Technology's Stories

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Automobility, Technopolitics, and African Histories of Technologyin-Use in Twentieth Century Ghana

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On May 31, 1940, the President of the Accra Town Council (ATC) wrote to the Colonial Secretary, complaining that "pirate passenger lorries" were plying the roads between the Gold Coast's capital, Accra, and the eastern suburb of Labadi. A heavily traveled route, the road between Labadi and Accra was used to seeing lorry traffic. Labadi functioned as an eastern gateway to the capital—the first stop for lorries bringing produce and people from the productive eastern interior. Labadi was also seen as a kind of headquarters for drivers. In the mid-twentieth century, hundreds of Labadians had taken up driving work, and the suburb emerged as a primary (perhaps preeminent) center for training drivers in the colony. Thus, it was not the presence of lorries on the road itself that troubled colonial officials. The drivers that caught the attention of colonial officials were troublesome because they blurred the distinctions of colonial urban space and order. They were mobile, urban "pirates" who skirted around the established order and subverted the authority embodied in state-run urban bus services. In picking up passengers along the roadside, these drivers brought the threats and challenges of motor transportation to the heart of colonial power.

While Europeans were ambivalent about the usefulness of motor vehicles after their introduction at the turn of the twentieth century, Africans appropriated the technology of motor transport in rapidly increasing numbers and used motor vehicles to re-shape the control of mobility and space in the colony. In other parts of the continent, the high cost of motor vehicles and the low wages and limited economic opportunities available to Africans restricted African access to motor transport technologies, at the same time that colonial policies—or, in the case of settler colonies, the policies of white minority rule—attempted to control African mobility. However, in the Gold Coast, wealthy cocoa farmers in the early twentieth century,

who benefitted directly from the colonial economy of extraction, often invested the profits of their farms in lorries, marking the beginning of what Polly Hill terms the "lorry age" (post-1918). Initially, cocoa farmers purchased motor vehicles to transport cocoa to train stations and buying agents. Echoing an earlier use of head carriers to transport produce, however, farmers were soon by-passing colonial railways altogether, using motor vehicles and roads to take their produce directly to coastal ports where they could maximize their profits. Motor transportation provided a new way to connect urban and rural areas within the colonial economy, facilitating the emergence of new trading practices and opening up new possibilities for rural farmers and villagers.

Automobility was powerful because it provided new and faster means of movement, cultivating the continued growth of a culture and practice of entrepreneurial mobility, which had its roots in the long-distance trade routes of precolonial West Africa. Traders used motor transportation to extend their trading networks, engaging in the market in new ways. Farmers used motor transportation to take their goods directly to market at the coast, maintaining control over their produce and maximizing profits by moving away from labor and capitalintensive practices of head-loading and cask-rolling. Chiefs connected communities under their authority in more regular communication, interaction, and exchange. Men and women alike used motor transportation to move back and forth between urban and rural areas, fostering a sphere of periurban interaction and exchange between Africans who were "on the go." In doing so, Africans in the Gold Coast did not merely appropriate foreign motor transport technologies. Rather, they crafted their own cultures and practices of technology-in-use, which were rooted not in the experience of private car ownership, but rather in an experience as passengers. African automobility in the Gold Coast—run largely by small-scale African owneroperators—cultivated new cultures and practices of autonomy and mobility and democratized access to mechanized movement at the end point of the destination, but also on the journey itself. In the vehicle and on the road, African drivers and passengers cultivated new kinds of auto/mobile behaviors and communities. As such, roads in the Gold Coast constituted "lines of habitation" that challenged colonial "lines of occupation" like the railway.²

¹ Polly Hill, Migrant Cocoa Farmers of Ghana: A Case Study in Rural Capitalism (London: James Currey, 1997), 6.

² Tim Ingold, Lines: A Brief History (New York: Routledge, 2007), 81.

In the context of British colonial rule, African cultures and practices of automobility presented alternative visions of space and power, autonomy and authority, mobility and control. Drivers of passenger lorries engaged in "piracy" in the sense that Brian Larkin describes: "the potential of technologies...when shorn from the legal frameworks that limit their application." African drivers who picked up passengers along the roadside violated colonial laws and challenged European expectations and practices of automobility, rooted in distinctions between private car ownership, public transportation, and cargo transport. Drivers who diverged from their typical routes to pick up market women standing along the roadside between Labadi and Accra operated outside of legal frameworks and created new possibilities and practices of mechanized mobility, which built on histories of movement and spatial organization that predated the arrival of British colonial officials in the mid-nineteenth century.

African drivers who operated outside of colonial expectations not only flouted colonial law, but they also challenged colonial authority, manifested most powerfully in the technopolitics of infrastructural development. Colonial technopolitical strategies in the Gold Coast sought to project European superiority through what Larkin calls "the colonial sublime": "the use of technology to represent an overwhelming sense of grandeur and awe in the service of colonial power." Infrastructural technologies provided evidence of the supposed superiority and power of European science, by reordering and controlling the natural world. In employing these technologies, British officials sought to fundamentally reorder African social and spatial relationships to nature and, thus, to the economic and political life of the colony. The construction of railways and, later, the regulation of roads, represented colonial efforts to extend authority and control over the movement of people and goods in the colony. The illegal acts of Africans who drove "pirate passenger lorries", in this context, also held the potential for insurrection and represented, in the eyes of British colonial officials like the President of the Accra Town Council, a sort of mobile lawlessness that evaded and eluded colonial efforts of capture and control.

Contestation over pirate passenger lorries reflects fundamental differences in the cultures and practices associated with technology-in-use. British frustration highlights

³ Brian Larkin, Signal and Noise: Media, Infrastructure, and Urban Culture in Nigeria (Durham, NC: Duke UP, 2008), 217.

⁴ Larkin, 87; Michael Adas, Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance (Ithaca, NY: Cornell UP, 1990), 224.

widespread beliefs that industrial technologies like the automobile were closely associated with the cultures and practices of industrial society. And yet, Africans who appropriated technology for their own purposes clearly demonstrated that automobility could have alternative meanings and motor transportation could have alternative functions that lay outside of the rationalities of colonial spatial planning, infrastructural development, and auto/mobile regulation. It is tempting to chalk this misunderstanding up to the hubris of colonial rulers and the ethnocentrism that guided much of twentieth century colonial social, cultural, and economic policy. But, as debates about the development of Bus Rapid Transit in twenty-first century Accra suggests, these technological disjunctures remain, articulated now through the transnational rhetoric, institutions, and practices of "development".



In 2007, partially in response to public complaints, the World Bank approved \$45 million in funding for a Bus Rapid Transit (BRT) system in Accra. The BRT, Ghanaian government officials argued, was part of a larger Urban Transport Project designed to "improve mobility in areas of participating metropolitan, municipal or district assemblies (MMDAs) through a combination of traffic engineering measures, management improvement systems, regulation of the public transport industry, and implementation of a Bus Rapid

Transit (BRT) system."⁵ In restructuring the country's transport system, the BRT sought to provide alternatives to the trotro—the twenty-first century technological and cultural descendent of the "pirate passenger lorry", which was incorporated and legitimated as a central part of a complex urban transport network in the years immediately after independence. In the twenty-first century, trotros, or mini-buses, were widely blamed for the country's transport woes. The vehicles themselves were seriously dilapidated—a reflection of the high cost of new vehicles, tires, spare parts, and other necessary inputs in the city since at least the late 1970s. But passengers also complained that trotros were at the root of what seemed to be an increasing immobility in the capital. Passengers were unable to get to their destinations due to traffic, resulting in long commutes across the sprawling capital.

The Accra Metropolitan Assembly and its development partners presented BRT as an alternative and a solution to the gridlock. The BRT would fundamentally refigure the city's mobility-system, restricting trotro drivers' access to main roads and funneling all passenger transport through BRT services, owned and operated by the government. Along main roads, BRT buses would run on a set schedule in dedicated center lanes with a total of 27 bus stops. Passengers would purchase tickets from automated machines. Transportation would be, in effect, mechanized and regularized. That regulation would extend to driver practice. The Urban Transport Project also created a regulatory framework that "provides the legal basis for the re-organization of the sector at the national level."

When I visited union "locals", drivers expressed anxiety over the impending changes in the nature of their work. Restrictions that banned trotros from major roads, new requirements for automated ticketing systems, and a new system of regulations and permits that would bring drivers under the authority of state and municipal authorities marked a fundamental reorganization of the driving profession. That reorganization was most obviously spatial, evidenced by the road construction that created new dedicated lanes for BRT buses. But it also reshaped the social and economic practices that had defined the motor transport

⁵ "Ghana Urban Transport Project", The World Bank: Projects and Operations. Accessed July 10, 2014. < http://www.worldbank.org/projects/P100619/ghana-urban-transport-project?lang=en>

⁶ "Case Study: Accra, Ghana", The World Bank: Toolkit on Intelligent Transport Systems for Urban Transport. Accessed on July 10, 2014.

http://www.ssatp.org/sites/ssatp/files/publications/Toolkits/ITS%20Toolkit%20content/case-studies/accra-ghana.html

industry for at least 80 years. Drivers feared that the BRT would turn them into salaried employees, eliminating their ability to collect profits daily—the "daily bread" that attracted young men to the profession and enabled drivers to support themselves and their families. But trotro drivers also expressed frustration over what they viewed as unfair public critique and government regulation. Despite the fact that trotros constitute only 35% of road traffic (while carrying at least 85% of all passengers), trotro drivers have received disproportionate blame for the traffic congestion common at major intersections. And yet, as an attempt to solve traffic congestion, the BRT has sought to regulate and control the most efficient part of the motor transport system—an attempt that has been applauded by passengers, development officials, and foreign investors alike. Drivers remain understandably skeptical.

Histories of technology like that of pirate passenger lorries in the early part of the twentieth century push us, as Clapperton Mavhunga argues, "to account for 'the process of globalization and the multiplicity of individual temporalities and local rationalities that are inserted into it." In doing so, it moves away from an analysis of the "spectacle of technology" and more toward a history of "technology-in-use", away from "the promise of technology on paper" and more toward its meaning and practice in context. In doing so, we are better able to parse the disruptions and disjunctures of colonial-era technological cultures and create space for alternative African technological practices that expand our consideration of what constitutes technology and how technology is experienced and made meaningful. As both Timothy Burke and Arjun Appadurai argued, automobiles have a "social life" and a "cultural biography." The meanings and values associated with commodities like the automobile are a product of "prior meanings"—"the cultural and social raw material from which 'the social life of things' was shaped." Western scholars of automobility too often assume that the "prior

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⁷ Victoria Okoye, Jahmal Sands, and C. Asamoah Debrah, "The Accra Pilot Bus-Rapid Transit Project: Transport-Land Use Research Study", Millennium Cities Initiative (MCI), Earth Institute at Columbia University, October 2010. Accessed on July 11, 2014.

http://victoriaokoye.files.wordpress.com/2010/02/mci_urbantransport_finaldraft.pdf.

⁸ Clapperton Mavhunga, Transient Workspaces: Technologies of Everyday Innovation in Zimbabwe (Boston: MIT Press, 2014), 12.

⁹ Mavhunga, Transient Workspaces, 13.

¹⁰ Arjun Appadurai, The Social Life of Things: Commodities in Cultural Perspective (Cambridge: Cambridge UP, 1986).

¹¹ Timothy Burke, Lifebuoy Men, Lux Women: Commodification, Consumption, and Cleanliness in Modern Zimbabwe (Durham, NC: Duke UP, 1996), 3.

meanings" associated with motor transport technology accompanied the technological object as it expanded around the globe—bringing with it values of autonomy and mobility rooted in private car ownership. But as Larkin argues, "The meanings attached to technologies, their technical functions, and the social uses to which they are put are not an inevitable consequence but something worked out over time in the context of considerable cultural debate. And even then, these meanings and uses are often unstable, vulnerable to changing political orders and subject to the contingencies of objects' physical life." Technology like the automobile, then, functions at the nexus of global discourses about mechanical possibility, transnational rhetoric of technological and infrastructural development, national economic realities, and local social, cultural, and economic values and practices. In highlighting local practice, African historians of technology do not claim that Africans are excluded from these global conversations and networks. Instead, local practices like Ghanaian automobility should make us question hegemonic narratives of the global.

Social and economic entrepreneurs in contemporary Ghana are also rethinking these questions using mobile technologies and other "grassroots" approaches to technology as a foundation for new visions of development. Such entrepreneurial efforts are certainly not unique to Ghana. But in twenty-first century Accra, automobility constitutes one of the most important sites or spaces of technological creativity and socio-economic entrepreneurialism. Projects like Trotro Diaries (https://trotrodiaries.wordpress.com/author/trotrodiaries/) and Mo'Go Ghana seek to build better transport networks using existing technologies and systems rather than importing Western models. These projects implicitly recognize what the BRT and the colonial state failed to: that "development" along a Western model might not be effective or desirable. Successful systems require fieldwork to understand how people move and how they understand and use space—data that can be collected through the increasingly ubiquitous mobile phones (mapping, social media, etc.), through experimentation, and through conversation. These projects suggest that our challenge lies not in the history of technology, per se, but rather in the frameworks through which we view and understanding technology itself.

¹² Larkin, Signal and Noise, 3; see also Daniel Miller, "Driven Societies" in Car Cultures, Daniel Miller, ed. (New York: Berg, 2001), 1-34.