements in a dangerous industry reap little reward for themselves or their families, but they enable both the spectacular accumulation and the more quotidian benefits of hedging to be enjoyed by those positioned, for example, to invest in oil-futures markets. To rephrase the questions I asked above—for whom does the modular project redistribute risk and where does that redistributed risk go?—now in a different language: “What is risk as a transacted ‘thing’? From whom and to whom is it transferred? Since mitigation can only ever be partial, where is

the excess located in relation to a theory of ownership?” (Guyer 2009:5; see Maurer 1998).

My visceral response to the oil industry’s relentless safety practices was intensified by their contrast with daily life in Malabo, a city essentially without the safety and risk-prevention regulations and provisions of many other urban environments. Indeed, I laughed the first time I saw a photo I had taken (see Figure 2), in which I had intended to capture an expatriate mansion on a private residential oil compound but in which I also unintentionally captured perhaps the only 20 square feet in Equatorial Guinea that contains both a fire hydrant and a speed-limit sign.

Common sights in the city included day laborers on haphazardly set up construction projects or roadwork, welding, swinging metal beams, using jackhammers and bulldozers, and creating huge ditches that dropped into the bowels of the old colonial undercity, with no safety glasses, hard hats, or safety equipment of any kind, let alone a sign or brightly colored tape alerting pedestrians to walk elsewhere. Navigating scenes like this was definitive of living in the capital city, given the overwhelming quantity of hydrocarbon-industry- and construction-industry-related heavy machinery, equipment, and materials in constant circulation and use. In claustrophobic Malabo, pedestrians routinely walked directly through these work sites, hoping not to get sprayed by welding spatter or fall into a ditch. It was also common to see flatbed trucks careening through the streets with stacks of unsecured metal tubes or rebar piled high in pyramid shapes with day laborers perched precariously (to me) yet apparently comfortably (to them) on top. One day, I did hear that one of these trucks took a roundabout too fast and the tubing all fell off along with the men, one of whom was killed in the accident. In a country where the public hospital was known as a place people went not to be treated for broken limbs or necks but to die, the risk was a serious one.

Taking into consideration the contrast between needing three signatures to tie your shoe and overburdened trucks careening around corners with workers perched on top, one can hear the rig workers quoted above all the more clearly when they marvel at helicopter-safety videos and parrot industry slogans. They are understandably thankful for this industry-specific, transplanted conception of safety in what they know to be a highly technical and often dangerous environment. But the conception of safety that allows Equatoguineans working on rigs to potentially survive a helicopter crash cannot remove them from the larger insecurities and risks of their onshore lives. In fact, the workers’ very removal from home to the offshore platforms for up to one month at a time—despite acronyms like THINK and START—actually exacerbates the most pressing and dangerous insecurities these men face. While management can work furiously toward the disentanglements promised in the modular setup, these are predicated on the work of



Figure 2. Fire hydrant and speed-limit sign in Smith compound. March 19, 2008. Photo by Hannah Appel.

subcontracted Equatoguineans who cannot remove themselves from the risks they negotiate on a daily basis and who struggle to reconcile the promises of permits to work with an absence of security in their own lives and those of their family members. As one man put it forcefully to me, “How are you going to talk to me about safety, if you know that your child has no water or no light and no medical care, not to mention your wife. They don’t have anything to eat today and you’re talking to me about *safety!*?”

During our interviews, work-related risk on the platforms was not the locus of concern for Equatoguinean offshore workers. In Malabo and its surrounding residential communities of Ela Nguema, Lamper, and Campo Yaounde, these men and their families lived with sporadic electricity, no running water, and inadequate health care. Malaria and typhoid were rampant; child mortality from afflictions as basic as diarrhea was common. Thus, while the risk of a helicopter falling out of the sky was indeed grave, as was the risk of cutting off a finger at work, compared to the deep insecurity of these men’s onshore lives, those risks and the elaborate rituals set up to avoid them seemed as trivial as

the acronyms used to remember them. Two workers explained:

[Working on the platform] is very risky, difficult. To have to be there for 28 days is very difficult. It could be that something happens to my child and the [agency that subcontracts me] will not help me with anything. [I am] very worried about my family and everyone else.

In my particular case to live on the platform is difficult. My family is far away . . . The most difficult is that we have 60 minutes of communication every week. This isn’t enough because they calculate it in a distinct way. If the person doesn’t pick up the phone they cut minutes. You can’t pass your limit . . . Ultimately when you have a problem onshore and you leave the platform, those days you don’t get paid. For example, if you’re on the platform for ten days and you have a problem onshore and you leave for two days they cut those days. Being [on the platform] sometimes my head hurts because of the pressure. I think of my family, sick children. I can’t leave the platform. If I leave there isn’t any money. What will it have been worth?

The first worker talks about the risk of platform work but does not have helicopters or fire hazards in mind. The risk is that, while away from his family for 28 days, something could happen to his child; not only would he not be there, but he also worries (correctly) that the agency employing him would do nothing to help him. The second man brings up the issue of communication with home. The only way to know if everyone is okay or, more accurately, what is not okay on a particular day, is to call home. But the company allows less than ten minutes per day of phone time, with time counted off for incomplete calls. Imagine negotiating in six minutes a day what to do if a child or uncle has malaria, if a relative has died, or if there has been a fire in the neighborhood, all common occurrences. Should the worker leave the platform to take care of it? He does not want to leave because then he will not get paid, and then “what will it have been worth?” As one rig worker’s wife put it, “It seems bad when they leave for so long and I’m home alone suffering with the children. There are [six] of us in the house and my husband is the only one that has work.” The cost of living in Equatorial Guinea—sporadic water, electricity, health care—is not factored into offshore work. As Achille Mbembé (2001), AbdouMaliq Simone (2004), and Janet Roitman (2004) have pointed out in other postcolonial African contexts, the calculus of compensation is radically divorced from actual labor value. Though neither unusual nor specific to postcolonial Africa, this divorce takes on particular severity in contexts where insurance and social welfare have long been provided by networks of personal relations, not contractual obligations or citizenship entitlements, as is the case in Equatorial Guinea.

The details of rotation schedules and phone-time allowance—seemingly trivial—take on serious weight for Equatoguinean laborers:

Now our shifts are two weeks on and two weeks off. Before we had to work and live on the rigs for four weeks with four weeks off but because of our families, because they are home without electricity, because we cannot communicate with them we had to change that schedule. After three years we complained to the company and asked to have a 2/2 rotation. At first the company didn’t accept but eventually they did.

Many are leaving the company and [the company] knows. You are only given two minutes per day to talk to your wife. We begged; please give us time to talk to our families. But they forget that French can talk to their wives on the Internet, or the phone cards let you talk for hours. But the rates here only let you talk for 14 minutes per week. They say they understand our condition, but the company really doesn’t. You are cut off from your family completely. With all this difficulty you prefer to be with your family alone.

The subcontracted conditions under which these men work intentionally fail to account for the precarity of their onshore living conditions, a precarity best stabilized by the presence of people. The more able bodies in the house, the better to manage life’s daily challenges. With healthy men gone, even for short amounts of time, vulnerability and worry for those left behind increase exponentially (Meillasoux 1981; Moodie 1994). Whereas expatriate rig laborers could count on Internet connections and international phone cards to keep them in touch with home, international inequality in the spread of technology in homes (let alone electricity provision in Malabo) guaranteed that, for local labor, 14 minutes per week on the phone with one’s wife was simply insufficient.¹⁷ One man captured this grave misunderstanding of conditions in what became, for me, a really productive phrase to think with: “We are working like Americans but being paid like Africans.”

The cost of living is so high here. There’s no water. There’s no electricity. You go to the hospital you die there. Here this money isn’t acceptable. When you tell us this is a lot, we ask, for whom? We are working like Americans but being paid like Africans . . . You can’t have it both ways. Either make us work like Guineans and treat us like Guineans or make us work like Americans and treat us like Americans.

In this man’s narrative, to “work like an American” is to work long, hard hours in a safe environment; it is to be able to talk to your wife for free and without limit over the Internet, to which she has access in her home, enabled by the electricity she also has, and to be compensated accordingly. To “work like an African,” on the contrary, would be to work fewer hours and be compensated less, with the idea that time spent with the family putting out literal and figurative fires is compensation in and of itself. To “have it both ways” is to make these men work as if they were Americans and to compensate them as Africans.

Off Equatorial Guinea’s shores, elaborate, mobile, corporate safety and risk-avoidance rituals, restricted communication time from rigs, and subcontracts that refuse compensation for days off the platform, let alone for injuries or family emergencies, compartmentalize “safety” as an indicator of shareholder value, separate from local conditions (see also Woolfson et al. 1996). And this compartmentalization, of course, is the point. This is the self-containment toward which modularity works. And yet these risk-avoidance rituals not only intimately structure the lives of those ostensibly distanced, seeping into the way people care for and communicate with their families, but also deeply exacerbate the risks those local workers face, showing the uneven distribution of disentanglement in the modular project. The considerable work required to fulfill “local content” obligations through multiple levels of

subcontracts and to train Equatoguineans in helicopter safety and acronym-based labor rituals at once exacerbates local conditions and disentangles oil and oil-service companies from them, allowing the industry, as my informant put it, “to have it both ways.”

Conclusion

If oil appears to affect the producer states largely after its transformation into flows of money, that appearance reflects the building of pipelines, the placing of refineries, the negotiation of royalties, and other arrangements . . . The transformation of oil into large and unaccountable government incomes is . . . the outcome of particular ways of engineering political relations out of flows of energy.

—Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil*

In this article, I have explored the work that made the view from the helicopter possible, the daily practices that allowed the specificities of Equatorial Guinea to recede into the distance as the oil and gas industry profited spectacularly from the country’s subsea resources. The offshore, as a work-intensive and always-unfinished project of frictionless profit making, contributes to this effect of disentanglement. As Mitchell and others have suggested, this distancing work can be found in specific projects that engineer “political relations out of flows of energy” (2011:5; see also Barry 2006). Mobile technologies, infrastructures, workforces, and risk-avoidance regimes in the middle of the ocean frame the industry’s work as self-contained, separate from the local conditions in which they are, in fact, so deeply implicated and on which they rely. I have referred to these mobile, licit practices in the transnational oil and gas industry as a modular capitalist project, in which disentanglement from and thinning of liability for local conditions is intentional, always incomplete, and, in fact, requires sticky entanglements with local people and environments.

And yet the unrelenting political disentanglement, legal compliance, and spectacular profit the oil industry produces in Equatorial Guinea and elsewhere attest to modularity’s effects in the world and, in turn, to our obligation to account for those effects. For the oil industry, Equatorial Guinea is, in consequential ways, just like Kazakhstan. Rather than explain this resemblance as symptomatic of the global systematicity of capitalism or try to refute it through ethnographic specificity, I have traced the practices that make this precarious and work-intensive accomplishment possible. Following that work helps us to understand the how of certain transnational capitalist projects. Where anthropologists often dwell on the shortcomings of misrepresentation—that nation-states can be conflated, that capitalism is the same everywhere—this

project follows interlocutors who are profitably at work in the world these “mis” representations help to organize (Ferguson 2006; Latour 2005; Mitchell 2002). Their work is ethnographically available, and following it opens up an array of ethnographic and political projects that complement anthropology’s long-standing and indispensable commitment to heterogeneity and contingency.

If Tsing (2009:172) urges attention to humanitarian and environmental scandals that riddle supply chains as crucial openings for criticism and oppositional mobilization, modularity draws our attention, in addition, to the opposite: the licit techniques and technologies that make these contingent practices that operate on the edge of legitimacy formally legitimate, legal, felicitous, and productive of extraordinary profit. This is a distinct yet complementary project that asks us to look in multiple directions at once—both at exceptions, frictions, and gaps and toward the consequential processes that smooth those over.

Notes

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1. The rig visit that frames the article was merely 12 hours long, but the broader question of “the offshore” was ubiquitous in my fieldwork, the great majority of which was on land. That Equatorial Guinea’s entire industry is described as “offshore,” despite substantial onshore investment, speaks to the flexibility and productivity of the category. In general, access to offshore infrastructure for any amount of time was quite difficult for me to arrange and required months of relationship building and anticipatory research with the company in question. Once I gained hard-won access for my 12-hour visit to TIPCO, I sought to organize return trips. Significant to the larger argument I develop in this piece, however, by the time I did so, that rig had already been contracted by a different company and had changed locations at sea.

2. This work of disentanglement is equally visible through ethnographic attention to the industry’s production sharing contracts, gated corporate and residential enclaves, extensive subcontracting arrangements, and corporate social responsibility programs, all of which I deal with elsewhere (Appel 2011, 2012).

3. I use *capital deployment* here to specify that foreign direct investment (FDI) and capital investment calculations are insufficient

to measure the quantity and diversity of hydrocarbon-related investment in Equatorial Guinea. In FDI alone (a narrow calculation based on balance of payment statistics and business registers; see United Nations Conference on Trade and Development [UNCTAD] 2010; Zhan 2006), Equatorial Guinea had received \$13.676 billion by 2009. Assuming a stasis in FDI numbers (which is cautious given major pending projects, including a second natural gas train), that investment will top \$17 billion by fiscal year 2011 (Kraus 2010, personal communication April 2011; UNCTAD 2010). Capital deployment widens this statistic out to include both capital investment (in the purchase of equipment and buildings) and operating costs, in which rig rental alone requires upwards of \$1 million per day for each rig. I also factor into this estimated figure the millions of dollars paid into offshore accounts of powerful Equatoguineans (see Coleman and Levin 2004).

4. Production sharing contracts between the Equatoguinean state and operating companies contain sweeping fiscal stability clauses, which stipulate that the legal and fiscal regimes in place in the supply site at the time the contract is signed—environmental law, labor law, tax codes—will not change over the life of the contract. If those fiscal and legal regimes do change, and if those changes reduce companies' profit margins, the state is contractually obligated to indemnify the corporation. Fiscal stability clauses limit the normal scope of any legislature, including the freedom to enact environmental law, labor law, or other forms of regulation. While public policy in a variety of countries can trump the practice of fiscal stability (also known as "regulatory takings"), this is certainly not the case in Equatorial Guinea.

5. I have changed all proper names of people, companies, and infrastructure to protect confidentiality.

6. My research focuses on large U.S. oil companies, which, during my fieldwork, were the major players in Equatorial Guinea. Neither my research nor the concept of "modularity" claims to encompass, for example, Chinese investment or national oil companies, though the question of its applicability to other forms of oil production is an interesting one.

7. Of the legal aspect of this self-containment, Annelise Riles (2011) has written that "global governance has increasingly become private governance—regulation through technical legal devices that take power out of the hands of public entities and put it in the hands of private individuals, corporations, armies. Private dispute-resolution regimes . . . now adjudicate the bulk of conflicts in certain sectors of the global economy, from oil to finance" (2011:7–8).

8. See Appel 2011 for a discussion of the imbrication of industrial and financial offshores in the transnational oil and gas industry. On financial offshores, see Maurer 1998, 2005, 2007, 2008, and 2010 and Palan 2006.

9. Anna Zalik, for instance, has written that Mexico's offshore is "environmentally deregulated" (2009:293) insofar as restrictions on maritime movement around platforms render spills and other practices largely invisible (see also Reed 2009).

10. MEND is the Movement for the Emancipation of the Niger Delta (see Watts and Kashi 2008). Nigeria is a northern neighbor of Equatorial Guinea and effectively shares productive offshore waters, so every time there was a serious uptick of violence in Nigeria, Equatorial Guinea would go on high alert. The "intel" grapevine would start buzzing with rumors that an attack was also planned on that country, the rationale being that the Nigerian government had stopped paying attention to militant action within its borders, so fighters were going to carry out attacks outside Nigeria to grab the attention of their own nation.

11. My rig visit in Equatorial Guinea predated the 2010 Deepwater Horizon conflagration. Certainly that disaster brought these potentialities forcefully into the consciousness of a wider U.S. and, arguably, international public.

12. The THINK drill is a five-step process—Plan; Inspect; Identify; Communicate; Control—for incident prevention. The five steps required additional paperwork and signatures, above and beyond the permit to work forms.

13. Despite their ubiquity, it was not always clear what acronyms or acronym-like phrases intended to signify. For instance, though the THINK process was always denoted in all-capitals, the five steps of the drill do not correspond to the word's letters.

14. While they seem unaware of the impetus, Robin J. Ely and Debra E. Meyerson (2010) point out a similar time line in which the industry became newly interested in specific modalities of rig safety in the early 1990s. (*The Exxon Valdez* ran aground in 1989.)

15. In the futures market, participants transfer risk to others (traders and speculators) prepared to assume it with a view to making a profit.

16. As Leigh Johnson (2012) points out, investments intended to hedge risk and investments intended to generate speculative profit in short-term spot markets are not easily separable in the oil futures activities of production companies.

17. Though migrant labor is common for men throughout much of the world, including sub-Saharan Africa, it has not been common for Equatoguinean men. Historically and today, Equatorial Guinea has been a labor importer. Thus, the experiences described here of being away from home for long periods of time were new to my interlocutors, though they are familiar to others. That being said, however, the specificities of life on the rig (e.g., limited permitted communication time with home) also seem ethnographically productive.

References cited

- Anand, Nikhil
2011 Pressure: The PoliTechnics of Water Supply in Mumbai. *Cultural Anthropology* 26(4):542–564.
- Appel, Hannah
2011 Futures: Oil and the Making of Modularity in Equatorial Guinea. Ph.D. dissertation, Department of Anthropology, Stanford University.
2012 Walls and White Elephants: Oil Extraction, Responsibility, and Infrastructural Violence in Equatorial Guinea. *Ethnography*. <http://eth.sagepub.com/content/early/2012/04/11/1466138111435741.abstract?rss=1>, accessed April 12.
- Artucio, Alejandro
1968 *The Trial of Macías in Equatorial Guinea: The Story of a Dictatorship*. Geneva: International Commission of Jurists.
- Auty, R. M.
1993 *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London: Routledge.
- Barry, Andrew
2006 Technological Zones. *European Journal of Social Theory* 9(2):239–253.
- Bryan, Dick, and Michael Rafferty
2011 Deriving Capital's (and Labour's) Future. Theme issue, "The Crisis This Time," *Socialist Register* 47:196–223.
- Çalışkan, Koray, and Michel Callon
2009 Economization Part I: Shifting Attention from the Economy towards Processes of Economization. *Economy and Society* 38(3):369–398.

- 2010 Economization Part II: A Research Programme for the Study of Markets. *Economy and Society* 39(1):1–32.
- Callon, Michel
1998 Introduction: The Embeddedness of Economic Markets in Economics. *In* *The Laws of the Markets*. Michel Callon, ed. Pp. 1–57. Oxford: Blackwell
- Collier, Paul
2007 *The Bottom Billion: Why the Poorest Countries Are Failing and What Can Be Done about It*. Oxford: Oxford University Press.
- Cameron, Angus, and Ronen Palan
2004 *The Imagined Economies of Globalization*. London: Sage.
- Coleman, Norm, and Carl Levin
2004 Money Laundering and Foreign Corruption: Enforcement and Effectiveness of the Patriot Act. Case Study Involving Riggs Bank. http://hsgac.senate.gov/public/_files/ACF5F8.pdf, accessed June 23, 2011.
- Ely, Robin J., and Debra E. Meyerson
2010 An Organizational Approach to Undoing Gender: The Unlikely Case of Offshore Oil Platforms. *Research in Organizational Behavior* 30:3–34.
- Ferguson, James
1999 *Expectations of Modernity: Myths and Meanings of Urban Life on the Zambian Copperbelt*. Berkeley: University of California Press.
2006 *Global Shadows: Africa in the Neoliberal World Order*. Durham, NC: Duke University Press.
- Guyer, Jane I.
2004 *Marginal Gains: Monetary Transactions in Atlantic Africa*. Chicago: University of Chicago Press.
2009 Composites, Fictions, and Risk: Toward an Ethnography of Price. *In* *Market and Society: The Great Transformation Today*. Chris Hann and Keith Hart, eds. Pp. 203–220. Cambridge: Cambridge University Press.
- Ho, Karen Zouwen
2011 *New Approaches to Risk*. Lecture presented at the Bruce Initiative on Rethinking Capitalism Conference, University of California Santa Cruz, May 2.
- Humphreys, Macartan, Jeffrey D. Sachs, and Joseph E. Stiglitz
2007 *Escaping the Resource Curse*. New York: Columbia University Press.
- IMF
2010 Republic of Equatorial Guinea: Statistical Appendix. IMF Country Report, 10/102. Washington, DC: IMF.
- Johnson, Leigh
2012 *Financializing Energy and Climate Risks: Near Futures and Perfect Hedges in the Gulf of Mexico*. Paper presented at the Oil Talk conference at Columbia University, April 13.
- Kraus, Joseph R.
2010 *The Business of State-Building: The Impact of Corporate Social Responsibility on State Development in Equatorial Guinea*. Ph.D. dissertation, Department of Political Science, University of Florida.
- Latour, Bruno
2005 *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford: Oxford University Press.
- LiPuma, Edward, and Benjamin Lee
2004 *Financial Derivatives and the Globalization of Risk*. Durham, NC: Duke University Press.
- Maurer, William
1998 Cyberspatial Sovereignties: Offshore Finance, Digital Cash, and the Limits of Liberalism. *Indiana Journal of Global Legal Studies* 5(2):493–519.
- 2005 Due Diligence and “Reasonable Man,” Offshore. *Cultural Anthropology* 20(4):474–505.
- 2007 Incalculable Payments: Money, Scale and the South African Offshore Grey Money Amnesty. *African Studies Review* 50(2):125–138.
- 2008 Re-Regulating Offshore Finance? *Geography Compass* 2(1):155–175.
- 2010 From Anti-Money Laundering to . . . What? The Aftermath of “Compliance” for Offshore Financial Services. *In* *Ungoverned Spaces: Alternatives to State Sovereignty in an Era of Softened Sovereignty*. Anne Clunan and Harold Trinkhaus, eds. Pp. 215–231. Stanford: Stanford University Press.
- Mauss, Marcel
1969 *The Gift: Forms and Functions of Exchange in Archaic Societies*. London: Cohen and West.
- Mbembe, Achille
2001 *On the Postcolony*. Berkeley: University of California Press.
- Meillasoux, Claude
1981 *Maidens, Meals, and Money: Capitalism and the Domestic Community*. Cambridge: Cambridge University Press.
- Mitchell, Timothy
2002 *Rule of Experts: Egypt, Techno-Politics, Modernity*. Berkeley: University of California Press.
2009 Carbon Democracy. *Economy and Society* 38(3):399–432.
2011 *Carbon Democracy: Political Power in the Age of Oil*. London: Verso.
- Miyazaki, Hirokazu
2003 *The Temporalities of the Market*. *American Anthropologist* 105(2):255–265.
- Mol, Annemarie
2002 *The Body Multiple: Ontology in Medical Practice*. Durham, NC: Duke University Press.
- Moodie, T. Dunbar
1994 *Going for Gold: Men, Mines, and Migration*. Berkeley: University of California Press.
- Palan, Ronen
2006 *The Offshore World: Sovereign Markets, Virtual Places, and Nomad Millionaires*. Ithaca, NY: Cornell University Press.
- Polanyi, Karl
2001 *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press.
- Reed, Kristin
2009 *Crude Existence: Environment and the Politics of Oil in Northern Angola*. Berkeley: University of California Press.
- República de Guinea Ecuatorial
2010 *Primer informe de la Iniciativa para la Transparencia en las Industrias Extractivas, 2007–2008*. Malabo, Equatorial Guinea: Oficina Nacional Autónoma de Coordinación de EITI.
- Riles, Annelise
2004 *Real Time: Unwinding Technocratic and Anthropological Knowledge*. *American Ethnologist* 31(3):392–405.
2011 *Collateral Knowledge: Legal Reasoning in the Global Financial Markets*. Chicago: University of Chicago Press.
- Roitman, Janet
2004 *Fiscal Disobedience: An Anthropology of Economic Regulation in Central Africa*. Princeton: Princeton University Press.
- Simone, AbdouMaliq
2004 *For the City Yet to Come: Changing African Life in Four Cities*. Durham, NC: Duke University Press.
- Thomas, Nicholas
1991 *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific*. Cambridge, MA: Harvard University Press.

- Thrift, Nigel
2005 *Knowing Capitalism*. London: Sage.
- Tsing, Anna
2005 *Friction: An Ethnography of Global Connection*. Princeton: Princeton University Press.
2009 *Supply Chains and the Human Condition*. *Rethinking Marxism* 21(2):148–176.
- United Nations Conference on Trade and Development (UNCTAD)
2010 *World Investment Report*. Country Fact Sheet: Equatorial Guinea. Geneva: UNCTAD.
- U.S. Energy Information Administration
2010 *Petroleum and Other Liquids, U.S. Net Imports by Country*. http://www.eia.gov/dnav/pet/PET_MOVE_NETI.A_EP00.IMN_MBBLPD.A.htm, accessed June 8.
- Vitalis, Robert
2007 *America's Kingdom: Mythmaking on the Saudi Oil Frontier*. Stanford: Stanford University Press.
- Watts, Michael
2004 *Resource Curse? Governmentality, Oil and Power in the Niger Delta, Nigeria*. *Geopolitics* 9(1):50–80.
2010 *Regimes of Living: Life and Death on the Nigerian Oil Fields*. Paper presented at the *Capitalism's Crises Workshop*, Stanford University, April 10.
- Watts, Michael, ed., and Ed Kashi, photo.
2008 *Curse of the Black Gold: 50 Years of Oil in the Niger Delta*. Brooklyn, NY: PowerHouse Books.
- Woolfson, Charles, John Foster, and Matthias Beck
1996 *Paying for the Piper: Capital and Labour in Britain's Offshore Oil Industry*. London: Mansell.
- Yergin, Daniel
2009 *It's Still the One*. *Foreign Policy*, September–October. http://www.foreignpolicy.com/articles/2009/08/17/its_still_the_one?page=full, June 30 2012.
- Zalik, Anna
2009 *Zones of Exclusion: Offshore Extraction, the Contestation of Space and Physical Displacement in the Nigerian Delta and the Mexican Gulf*. *Antipode* 41(3):557–582.
- Zaloom, Caitlin
2004 *The Productive Life of Risk*. *Cultural Anthropology* 19(3):365–391.
- Zhan, Jimmy
2006 *FDI Statistics: A Critical Review and Policy Implications*. Geneva: World Association of Investment Promotion Agencies.
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