

over vast areas, and placed in each an intercontinental ballistic missile (ICBM) topped with a 1.2 megaton nuclear warhead aimed at a target in the USSR. The sites were manned remotely and required two acres of land, surrounded only by an eight-foot-high chain link fence. Unlike Hanford, nobody was asked to move, and only a few outsiders were brought in to work at the underground launch centers. Local residents continued to work their ranches and graze their cattle. These particular Americans thought of themselves as independent western types who distrusted big government and its faceless bureaucrats. How living with nuclear weapons in the back yard became ordinary and acceptable for them is the central theme of Heefner's book.

Heefner did find some protests, especially in the early years of deployment, when some westerners objected to the federal government taking some of their land and making them the direct targets of any Soviet first strike. Her chapter, "The Radical Plains," tells fascinating and little-known stories about the people who engaged in direct action and scaled the fences.

Government officials worried about objections from the heartland, especially in the beginning. "It took work to make the Minutemen acceptable and invisible across the plains," Heefner writes (p. 9), and that provides a second theme of her book—how the Air Force and its corporate partners sold the idea of nuclear deterrence. They succeeded not only through their ideas, but also by creating a dependency on the Cold War military among westerners that was "surprisingly intimate and subtle" (p. 7). This is one of Heefner's most original and compelling arguments. When the Cold War ended and the shutdown of Minuteman sites began, the *Rapid City Journal* reported that Big Brothers and Big Sisters would lose twenty percent of their volunteers. A nearby volunteer fire department said it would lose half its firefighters. The kids' soccer coach and the Bible teacher might depart, along with the missiles.

While the locals who lived around the missile silos are Heefner's central figures, she also considers the strategists who came up with the idea of a thousand missile silos, the engineers who developed the technology, and the construction crews who poured millions of cubic feet of concrete. Her book expands on earlier work in several fields. Western history is the most obvious; a decade ago William Deverell in *A Companion to the American West* (2004) lamented the scarcity of histories of the military in the region. On popular consent to Cold War politics, Heefner shares some of the concerns articulated by Andrew Bacevich in *The New*

American Militarism: How Americans Are Seduced by War (2005). And on local studies of the military-industrial complex, Heefner acknowledges the important earlier work by Roger Lotchin, *Fortress California, 1910–1961: From Warfare to Welfare* (1992).

In 1999 the National Park Service opened the Minuteman Missile National Historic Site, which is a lot easier to visit than the Hanford B Reactor National Historic Landmark. Located off interstate 94 near the legendary tourist mecca of Wall, South Dakota, it is open to everyone, every day of the week, all year long. Heefner's reading of the site is particularly subtle and revealing. The plaque there declares that "The Cold War did not just end, it was won!" (p. 202). Most monuments to victory in war celebrate the heroic actions of combatants and honor the fallen. But the "missileers" who manned the launch control centers here never did anything. They waited for orders that never came. The "we" who "won the Cold War," Heefner argues, was "mostly the technology" (p. 203). Thus it is the missiles themselves that are celebrated at the site—providing what Heefner rightly regards as a deeply misleading way to understand the Cold War. Instead of looking at the missiles, she argues, we should look at the faulty logic of massive retaliation and the political forces that made it seem reasonable.

Both authors argue convincingly that their stories, although small in focus, have larger significance. The compromises and accommodations made by residents around plutonium plants and missile fields were not just local; they provide a microcosm of the compromises and accommodations made by the populations of the United States and the Soviet Union at large. In both places, citizens traded democracy and safety for consumerism. They accepted decisions made by distant military elites that endangered their families because they wanted secure middle-class lives that looked "normal."

One more theme is shared by the two authors. Heefner is concerned with the fact that nearly half of the Minutemen missiles deployed in those silos in the 1960s are still there, carrying nuclear warheads, on alert, and capable of destroying most of humanity. And the radioactive contamination that is Brown's subject will remain a threat to humanity for thousands of years. Their books remind us that the stories they have told are not finished.

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GABRIELLE HECHT. *Being Nuclear: Africans and the Global Uranium Trade*. Cambridge, Mass.: MIT Press. 2012. Pp. xx, 451. \$29.95.

Being Nuclear is the sequel to Gabrielle Hecht's *The Radiance of France* (1998) and traces how colonial re-

lationships have structured the modern nuclear industry so that Africa serves as a raw material supplier to

European production of nuclear energy and weapons. Whereas her first book dealt with only one small part of the French nuclear industry over a period of just twenty-five years (ca. 1945–ca. 1960), this book is an altogether more ambitious endeavor; it sprawls across approximately seventy-five years of uranium mining in Gabon, Madagascar, Namibia, Niger, and South Africa to plot what Hecht calls “nuclearity,” or “how places, objects, or hazards get designated as ‘nuclear’” (p. 4). “Nuclearity,” she contends, “is a *technopolitical* phenomenon that emerges from political and cultural configurations of technical and scientific things, from the social relations where knowledge is produced. *Nuclearity is not the same everywhere*: it is different in the US and France, in Namibia and Madagascar, in South Africa and Gabon. *Nuclearity is not the same for everyone*: it has different meanings for geologists and physicists, geneticists and epidemiologists, managers and workers, Nigeriens and Canadians. *Nuclearity is not the same at all moments in time*: its materialization and distribution in the 1940s and 1990s differed markedly” (p. 15).

This contingent nature of nuclearity is especially visible in Africa, Hecht argues, a continent usually ignored by the international scholarship on the nuclear industry with its twin fetishizes of nuclear exceptionalism and the bomb. Hecht does a double take on African uranium mining, examining it first through the optic of distribution and then through that of production. By so doing she offers both a political economy of African yellowcake in the making of a global uranium market and a medical history of African miners’ exposure to radiation. The “banalization” of African uranium—the establishment of its non-nuclearity—on the global market, Hecht argues, discouraged the development of “regimes of perceptibility” in African mines necessary to establish the nuclearity of uranium ore through detailed monitoring of the health of both mines and miners. With nuclearity, as with everything else, postcolonial African states and trade unions are effortlessly bested in Hecht’s telling by the usual suspects—Western states and their multinational corporations and organs of global governance such as the International Atomic Energy Agency—to fix the market and the mines in their favor. Western nuclearity, Hecht suggests, depends crucially on an African non-nuclearity, which keeps ore prices low and leaves miners exposed to lethal levels of radiation. “How much would electric bills rise in the United States and Europe if the price of uranium incorporated the full cost of nuclearity in Africa?” Hecht concludes, “That calculation remains to be run” (p. 339).

Hecht’s retro underdevelopment theory reading, however, fails to persuade, not least because it is as much an artifact of her method as her sources. While the bibliography lists twenty-six archives (eleven of which are in Africa, but only three outside of South Africa) and claims more than 50,000 pages read (p. 342), Hecht was denied access to most of the paper trail—much of which in Africa, we are told, has been either deliberately destroyed or discarded. *Being Nuclear* is

thus built instead on a foundation of 138 interviews. Although this sounds impressive, Hecht did slightly more (142) for *The Radiance of France*, which dealt with just one aspect of the nuclear industry of a single European state over a twenty-five-year period. This work reconstructs the nuclear histories of four or five African states over three quarters of a century. Hecht’s African informants, like her archives, are very unevenly spread across the vast terrain and time encompassed by her book. More than two thirds are from Namibia (thirty-one percent), South Africa (twenty-six percent), and France (twelve percent), and the southern African interviews were spread over two years, 2003–2004. The thirty percent of “other” African informants, however, were interviewed fully fifteen years ago, at what must have been the very beginning of this project and in what appears to have been a single two-month field trip to Gabon (July 1998) and Madagascar (August 1998). Apart from a handful with walk-on parts in the text, these informants are identified, if at all, by nothing more than their name and the location and date of their interview. We are told nothing about their personal or work biographies (age, gender, length of service, job description). They are all by default “African miners.” But if these few are to “stand in for . . . the multitude,” as Hecht intends (p. 342), how can we assess their fitness to do so from their names alone?

Thus although Hecht continually cautions against and chides international non-government organizations for “gesturing toward ‘Third World’ or ‘African’ conditions” (p. 212) to explain African histories, she is compelled by both the breadth of her ambition and the glancing nature of her research to do precisely the same. Thus, for example, we are told that nuclearity in Niger “remains fragile, its power uncertain . . . there’s the problem of accountability and the related problem of regulation . . . obstacles to building regulatory capacity are compounded by widespread corruption” (p. 324). Comparing *The Radiance of France* to *Being Nuclear*, it is hard to escape the conclusion that, like “nuclearity,” “scholarship” is an acquired rather than an inherent quality of any history, one that takes an enormous amount of labor to establish, and that the non-scholarship of African histories, like the non-nuclearity of its yellowcake, has now become established in the global academic marketplace.

South Africa alone among Hecht’s African subject populations still possesses a sufficiently robust domestic tertiary education infrastructure to leverage the scholarship of its own histories on the global market. Thus Hecht’s initial intention to narrate the nuclearity of uranium in South Africa in the same way she does that of Gabon and Madagascar had to be quickly abandoned because “this approach wouldn’t yield sufficiently fruitful results . . . My interviews with retired workers . . . made clear that I would be replicating the work of other scholars of South African mining” (p. 260). These “other scholars,” who have already “explored the recent history of South African gold mining with depth and insight” (p. 350), have of course done

far more than just interview mine workers before Hecht arrived; they have also worked the many state, corporate, and private archives that she lists and have done so over several generations.

Hecht's own attitude to African mining archives is shockingly cavalier. Handed the keys to the three store rooms containing the archive of the Mounana uranium mine in Gabon by the associate director in July 1998, she reports "a vast uncatalogued, unexamined collection documenting more than 40 years of uranium mining in Gabon. Documents included employment and medical records, weekly reports on mining operations and work organization, blueprints and operations manuals for the yellowcake factory, reports on living conditions and social relations by the company's social worker, labor union files, correspondence pertaining to all levels of activity, and much more" (p. 408). "Confronting an archive in deplorable condition produces a mixture of joy and despair. It's exhilarating to see unprocessed documents, a relief not to be at the mercy of a bureaucrat. But the prospect of wading through so much material, and no doubt missing something significant, induced a measure of panic. Where to start? With my husband's help, I sorted through them as best I could, copying anything that looked interesting . . . This was the silence of chaos, born of the expectation that such records had no value, or at least no local value. I still don't know whether [the parent company] Areva headquarters has copies of these reports in its French repository" (pp. 344–345).

But how is her attitude any different to that she ascribes to the Mounana mine management, or to that of the retired mine officials she interviewed in France with their caches of documents, photographs, and "African art" taken as trophies on a Gabonese safari? Was there really no correspondence with the mine beforehand to establish the existence of an archive on site? Or was the assumption that this being Africa no archive would exist? What claim to validity can her analysis of Gabonese uranium mining have in the face of such flagrant dis-

regard for its archive? It is of course now no longer possible to know because, fifteen years after Hecht's hasty scavenging, the Mounana mine archive is no more. The associate director tells her directly in 1998, "We'll probably toss all this junk when we shut down next year" (p. 344).

Despite such questionable research methods and findings, the "scholarly" of Hecht's analysis has been unequivocally established on the global academic market through its endorsement by powerful organizations and individuals in the American tertiary education system. The American Historical Association bestowed its Martin A. Klein Prize in African History—awarded "for the most distinguished work of scholarship on African History published in English"—on the author at its annual meeting in January 2013. Thus, the non-scholarly of African histories is transformed into scholarship in the metropole.

Only when African informants' lives amount to more than their names, only when endangered African archives are deemed worthy of urgent rescue rather than opportunistic pillaging, and only when would-be historians of Africa feel compelled to accord African people and archives the same respect they would show such sources in Europe or America will African histories have attained scholarship. Until then the prevailing non-scholarly of most African histories will continue to render them cheap raw material for export and the intellectual manufacture of scholarship in the academies of Europe and North America—an unequal exchange, like that in African yellowcake which Hecht decries, whose roots are to be located deep in the colonial past.

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For an exchange of letters regarding this review, see the "Communications" section of the February 2014 issue of the *AHR*.