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Minerals

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By Robyn d'Avignon

Mining is a toxic business and gold mining is particularly noxious. Mercury and cyanide pollute river-ways and sentient bodies. The large-scale evacuation of earth often acidifies water tables, literally “lying waste” to land by making it unusable for agriculture and pastoralism. Elsewhere in this series, [Claudia Gastrow](#), [Jennifer Wenzel](#), and [Lynn Thomas](#) describe the political architecture of latent toxicities and their eruption in illness, ecological destruction, and ruin. This essay argues that discourses and accusations of waste—like material toxicities—also accumulate in places, lying dormant for future incorporation in political and economic claims making.



Red and blue tarps shelter so-called “artisanal” miners as they dig for gold with hand picks, dynamite, and mortar pickers in Kedougou, Senegal. Today, most artisanal miners operate within the research permits of junior exploration companies (Photo by author, 2013).

Consider the potent vocabulary of waste in Francophone West Africa’s gold mining sector.

It is a scorching hot day in March 2013 in the remote region of Kedougou in southeastern Senegal. Mamadou, a Senegalese geologist working for an Australian junior gold company, navigates a white Land Rover across the dusty plains where he coordinates mineral exploration within a 500 square kilometer research permit. In the early 2000s Kedougou emerged as a frontier for global gold mining capital. Similar to neighboring regions of Guinea and Mali, residents of Kedougou have mined gold dust and ore with hand tools for over a millennium. Today, villages of so-called “artisanal” gold miners dot the interior of exploration permits held by private mining companies and increasingly compete with staff geologists and security forces for access to gold deposits.

Mamadou gestures to a vibrant strip of red and blue tarps on the horizon, sheltering artisanal miners from the sun as they dig tunnels into the crust of the earth. “It’s a waste!” cries Mamadou. “They take the top layer and destroy the land. If the state does not stop this, we will not be able to mine the deposit. The gold will go to waste.” Mamadou’s frustration as a professional geologist is understandable. He scopes economically viable deposits for mining companies that generate formal employment and pay taxes to the state. He also maintains respectful working relationships with resident artisanal miners and employs local youth as geological aids. Yet Mamadou’s invocation of local miners as wasteful is an old argument, with a toxic past.

Beginning in the 17th century, French prospectors who traveled to goldfields formerly controlled by the medieval empires of Ghana, Mali, and Songhai accused African miners of wasting gold with “primitive” tools and “inefficient” labor practices (Curtin 1974). By the late 19th century, administrators of the nascent colonial state declared it was morally incumbent on the French to exploit the region’s minerals with modern, industrial methods. Idioms of waste became integral to a colonial lexicon of dispossession and the facilitation of imperial enclosure under the sign of “improving” African resources (Davis 2007; Mavhunga 2014; Neuman 1998; Mackenzie 1998).

But the colonial dream of transforming native mines into modern ones proved elusive. European mining equipment was poorly adapted to West African geological conditions. French miners rarely prospected for fresh gold deposits: they installed on mines already exploited by Africans, incurring violent conflicts. Even then French mining outfits were not economical and, by the 1910s, French miners had largely abandoned West Africa. Mining by Africans, however, expanded to unprecedented scales, comprising 95% of the federation’s exports. Concerns over mineral waste persisted in colonial circles. In the 1930s, young French geologists opened mining research stations across the goldfields of West Africa with the goal of locating ways to reduce the golden waste left behind

by the techniques of African miners. When even these modest improvement efforts failed, colonial geologists conceded that African mining methods were better suited to regional geology than previously recognized. Despite this admission, French administrators and scientists continued to accuse African miners of wasting imperial patrimony by only partially exploiting ore bodies. Plans were elaborated to supplant native mines with European enterprises as soon as gold prices and infrastructural provision allowed.

Mineral waste was not solely the concern of Europeans in colonial French West Africa. Waste, reuse, and reserves also saturate the oral histories and praxis of multi-generational African gold miners. Their concerns were articulated in regional idioms of subterranean value and divergent regimes of value (see Guyer 2004). For African gold miners, mineral waste indexes a ritual relationship with the unseen world—with Nininkala. This mystical serpent slithers underground, consuming ferruginous soils and excreting gold veins in its wake. To safely mine Nininkala's golden excrement requires making sacrifices to this spirit. Failure to do so incurs the wrath of Nininkala; miners suffocate underground. Regional oral traditions underscore the value of reproducing human and nonhuman inhabitants dependent on mineral wealth, rather than depleting the earth entirely of its mineral resources. At times, African miners abandoned goldfields before full depletion: this "waste" constituted a mineral reserve for future generations.

Colonial geologists puzzled over how to render African gold processing methods more efficient. But they failed to recognize that leaving gold in discarded sands was an intentional design, to distribute wealth across genders and generations. Gold mining is highly gendered in savannah West Africa: men dig vertical mining shafts with iron picks, while women hoist excavated rock to the surface with a calabash tied to rope. Women then wash the rock, mechanically separating gold particles from sand and silt. The first wash belongs to men; the second to women; and subsequent washes to children and the elderly. Attention to the cultural and intellectual history of gold mining in this region reveals the conditions under which the value of gold shifts from the hands of spirits to those of humans. For West Africans, leaving a portion of gold underground—and in mine tailings at the earth's surface—redistributed the potential for wealth creation.

Waste is always unstable and relational. It is contingent on subject position and the available uses and reuses of a given substance in local and long-distance markets. In the extractive industry, new technologies, shifting markets, and the expansion of global logistics can re-value rocks and silts discarded by earlier generations of miners. Just as landfills are commodities for pickers and gleaners (Fredericks, forthcoming; Reno 2015), brownfields and superfund sites are investment frontiers for

environmental remediation companies (Dillon 2014). Accusations of waste also produce value for mining industries. By criminalizing local mining, and dispossessing the “wasteful” of mineral rights, states and private companies in West Africa have claimed new territories and fresh extractive frontiers. Arguments rooted in colonial ambitions of expanding private property regimes have retained appeal in the post-colony. At decolonization leaders of independent West African states abolished the rights of agrarian households to mine gold, declaring it anathema to ambitions for developing national industries in which new citizens would labor as skilled technicians. Low commodity prices and global interest in industrial metals such as bauxite and phosphates consigned West Africa’s gold reserves to “shelf projects” until the marked rise of gold prices in the 1990s. The revaluation of the region’s goldfields inspired a legal and military crackdown on artisanal miners to pave the way for industrial enterprises.

As a geologist trained to work in the modern mineral industry, Mamadou has spent more than two decades studying the geology of southeastern Senegal. Trained in Dakar and in Paris, Mamadou has worked for companies based in Sydney, Johannesburg, and Toronto. His working life is evidence that no facile distinction can be drawn between artisanal and industrial mining or European and African vernaculars of efficiency and waste. Mamadou is rooted both in the local world of extraction and in the logics of global mining capital and expertise. He is a powerful reminder that idioms and accusations of waste—similar to the toxic chemicals used by gold miners in Kedougou—seep across social domains and temporalities, emerging in unlikely places.

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Opening photo credit: Aliou Bakhoun (2014)

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