The Quest for Scientific Equity in Postcolonial Ghana

Atomic Junction: Nuclear Power in Africa after Independence

By Abena Dove Osseo-Asare. New York, NY: Cambridge University Press, 2019. Pp. *xi* + 278. $32.88, paperback (ISBN: 978-1-108-45737-8); $99.99, hardcover (ISBN: 978-1-108-47124-4).

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Abena Dove Osseo-Asare's *Atomic Junction* is a marvelous book that reconceptualizes and charts new territory in the historiography of postcolonial Africa and the Cold War through the instrument of Ghana's nuclear ambitions. *Atomic Junction* also pushes beyond national historiographies. It represents one of the latest works in an ongoing conversation that centers African agency in global South-South, South-East, North-South, and Cold War histories. Osseo-Asare narrates how African scientists and medical professionals fought to become 'producers' rather than dependent 'consumers' of scientific knowledge — specifically nuclear science — through bilateral and multilateral international agreements, projects, and educational exchanges.

Between the 1960s and the present, scientists and other interested parties kept the dimming embers of their own — and Ghana's — postcolonial scientific and nuclear dreams alight despite being in a structurally weak position in both global politics and the international scientific community. Osseo-Asare's concern with power structures takes her beyond the international context to consider how nuclear scientists were implicated in vertical relations of power within Ghana — to the extent that national dreams of 'scientific equity' disempowered local Ghanaian communities situated near the headquarters of Ghana's Atomic Energy Commission (GAEC). Finally, Osseo-Asare demonstrates how the pan-African giant Nkrumah was also the chief champion of science and scientific equity in Ghana and Africa.

Copious archival research and oral histories undergird *Atomic Junction*. Paying homage to Jean Allman's call to employ 'shadow archives' to construct postcolonial African histories, *Atomic Junction* uses a dizzying array Russian, Ghanaian, British, Chinese, American, Swiss, and French sources and archives.[1] Yet this book is not simply the product of rich archival materials. Osseo-Dove interviewed numerous protagonists to flesh out the historical, material, and political realities of Ghana's scientific and technological aspirations. She uncovers Ghanaian nuclear scientists' experiences studying in the USSR, considering both the good — the opportunity to pursue their professional dreams — and the bad — the racism and sexism they experienced. Interviews with both scientists and people living around the atomic energy agency, which recently acquired a modest reactor, reveal a similar ambivalence.

Osseo-Asare's first four chapters dive into the Nkrumah's government's postindependence aspirations to obtain nuclear energy and what she calls 'scientific equity'. Osseo-Asare demonstrates how Nkrumah and other West African leaders contested French nuclear testing in the Sahara to bolster Ghana's international standing and foreign policy objectives, as well as to increase pan-African solidarity and protect Ghanaian sovereignty from the radioactive fallout emanating from nuclear bombs. The author underlines how these maneuvers were undertaken despite

[1] J. Allman, 'Phantoms of the archive: Kwame Nkrumah, a Nazi pilot named Hanna, and the contingencies of postcolonial history-writing', *American Historical Review*, 118:1 (2013), 104–29.

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British and French attempts to downplay and question the Africans' scientific credentials, political ambitions, and calculations.

Given both British and French actions and American and Canadian hesitancy, it was unsurprising that the USSR emerged as a crucial incubator for the ambitions of Ghana's emerging nuclear scientists. Nkrumah's government encouraged Ghanaians to travel to the Soviet Union to obtain scientific training to construct and operate scientific ventures within Ghana, including a hoped-for nuclear reactor. Through scientific-technical exchanges and cooperation, the Soviets agreed to send Ghana a small nuclear reactor. The reactor was en route when Nkrumah was overthrown by the February 1966 coup d'état, and it was sent back to the Soviet Union. Osseo-Asare's robust engagement with Ghana-Soviet relations at the diplomatic, public, and intimate levels adds to our rather limited understanding of Ghana-Soviet relations during the Nkrumah era due to source intelligibility and access.

While a nuclear reactor would not arrive from China for another three decades after the USSR's dissolution, Osseo-Asare demonstrates how Soviet-trained Ghanaian scientists and others came to occupy leading roles in the International Atomic Energy Agency (IAEA) and other international nuclear programs in the interim. The work of nuclear science continued within Ghana as well. Chapter Five reveals how nuclear-trained Ghanaian scientists and medical technicians recalibrated X-ray machines that had been designed for Northern Hemispheric conditions to function in Ghana's very different climate. Osseo-Asare notes that Ghanaians had to accept the reality that such equipment was 'not designed with them in mind, no matter how adept they became at using it' (122). Given how cultural and geographic biases infect technology, this story is a painful reminder that technology is never neutral and a rallying call for Africans to construct technologies that suit African conditions. Ghanaian scientists achieved even more than fixing and operating ill-suited Western equipment: scientists and medical professionals used radiation to improve material and health conditions in Ghana by applying its study to build more durable housing structures, for example, as well as to extend food's shelf life and treat and cure cancers and tumors.

In Chapter Six, Osseo-Asare considers the question of scientific equity (or lack thereof) from the perspective of those domestically sidelined from Ghana's nuclear and scientific dreams. The Kwabenya-Dome and Haatso communities live near the GAEC and have engaged in ferocious litigation — with each other, the GAEC, and the Ghanaian government, which seized their lands in pursuit of the country's nuclear dreams. Osseo-Asare's contribution here recalls the work of Dzodzi Tsikata and Stephan Miescher, who have considered the multiple — and frequently deleterious — effects of Nkrumah's better-known technological modernization dream, the Volta River Project, on adjacent communities.[2] Whether around the Volta Lake or in the outskirts of Accra, the author trenchantly observes that 'scientific equity for the nation writ large has meant different levels of disenfranchisement' for some Ghanaians (169). Moreover, Osseo-Asare tells the story of children who study rudimentary physics in schools located steps away from the GAEC and its aspirations while lacking access to running water.

Yet when Osseo-Asare zooms out from Accra, *Atomic Junction* employs 'scientific equity' to build off Odd Arne Westad's call to reconceptualize the Cold War by understanding and situating the perspectives and motives of Third World leaders.[3] Osseo-Asare's African leaders were shrewd political operators; her work bucks older Cold War narratives that depict Africans only as pawns in the 'bigger' Cold War game. Osseo-Asare thus adds to a growing body of work by scholars such as Anne-Sophie Gijs, Maxim Matusevich, and Andy DeRoche that centers the agency and

[2]D. Tsikata, *Living in the Shadow of the Large Dams: Long Term Responses of Downstream and Lakeside Communities of Ghana's Volta River Project* (Leiden, 2006); S. Miescher, '"Nkrumah's baby": the Akosombo Dam and the dream of development in Ghana', *Water History*, 6:4 (2014), 341–66.

[3]O. A. Westad, *The Global Cold War: Third World Interventions and the Making of our Times* (Cambridge, 2005).

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maneuverings of African leaders within tight and delicate geopolitical spaces.[4] The issue is not whether these Africans succeeded or failed, but that they forced the world's nuclear and imperial powers to take seriously — both privately and publicly — their claims and demands, and that governments, scientists, and dispossessed local communities did what they could to make nuclear modernity work for them.

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A Compendium on African Women's History

Holding the World Together: African Women in Changing Perspective

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With the proliferation of women's and gender studies research in Africa since the 1980s, more scholars in various disciplines began to explore the voices and stories of African women who had been largely written out of colonial narratives. Nwando Achebe and Claire Robertson's *Holding the World Together* draws from decades of scholarship by the contributors and other scholars to provide a compendium on African women's history. It presents a multidisciplinary perspective on women's contributions to precolonial and colonial Africa as well as the contemporary challenges that confront them. The book is comprised of sixteen chapters and four parts. As is frequently the case with such comprehensive volumes, it is difficult to do justice to the book in its entirety. For the purposes of this review, I will discuss the chapters under three broad categories to convey their wide-ranging contributions in a succinct manner. The themes that feature prominently are gender stereotypes, women's legacies in political and social movements, and ongoing challenges regarding health care, education, the economy, and gender-based violence. In what follows, I will consider these themes, respectively.

From the onset, Achebe and Robertson frame the arguments in the volume by pointing out that 'African women' are not a monolithic group but represent a diverse category that often defied binary classifications and gender norms, many of which were imposed under colonial rule (6). Multiple chapters highlight this position. Elizabeth Perego observes in Chapter One, for instance, that the category 'African women's writings' is useful for highlighting writers' defiance to monolithic colonial representations of African women's experiences (22). Signe Arnfred explores these variabilities and contestations of gender and sexuality in more details in Chapter Fourteen, where she discusses

[4]A. S. Gijs, 'Fighting the Red Peril in the Congo: paradoxes and perspectives on an equivocal challenge to Belgium and the West (1947–1960)', *Cold War History*, 16:3 (2016), 273–90; M. Matusevich, 'Strange bedfellows: an unlikely alliance between the Soviet Union and Nigeria during the Biafran War', in A. Dirk Moses and L. Heerten (eds.), *Postcolonial Conflict and the Question of Genocide: The Nigeria-Biafra War, 1967–1970* (New York, 2018), 198–216; A. DeRoche, 'Asserting African agency: Kenneth Kaunda and the USA, 1964–1980', *Diplomatic History*, 40:5 (2016), 975–1001.