Making the Urban Coast

A Geosocial Reading of Land, Sand, and Water in Lagos, Nigeria

Ben Mende	Isohn			
		 	11161/1111/11111/	

n February 2013, then president of Nigeria Goodluck Jonathan hosted former US president Bill Clinton for a celebration on the Lagos waterfront: sand filling at Eko Atlantic City, a land reclamation scheme referred to as "the Dubai of Africa" and "Nigerian International Commerce City," was halfway complete. At the dedication event, speakers hailed Eko Atlantic as a boon to Nigeria's economy and a solution to a range of local challenges: land and housing shortages; erosion along the city's valuable Atlantic coastline; and the risks from climate change, sea level rise, and tropical rainstorms. President Jonathan boasted that Eko Atlantic "is bringing us happiness, and this happiness is here to stay." About "The Great Wall of Lagos," the project's storm surge and erosion control barrier, President Clinton marveled that Lagos is now "living in harmony with a new natural reality." Yet buried in this promotional rhetoric is an urgent set of questions: what exactly is this "new natural reality" along the city's coast? Is it new? And how harmonious is the human relationship to it?

Land reclamation has long been a pervasive "language of life" practiced by Lagosians across all levels of the economic spectrum.³ In recent decades, as Lagos's population has grown, so too has its landform, often through the sorts of private initiative and informal community collaboration that urban anthropologist Teresa Caldeira terms "auto-construction." Eko Atlantic, the highest-profile land reclamation project in Lagos, renders spectacular the widespread creation of land from water throughout the city, even as water periodically repossesses this land. Further, as unregulated land making combines forces with Lagos's long rainy season, expansive freshwater lagoon, swampy vegetation, high water table, and low elevation, dramatic flood events are now a fact of urban life.⁵ The anthropogenic conversion of coastal forest and mangrove swamp into solid ground reduces the region's capacity to absorb, filter, and drain water when it rains. For communities near the ocean, coastal erosion exacerbates the threat. As the journalist Tolu Ogunlesi observed, Eko Atlantic is simply "part of Lagos's centuries-long fight with the ocean," but one that has not yet proven to be successful in its aims.⁶

In late 2012, just months before the February 2013 dedication ceremony, local housing and environmental activists convened a symposium with Eko Atlantic's developers as well as coastal research-

^{1. &}quot;Nigeria Inaugurates 'African Dubai,'" Agence France-Presse, March 15, 2013.

^{2. &}quot;Eko Atlantic 5,000,000 Square Metres Dedication Ceremony," You-Tube video, 2:55, posted by Eko Atlantic, February 27, 2013, youtu.be /ULccxM3JaqA.

^{3.} Mbembe, On the Postcolony, 15.

^{4.} Caldeira, "Peripheral Urbanization."

^{5.} Alo et al., "Studies and Transactions on Pollution Assessment," 66.

^{6.} Ogunlesi, "Eko Atlantic City."

ers, urban planners, and representatives from the Lagos state and Nigerian federal governments.⁷ The attendees bemoaned the developers' lack of transparency; their exclusion of Nigerian coastal researchers, architects, and planners; and the ways the project was simply another example of antipoor, elitist urban development in Lagos. The activists also linked Eko Atlantic to accelerated coastal erosion at sites down the coast. The widely revered architect David Aradeon argued that Eko Atlantic typifies the endurance of colonial development and infrastructural paradigms, materialized through sand and stone: "We keep falling back on the combination of the strategies employed and deployed with ruthless efficiency by the colonial government 100 years ago. These include dispossessing the indigenous poor people of their land for public good; drainage of swamps to create channels through the swamps for controlling mosquito breeding environment; using land fill and hydraulic sand fill to create buildable land and erecting stone walls in the sea/beach to protect ships through the Lagos Harbor."8 Broadly, these criticisms have defined much local and foreign news coverage about the development. It has been repeatedly criticized as a form of "climate apartheid," where construction began after 80,000 residents were violently evicted from the site.9 As annual flooding has become increasingly severe, suspicions about the impacts of Eko Atlantic are constantly raised in op-eds. In one example, the former chair of the Nigerian Ports Authority, Bode George, wrote of widespread flooding in July 2017, exclaiming the "madness" of indiscriminate sand mining and land reclamation and observing that "mother nature is angry with us."10

While a small body of scholarly literature about Eko Atlantic has emerged since the project's launch in 2009, it generally emphasizes the development's veneer of utopian urban fantasy and its links to other cases of "speculative urbanism" throughout the developing world. In this article, I contextualize Eko Atlantic City within a broader political and aesthetic ecology of the Lagos coastal zone and argue that it is far from a straightforward local iteration of urban developments seen elsewhere, as some have argued. Rather, Eko Atlantic is a vivid entry point into understanding Lagos's present situation of precarious coastal urbanism within the deep time of the city's socionatural evolution. In the following pages, I develop a geosocial¹¹ reading drawing on an interdisciplinary approach to urban and environmental media studies,12 centering Lagos's unique sedimentary conditions within narratives of its past, present, and future.

Central to this story is sand—the sedimentary medium that forms the most intimate link between humans and the urban geologies that we create. A geosocial reading of Eko Atlantic and the Lagos coast looks to sand and the many ways that this substance is imagined, manipulated, and negotiated by urban populations. Lagos consumes "forty million cubic meters of sand per annum for building and construction projects," according to journalist Bukola Adebayo, who has performed extensive research on dredging in Lagos state.¹³ The Lagos sand economy has cascading consequences, as Adebayo also notes: "While the business generates great profits for urban property developers, its impact has brought despair upon residents who have to deal with the polluted waters, collapsed

^{7.} Kolawole, "Eko Atlantic City."

^{8.} Ako Amadi, "Brief Description of the Communities Threatened by Coastal Erosion and Displacement," Heinrich-Böll-Stiftung website, accessed September 22, 2017, ng.boell.org /sites/default/files/uploads/2012/12/eko_atlantic _project_-_opinion_papers.pdf.

^{9.} On climate apartheid see Goodell, The Water Will Come; Lukacs, "New, Privatized African City"; Okeowo, "A Safer Waterfront in Lagos"; and Wamser et al., "Drowning Megacities."

^{10.} George, "Mother Nature Angry."

^{11.} My use of the term *geosocial* refers to the meeting of human and geologic forces, drawing primarily on geographers Nigel Clark and Kathryn Yusoff's "idea of geosocial formations as a kind of minimal staging ground for earth science-social science encounters" (Clark and Yusoff, "Geosocial Formations," 6).

^{12.} See, for example, Mattern, *Deep Mapping the Media City*; Mattern, *Code and Clay, Data and Dirt*; Parikka, *A Geology of Media*; and Peters, *The Marvelous Clouds*.

^{13.} Adebayo, "Shifting Sands." For comparison, a United Nations fact sheet reports that

[&]quot;the three largest sand extraction sites in the United States combined represent sixteen million cubic metres a year" (United Nations Environment Programme, "Sand: Rarer Than One Thinks," March 2014, accessed October 4, 2017, wedocs.unep.org/bitstream/handle /20.500.11822/8665/GEAS_Mar2014_Sand_Mining.pdf). This figure is dwarfed, however, by the amount researchers believe is dredged annually from China's Poyang Lake—236 million cubic meters—to fuel construction in nearby cities, including Shanghai. See Beiser, "Sand Mining."

houses, depleted lands and flooding incidents these activities leave in their wake." But sand has long been integral to the fabric of the city. As environmental anthropologist Ashley Carse observes, "Cities are made of sand—all the constitutive materials of our rapidly growing urban centers are in some way based on aggregates of sand." Architect Joshua Comaroff adds, "The malleability of sand makes it a uniquely volatile substance." Its capacity to take countless shapes also means that "in large quantities, it can be engineered into the most fundamental of all infrastructures: land itself." Its capacity to take countless shapes also means that "in large quantities, it can be engineered into the most fundamental of all infrastructures: land itself." Its capacity to take the countless shapes also means that "in large quantities, it can be engineered into the most fundamental of all infrastructures: land itself."

In Lagos, sand and related coastal geomorphological processes interact with the city's political and imaginative trajectories as well as its historical legacies. Yet a conceptual vocabulary for interpreting these entanglements in Lagos has yet to emerge. A geosocial reading demonstrates that the circulations that often characterize this post-colonial megacity—as a hub of maritime trade and colonial arrival, of the export and in some cases the return of human slaves, of Pan African aspiration, and of visual-cultural and literary production and hybridity—should be thought alongside another set of circulations and flows: of the ground itself.

Lagos's future, like most of the world's coastal cities, is deeply uncertain and poised to be deeply unequal. Scholars estimate as many as 79 percent of Lagos's residents live within five hundred meters of the coastline.17 Additionally, as 70 percent of the population live in informal settlements, urban and environmental researchers repeatedly illustrate how flooding "greatly aggravates poverty"18 and often causes more adverse impacts for women than for men.¹⁹ In this context, dredging and sand filling are deeply imbricated in class conflicts over forceful evictions, land and housing rights, and the unequal distribution of environmental hazards. In many situations, communities of urban poor have settled in marshy or shallow water environments by producing their own land using various combinations of sand, sawdust, solid waste, and ash, only to have this ground forcefully seized for upmarket developments. ²⁰ In other situations, coastal dwellers have merely shifted and rebuilt their homes in response to ongoing commercial dredging activities that dump fresh sand at their doorsteps. ²¹ These anthropogenic circulations of sediment come to collaborate with the intrinsic geomorphological properties of the region's barrier island-lagoon ecology.

Lagos's sogginess and its frequent topographical transformations also resonate within the imaginative, visual, and narrative life of the city. Images of turning water into land occupy a central position in Yoruba cosmology, in which the earth originates when a minor deity is commanded by the creator, Olódùmarè, to convert the primordial sea into solid, inhabitable ground. As religious historian Jacob Olupona narrates the story, land is made by spreading dirt over water. The dirt is carried down from the heavens in a snail shell, poured over the sea, and formed into the earth by the giant claws of a five-toed chicken. In some versions of the story, a chameleon then descends from the heavens to walk atop the new ground and test its firmness.²² This story of conversion—from water into ground, assessed by a shape-shifting animal, achieved by distributing dirt with an earth-spreading chicken claw—has obvious echoes in twenty-first-century Lagos, where the conversion of water into land is rampant. The snail shell and the chicken claw are described like the digging and earthmoving machines that permeate Lagos's landscape and, as a result, are routinely depicted in works by Nigerian documentary photographers—dredging vessels and hand shovels, excavators and hydraulic shovels, and the new land forms that these tools sculpt (see fig. 1). Lagos's watery landscapes also form a frequent narrative backdrop in contemporary literature. When Olódùmarè sends a chameleon to test the stability of the newly created landform, at first finding it too pliable and thus in need of more

^{14.} Carse, quoted in Dominic Boyer and Cymene Howe, "Episode 84: Ashley Carse," *Cultures of Energy: The Energy Humanities Podcast*, August 10, 2017, culturesofenergy.com/ep-84-ashley-carse/.

^{15.} Comaroff, "Built on Sand."

^{16.} Ibio

^{17.} Olajide and Lawanson, "Climate Change and Livelihood Vulnerabilities."

^{18.} Ibid., 43.

^{19.} See Ajibade et al., "Urban Flooding in Lagos."

^{20.} Sawyer, "Natures Remade," 3.

^{21.} Adebayo, "Shifting Sands."

^{22.} Olupona, City of 201 Gods.

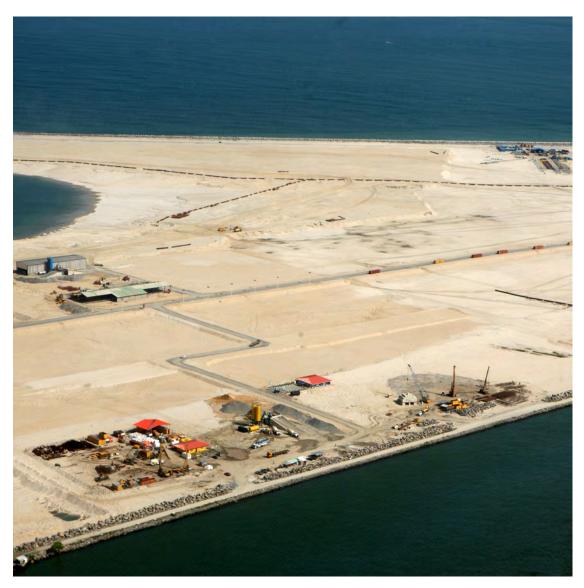


Figure 1. An aerial image of Eko Atlantic City during construction by George Osodi, displayed in a series of sixteen photographs documenting the site over several decades. Exhibited at the RELE Gallery in 2017. Photo courtesy of the artist

work, one might be reminded of the soggy swamplands of Maroko, the informal settlement in which Chris Abani's 2004 novel, *Graceland*, takes place. Understanding how and why sedimentary migrations interact with migrations of urban forms, infrastructural techniques, and visual and narrative imaginaries can provide new energy and new clarity for thinking Lagos's contested and emergent urban futures.

In the following sections, I demonstrate how sedimentary circulations and migrations intersect with ideological, sociotechnical, aesthetic, and discursive flows. Each section excavates a single aspect of this geosocial texture by demonstrating (1) Eko Atlantic's position within a genealogy of efforts to implement hygienic urban modernity in Lagos, (2) legacies of earthmoving and coastal engineering for maritime trade within Lagos's unique ecology, and (3) the literary echoes of the city's late twentieth-century and early twenty-first century terrestrial transformations.

In section, I historicize the existing literature on Eko Atlantic City. While Lagos's long history of uneven development is well known, spanning both the British colonial period and postindependence, perhaps less understood is the central role that land reclamation activities play in this history. Antipoor urban development has been entangled with Lagos's unique coastal ecology since the late nineteenth century, and thus sediment should be at the center of Lagos's story.

Whereas the first section demonstrates that Eko Atlantic is embedded in historical legacies of exclusionary planning and land creation, the second, "The Lagos Dredge Cycle," ²³ emphasizes the concurrent history of coastal engineering interventions that have defined the city's waterfront over the last century. Eko Atlantic makes new land to finance the coastal protection measures needed to resolve a growing erosion crisis along the Victoria Island waterfront. Yet this erosion was itself caused by a previous episode of coastal engineering: the British construction of stone breakwaters to shape the entrance channel into Lagos Lagoon from the Atlantic Ocean in 1908–20. In the century since, many attempts to halt or slow this erosion have failed. Ultimately, I argue that Eko Atlantic and its "Great Wall of Lagos" should not be viewed as a conclusive solution, but as another episode in this ongoing negotiation between humans and coastal geomorphology.

While parts one and two tell stories of social and ecological control fantasies that, upon inspection, appear all but certain to fail, part three explores how these same paradigms work their way into negotiations over the urban everyday in several examples from contemporary fiction. This section, "Nomadic Ground, Nomadic Subjects," explores the resonance of changing coastal landscapes within a broader urban imaginary, illustrated primarily through the novels of Chris Abani, A. Igoni Barrett, and Nnedi Okorafor. These examples demonstrate how quotidian coastal landscapes absorb memory and aspiration, saturate the phenomenology of the urban everyday, and carry the possibility for radical transformations on both the individual and collective levels. As AbdouMaliq Simone argues, "blank slate" urban mega projects in the global south not only evict the bodies, homes, and livelihoods of urban dwellers, but such projects often obliterate the capacity to circulate certain stories of urban

experience. These literatures help reveal and recover the pasts and futures that are effaced by hegemonic development scripts and their narrative tropes.²⁴

Eko Atlantic presents itself as both an urban planning and an analytical ready-made—a selfenclosed city built from scratch, paving over sited histories and the possible alternatives that could emerge in its place. This ideal is realized through the adoption of globally circulating images of urban modernity, which, in turn, lead to repeated forceful evictions of the urban poor. Scholarly analyses of Eko Atlantic risk a third level of erasure, however, in linking Eko Atlantic primarily to its transnational precedents or copies and as a result decentering Lagos. In my interdisciplinary approach to urban and environmental media studies, I follow the insights of urban political ecologists such as Henrik Ernstson et al. who argue that "to take African cities seriously means to provide texture to the barrage of statistical portraits or structural explanations."25 Reliance on totalizing categories such as capitalism, modernity, and/ or neoliberalism risks inattention to cultural and ecological difference and often leads to the production of wholly predictable conclusions. Some methodological experimentation is required to interrupt the "frictionless image of the African city as 'failed,' 'hopeless,' in 'need of help." Such a nuanced approach is a prerequisite to producing engaged urban theory about African cities,26 but it is also required in order to deepen our knowledge of human-environment interactions along the global urban coast.

Part 1: The Dubai of Africa

When contextualized within a local genealogy of uneven development, Eko Atlantic demonstrates how sedimentary ecologies are often entangled with exclusionary, antipoor, aesthetically motivated modes of urban planning. As figures 1 and 2 both suggest, Eko Atlantic is now a monumental landform viewable from space. It announces itself as an ostentatious appendage to the preexisting

^{23.} Holmes and Milligan, "Feedback: Designing the Dredge Cycle."

^{24.} Simone, For the City Yet to Come.

^{25.} Ernstson et al., "Conceptual Vectors," 1567.26. Ibid. Elsewhere, Lawhon et al. argue that urban political ecology is far too reliant on Eu-



Figure 2. Satellite view of the sand-filled peninsula of Eko Atlantic City off the coast of Victoria Island, Lagos, Nigeria. Google Earth, image © 2018 Digital Globe

city, a pale sandy landscape jutting into the ocean, bordered by its seawall to the south. Its shape mirrors the commercial hub of Victoria Island directly to its north, as if the two districts are a pair of giant terrestrial butterfly wings, and this geometric twinning literalizes the phenomenon that urban historian Martin Murray calls "city doubles": exclusive, master-planned developments on the outskirts of densely populated urban areas. Such developments are meant to escape the perceived blight of the existing city while remaining conveniently linked. Murray compares and typologizes Eko Atlantic against "city doubles" in Morocco, Mauritius, Angola, and the Democratic Republic of Congo, among others.²⁷ Like Murray's, most scholarly analyses of Eko Atlantic have emphasized its horizontal echoes of other developments in Africa, southeast Asia, and the Middle East. Vanessa Watson, for example, tracks the proliferation of such satellite cities appended to urban edges throughout subSaharan Africa, proposing that the pervasiveness of these "African urban fantasies" stems from the search for new investment frontiers following the financial crisis of 2008.28 Ashley Dawson similarly sees Eko Atlantic as yet another urban capital sink, a vision "of the extreme social injustice of emerging neoliberal urban phantasmagoria in a time of climate change."29 Stephen Graham further highlights the role of land reclamation, arguing that "Eko Atlantic shows that the world's real estate and reclamation industries increasingly sell the manufacturing of land as a miraculous solution to problems of congestion, population growth, and urban development."30 Taken together, these scholars treat Lagos as one example of powerful real estate fantasies and urban development strategies circulating throughout the world.

Urban researchers specializing in Lagos add some helpful detail. The political ecologist Idowu Ajibade, for example, describes Eko Atlantic in the context of "the combined problem of climate change, disaster risk, and capitalist urbanization." Despite Eko Atlantic's use of sustainability rhetoric, Ajibade argues that developers have effectively decoupled resilience planning from climate change adaptation. Her article concludes that Eko Atlantic reveals how "'future city planning' as a political project perpetuates enclosure and commodification practices with the goal of increasing the resilience of capitalist investors, economic elites, and the transnational class." 32

Yet Eko Atlantic and several additional mega developments now underway in Lagos can also be read within a long trajectory of exclusionary planning that spans both colonial and postin-dependence regimes. Such projects frequently equate poverty to pathogen while also promoting the adoption of generic signs of urban modernity like wide boulevards with twenty-four-hour street lights. Eko Atlantic not only perpetuates "enclosure and commodification practices," as Ajibade demonstrates, but also extends a local legacy of equating informal settlements and undeveloped swampland as blight in need of taming by state or state-allied forces. These visions can only happen through earthmoving.

In present day Lagos, the capacity for the state and its allies to access more powerful dredgers and excavators allows these elite actors to forcefully seize landmasses constructed or developed by the urban poor. On the morning of August 18, 2008, in order to make way for the construction of Eko Atlantic, an estimated 80,000 residents of the Bar Beach area along the Victoria Island coast were forcefully evicted by what activists consider the "Lagos State Government's demolition squad."33 A legal complaint filed with Nigeria's National Human Rights Commission details how personnel, including "a heavily armed police escort and plainclothes thugs . . . brandishing guns and cudgels," descended on Bar Beach with little warning or restraint.34 The complaint narrates how

the combination of government officials, police officers, and plainclothes assailants forced occupants to flee, blocked them from returning to retrieve any of their personal property, and then set fire to any structure in the area, including "homes, businesses, churches, mosques, other community facilities."35 Despite the brutality of such operations, former Lagos state governor Babatunde Fashola justified forceful evictions by stating simply that it was necessary "to take people out of living on a refuse heap," adding, "We will bulldoze away your difficult conditions."36 The operation mirrors other evictions both before and after this one. The highest-profile example in recent years was Otodo Gbame, a fishing and dredging community of approximately 30,000 residents near Lagos Lagoon that was forcefully evicted in three waves throughout late 2016 and early 2017.

While refusing to address directly the violence of the evictions, proponents of Eko Atlantic City instead describe the development as an expertly engineered coastal management and urban planning scheme. Its infrastructures are being sculpted and staged in plain view, with highly developed "modes of address," demonstrating anthropologist Brian Larkin's observation that infrastructural signs and representations are "deployed in particular circulatory regimes to establish sets of effects."37 On the Eko Atlantic website, a gallery of images depicts ongoing construction activities, including scenes like the one shown in figure 3 below. In this image, water and sewer mains are effortlessly deployed beneath newly constructed ground. This image emphasizes developers' ability to install new infrastructural networks without resistance, with no "inconvenient" people, dwellings, or legacy networks in the way. An excavator digs a trough in the sand; the interlocking tubes are dropped in place; the excavator covers them up. Such images are used to position Eko Atlantic as the long-awaited arrival of infrastructural modernity in Lagos. Yet in reality, the project has

^{31.} Ajibade, "Can a Future City Enhance Urban Resilience?," 87.

^{32.} Ibid.

^{33.} Social and Economic Rights Action Center, "Forced Eviction Affecting Nigerian Ports Authority-East Mole Bar Beach Settlement, 16

August 2008: Petition to National Human Rights Commission, Submitted 19 November 2013." www.scribd.com/document/185392106 /Progressive-Union-Residents-Association -PURA-NHRC-Petition-19-November-2013.

^{35.} Ibid.

^{36.} Sawyer, "Natures Remade," 9.

^{37.} Larkin, "Politics and Poetics of Infrastructure," 336.

^{34.} Ibid., 4.



Figure 3. Laying underground water infrastructures at Eko Atlantic. Also included as one of the sixteen photographs by George Osodi exhibited at the RELE Gallery in 2017. Photo courtesy of the artist

been plagued by delays and capital shortages and remains a mostly barren sandscape dotted by a few clusters of development.

Lagos's history suggests that skepticism toward Eko Atlantic's future is warranted, as efforts to rationalize or tame urban space have invariably led to more of the very same problems those efforts intended to solve. Rather than "the dawn of a new horizon for Africa," the development reveals the regularity of antipoor violence in the service of radically transformative socioecological visions for the city's future. Furthermore, urban historian Liora Bigon and urban housing researcher Lindsay Sawyer both establish that postcolonial Lagos inherited its fantasy of a brand-new city next to the old from the colonial authorities. Given such a history, Watson's observation that "satellite city" developers exude unjustified optimism appears accurate in Lagos: "The hope that these new cities and developments will be 'self-contained' and able to insulate themselves from the 'disorder' and 'chaos' of the existing cities is remote."³⁹

While modes of uneven development, displacement, and antipoor violence are exhaustively documented in Lagos research across multiple disciplines, the centrality of human earthmoving to this process is undernoticed. Bigon identifies swamp drainage and land reclamation schemes as "among the first development projects of the colonial authorities." In 1928, the Lagos Executive Development Board (LEDB) was initiated to deal with escalating public health concerns over malaria and the bubonic plague. Yet as Bigon argues, the drainage and land-making schemes that the LEDB pursued "focused, almost exclusively, on the provision of residential units for government officials and African staff in the colonial administration."40 In fact, Bigon has written about the perception of this marshy ecology as wholly inhospitable to urban management dating farther back in history, citing a former governor and medical doctor who viewed the city as "a notorious haunt of malarial fever . . . geologically a combination of lagoon, swamp, and low-lying sand, or mud, or clay, partly of fresh, partly of brackish water."41 As I elaborate below, colonial modes of seeing Lagos's coastal ecology as an inhospitable, dangerous wasteland have historically overdetermined the production of urban space and continue to do so. While Eko Atlantic has deep precedents, it is not simply that contemporary elites are repeating the decisions made by colonial authorities; Eko Atlantic also reflects how colonial- and postcolonial-era coastal infrastructures continue to steer and constrain action in the present.

Part 2: The Lagos Dredge Cycle

Erosion along the developed and highly valued coastline of Victoria Island, particularly the popular public waterfront of Bar Beach, was the primary catalyst for the construction of Eko Atlantic City (see fig. 4). The development addresses the erosion issue by expanding the beachfront through hydraulic dredging and sandfill and enclosing the new landform behind an elaborate seawall. Yet as I detail below, Lagos's coastal erosion

was itself caused by a previous episode of coastal engineering. This sequence of events closely aligns with what the Dredge Research Collaborative has termed "the dredge cycle." The Dredge Research Collaborative is a group of North American landscape architects who argue that dredging—the excavation and manipulation or relocation of underwater sediments—constitutes an overlooked infrastructure that is "essential to the functioning of contemporary coastal urban systems." Yet the act of dredging, they continue, "can only be properly understood within the context of the wider set of human activities that manipulate sediment."43 Thus in this section, I analyze the interrelationship of shipping channel maintenance and land reclamation in Lagos as it is dramatized by Eko Atlantic. The concept of the dredge cycle emphasizes how one sedimentary intervention merely necessitates another, and yet another. In this way, the dredge cycle highlights a mismatch between confident policy or promotional discourse and the unruly dynamics of an anthropogenic coastal system.

Eko Atlantic City is an artifact not only of Lagos's genealogy of exclusionary planning but also of the desire by European traders to secure direct access channels from the sea to inland waters across West Africa's Bight of Benin Coast. Lagos is set amid a "drift aligned barrier Lagoon complex"—a uniform, systemically linked coastal sedimentation cell that stretches from the eastern edge of the Volta River in Ghana to the western edge of the Niger River in Nigeria.44 In this system, sand is injected into the sea by the Volta River and then transported, deposited, and lifted by waves in repetitive cycles that form thin ribbons of land. Lagos's tidal channel—a rare break in the region's barrier islands—was long attractive to traders, as historian Robin Law writes: "The Portuguese were already trading through the Lagos channel with the Yoruba kingdom of Ijebu at the beginning of the sixteenth century . . . although Lagos was not to become major port for the Atlantic trade until the 1790s."45 While the channel was convenient, the active littoral sand drift along the coast

^{40.} Bigon, *History of Urban Planning*, 169. 41. Ibid., 132.

^{42.} Holmes and Milligan, "Feedback: Designing the Dredge Cycle."

^{43.} Ibid.

^{44.} Blivi et al., "Sand Barrier Development," 199.

^{45.} Law, "Between the Sea and the Lagoon," 215.

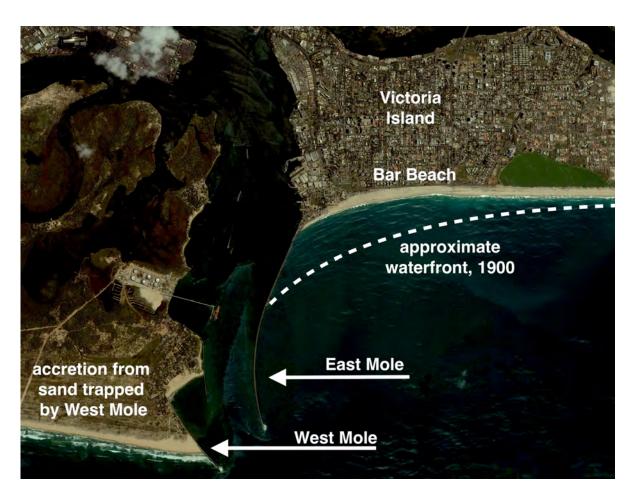


Figure 4. A May 2005 satellite image of the Lagos harbor "moles" and resulting accretion to the west and erosion to the east, prior to Eko Atlantic City's construction. Google Earth, image © 2018 Digital Globe

forced European navigators to negotiate a perilous sandbar that blocked larger vessels from reliably accessing the interior lagoon. This "bugbear of the bight" is well documented in European literatures, ⁴⁶ making "the lagoon entrance . . . notorious for the strong wave action and for accumulation of eastward drifting sand in the inlet access channel." After persistent groundings and the challenge of regular dredging to keep the channel

clear,⁴⁸ between 1908 and 1920 the British colonial authorities constructed a fateful series of three "harbor moles," stone jetties that could help regulate this shipping lane.⁴⁹ The terminology is revealing, as *mole* stems from a French word referring to a large physical mass, often of stone;⁵⁰ the harbor moles seek to transform turbulent sand and water with piles of granite boulders. These stone barriers do still help keep the channel mostly clear, though

^{46.} Olukojo, "The Port of Lagos," 112.

^{47.} Tonder et al., "Bar Beach, Lagos," 1168.

^{48.} Holmes and Milligan offer a simple definition of dredging; see "Feedback: Designing the Dredge Cycle."

^{49.} Tonder et al., "Bar Beach, Lagos."

^{50.} Oxford English Dictionary, 3rd ed., s.v. "mole."

without fully taming the environment. The harbor moles also severely disrupt the local equilibrium in longshore sedimentary drift. Since the moles' construction, Lagos's Victoria Island waterfront has experienced nearly a kilometer of erosion.

Postindependence authorities in Lagos have tried to mitigate this coastal erosion with a series of dredging and nourishment schemes. To understand how the idea of Eko Atlantic emerged, it is helpful to review the evolution of erosion control efforts at the Bar Beach site. Among the first attempts, in 1958, was a simple effort to place large quantities of sand near the edge of the east mole so that currents could gradually distribute this material along Victoria Island's waterfront. A sand pumping station was built in the 1960s, and at least nine episodes of beach nourishment, dredging sand from the sea and depositing it along the waterfront, took place between 1969 and 1999.51 Despite these persistent and repeated efforts, the ability to design, finance, and deploy permanent erosion control remained elusive. The challenge of halting, slowing, or reversing Lagos's coastal erosion was compounded by financial concerns. The federal and state governments lacked adequate capital to implement the best recommendations of costal scientists and engineers. News reports quote government officials saying that they could only afford periodic beach nourishment and that a seawall would be out of the question: "The cost of constructing breakwaters is enormous, and the government does not have the funds for it now."52 Then, in 2002 a group of South African consultants was hired to produce a comprehensive study and proposal for the waterfront, in partnership with the Nigerian Institute for Oceanographic and Marine Research.

In the end, the effort became more focused on generating funds than protecting the public waterfront. Within this paradigm, the consultants ultimately determined that "partial financing of the protection works is generated by simultaneously creating developable property through land reclamation. . . . The restoration of Bar Beach is

thus essentially approached from a real estate perspective through the reclamation of some of the land lost to the sea and making this available for the development of a Waterfront and future Tourism Gateway to Lagos and Nigeria."53 Although these initial plans failed, the logic of linking coastal protection and commercial land making persisted. Eventually, former Lagos state governor Bola Tinubu proposed that the Lebanese-Nigerian brothers Gilbert and Ronald Chagoury could implement this dual vision of coastal protection and high-value land making along the Victoria Island waterfront. Doubts about their suitability were raised, as a federal government committee found little evidence that the Chagoury brothers' firm "had the capacity and competence to undertake such an expensive venture."54 Yet the construction of Eko Atlantic continued, with the centerpiece of a seven-kilometer stone and concrete storm surge barrier that they call the Great Wall of Lagos.

By fusing real estate and coastal protection, Eko Atlantic's developers not only claim to be imposing discipline upon urban space and the bodies circulating within it, but also to comprehensively discipline the coast and its geomorphological processes. Yet Eko Atlantic is far from the last word on coastal engineering and flood protection in Lagos. The Great Wall of Lagos may protect the land directly behind it, but, unfortunately, it does so by displacing erosion onto communities farther along the Lekki Peninsula. While several of these communities are affluent beach estates, many of them are populated by informal settlements. For example, residents about seven kilometers east of Lagos in villages like Alpha Beach, another once-popular public waterfront, have experienced catastrophic erosion in their community. While developers and politicians at first denied the link, a causal relationship is clearly outlined by the environmental impact assessment compiled by the Dutch dredging firm Royal Haskoning and reiterated by additional foreign coastal researchers: "Since the revetment fixes the coast of the newly reclaimed land, the erosion of the Bar Beach is shifted eastward by the construction of the project."⁵⁵ Additional mitigation measures, including manual beach replenishment, would be necessary to alleviate these processes fully. Instead, the community of Alpha Beach (among others) has steadily slipped farther and farther into the sea. While community advocates have successfully lobbied for the installation of small jetties perpendicular to the beachfronts in order to try to assuage these effects, such groins, which trap, block, and redirect sediment much like the harbor moles but on a smaller scale, are unlikely to succeed at much beyond slowing some localized erosion.⁵⁶

In twenty-first-century Lagos, the Atlantic coastline is now defined by three iterations of stone structures, each meant to prevent one or more unique categories of coastal disasters. The Lagos harbor moles were deployed to avoid shipwreck on an underwater sandbar at the mouth of the tidal channel linking the Atlantic Ocean with Lagos Lagoon. The Great Wall of Lagos that rims Eko Atlantic was positioned to halt the coastal erosion that the harbor moles triggered, but also to minimize flood risk to the newly sand-filled real estate. And about five kilometers to the east, a series of groins-stone breakwaters perpendicular to the waterfront-was installed in an attempt to slow the coastal erosion that the Great Wall of Lagos has intensified. While these three sets of structures are linked in a causal chain, it is important to note that this linearity is only one vector by which humans have altered the fluid relationships between land and water. As the literary examples analyzed in the following section demonstrate, the relationship between land, sand, and water permeates the city and envelops its inhabitants in ways that can be fragmentary and unpredictable.

It is difficult to overstate the pervasiveness of dredging, sand filling, and related land-making strategies throughout the Lagos region. Constructing a home in Lagos often means first constructing the land upon which it will rest. As the documentary photographer George Osodi, commenting on

his images of Eko Atlantic City and other earthmoving sites in Lagos, told me, "Everyone in Lagos has to, one way or the other, make land."57 Since the Lagos state government introduced the Lekki Master Plan in the late 1990s, Lagos's main exurban axis has been identified as one of the most rapid sites of mangrove destruction in the world. Fueled by the housing needs and lifestyle desires of middleclass and wealthy Lagosians, phase after phase of piecemeal development has flourished, anchored by the Lagos-Epe Expressway. Yet new land making must contend with the intensifying threat of erosion and inundation. The seemingly straightforward act of dredging a shipping channel and lining it with stone walls at the entrance to Lagos Lagoon marks an epochal shift in the structure of Lagos's coastal ecology. The longshore drift current that defines the Bight of Benin coast is no longer the primary land-making force in Lagos. Yet, the waves that once deposited sand to construct the barrier islands lining the Atlantic coast remain active and indifferent to human engineering. They find sand wherever they can, lifting it from the coastline to replace the sand that has been trapped by dams and stone seawalls, thereby accelerating erosion. As humans respond to these new circumstances, efforts to tame the modified system often backfire.

To European traders and colonizers, the Bight of Benin's "drift aligned barrier lagoon complex" posed a problem for effective maritime navigation and transfer between land and sea. The Europeans perceived Lagos's unique geomorphology as pure obstacle and a target for transformation, even though for West African coastal dwellers the region's interior lagoons were always a navigational asset, suggesting an entirely different precolonial coastal imaginary.⁵⁸ Yet in the next section, we see how this precolonial coastal imaginary has receded almost entirely from view, as contemporary fiction shows a range of Lagosians searching for individual autonomy within a landscape that has been overdetermined by colonial transformations and their aftermaths.

^{55.} Van Bentum, *The Lagos Coast*, ix. See also Royal Haskoning DHV, "Draft Final Environmental Impact Assessment (E.I.A.) Report for the Proposed Shoreline Protection and Reclamation of 900 Hectares of Land: Phase I of the Eko Atlantic City Development Project at the

Lagos Bar-Beach, Victoria Island, Eti-Osa Local Government Area, Lagos, Nigeria," 2011.

^{56.} Edward J. Anthony, telephone interview by the author, July 21, 2016.

^{57.} George Osodi, interview by the author, March 10, 2016, Lagos.

^{58.} Law, "Trade and Politics."

Part 3: Nomadic Ground, Nomadic Subjects

Everything about Eko Atlantic's promotional and design rhetoric coveys control and mastery—over urban space and the bodies circulating within, over the Atlantic coast and its geomorphological properties. Even more, it seeks to exercise narrative control over the trajectory of the city at large, determining the structure of imaginable futures and memorable histories. Yet Lagos's sedimentary flows move not only in contact with coastal infrastructure and urban planning schemes, but also with the flows of memory and aspiration expressed in contemporary literature as well. The shifting boundary between land and water occupies a central position in Lagos's urban imaginary, and two examples in particular, Abani's Graceland (2004) and Barrett's Blackass (2015), link these ecological conditions to the persistent challenge of both imagining and producing more inclusive urban futures. This section demonstrates an intimate link between urban and personal development, between self-fashioning city dwellers and self-fashioning swamplands, and the two novels best establish the intimate connection between nomadic ground and nomadic subjects in Lagos. In both, social mobility and urban subjectivity are imbricated with the mobile natures of the urban landform. Further, I show that a third novel-Okorafor's Lagoon (2015)—establishes the accumulation of collective memory at the Bar Beach site and the challenge of imagining a more inclusive coastal future in Lagos.

Graceland is set in Maroko, a swampy settlement that had been partially land-filled by residents prior to its conversion into a sprawling residential estate with a shopping mall and international hotels. Abani's protagonist, Elvis, is a sixteen-year-old Elvis Presley impersonator from Maroko, and his story of economic and social striving is rooted in this neighborhood. The climax of the novel occurs during a forceful eviction by the state in 1983, a violent incursion that preceded the destruction of Maroko in its entirety. Maroko's story surfaces in several different novels and plays, as it is a deeply significant locus of contested col-

lective memory in contemporary Lagos.⁵⁹ In 1990, nearly 300,000 residents were dispossessed from their homes. Now renamed Oniru, the area is fully unrecognizable except perhaps for its susceptibility to frequent flooding. While forceful evictions have a long history, policy scholar Sheriff Folarin argues that Lagos's broader "spatial economy of abjection"—the regularity with which the urban poor can expect a combination of neglect and violent displacement by state forces—can be read through this one forceful eviction.⁶⁰ Maroko is also directly linked to the Bar Beach site and the Eko Atlantic fantasy not only as a kind of precedent and prophesy, but more fundamentally, many of the evictees from Maroko made their way to Bar Beach. Activists believe that many urban dwellers experienced both episodes.

Throughout Graceland Elvis stubbornly insists on his future as an entertainer. Elvis tries to earn money busking for a group of white expatriates that are lounging at Bar Beach. He is ultimately laughed away without payment, only able to earn money later when he begins dancing with a more traditional traveling Yoruba theater troupe. Yet the comfort of tradition is short lived, and he gives up on dancing after his family fails to lead their neighbors in a resistance to forceful eviction by the authorities. The setting of Elvis's adolescent awakening in Maroko suggests that the energies needed to train himself and his surrounding environment are beyond his reach. Yet his attachment to the image of Elvis Presley and his decision to immigrate to the United States with a fake passport reveal that even before Maroko assumed the mask of a Euro-American shopping mall, it was a space of cosmopolitan imagination and hybridity.

Abani's *Graceland* haunts the background of Barrett's *Blackass*. In *Blackass*, Maroko exists only as a whisper buried beneath the street, the amphibious marshland fully solidified into the ground of Oniru Estate and the Palms Shopping Mall. Here, Barrett stages a story of a young Lagosian male striving, self-fashioning, and masquerading his way toward a better life that he can't quite define. In this story, a college graduate named Furo

Wariboko mysteriously wakes up one morning as a white man, thus providing him access to the renovated luxury and retail district erected atop the former informal settlement. Unlike Abani's Elvis, Furo is convincing in his mimicry so long as his backside remains covered by his pants—his ass is still black. Passing as a white expatriate, Furo launches a corporate career and secures an exceptionally attractive, sexually adventurous girlfriend. Yet Furo embodies Homi Bhabha's concept of mimicry, being almost the same, but not quite white.⁶¹ He is psychologically tormented both by his black ass and by chance encounters with individuals from his previous life. Unable to settle into a life with his girlfriend, he flees to Abuja, the orderly planned city that replaced Lagos as the Nigerian capital and that remains an aesthetic foil to Lagos's kinetic fragmentations.

In linking the excavation of memory with the excavation of sediment, and the fabrication of ground with the fabrication of individual urban identity, literature and land making are collaborative forces in producing the urban everyday in Lagos. These stories reveal the Lagos coast as a site of accumulated and ongoing trauma through forceful eviction of the urban poor, the privatization of public space, and the unequal distribution of urban opportunity or hazard. Yet in linking the selffashioning ambitions of city dwellers with the self-fashioning ambitions of the landform itself, Graceland and Blackass both chase the question of how the repressive and exclusionary logics I outline in part 1 can be escaped, as well as how the cyclical logics I outline in part 2 can be managed or tolerated. In each novel, the performance of mimicry fails, or at least compels the characters to flee Lagos. Their movements as individuals are heavily impacted by the movements of the landform—as neighborhoods are bulldozed, rebuilt, and renovated, they harbor different sets of possibilities for those who occupy or pass through them. Yet the novels' conclusions may also be prophesy for Eko Atlantic—its mask may also fall off, and it may

find itself exiled from the city as well, pushed back into the sea. The new costume worn by the coastal landscape—solid roads made of cobblestones, prone to frequent flooding, running between imposing stucco homes—is tied to the costumes worn by those who walk on top of it. It may look convincing, but it is not necessarily sustainable.

Both Graceland and Blackass are set in locations of dramatic topographical transformation tied to the sequence of events that has produced Eko Atlantic City. Their own mimicries mirror the costuming, instantaneous shape-shifting, and superficial architectural masks that similarly characterize Eko Altantic. Like the "reclamation" of land at Eko Atlantic, literature helps further reclaim Bar Beach as a site thick with collective memories, most of which Eko Atlantic papers over with an unconvincing facsimile of a generic urban elsewhere. Bar Beach was considered a beloved and rare outdoor public space, one where Nigerians of all social strata would visit with their family. It was also a space of possibility—for dangerous but potentially liberating political or personal transformation. In Okorafor's 2015 sci-fi novel Lagoon, Bar Beach becomes the site of a transformative alien invasion, where an omnipotent female shape-shifter emerges from the water in a vast explosion that immediately overwrites Bar Beach's dense social history (see fig. 5). As Okorafor writes:

In many ways, Bar Beach was a perfect sample of Nigerian society. It was a place of mixing. The ocean mixed with the land, and the wealthy mixed with the poor. Bar Beach attracted drug dealers, squatters, various accents and languages, seagulls, garbage, biting flies, tourists, all kinds of religious zealots, hawkers, prostitutes, johns, waterloving children, and their careless parents. . . . Bar Beach's waters were too wild for any serious swimming. Even the best swimmers risked a watery death by its many rip currents. (7)

If Bar Beach was once a unique geosocial site of multivalent gathering and personal exploration, ⁶² Eko Atlantic has ensured that this is only selec-

^{61.} Bhabha, "Of Mimicry and Man."

^{62.} This narrative of risk and threat is further echoed in Teju Cole's short story "Water Has No Enemy," in which the narrator witnesses a showboating man on an all-terrain vehicle



Figure 5. George Osodi's iconic photograph of an Aladura, or prayerist, Christian worshipper with her child on Bar Beach in 2002. Also displayed in his series of sixteen photographs documenting the site over several decades at the RELE Gallery in 2017. Photo courtesy of the artist

tively still the case. Developers have hosted a range of ticketed events, including music and food festivals, polo and soccer tournaments, and car races. These events address a narrow segment of Lagos's middle and upper classes, even if they continue in the tradition of the Bar Beach's long history of staging public spectacles, including the execution of petty criminals during the era of military rule in the 1970s.

Of the three novels, *Lagoon* ultimately provides the clearest gesture of opening toward a

more inclusive, collaborative, multispecies urban coast in Lagos. As literary scholar Hugh Charles O'Connell comments, there is a "long recognized relationship of the first contact narrative to colonial and neocolonial conquest as well as the slavetrade," but in *Lagoon*, the alien arrival ultimately results in "the reawakening of a seemingly structurally unpresentable anticolonial subjectivity that is pitched against the ideological confines of the neoliberal present." The alien figure at the center of the novel, Ayodele, emerges from the water

in an elegant spectacle that mirrors Eko Atlantic's own fluid emergence. In this way, both invoke the West African water deity Mami Wata, who in many traditions brings promises of instant wealth as well as clear capacities for violence. Et a geosocial histories outlined above demonstrate that Eko Atlantic's transformative claims are not to be trusted. The template for such a transformation has yet to emerge in Lagos. In *Lagoon*, as O'Connell continues, Okorafor's aliens "are the figuration of that which can't be thought"—that is, the template for a future Lagos in which some form of geosocial stability and equitability might finally emerge. Etc.

Conclusion

Eko Atlantic City is fraught with the myriad pitfalls associated with scholarly representations of Africa and cities throughout the global south. It is both a spatial and analytical ready-made, invoking Ananya Roy's critique that "southern cities [are] studied in the valence of surprise and dismay; they are seen to be weak copies of a Western urbanism, [and] a betrayal of an indigenous formation."66 Roy's observation is linked to Achille Mbembe's declaration that the clear majority of academic discourse describing Africa does so under the signs of monstrosity or intimacy—an irrational compulsion to narrate African sociality as either horrifically excessive or impenetrably insular.⁶⁷ Elsewhere, Mbembe and Sarah Nuttall argue that a strategy for avoiding this pitfall should "take seriously the fact that Africa like, everywhere else, has its heres, its elsewheres, and its interstices. Indeed, historically, the continent has been and still is a space of flows, of flux, of translocation, with multiple nexuses of entry and exit points."68

Sediment is at the center of Lagos's fluxes and flows, its heres and its elsewheres. Eko Atlantic City invites an account of exclusionary pasts intermingling with a precarious present in which increasingly frequent floods mark landscapes under constant, often collaborative construction. At the center of this story is sand and its role in regulating the boundaries between land and water. Eko Atlantic proposes a new geosocial space-time in

Lagos. It ostensibly erases accumulated trauma, although it often only displaces it, all the while ignoring the development's complicity in ongoing patterns of spatialized abjection. Yet, Lagos's long history of exclusionary planning, as well as its emergent reality of frequent flooding and environmental crisis, demonstrates that Eko Atlantic City's confidence is a ruse. Whatever its claims, this development lacks the capacity to tame the unruliness of the coast, the lives of coastal dwellers, and the imaginations they express.

References

- Abani, Chris. *Graceland*. New York: Farrar, Straus and Giroux, 2004.
- Adebayo, Bukola. "Shifting Sands: Lagos Communities Count the Cost of Dredging." *Punch*, September 13, 2017. shiftingsands.punchng.com/.
- Ajibade, Idowu. "Can a Future City Enhance Urban Resilience and Sustainability? A Political Ecology Analysis of Eko Atlantic City, Nigeria." *International Journal of Disaster Risk Reduction* 26 (2017): 85–92.
- Ajibade, Idowu, Gordon McBean, and Rachel Bezner-Kerr. "Urban Flooding in Lagos, Nigeria: Patterns of Vulnerability and Resilience among Women." *Global Environmental Change* 23 (2013): 1714–25.
- Alo, Babajide, Kehinde Olayinka, Aderonke Oyeyiola, Temilola Oluseyi, Rose Alani, and Akeem Abayomi. "Studies and Transactions on Pollution Assessment of the Lagos Lagoon System, Nigeria." In *The Land/Ocean Interactions in the Coastal Zone of West and Central Africa*, edited by Salif Diop, Cyr Descamps, and Jean-Paul Barusseau, 65–76. New York: Springer, 2014.
- Barrett, A. Igoni. Blackass: A Novel. Minneapolis: Graywolf Press, 2016.
- Beiser, Vincent. "Sand Mining: The Global Environmental Crisis You've Probably Never Heard Of." *Guardian*, February 27, 2017.
- Bhabha, Homi. "Of Mimicry and Man: The Ambivalence of Colonial Discourse." *October* 28 (1984): 125–33.
- Bigon, Liora. A History of Urban Planning in Two West African Colonial Capitals: Residential Segregation in British Lagos and French Dakar. Lampeter, Wales: Edwin Mellen, 2009.

- Blivi, Adote, Edward J. Anthony, and Lucien M. Oyede. "Sand Barrier Development in the Bight of Benin, West Africa." Ocean and Coastal Management 45 (2002): 185–200.
- Caldeira, Teresa. "Peripheral Urbanization: Autoconstruction, Transversal Logics, and Politics in Cities of the Global South." *Environment and Planning D: Society and Space* 35, no. 1 (2017): 3–20.
- Clark, Nigel, and Kathryn Yusoff. "Geosocial Formations and the Anthropocene." *Theory, Culture, and Society* 34 (2017): 3–23.
- Cole, Teju. "Water Has No Enemy." *Granta* 124 (2013). granta.com/water-has-no-enemy/.
- Comaroff, Joshua. "Built on Sand: Singapore and the New State of Risk." *Harvard Design Magazine* 39 (2014). www.harvarddesignmagazine.org/issues/39 /built-on-sand-singapore-and-the-new-state-of-risk.
- Dawson, Ashley. Extreme Cities: The Peril and Promise of Urban Life in the Age of Climate Change. New York: Verso, 2017.
- Drewal, Henry. "Mami Wata: Arts for Water Spirits in Africa and Its Diasporas." *African Arts* 41, no. 2 (2008): 60–83.
- Ernstson, Henrik, Mary Lawhon, and James Dumny. "Conceptual Vectors of African Urbanism: 'Engaged Theory-Making' and 'Platforms of Engagement.'" *Regional Studies* 48, no. 9 (2014): 1563–77.
- Folarin, Sheriff. "The Spatial Economy of Abjection: The Evacuation of Maroko Slum in Nigeria." In *Africa Connects: Encountering the Nigerian State*, edited by Wale Adebanwi and Ebenezer Obadare, 55–78. New York: Palgrave Macmillan, 2010.
- George, Bode. "Bode George on Lagos Flood: Mother Nature Angry with Us, Says 'Eko Atlantic City Ill-Conceived, Ill-Designed." *Freedom Online*, July 10, 2017. freedomonline.com.ng/bode-george-on-lagos -flood-mother-nature-angry-with-us-says-eko-atlantic -city-ill-conceived-ill-designed/.
- Goodell, Jeff. The Water Will Come: Rising Seas, Sinking Cities, and the Remaking of the Civilized World. New York: Little, Brown, 2017.
- Graham, Stephen. *Vertical: The City from Satellites to Bunkers*. New York: Verso, 2016.
- Harrison, Sarah. "'Suspended City': Personal, Urban, and National Development in Chris Abani's *Graceland*." *Research in African Literatures* 43 (2012): 95–114.
- Holmes, Rob, and Brett Milligan. "Feedback: Designing the Dredge Cycle." *Scenario Journal 03: Rethinking Infrastructure* (2013). scenariojournal.com/article/feedback-designing-the-dredge-cycle/.

- Kolawole, Yinka. "Eko Atlantic City: Developers, Stakeholders Differ on Safety." *Vanguard*, August 13, 2012.
- Larkin, Brian. "The Politics and Poetics of Infrastructure." *Annual Review of Anthropology* 42 (2013): 327–43.
- Law, Robin. "Between the Sea and the Lagoons: The Interaction of Maritime and Inland Navigation on the Precolonial Slave Coast." *Cahiers d'études Africaines* 29 (1989): 209–37.
- ——. "Trade and Politics behind the Slave Coast: The Lagoon Traffic and the Rise of Lagos, 1500–1800." *Journal of African History* 24 (1983): 321–48.
- Lawhon, Mary, Henrik Ernstson, and Jonathan Silver. "Provincializing Urban Political Ecology: Towards a Situated UPE through African Urbanism." *Antipode* 46 (2013): 497–516.
- Lukacs, Martin. "New, Privatized African City Heralds Climate Apartheid." *Guardian*, January 21, 2014.
- Mattern, Shannon. *Code and Clay, Data and Dirt: Five Thou*sand Years of Urban Media. Minneapolis: University of Minnesota Press, 2017.
- ——. *Deep Mapping the Media City.* Minneapolis: University of Minnesota Press, 2015.
- Mbembe, Achille. *On the Postcolony*. Berkeley: University of California Press, 2001.
- Mbembe, Achille, and Sarah Nuttall. "Writing the World from an African Metropolis." *Public Culture* 16, no. 3 (2004): 347–72.
- Murray, Martin. "City Doubles: Re-urbanism in Africa." In *Cities and Inequalities in a Global and Neoliberal World*, edited by Faranak Miraftab, David Wilson, and Kenneth Salo, 92–109. New York: Routledge, 2015.
- O'Connell, Hugh. "'We Are Change': The Novum as Event in Nnedi Okorafor's *Lagoon.*" *Cambridge Journal of Postcolonial Literary Inquiry* 3 (2016): 291–312.
- Oghifo, Bennett. "Nigeria: FG Commits N4bn to Bar Beach, Challenges Lagos State." *This Day*, May 9, 2005. allafrica.com/stories/200505100415.html.
- Ogunlesi, Tolu. "Eko Atlantic City." *Ventures Africa*, October/November 2012.
- Okeowo, Alexis. "A Safer Waterfront in Lagos, if You Can Afford It." *New Yorker*, August 20, 2013.
- Okorafor, Nnedi. Lagoon. New York: Saga Press, 2015.
- Olajide, Oluwafemi, and Taibat Lawanson. "Climate Change and Livelihood Vulnerabilities of Low-Income Coastal Communities in Lagos, Nigeria." International Journal of Urban Sustainable Development 6, no. 1 (2014): 42–51.

- Olukojo, Ayodeji. "The Port of Lagos, 1850–1929: The Rise of West Africa's Leading Seaport." In *Atlantic Ports and the First Globalisation, c. 1850—1930*, edited by Miguel Bosa, 112–29. Basingstoke, UK: Palgrave Macmillan, 2014.
- Olupona, Jacob. *City of 201 Gods: Ilé-Ifè in Time, Space, and the Imagination*. Berkeley: University of California Press, 2011.
- Parikka, Jussi. *A Geology of Media*. Minneapolis: University of Minnesota Press, 2015.
- Peters, John Durham. *The Marvelous Clouds: Toward a Philosophy of Elemental Media*. Chicago: University of Chicago Press, 2015.
- Roy, Ananya. "Postcolonial Urbanism: Speed, Hysteria, Mass Dreams." In *Worlding Cities: Asian Experiments and the Art of Being Global*, edited by Ananya Roy and Aiwha Ong, 307–35. Malden, MA: Wiley-Blackwell, 2011.
- Sawyer, Lindsay. "Natures Remade and Imagined: Dreaming 'World City' and Slum-Dwelling Real-Estate in Lagos." In *Grounding Urban Natures: Histories and Futures of Urban Political Ecology*, edited by Henrik Ernstson and Sverker Sörlin. Cambridge, MA: MIT Press, forthcoming. Microsoft Word file with the author.
- Simone, AbdouMaliq. For the City Yet to Come: Changing African Life in Four Cities. Durham, NC: Duke University Press, 2004.
- Tonder, André van, Frans Kapp, André Bartels, and Hakeem Gbajabiamila. "Bar Beach, Lagos, Nigeria: Turning a Navigational Liability Into a Recreational and Commercial Asset." In 30th PIANC-AIPCN Congress, 1164–76. Sydney, Australia: Institution of Engineers, 2002.
- Van Bentum, K. *The Lagos Coast: Investigation of the Long-Term Morphological Impact of the Eko Atlantic City Project.* MA thesis, Delft University of Technology, in affiliation with Royal Haskoning and Deltares, 2012.
- Wamser, Lasse, Sune Gudmundsson, and Sven Johannesen. "Drowning Megacities." *Al Jazeera*, accessed January 2, 2017. interactive.aljazeera.com/aje/2015/drowning_megacities/.
- Watson, Vanessa. "African Urban Fantasies: Dreams or Nightmares?" *Environment and Urbanization* 26, no. 1 (2013): 215–31.