The Gun in Central Africa: A History of Technology and Politics by Giacomo Macola (review)

Brice Cossart
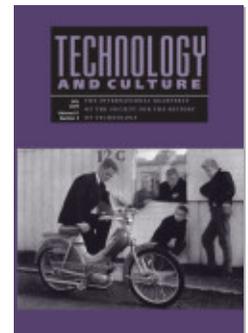
→ *For additional information about this article*
https://muse.jhu.edu/article/763610

cally in the mid-nineteenth century, initial efforts to automate de-fibering methods by U.S.-based inventors failed. It was Mexican mechanics who designed and over three decades refined the first viable decorticizing machines. Technological change looked very different in the nearby cacao and indigo districts: Spanish commercial agents could easily assert control over processing and distribution networks, seen here in the excavated remains of those physical sites. European conquest eventually produced a radically transformed technological landscape in Mesoamerica, but more provocative and diverse than expected in these chapters.

Historians of technology will find the introductory and concluding chapters (by Rani T. Alexander and Anthony P. Andrews, respectively) extremely useful syntheses of this book's central issues and arguments. The entire volume benefits from effective leadership and editing by Alexander and her colleagues: intellectually wide-ranging but also tightly focused, coherent, and consistent in its presentation across chapters. The volumes' contributors, all archeologists, drawn from universities in the United States, Europe, and Latin America, do an admirable job of writing for non-specialist audiences. Most are familiar with the theoretical literature in the history of technology and cite it as relevant; the work of archeologist Michael Schiffer provides an important touchstone throughout. The authors are consistently attuned to questions of behavior, society, and culture, but are firmly rooted in the material and historical record of their subjects. This is a superb volume and should be a valuable reference for historians of technology.

EDWARD (TED) BEATTY

Ted Beatty is professor of history at the University of Notre Dame, and author of *Technology and the Search for Progress in Modern Mexico* (University of California Press, 2015).

The Gun in Central Africa: A History of Technology and Politics

By Giacomo Macola. Athens: Ohio University Press, 2016. Pp. 266.

Written by Giacomo Macola, a specialist of African history, this book studies precolonial African societies' political, social, and cultural relationship with the exogenous technology of firearms. This publication has been well received in the field of African studies as an important contribution to understanding the complex political landscape of the central savannah, a broad region spreading between current-day Angola, Zambia, DR Congo, and Malawi. Macola focuses on the long nineteenth century, a period which another specialist of African history, Richard Reid, has identified as the African military revolution in his book, *Warfare in African History* (2012). This timeframe corresponds to the rather late involvement of the central savannah region in the gun-slave cycle, due to the penetration of long-distance trading networks expanding from Portuguese Angola on the

Atlantic coast and from Arab-Swahili Zanzibar in the Indian Ocean. The book asserts the crucial role of imported firearms in profoundly reshaping the geopolitics of central Africa until the first decades of European colonial rule in the early twentieth century.

Beyond the circles of Africanists, this research more broadly addresses historians of technology as the introduction highlights their general and undeserved neglect of Africa. Macola's approach is inspired by the constructivist perspectives of Science and Technology Studies (STS) and recent cross-cultural consumption studies. He therefore opposes technological determinism and emphasizes user agency through the concept of domestication. Drawing on a wide range of mainly European sources, Macola provides case studies showing how firearms were adopted in different ways by different societies according to pre-existing contexts. Among the Lozi, the centralized structures of the monarchy enabled their king to make the imported gunpowder technology a royal monopoly and use firearms as royal symbols and political tools to generate or strengthen patronage bonds. In the scattered communities of Luvale hunters, firearms circulated more widely among common men and became a symbol of masculinity. In the Kaonde society, firearms were also used as currency for transactions. Through the example of the oppressive Yeke state which massively imported guns in exchange for slaves, Macola shows that firearms alone were not enough to secure the violent rule of warlords, as this state collapsed when rebels managed to cut supply flows from Portuguese Angola. The case of Ngoni warriors who consistently refused to fight with firearms highlights processes of technological rejection motivated by socio-cultural norms; missile weapons did not fit into the Ngoni system of values based on honor and bravery. Nevertheless, under colonial rule, firearms became a positive symbol of social promotion among the Ngoni after many of them were incorporated in the police force.

In other words, Macola succeeds in showing historians of technology that nineteenth-century central Africa is a very interesting laboratory for studying the cross-cultural appropriation of technology. For readers not well-acquainted with this geographical space, the book proves to be very pedagogical and provides many maps as well as a full chapter of contextualization. Despite little technical information on firearms, Macola's research is, in my opinion, relevant to historians of military technology. It forces a broadening of the military revolution debate in terms of chronology, spatiality, and interdisciplinarity. Even in recent studies reassessing Parker's thesis of the "Rise of the West" (*The Military Revolution*, 1988), sub-Saharan Africa retains an image of "primitive warfare" left by the Zulu (cousins of the Ngoni) fighting with spears against British rifles in the late nineteenth century, for example J. C. Sharman in *Empires of the Weak* (2019). In contrast, Macola's book shows how most African precolonial societies, even those far from the coastal areas under early European influ-

ence, became familiar with gunpowder technology. They developed their own techniques to use, repair and improve firearms and even, in some societies, to produce gunpowder and ammunition. The book's emphasis on the multifaceted political, social, economic, and cultural dimensions of firearms underlines the necessity to seek interpretations about the circulation of military technology beyond the traditional scope of international rivalry between states.

BRICE COSSART

After defending his Ph.D. at the European University Institute (Florence) in 2016, Brice Cossart is now Marie Skłodowska-Curie fellow at the University Pablo de Olavide (Seville) with a research project on the circulation of military technology through the global networks of the Iberian empires (Project GLOBALGUNS, funded by the European Union Horizon 2020 program).

The Origins of American Strategic Bombing Theory

By Craig Morris. Annapolis, MD: Naval Institute Press, 2017. Pp. 250.

A valuable contribution to a crowded field, Craig Morris's ably researched and well-written book builds on the work of major scholars, notably Tami Davis Biddle, Mark Clodfelter, Stephen McFarland, and John Buckley, to argue that American strategic bombing doctrine stemmed from an interaction among airpower theory, aircraft technology, organizational dynamics, and political forces. Morris, assistant professor of history at the U.S. Air Force Academy, emphasizes external factors rather than the Air Corps and focuses on the 1926 Air Corps Act as the turning point for strategic bombing. He suggests that the concept of strategic bombing was poorly developed, not least due to the lack of a defensive national security policy, combined with funding and technological issues.

Deliberately embracing the complexity of reality and subverting the standard teleology, Morris argues that the late 1930s was not a period of triumph for strategic bombing. The army was more interested in developing its conventional components. Thus, the General Staff under Malin Craig, the army's Chief of Staff from 1935 to 1939, was opposed to the B-17, as was the navy. Two aircraft companies had developed gigantic long-range bombers: Boeing, with the XB-15, an aircraft designed in 1934 and first flown in 1937; and Douglas, with the XBLR (Experimental Bomber Long Range)-2, renumbered the Douglas B-19, contracted in 1938 and first flown in 1941, was named the "Hemisphere Defender," as part of the air force's XBLR program. The specifications for the XB-15 were for an aircraft capable of carrying 2,000 pounds (910 kilograms) at 200 mph (320 kmh) over a distance of 5,000 miles (8,000 kilometers). The aircraft used an autopilot and de-icing equipment. Its speed, however, when loaded with 2,000 pounds, was only 145 mph, which was too slow for a combat mission, and the project was abandoned.