



IRONIES OF LABORATORY WORK DURING GHANA'S SECOND AGE OF OPTIMISM

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In the pharmacology laboratory at the Centre for Scientific Research into Plant Medicine in Ghana, I was evaporating the alcohol out of herbal tinctures so that the remaining plant extract could be freeze-dried. This was a necessary step to prepare the samples for administration to animal models, part of the process of approving herbal products for human consumption in Ghana. When the workers employed in this laboratory returned from lunch, they found me reclaiming used plastic bottles, which had previously held commercial herbal decoctions, for reuse in the lab. This was the kind of locally specific improvisation I had been taught to help manage the laboratory's scarce resources. I was holding one of these reclaimed bottles, struggling to read my own writing on a piece of masking tape that had gotten wet, when Gifty appraised the situation and said with a sigh, "Oh, Damien. African science!"

In the present article, I consider this kind of uncomfortable humor about Africa as a site of lack and embarrassing peculiarity as it manifests in the laboratories of the Centre for Scientific Research into Plant Medicine (hereafter CSRPM, or "the Centre"), a large herbal medicine research center about an hour's drive north of Accra.¹ The Centre is in many ways a legacy of Ghana's independence era, the proud embodiment of a period of high optimism about modernizing Africa that has weathered the disastrous economic decline that followed. When I began the bulk of my fieldwork in 2011, Ghana once again appeared to be on the rise.

Touted as one of Africa's "rising stars" and "lion economies" in the international press, the country had become part of the general narrative of an "Africa rising." Today, it serves as an example for Afro-optimists who point out that some African nations are experiencing marked socioeconomic progress. [Kofi Annan \(2013\)](#) has declared this "Ghana's second chance," an echo of the expectations that characterized the independence period of the 1950s and 1960s. Yet if Ghana is indeed once again experiencing an age of optimism, this one is not a mere repetition of an earlier boom in hope for the future.

Young workers at the Centre—research officers, laboratory technicians, interns—frequently made casual and ironic jokes about "African science." They pointed out what was lacking in their laboratories and mocked the ways in which their workplaces appeared peculiar. At times they directed these comments toward me, or at least made them for my benefit, as if to demonstrate their awareness that science might be done differently elsewhere. At other times, however, these comments simply arose during the usual chatter that formed the humdrum experience of daily working life. This is the kind of talk that [Achille Mbembe \(2001, 1\)](#) calls "negative interpretation," where African social life is described through what it is not. African society is therefore interpreted as a poor copy of, or marked by the absence of, modernity as it should be. The idea of Africa as synonymous with lack is not just a feature of an orientalist discourse in Europe or North America, but in fact structures the experience of social life for many Africans themselves. This negative interpretation formed a normal part of daily experience at the Centre, but it was always expressed in an offhand manner. It was an aside, an awkward companion that seemed to hang around scientific work, a sarcastic passenger on the voyage to national development. Here, I give a fair shake to these throwaway comments and asides to consider what they might mean for the laboratory workers who express them.

Anthropologists have described this phenomenon elsewhere, noting instances when the discourses of (under)development and (a lack of) modernization are employed by peasant agriculturalists or laid-off mine workers ([Gupta 1998](#); [Ferguson 1999](#)). By pointing to local inadequacies, these anthropologists argue, marginalized people thrust material inequality into focus. The sort of talk discussed in this article differs, however. Precisely because of its apparent disjuncture with the image of an emergent Ghana, the sense of frustration and disappointment I encountered at the Centre illustrates a historical shift in scientific vocations in Africa and in the identity politics of African professionals. African scientists have moved from seeing themselves and their work as part of the project of *African*

science—where the building of scientific institutions, the training of African scientists, and the practice of scientific research are representative of the promises of African modernity—to instead seeing themselves as scientists working in the context of Africa. The young professionals I worked with are living *after* African science. They are carrying out their studies and making sense of their professional lives in a time when the ideas that animated the vocation of science in the independence period no longer have purchase.

INDEPENDENCE AND THE EMERGENCE OF AFRICAN SCIENCE

The Centre for Scientific Research into Plant Medicine was founded in the 1970s by Dr. Oku Ampofo, a retired medical doctor. Ampofo was a member of what Ghanaians refer to as the “flag-bearer” generation who came of age under colonialism and went on to shape the nascent nation in the independence period. The product of the best schools on the Gold Coast, including Mfantsipim and Achimota Teacher’s College, Ampofo counted many of Ghana’s future leaders among his classmates. These schools expected their graduates to constitute the first wave of the Africanization of modern professions. They therefore fostered in their students a sense of pioneer leadership, as well as the comportment and propriety befitting their important position. After graduating from Achimota, Ampofo accepted a government scholarship to pursue medical school in Scotland (Osseo-Asare 2014, 158; Addae 1996, 279). Under colonialism, becoming a medical doctor had represented the height of African achievement, but medicine was also one of the professions most resistant to racial integration. Indeed, the government scholarships given to Ampofo and his colleagues were meant to address a perceived racial bias in the Gold Coast medical establishment (Patton 1996, 158). After several years abroad, Ampofo returned to Ghana in 1940 with a medical degree, expecting to take up work at a government hospital, but he was refused. Instead of going to work in highly regarded government service, Ampofo started a private clinic in his hometown of Mampong. By all accounts, Ampofo felt deeply spurned by his rejection from the Ghanaian public health system, something he understood to be a result of colonial racism (Osseo-Asare 2014, 135). Like that generation of medical doctors elsewhere on the continent (Iliffe 1998, 60), Ampofo and his cohort felt embittered by their subordinate status and unrewarding work conditions.

While operating his private practice, Ampofo became interested in traditional medicine. Facing chronic drug shortages during the Second World War, Ampofo began to chronicle local herbalists’ knowledge about medicinal plants,

recording his observations in copious notebooks that still form the basis of CSRPM's experimental research. After independence, Kwame Nkrumah supported Ampofo's activities. Scientific research into herbal medicine fit the spirit of the age in the young, nonaligned nation of Ghana, redirecting science to address human needs rather than Cold War military goals. The coup that removed Nkrumah from office marked an end to this period of idealism, but under the military rule of Ignatius Acheampong, Ampofo was able to officially establish the Centre for Scientific Research into Plant Medicine in Mampong, identifying several local healers as his collaborators. At the same time, the World Health Organization (WHO) was beginning to valorize traditional medicine as a resource for global health provision, and many other such national research centers emerged around the world in the same decade (Hayden 2003, 113–14). In 1980, CSRPM became a WHO collaborating center for traditional medicine.

The Centre's employees remember the establishment of the research center as a stubbornly defiant, even a revolutionary, anticolonial act in opposition to Euro-centric biomedicine. It is recalled as a reaction to Ampofo's experience of racism and as an announcement of the arrival of modern African science. As Abena Dove Osseo-Asare explains, "Ghana's participation in global scientific activity was in itself a cause for rejoicing" (2014, 141). Ampofo initially conceived of CSRPM during the 1960s, the high watermark of faith in modernizing Africa, when the state and its institutions were expected to guide transformative national development. In the end, Africa would grow into a more significant global role. As James Ferguson describes it, Africa was expected to be on an inexorable path toward social, economic, and political "convergence," in which "poor countries would overcome their poverty, share in the prosperity of the 'developed' world, and take their place as equals in a worldwide family of nations" (Ferguson 2006, 177). At the same time, "The mood of the 1950s and 1960s, directed by the last colonial rulers and the first African ones, shifted toward opening a European conception of social order to people of all races" (Cooper 2002, 89). Ghana's independence was particularly symbolic of these aspirations. Nkrumah had been instrumental in organizing the 1945 Pan-African Congress, and under his leadership Ghana became the first sub-Saharan country to achieve independence, well ahead of the schedule anticipated by Britain. It subsequently became a focal point for pan-Africanist and anticolonial movements. The aspirations of an independent Ghana represented the hopes that the world could be remade with the end of colonialism.

Ampofo's activities carried the spirit of the time, eventually leading to the establishment of the Centre for Scientific Research into Plant Medicine in 1975. The Centre shared in what Paul Wenzel Geissler (2011) has described as the "project" of mid-twentieth-century science in Africa, in which science was able to evoke a sense of shared progress and a future imaginary. The Centre was a project in this sense, something in progress toward a better, more democratic, and more dignified future. As Stacey Langwick (2011) and Osseo-Asare (2014) have shown, the scientific study and development of traditional medicine in Africa were associated with decolonizing reforms following independence. The development of scientific institutions therefore constituted a major part of the symbolic arrival of African modernity, representing especially its intellectual dimensions. Science was spectacularly modern. That it was focused on studying herbal medicine made it an especially potent marker of Africa's emergence on the global scientific scene, and of a reordering of the values and hierarchies of research. While historical, philosophical, and ethnographic studies have insisted on the plurality of the sciences (e.g., Kellert, Longino, and Waters 2006), *science* as a signifying term still holds great sway, in this case indicating an even broader set of abstractions: the status of "modernity" in "Africa."

In this spirit, Ampofo presented himself both as a practitioner of modern science and as an embodiment of African modernity. A prominent sculptor and actor, he founded the Gold Coast Arts Council and acted in the groundbreaking 1952 colonial film *The Boy Kumasenu*. In that film, he played a medical doctor and sculptor who became a paternal figure to a wayward Gold Coast youth, figuratively sculpting the new nation (Garritano 2013, 42). As a public figure, Ampofo appeared to epitomize the modern African at a time when "the African doctor himself embodied progress, as the recipient of transferred technology" (Kusiak 2010, 227). In this sense, he followed in the footsteps of Africanus Horton, a Sierra Leonean who was one of the first Africans to obtain a medical degree nearly seventy years before Ampofo. Born as James Beale, Horton took on the name Africanus to make explicit that he saw himself as evidence of what he called a "vindication of the African race" (Fyfe 1993).² Both Ampofo and Horton regarded the person of the scientist as just as important as the work being done. Ampofo, like Horton, sought to embody African modernity as both a practitioner and a specimen of it. As a Renaissance man, he represented an African modernity guided by Western institutions but developing its own arts, cultures, and sciences. His identity as a black scientist formed an essential part of his efforts to reorient and reinvent modern institutions after decolonization. His most visible legacy was

the Centre for Scientific Research into Plant Medicine, a demonstration of the emergence of modern African science.

DECADES LATER, INTRODUCING ABSENCE

“This is not a modern lab,” Ebenezer, a laboratory technician, told me by way of apology before we entered the pharmacology department. This was February 2011, thirty-six years after the Centre’s founding. Though these decades included some of Ghana’s most turbulent, CSRPM had grown and thrived. After a few years as its director, Oku Ampofo had stepped down because of his declining health. Meanwhile, the WHO had provided the funds for the institution to move to its current location, a large building set against the hillside in Mampong-Akuapem, across the road from its previous home in a community center. By the time the Centre officially opened its doors in 1975, Ghana had already weathered two military coups and a traumatic devaluation of its currency. As the turbulent 1980s unfolded and the country touched bottom in its particular narrative of failure of the postcolonial developmental state, the Centre expanded and professionalized its workforce, linking with local industry to become a regional leader in herbal medicine research. By the time I arrived, Ghana was once again touted as an African success story. The 1992 constitution, the discovery in 2007 of offshore oil reserves, and the imminent attainment of World Bank “middle-income” status prompted [Kofi Annan \(2013\)](#) to declare that Ghana had been given a “second chance.”

At the Centre, I fell in with those my own age: the young laboratory technicians, research officers, and various interns and temporary visitors who did the bulk of the bench work. Only some of these bore the title “researcher” that marked them as “scientists,” but all of them were making a vocation of the work of science, making a career and a life out of the opportunities it afforded. The technicians did much of the laboratories’ repetitive daily work. Most of them had a degree from one of Ghana’s three-year technical colleges, and they were often interested in furthering their schooling. Research officers focused on long-term research projects, like producing phytochemical profiles for different parts of medicinal plants, or testing plants for safety and efficacy. Many of them had bachelor’s degrees from the University of Ghana, Ghana’s top-tier institution of higher education. Others had graduate degrees, or were graduate students. In addition, a number of other people worked at the Centre for short periods. This included national service volunteers and students completing internships. Many of them were graduates of a university program in herbal medicine, where I had

also done research. All of them supported the Centre's mission and agreed that studying herbal medicine formed an important component of national development that must be done by Ghanaians. However, apart from the interning herbal medicine graduates, the Centre was staffed by people who identified with their particular disciplines more than with herbal medicine research as such. The children, grandchildren, and great-grandchildren of the original herbalists who collaborated with Ampofo still found employment at the Centre, but now in a number of modest administrative positions. Once representative of one man's intellectual and political project, the Center now serves a diverse set of technical aims and individual goals increasingly detached from an independence-era ethos of pan-African pride.

Though the Centre had expanded and improved since its founding, Ebenezer nevertheless felt the need to prepare me for what I would and would not see as he introduced me to the laboratory. For Ebenezer, the condition of the research bench, the age of the equipment, and the absence of hoped-for pieces of technology required an apology. This type of introduction pointing out material lack characterized my introduction to other laboratories at the Centre as well. In phytochemistry, I was first told what the laboratory could not do, which was to elucidate molecular structures. "There is only one [Nuclear Magnetic Resonance] machine in all of Africa," explained Paul, a research officer. "It is in South Africa." In the medical laboratory I was quickly told not to understand the laboratory in terms of what I was seeing. It would all soon change. There was a plan to remodel the lab, Nana told me, and if I returned in a year I would see a new bench and a number of new pieces of equipment. It will be "more modern," he assured me. In each case, the laboratory was presented through its differences from other laboratories, and my understanding of the laboratory was deferred to other places stocked with better equipment. The anthropologist Claire Wendland similarly describes the sense among Malawian medical students that "real medicine was what happened elsewhere," and that Malawian medicine was "somehow less than real, or second-rate" (Wendland 2010, 135). This sense of being out of step with laboratories elsewhere made the Centre, as Ebenezer pointed out, "not modern." At least not completely.

I became accustomed to hearing about the lack of technology at Kwame Nkrumah University of Science and Technology (KNUST), the university where I did fieldwork for one semester. There were useful pieces of technology in the teaching labs at KNUST, but the state of much of the older equipment and infrastructure significantly affected the ability to successfully execute practical lab

assignments. During the week in which we were supposed to perform what the faculty characterized as the two most important laboratory procedures we would learn, we were unable to do the experiments. After failing to complete the first assignment because of a faulty oven, we were thwarted in our attempts to complete the second when the campus experienced a power outage. We all went home with a poor understanding of how these procedures would have been done had we had electricity and a functioning oven. The following week, when it became clear that the results of the group lab experiment would again be inaccurate, Ernest approached the blackboard and wrote what many seemed to be thinking: "I hate lab." At the same time that students were grappling with the infrastructural limitations of their university, they were acutely aware of a relative abundance of technology abroad. Two young faculty members had recently returned from a ten-week program at the Massachusetts Institute of Technology. Standing in front of the posters detailing the program and the research they had accomplished while there, Patience pointed to a photo showing the two faculty members inspecting banks of computers with multiple monitors. "That is where the real difference is," Patience said. "If we had all this equipment here we could do a lot more." Patience described specific research methods—x-ray fluorescence, for example—that they learned about in class but would not be able to do in Ghana. When I asked one first-year student who was telling me about his applications to U.S. universities why he was so determined to leave Ghana, he described the lack that characterized his experience of campus. "We have a pharmaceutical chemistry lab," he said with a plaintive look on his face. "You go in there and there's nothing there."

"There's nothing here," echoed a researcher at CSRPM, explaining why he wanted to leave Ghana. "I could accomplish in two years in the U.S. what it would take me five years to accomplish in Ghana." Samuel was young, smart, and well educated, all of which he saw as a curse. "It's a curse to have a good idea in Ghana," he declared, "because you know you will take it to your grave." Indeed, many young scientists questioned the viability of their careers in Ghana, and leaving the country was the most common reason for dropping out of the herbal medicine program at KNUST. While many Ghanaians have recently returned to Ghana after living abroad (frequently, it seems, to open one of the many scientific herbal clinics popular in the country), formally trained scientists who seek public-sector employment often feel that they are better off leaving. Samuel pointed to a number of real and practical challenges in his department—no running water, an unpredictable electric supply, a lack of consumables—that

he said made it “not a standard laboratory.” To him, this was the same as saying “there’s nothing here.” He could have compared the laboratories to other research centers in Ghana with relatively better equipment, but in his explanation he specifically mentioned the United States. To do work as he felt it was meant to be done he had to leave the country.

During my four months as an intern at the Centre, I continued to observe various visitors being taken on lab tours. One day after we had straightened up the medical laboratory in preparation for a government inspection, Efua, an interning graduate of the herbal medicine program, gave her appraisal of the events to come: “If this was a private institution, they would just close it down.” When I asked her to elaborate, she explained that the lab was “not up to standard.” She continued, “There’s no running water, which is really bad. The place is dirty and there should be a different place for handling the [blood and urine] samples. Because it’s a government institution, they will just give them a warning, but this place is so bad!” During a tour of the Centre by a group of nursing students, Mr. Ahorlu, a research officer in his forties, pointed out the two fume hoods in the laboratory. These are essentially large boxes with ventilation to blow the fumes up and out of the building, providing a safe space to work with reagents. Mr. Ahorlu pointed out that the one on the right, identical in all respects to the one on the left, had been built here in Ghana, reverse-engineered from the original that had been imported from abroad. “This one was brought from Denmark,” he said pointing to the one on the left. “And this one was made in Ghana. But unfortunately,” Mr. Ahorlu decided to explain, “there is a problem with the fan, so we are no more using that one.” The nursing students whispered to each other. One male student in the back asked knowingly, “The Ghana one?” Everyone laughed. One person took a picture.

The condition of laboratory science was furthermore felt as a temporal lag. [Noémi Tousignant \(2013\)](#) describes the tempo of waiting in a contemporary Senegalese university laboratory, and the nostalgia for science that “fills up time” and signifies progress. Laboratory workers at the Centre characterized the present period as having a productive tempo, where more and better work was done than in the past, but this did not necessarily imply satisfactory progress. “By this time” was a common phrase used to discuss the state of science and technology in Ghana, as when an intern named Isaac said to me, “By this time, we should have gone much further.” It refers to lateness, as in, “By this time of the day, the traffic will be bad.” According to Isaac, the Centre should have progressed to more sophisticated types of research not currently available. Another time, as I was telling

Ebenezer how impressed I had been with the nearby Noguchi Memorial Medical Research Institute, he responded, “Yes, that is a modern lab. This lab is 1957.” The apparent lack of progress made Ebenezer feel that he might as well be working in the year of Ghana’s independence.

At times, I sensed a grim satisfaction in pointing out these inadequacies that came from a world-weary expectation of disappointment. During a visit by a chemistry class from the University of Ghana, the lecturer leading the group asked laboratory workers whether they identified contaminating organisms. A woman working in the lab responded that while the identification of organisms would be ideal, it would drive up the cost of the tests, for which there was no money. The lecturer grinned and repeated to the students, “Do you hear that? They should identify the organism, but because of what they can pay.” Later, when the lecturer learned that the students practiced mouth pipetting in their classes rather than using the auto-pipettes available at the Centre, the smile returned to her face. “This is how they do it in the developed world.” There was a certain sense of pleasure at finding technological disparities mapped onto geopolitical inequality.

In discourse about the continent, Africa “stands out as the supreme receptacle of the West’s obsession with, and circular discourse about, the facts of ‘absence,’ ‘lack,’ and ‘non-being’” (Mbembe 2001, 4). Yet this is not only true for an interlocking set of representations about Africa but also for the material realities, the experience of social life lived with the symbolic weight of being asked to represent what it means to be African. Herbal medicine researchers were asked to imagine their practices as being the essence of modern Africa. Because of this, they felt that their realities came up short. The absence of certain pieces of equipment and infrastructure constituted a palpable presence, a constant reminder of an unfinished modernization. Ghanaian laboratories were therefore defined through what they did not have, and they appeared as obstacles to careers in science that might flourish elsewhere.

MODERN TALK

These laboratories were of course engaged in an eminently modern enterprise. The people making these statements were practitioners of modern science, investigating medicines as part of a modern state bureaucracy that regulates local medical markets. There is no absence of modernity here, in the analytical sense used by contemporary social science. Rather, Ebenezer was clearly using *modern* in a different way. “Modernity,” as Jean and John Comaroff point out, is notoriously difficult to locate. It is “a (more-or-less) pliable sign,” that “attracts dif-

ferent referents, and different values, wherever it happens to land” (Comaroff and Comaroff 1993, xiii). Being “at large” (Appadurai 1996) and seeming to define everything everywhere in contemporary times, “modernity” lacks analytic precision. Cooper (2005) suggests that it is important to specify what concept of modernity is being mobilized when the term is salient to empirical explanation. In contemporary Africa, and elsewhere in the so-called developing world, the concept of modernity has been indelibly linked with the sort of modernization theory that characterized postwar social science (Ferguson 1999). There, the concept of modernity as inevitable telos has faltered, but modernity continues to be the benchmark of social standing. Modernity has therefore come to signify status, being of the social stratum that enjoys material wealth and recognition (Ferguson 2006). As the Comaroffs clarify, “It is not that people in the global south ‘lack modernity’” in the sense used by contemporary social theory. It is that “many of them are deprived of the bounty of modernization” (Comaroff and Comaroff 2012, 11). Those who work in the Centre’s laboratories understand the poor state of science in Ghana as representative of Ghana’s position in a hierarchical world.

Saying that a laboratory, one of modernity’s most emblematic signs, is “not modern” is therefore to claim a specific instance of material inequality. It puts the laboratories of the Centre on a common plane of comparison with laboratories elsewhere, just as Patience did when he pointed to the poster and said, “This is where the real difference is.” It draws attention to obstacles in the way of producing relevant facts, advancing careers, and being recognized as a colleague on par with researchers elsewhere. It is an act of pointing to imbalances in the means of attaining dignity, worth, and influence. The material conditions of the laboratory provided an obvious and accessible means for making this comparison. As Brian Larkin (2008) has argued for Nigeria, material infrastructure often forms the ground for political claims. By pointing to a piece of broken infrastructure, a citizen has the ability to mark a specific instance of disjuncture between how it should and does function. At the Centre, material infrastructure provided the basis for claims to greater global equality and justice. Young laboratory workers used the material infrastructure of the laboratory to make claims about the conditions of their work. In this sense, the cynical remarks I observed at the Centre do not signify the death of the postcolonial modernist project carried out by Ampofo and his compatriots, but rather its continuing resonance. When the young laboratory workers pointed out the lack of specific machines, or maligned the malfunctioning technology and said that it was “not modern,” they were measuring

their surroundings, at times explicitly, by the promises and aspirations of the 1950s and 1960s. Judged by the expectations of that period, their workplace had come up short.

This type of dissatisfaction and comparison to other places is not limited to Ghana's laboratories. I have heard Ghanaians make similar comments lamenting the state of many things in their country. Malfunctioning street lights, potholes, or commercial trucks driving through city centers can provoke negative comparisons between Ghana and the countries of Europe and North America. By focusing on the laboratory, however, the discourse of local inadequacy attached itself to a powerful symbol of postcolonial Africa. Similarly, these comments may not have been voiced in the same way had I been in a clinical setting, as recent Africanist ethnographies have shown. Jokes in those contexts often serve palliative functions (Livingston 2012), and medical students speak of having the "heart" to keep going (Wendland 2010). Similar kinds of narratives circulated at the Centre, especially among the young interns with more clinical interests, but these were less frequently voiced than the expressions of exasperated disappointment described here.

The Centre was meant to be both spectacularly modern and obstinately African. For Ampofo's generation, an African identity was critical to the hope and expectation invested in modernity. Identity was a core component of the project of African science. When Ampofo established CSRPM, he was thumbing his nose at all those who did not respect African knowledge and capability, and his science thrust a modern Africa into global awareness. Ampofo's generation invested the status of Africa in its signs of modernity, but those material signs had worn out and broken down. The test tubes and white lab coats that had once represented hope and pride had grown torn and dirty. When smart and capable scientists sat in a room meant to embody a world-historical change and found that the lights would not turn on, sometimes all they could do was laugh. If today modernity is a disappointment, then this reflects on the status of Africa as well: "Africa" as a sign, as a focus of hopes and aspirations, and as a beacon around which to organize an identity, has suffered from the disappointments of its post-colonial history.

IRONIC AFRICA

During my time at CSRPM, those employed there frequently expressed the idea of an "African science," always in the ironic sense described in the opening vignette. In the pharmacology lab, a national service volunteer named Gifty asked others if, for want of a proper container, she should be weighing samples on the

lid of the jar in which they were stored. "African technology," one of the lab technicians chuckled. On a different day, I was trying to pour Fehling's solution "A" from a large bottle into a small test tube without a funnel, tilting the bottle very carefully to avoid spillage. Osei, a national service volunteer, laughed at me and said, "This is the indigenous way!" Eventually these jokes started to come out like second nature. Struggling with an apparently faulty microscope to examine some blood samples for malaria parasites, an intern, George, sighed, "Oh, Africa." Barely looking up from her book, Efua responded with an overtone of melodrama, "Cry, the Beloved Country!"³

The research center was usually described as "African" in relation to a lack of common and necessary items. For example, when the director of one laboratory pointed out that they depend on supplies brought by collaborating partners, he glanced at me out of the corner of his eye and said, "It is only Damien who came empty handed." After the laughter subsided, Efua chimed in, "Africa and charity. They go together." Positive and empowering uses of the adjective *African* were largely absent. I did not hear a valorization of African ingenuity or creativity, or a celebration of improvisation. An obvious class dimension clung to this banter. "When I was in school at university," said Samuel, "there was this course, 'Appropriate Technology for Rural Development.' So you improvise everything." Samuel started laughing: "That is what we are doing here! We more or less improvise everything." For Samuel, a research officer and a graduate of Ghana's top public university, improvisation in the face of material lack was something he had learned about in sociology class as a thing rural people had to do. He could not help but laugh to find himself in that very position, improvising just like the subjects of his readings.

The obstacles that laboratory workers encountered were real and troubling. One morning, a powerful chemical smell suddenly pervaded one of the laboratories. A technician and I only fully appreciated the seriousness of the situation when we realized that the fumes had made us too dizzy to do an interview. Those of us working in that lab searched with great frustration for the source of the smell until Isaac discovered that someone had poured reagents down a nonfunctioning sink. They had pooled in the plumbing and had begun dripping onto the floor. Some of the laboratory technicians had breathed these fumes for hours before the mess was thoroughly cleaned. After they began feeling pain in their lungs, the Centre's resident medical doctor escorted them to a nearby hospital for evaluation. When one researcher was questioned about the spill, he grew defensive and insisted that he had been to Japan and knew proper laboratory

procedures. He knew that how they disposed of reagents at the Centre (by pouring them into the bush) was wrong, and he certainly would not pour them down the sink.

Even the laboratory animals did not seem quite right. The Centre purchased Sprague Dawley rats from the Noguchi Memorial Medical Research Institute in Accra, where they had a breeding program. The Centre did not, however, have access to transgenic rats that were born with high blood pressure or diabetes, so they had to induce these chronic conditions. When he told me about rat models born with diabetes, Ebenezer remarked, "Your people have done incredible things." The rats that lived and died in the pharmacology department carried geographical referents, it seemed, and the ones in the lab were not quite as incredible as others might be. Time and again, the way the rats were handled was referred to as peculiarly African. Researchers mentioned the rights of animals that held true outside of Africa, but that were suspended in African research centers. Eunice in particular had qualms about the ways the animals were used. One day while explaining how to do a peridermal injection, she paused mid-sentence and grimaced. "The animal rights people. . . . But this is Africa, so we don't have to worry about them." During a "sacrifice," Eunice laughed uncomfortably and said, "I'm glad none of the animal rights people are in here." Indeed, the worry about the seemingly imminent arrival of animal rights activists was discussed by the director of the Centre ("the animal rights people are coming to Africa!"), as well as by professors at KNUST. That there was neither an animal oversight board at these institutions nor a national body to regulate the use of laboratory animals in Ghana was considered both a significant ethical issue in its own right and a worrisome opening for judgment by others.

These pervasive negative comments were cast in the terms of modernization and development, but they were counter-discursive as well: They contested the interpretive frame of Afro-optimism for which Ghana has become an important site of reference. If Afro-optimism focuses on hope deferred to the future, and emphasizes modest innovation, improvisation, and making do, then the negative interpretations offered by the employees of CSRPM insisted on maintaining global inequality as the relevant frame of reference. At times, the Centre's employees noted that Ghana was doing well compared to other African nations and pointed out that the Centre was the only one of its kind in the region. When I was introduced to the production department, the medical herbalist interns with whom I was given a tour were not satisfied. Efua asked where they did quality-control testing, to which Kofi, the gregarious production manager, responded

that they did it in the phytochemistry and pharmacology departments. They should have their own quality control laboratory, but “this is Ghana,” said Kofi. “You shouldn’t say that!” responded Efua. “Oh, come on,” said Kofi. “This is sub-Saharan Africa. You know sub-Saharan Africa? It’s a big, big place, and is the poorest region in the world. So we just don’t have the cash for that.” Kofi paused and reconsidered, noting the reputation for a special status that Ghana had developed in the past decade or two. “OK, Ghana, we are a bit of an exception. In West Africa there is no other place like this where they are producing in this way, and producing medical herbalists in the universities and all those things. We are teaching Ethiopia to produce like we are, to set up something in the same way that we have it here. But still.” While during the independence era Ghana’s signs of modernity were indicative of the new Africa, Kofi’s assessment of the good work done in Ghana did not embrace the “Africa rising” narrative. Instead, he disavowed African identity and African cultural nationalism as central to new development projects. Something similar was evident when Jacob Zuma recently advised South Africans not to “think like Africans in Africa” and to pay their road tolls. “Ghana” is a marker of progress and hope, but this despite a set of generically African problems that it must overcome. Ghana is an “exception.” But still.

These jokes about African particularity circulated outside the laboratory as well, in reference to all sorts of things. “African office” and “African time” each referred to things seen as comically proper to Africa. More broadly, jokes about “local” or “indigenous” forms of common practices were also frequent. A typical example occurred when an herbal medicine student, Abdulai, invited me to share a seat with him by patting the chair and saying, “Damien, sit small.” The use of West African pidgin mirrored an improper or undignified use of the chair. Things signaled as “African” were localized, parochial, and embarrassingly out of step. *Afro-engineering* referred to making do with locally available materials, like using smooth river stones instead of antibumping granules in a Dean-Stark apparatus. (When a taxi driver rolled up the windows of his car by touching two wires together, he said to me, “Afro-engineering!”) The phrase *African electronics* referred to a joke about witchcraft that circulated during my fieldwork. In some ways, the sort of humor apparent at the Centre is typical of the jokes characterizing public institutions anywhere (“good enough for government work”). Dissatisfaction with institutional processes and the resources available to employees is certainly not restricted to Ghanaian places of employment. Jokes about technological lag and the incompetence of national leaders circulate in many different contexts (I have heard the same political joke attributed to Soviet Russia, fascist Portugal, and

postcolonial Namibia). Yet in the laboratories of Ghana during its twenty-first-century ascent, these jokes marked a transition in the identity politics of modern professions.

I want to draw attention to the object of these jokes in the lab: the things that drew the signifier *African*. When researchers repeatedly made jokes about doing science in Africa, they focused their scrutiny on the state of the equipment and the reliability of the processes. What made science “African science” was tied to infrastructural, material, and technological particularities of place, especially its shoddy quality, not to the scientist. When “Africa” stood for a cheaper, improvised, or else degraded version of whatever was being described, the state of the equipment or the improvised research processes were the objects of this sardonic scrutiny. What was African here seemed to have little to do with professional identities or research priorities (as it would have done for Ampofo’s generation), but rather with the rusting, malfunctioning equipment and the locally specific ways of managing it.

PUTTING AFRICA IN ITS PLACE

Africa as a discursive category became the subject of jokes because it seemed to crystalize diverse aspects of the work environment that were disappointing. Yet the people making these jokes were not universally or consistently cynical about all things African. Rather, what makes jokes about Africa funny is the disjuncture between the expected and the actual referent. Africa, like modernity, continues to be the ground for certain hopes and aspirations, which is why these jokes resonated. Certainly, they would not have been funny had everyone been pervasively pessimistic about Africa, nor would they if a non-African had made these jokes. The continuing attachment of the signifier *Africa* to a project, to a call for progress and improvement, allowed for the humor.

If these Africa jokes indicated that the project of African identity is still alive in some sense, they also signaled that it had been transformed since Ampofo’s time. While a generation of African scientists worked on the project of developing national and pan-African scientific institutions and professional identities to which they could belong, young researchers today work to disentangle themselves from them. They mark off certain things with which they are dissatisfied—the context in which they work—as disappointingly African while positioning themselves as world-class scientists managing in frustrating circumstances. The adjective *African* as it pertains to science has to do with a lack of equipment and chipped test tubes rather than with a romantic identity to which researchers necessarily belong.

James Ferguson describes a similar scenario from his fieldwork in the Zambian copperbelt during a period of dramatic economic decline. Young cosmopolitan men called *lambwaza* referred to the staple cornmeal food of *nshima* as “culture,” thereby displaying their own distance from the particular scenario that they found themselves in, which was classically “traditional” in a way dissatisfying to them (Ferguson 1999, 223). They were consuming “culture,” but that was not what they were all about. Scientists in twenty-first-century Ghana are dealing with the conditions of doing research in Africa, but that does not define them. In both cases, irony mediates identity, creating distance from that which is at odds with a desired presentation of self.

The ability to craft a professional scientific identity not easily summed up in the phrase *African scientist* had important consequences. During my fieldwork, CSRPM was involved in a research collaboration with a university in Japan, which provided some state-of-the-art equipment. Typical of the interplay of inclusion and exclusion that characterizes the “archipelago” (Geissler 2014) geography of medical research in twenty-first-century Africa, these new and expensive pieces of equipment could only be used by one of the three employees of the Centre who were directly employed by the project. The equipment, off limits to most employees, therefore retained more than simply a sense of its foreign associations. Each item had a sticker that said either “Japan International Cooperation Agency” or simply “JAPAN.” The laboratory had nonfunctioning sinks, chipped test tubes, and chemical spills. It also had top-of-the-line equipment that was literally labeled as belonging to another place.

The Japanese associations of the collaborative project and the equipment that came along with it were magnified by the project employees’ travels to Japan. One at a time, each of the three participants traveled to Japan for several weeks. Their ability to utilize the equipment that other employees coveted, as well as the experiences of Japan that they conveyed to others, marked a connection between the ability to leave Ghana and the ability to have and use necessary equipment. The exclusive availability of this markedly foreign technology underlined the dual ability of the laboratory to offer researchers “chances for inclusion and scientific opportunity even as it threatens to marginalize them” (Crane 2013, 107). Furthermore, this travel abroad constituted a personal milestone. When Gilbert returned from his trip to Japan, he had cut his hair, grown a beard, lost weight, and bought all new clothes. With his new look, his new skills, and his research reports in hand, Gilbert cut the impression of a new man. Eunice kept repeating, “JICA has made you!” She pointed out the nice apartment they had

lived in, the new skills they had gained, and the self-rewarding experience of travel. She concluded, “You need to thank them for all they have done for you.” Gilbert and Michael, another young researcher who had gone to Japan, responded quickly that they did not owe anything to anyone. Were they not employees? Were employees not expected to receive training and benefits? Did not foreigners who came to Ghana to work also live in company apartments? Gilbert and Michael insisted that they were not beholden to anyone. It is hardly a radical move to suggest that you have earned what your employer has given you, but it formed part of the creation of a more individualized professional identity. Their identities as Ghanaians engaged by a Japanese enterprise was temporarily dissolved. They became upwardly mobile, professional-class employees on a global market who enjoyed the benefits of employment in a well-respected enterprise. For Gilbert and Michael this was a necessary move, one based on a sense of human dignity. They had shaped professional identities quite different from those of Ampofo’s day, but ones equally attuned to the attainment of status and dignity on a global stage.

CONCLUSION

Young researchers at the Centre for Scientific Research into Plant Medicine, those aspiring middle-class Ghanaian professionals at the heart of new narratives of Afro-optimism, express what [Achille Mbembe \(2001, 1\)](#) calls a “negative interpretation,” in which social life is understood primarily in the ways in which it differs from an assumed Western standard. What seemed to be the most relevant aspect of life in Ghana’s laboratories for those who worked there were the absences that appeared to characterize these workplaces. Following Mbembe, I have considered how this discourse forms a significant part of social life. The negative interpretation evident in young researchers’ casual discourse at the Centre recalls an earlier generation of African scientists and their era’s approach to science as a manifestation of African nationalism. Scientists of the independence period constructed the scientific and medical infrastructure of Ghana to provide for the needs of their people, as well as to represent the status of the African nation of Ghana to the world. The researchers, technicians, and interns with whom I spent time are working in the shadow of a narrative of an emergent postcolonial science that never arrived—and yet which still acts as a benchmark, and is still a foil for defining their place in the world. Scientists working on herbal medicine research continue to use the symbolic resources of an earlier era in postcolonial Ghanaian history, but this time to articulate a new way of presenting themselves, as global

scientists not contained by the label *African*. They mock the idea of “African” science, and in so doing disentangle their identities from its project. For these young researchers today, *African* refers primarily to things in their environment, the trappings of a class identity to which they do not belong.

That they made these jokes and bitter comments during a period of optimism and economic growth suggests that the identity politics of African professionals have undergone a shift not tied in a simple way to the political and economic status of the nation. If Ghana is indeed experiencing its second chance, a historical echo of the optimism of the independence era, then the discourse of lack, absence, and peculiarity highlights both continuities and disjunctures with this earlier period. In pointing out lack and absence, in expressing a negative interpretation that always hung around even where it seemed the least welcome, the students, researchers, and technicians working in Ghanaian laboratories are reiterating a demand for the promises of modernization. Yet this time they will not be satisfied by a rosy emphasis on hope, or an inspirational tale of making do, or some deferred promise of an emergent Africa. They still think of scientific institutions as representing national achievement, and that national achievement reflects on the status of Africa. Yet they no longer wish to base their professional identities on the politics of representation. *Modernity* and *Africa* remain concepts around which to organize hope and a desire for progress, but they are decoupled from individual aspirations and careers except when these happen to overlap with narratives of national development. If contemporary Afro-optimism, like the independence era discourses before it, places the middle-class Ghanaian professional at the heart of its narrative of an emerging Africa, then the difference today is that those young professionals do not want to stand as symbols of a hope deferred. They want the best careers they can achieve—in Ghana or elsewhere.

ABSTRACT

While Ghana is touted as an African success story, the young employees of a large herbal medicine research center in Ghana make sardonic and cynical remarks about the state of science in contemporary Africa. They decry the improvisation that characterizes doing science on the continent, point out what is lacking from their laboratories, and mock the ways in which their work appears embarrassingly peculiar. They claim that their labs are “not modern” and ironically refer to dissatisfying aspects of their work as “African science,” a second-rate version of science done elsewhere. This is what Achille Mbembe has called negative interpretation, where social life is understood primarily in the ways in which it differs from an assumed Western standard. These jokes reference an earlier period in Ghanaian history, when African

science formed part of the project of postcolonial nation building. Scientists of the independence period constructed the scientific and medical infrastructure of Ghana to both provide for the needs of its people and to represent the status of modern Africa to the world. The apparently incongruous relationship between the cynicism of these jokes and the strain of Afro-optimism that has recently surrounded Ghana indicates a sustained shift in the identity politics of African professionals since independence. Their jokes signal their attempts at disentangling their identities from the project of African modernity, and at positioning themselves as scientists working in the context of Ghana. [irony; humor; modernity; identity; Africa; postcolonialism]

NOTES

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1. I interned part-time at the research laboratories of the Centre for Scientific Research into Plant Medicine from January to March 2011, and then full-time from January to April 2012. This article also draws on an additional four months of ethnographic research at the Herbal Medicine department of the Kwame Nkrumah University of Science and Technology, as well as seven months of research in and around Accra.
2. This is the subtitle of one of Horton’s publications, *West African Peoples, British and Native: And a Vindication of the African Race* (2011 [1868]).
3. *Cry the Beloved Country* is a 1948 novel by Alan Patton that describes the structural injustices of South African society.

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