



Laura Ann Twagira. *Embodied Engineering: Gendered Labor, Food Security, and Taste in Twentieth-Century Mali.* New African Histories Series. Athens: Ohio University Press, 2021. Illustrations. 344 pp. \$36.95, paper, ISBN 978-0-8214-2468-1.

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Given the persistence of American and European development agencies in Africa and the twenty-first-century rise of China's role as a development actor on the continent, *Embodied Engineering*, by Laura Ann Twagira, is a wonderful contribution to the extensive literature on "top-down" high-modernist development projects conducted by colonial and postcolonial powers in the name of modernization and improvement. This book examines how changes in twentieth-century Mali shaped women's access to food resources and technologies. Twagira focuses her research on the role of women in the Office Du Niger, which she calls the "Office" throughout the book. Established in the 1930s, the Office was one of the largest and most important agricultural development programs in French West Africa and employed thousands of people for the cultivation of export crops, including cotton and rice. It continued to exist in postindependence Mali with a significant impact on the nation's economy and politics. Through her ethnographic research, Twagira shows that Malian women are environmental and technological experts, given their ability to engineer complex systems of food production through their embodied labor and use of relatively modest technologies. Through this book, Twagira provides evi-

dence to disprove numerous prevalent assumptions about African women, such as that they are without access to technology, that their work has remained static, and that they present a development problem.

One of the key strengths of this book is its relevance to numerous disciplines and theoretical strands. Twagira states that this book brings together African gender history and science and technology studies (STS), but I would argue it is equally important to other disciplines, including development studies and postcolonial studies. I was glad to see James C. Scott's *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (1998) referenced, as there are numerous instances when Twagira's findings in Mali reminded me of examples in Scott's book. For example, in chapter 4, Twagira notes that the Office prioritized large-scale infrastructure projects, such as carefully measured fields, based on "rational aesthetics of French colonial definitions of a modern village" (p. 166). This was accompanied by policies of *sedentarization*, where colonial and postcolonial Malian governments emphasized the need to settle nomadic pastoralists, like the Tuareg, in the Office to learn proper modern domest-

ic life. Scott wrote about similar occurrences with Julius Nyerere's *villagization* policies in Tanzania or Indonesia's *transmigrasi* programs. I also recognized instances of James Ferguson's idea of "unintended consequences" that emerge out of the failures and shortcomings of development projects (*The Anti-Politics Machine: "Development," Depoliticization and Bureaucratic Power in Lesotho* [1994]). Twagira gives several examples of this, including the dietary problems among Office residents due to the promotion of white rice instead of the previously consumed millet and the demographic crisis that ensued in the 1930s as several women opted to leave the Office due to harsh labor conditions, rampant illness, physical abuse, and food shortages.

At the same time, Twagira does not fall into the trap of all out vilifying Western technologies and development schemes. Rather, she remains objective in depicting residents' decisions as a negotiated process in choosing to adopt certain technologies and reject others. For example, I enjoyed reading about the technological changes from clay to metal pots and the ways this altered a variety of sociocultural customs like marriage, dowry, and even food taste. It is a fantastic contribution to STS, but even within anthropology it is a valuable contribution to the study of material culture, given that Twagira discusses how the change from clay to metal pots was connected to more than just technology but also social networks and value. Through this conversion, women now had more time for cash earning and less time spent on collecting wood and supplies. For me, this was one of Twagira's strongest and most intriguing sections, given its ethnographic richness and theoretical groundings.

This book is also highly relevant for scholars studying topics related to postcolonial state formation. I found chapter 5 to be a powerful example of dependency theory, in which Mali's economy was reoriented toward the export of cash crops and, in turn, forced to rely on imports and "aid"

from the "first world." In Mali, Twagira notes that beginning in 1913 the French West African government reorganized agricultural service to concentrate on colonial exports. By the time Mali achieved independence in 1960, the Office's decrepit postcolonial infrastructure meant that canals and threshers had degraded and Mali was forced to import peanuts, milk, meat, fish, butter, and onions. During the famine from 1969 to 1973, red millet became Malians' primary source of nourishment. However, the need became so great that red millet was soon imported from China. Nevertheless, the red millet's taste was so unpopular that it became a symbol of "hunger, disappointment and even shame" (p. 179). Moreover, the crop's usage during this period was so extensive that the period was referred to as the "Famine of the Red Millet." This is valuable information for scholars of critical food studies who examine inequalities in food production as well as social meanings applied to food ingredients.

Rather than including lengthy interview transcripts, Twagira opts to employ short snippets from her interviews to support her arguments. While this generally works well to create a smooth and readable text, some of her claims about women's labor could have been substantiated with more ethnographic data, anecdotes, and primary source quotations. For example, she states that "many arriving settlers associated the project with deprivation and hunger" (p. 86). It would have been beneficial to have more context of the individuals who held these sentiments. How did they learn about the Office's food shortages? Why did they ultimately decide to settle and not return home? These are just some of the questions that could have been supported by more in-depth interview transcripts.

At times, I found that Twagira's use of "women" is an overly generalizing and monolithic category and overlooks some of the complexities within the Office's female population. For example, what were some of the nuanced ways wo-

men differentiated themselves, that is, former pastoralist versus sedentary, by age differentiation, or by their husbands' positions (field versus mechanized labor)? Twagira writes that "wives of waged workers received greater rations than farmers' wives" (p. 139). What were the effects of this? How did this affect women's relationships and ensuing decisions about finances, given familial wage differences?

Nevertheless, Twagira's book is a fantastic contribution to multiple fields of study, both with-

in and beyond the academy. She fulfills her stated objectives, particularly that of addressing the prevalent assumptions of African women as without access to technology and static in their work. Her research shows the immense agency and importance of Malian women in their capacity to cultivate embodied relationships with the natural world through the cultivation, collection, and cooking of food.

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