



Abena Dove Osseo-Asare. *Atomic Junction: Nuclear Power in Africa after Independence.* Cambridge: Cambridge University Press, 2019. 296 pp. \$32.99, paper, ISBN 978-1-108-45737-8.

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Published on H-Africa (April, 2021)

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In 1960, the French government showed its determination to control Algeria by testing a nuclear bomb in the Sahara. The Ghanaian government turned to its new group of nuclear experts to conduct research on the effects of the blast on Ghana, exposing how the destructive power unleashed by a European government had dangerous consequences well beyond its colonial borders. A newly independent African nation had bound together Pan-Africanist attacks on imperialism and the utopian hopes of how science could transform African nations. Abena Dove Osseo-Asare's study is a significant contribution to the growing literature on the history of scientific research after the end of colonial rule in Africa.

The story of the Ghanaian nuclear power industry is first one of resilience. Originating in Kwame Nkrumah's ambitions to make Ghana a leading force in scientific development, the Ghanaian government took advantage of its pivotal role in the African Cold War to obtain resources and training from Soviet and Western rivals. Ghanaian researchers in the early 1960s often studied in the Soviet Union and the Soviets offered to provide crucial elements needed to build a nuclear reactor. After Ghanaian military officers seized power from Nkrumah in 1966, Soviet officials annulled their agreement and left the Ghanaian nuclear power program with a nuclear

reactor unable to function. However, this was hardly the end of Ghana's engagement with nuclear technology. Scientists continued their research and their lobbying efforts to complete the reactor through an array of different governments. This story of survival undercuts simplistic narratives of pessimism regarding the declining fortunes of African scientific research after the early 1970s. Although many African governments reduced funding for scientific work especially with the advent of structural adjustment policies, the case of Ghana challenges this assumption of African declining resources and achievements.

Atomic power is not merely about generating electric power and making weapons. Osseo-Asare examines other uses of atomic energy. Her chapter on the evolution of radiology in Ghana connects the optimism of the Nkrumah era to more gradual but substantial Ghanaian engagement with atomic research in later decades. Rather than just rely on the varying fortunes of individual Ghanaian governments, some Ghanaian atomic scientists found support in global organizations such as the International Atomic Energy Agency. Particularly after the early 1990s, Ghanaian scientists promoted the applied uses of atomic power through popularizing the use of irradiation to help preserve foods.

Historical research on atomic power has obviously revealed some of its negative consequences. Ghana was no different. The final chapter considers the impact of atomic energy on the region surrounding the Atomic Junction research site. Osseo-Asare skillfully connects local disputes over land dating back to the nineteenth century with the government takeover of land for the exclusive use of the atomic energy program. Local community leaders still recall the 1963 appropriation of their ancestral lands, even as they also have found government ministers and others not indigenous to the area have occupied some of their territory in the wake of urbanization after independence. The atomic program itself had to fend off new claims on its grounds as well. Strikingly, some residents mocked Nkrumah's vaunted Pan-Africanism given how he stripped them of their land rights. Another fascinating discussion also emerges about local perceptions of atomic energy. Although the nuclear facilities built in the early 1960s were inoperable for decades thanks to the Soviet withdrawal from the Ghanaian atomic program, neighbors of the facility became convinced that the plant was active and a possible health hazard.

Atomic Junction is a pleasure to read. Osseo-Asare writes with flair and weaves together evidence from a range of archival and oral narratives with major themes in the history of atomic power, science in the Cold War, decolonization, and social and cultural history. Without denying the achievements of Ghanaian scientists who toiled through decades of political changes to promote atomic power and research, the author also denotes the negative consequences of stripping local control over land. Ghanaian nuclear science is neither a story of a short period of hope followed by decades of decline nor just another example of how Cold War conflicts shaped scientific research. One topic that deserved more elaboration would be the role of Chinese support in furthering Ghanaian science through furnishing the materials to complete a working reactor in 1994. This predates the rapid ex-

pansion of Chinese economic interests in Africa by several years, but suggests an important step in current Sino-African scientific partnerships, a phenomenon whose history is yet to be written.

Atomic Junction would work well in undergraduate and graduate courses on the history of science in the twentieth century, atomic power, and postcolonial Africa. Its arguments are not hindered by overly academic prose. There is no sacrifice made in its engagement with the larger scholarly literature in the name of accessibility, though. Osseo-Asare has a thorough command of the larger historiography on scientific research. This undoubtedly is an important contribution to the growing literature in the history of science and technology in postcolonial Africa.

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Citation: Jeremy M. Rich. Review of Osseo-Asare, Abena Dove. *Atomic Junction: Nuclear Power in Africa after Independence*. H-Africa, H-Net Reviews. April, 2021.

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