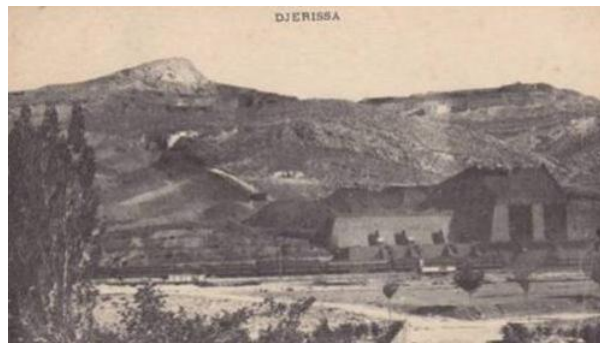


Mines and the Environment in the Colonial Context

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ABSTRACT

During the age of empires, the development of mining activity took paths that diverged in part from those observed in mainland France. Certain constants can be seen through the implantation of new technical systems and the transformation of landscapes due to the extractive activity. But labor policies diverged and, for that reason, the health and environmental impact of mining activities was sometimes particularly brutal in the colonial context.



Photograph showing Djebel Djerissa workers' housing, and the mountainside being levelled. Source: Djebel Djerissa Mine Archives.

In an article published in the *Revue des Deux Mondes* in the early 20th century, the journalist Jacques Lacour-Gayet marveled at the rise of the mining industry in Tunisia. Describing the “to-ing and fro-ing of the carts” extracting the iron ore from a “mountain being dismantled,” he gushes enthusiastically about the thousands of tons of mineral being sent to the new port of La Goulette (Tunis) to satisfy the insatiable appetites of European blacksmiths. The author also devotes a few lines to some of the environmental issues raised by the growth of this activity. The implementation of new technical systems is described in detail, as is their visible contribution to the transformation of the landscape. Despite the article’s exalted tone, which reflects the almost unshakeable faith in progress that then held sway in industrial circles, Jacques Lacour-Gayet does note the presence “of a red dust shrouding the

atmosphere.” Through those few words, contemporary readers can perceive the dramatic health issues in play around that dust and that shrouded, worrisome atmosphere in which the miners went about their work. For the contemporary era, themes related to the environmental history of mines have been explored with a focus on Europe and the Americas. For mines in a colonial context, however, the historian Marion Fontaine has pointed out that research is “still sparse.”

The Rise of New Technical Systems

Mines constitute vectors of introduction for new technical systems in a colonial setting. In the context of 19th-century industrialization, the first railroad tracks – which were often a necessary condition for mines’ cost-effectiveness – accompanied their opening for operation. In India, the first railway line carried granite blocks from a quarry to Madras, where the blocks were used for construction. Over the next few decades, the growth of coal and of the railway went hand in hand. Although the first coal mine was opened in 1820, it was the development of the East Indian Railway in 1854 that really gave it a boost. That timeline is not very different from the one in Algeria, where the first railway line connected the iron mines of Karesas to the Seybouse River, on which the ore was then transported by barge to the port of Bona (now Annaba) to be transferred onto ships that exported it to France or elsewhere in Europe. Mining, the growth of the railway, and port development were three interconnected factors contributing to the transformation of landscapes.

The Transformation of Regions and Ecosystems

Mining activity literally moved mountains. The appearance, in the late 19th century, of open-pit mines led to whole sides of mountains being cut away, the way Jacques Lacour-Gayet described what was taking place at Djebel Djerissa. Alfred Nobel’s 1867 invention of dynamite made the mountain-razing mining technique more common. In New Caledonia, the discovery of nickel led to major upheaval in both the landscape and the population. From 1880 to 1990, a half-a-billion tons of rock were mined, from which 2.5 million tons of nickel were extracted. The activity filled waterways with silt, asphyxiating fish and making navigation impossible. Gravel that was expelled onto the plains during flooding ruined agriculture. In Algeria, the Mokta el Hadid mine didn’t stop at hollowing out the mountain. Its owners also dried up a 14,000-hectare (35,000-acre) lake. The lake’s presence was detrimental to digging deep tunnels, which flooded regularly. It also led to waves of sometimes deadly fever, because of the presence of mosquitoes. Malaria studies were common in that marshy mining area. Alphonse Laveran, for example, made observations there for which he received the 1907 Nobel Prize for medicine. Fishing and water-fowl hunting activities, which predated mining operations, declined rapidly. The mine devoured the land and affected the health of the populace who lived nearby or worked within it.

Mines, Health and Environments in the Colonial Context

Men and women who made a living there were diversely affected by the mine environment. Working conditions were grueling, and many diseases developed. In all mines, respiratory diseases like silicosis, which are caused by inhaling dust, were the most common. In mercury mines, and gold mines that used mercury for treating it, miners developed potentially deadly kidney and neuronal conditions. In the Spanish empire during the modern era, the mercury mines of Huancavelica, which were operated largely for the sake of treating gold from Potosi, have been described by Kris Lane as a work place with a high mortality rate.

Still, miners in the colonial context were far from the only ones suffering from those ailments. In *Silicosis: A World History*, edited by Paul-André Rosental, various authors describe the transnational character of silica-dust diseases among miners. Colonial specificities are present nonetheless in the political and health measures implemented for treating those diseases. Randall Packard shed light on that in references to tuberculosis. In his book *White Plague, Black Labor*, the historian shows that although tuberculosis was frequently seen in the context of industrialization, the long-term high rate of the disease among black miners in South Africa was due to the particularly grueling working conditions they continued to be subjected to. The effects of that differentiation at work were reinforced by black people's exclusion from certain health measures, both during the colonial period and after the founding of the Union of South Africa in 1910. The same schema can be seen in reference to silicosis, which can in fact lead to tuberculosis. In 1911, the Miners' Phthisis Allowance Act (silicosis was then known as miner's phthisis) established different levels of financial compensation for the two categories of miners. Screening measures were also different. Where white miners were examined regularly by specialized doctors, and had the right to a clinical examination that included a chest x-ray, black miners could only get appointments with young, inexperienced general practitioners with heavy workloads, who had only a short time to devote to each individual patient. Even when black miners were diagnosed with silicosis, they didn't receive the same medical care as whites. While white miners were sent to sanatoria, black migrant workers, who were often recruited from neighboring colonies, were sent home. The colonial context produced a clearly differentiated treatment of workers that led to a far higher mortality rate among black miners.

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