

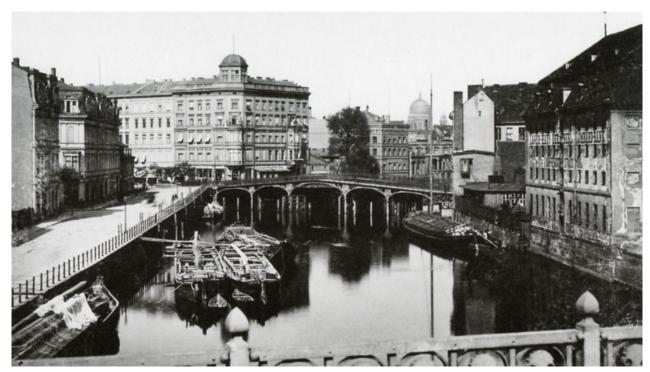
Peat-Powered Berlin: The Role of Peat in the Urban Energy Transition in the Mid-Nineteenth Century

Ole Sparenberg

Summary

Berlin's energy supply in the nineteenth century did not transition directly from firewood to lignite and hard coal. Instead, peat played a significant role in the urban fuel mix, especially up to the 1870s. Within the city, this fuel was very present in the urban scenery, while the peat extraction profoundly changed the landscape in the nearby Rhinluch.

In July 1889, the *Berliner Börsen-Zeitung* offered its readers a nostalgic reflection on recent developments in the energy supply of the German capital and resulting changes in the urban landscape: The article dealt with the disappearance of the peat barge from Berlin's waterways. Twelve to fifteen years ago, the author recalled, peat barges still had been a characteristic part of the cityscape in late summer, but by 1889, they had become a rare sight. According to the article, children no longer recognized the once-popular fuel, and when passing one of the remaining peat barges, the children might ask their fathers about the "strange stones" it carried.



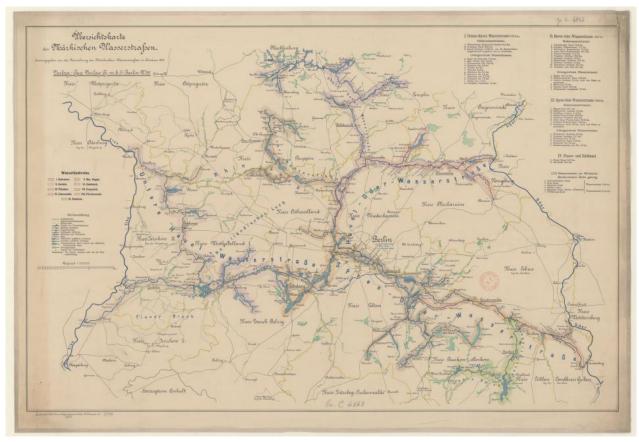
In this photo from 1881, barges are moored between the Weidendammer Bridge and the Eberts Bridge. It is not possible to say for sure whether they were transporting peat, but this section of the Spree in Berlin was known for the peat trade.

Photograph by F. Albert Schwartz, 1881.

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Berlin, one of the largest and most dynamic cities in nineteenth-century Germany, did not go directly from the wooden age of the organic energy regime to the industrial era marked by coal as a fossil fuel. Instead, the Prussian capital went through a transitional period when peat—a nonrenewable resource but geologically of much younger origin than coal—made up a large share of the urban energy mix. Peat cutting for the Berlin market started in the Havelland, a region west of the city characterized by extensive fens, in the late eighteenth century. The consumption increased in the following decades, and the years between 1860 and 1875 represented the heyday of peat use in Berlin.

Within the Havelland, a landscape called the Rhinluch and the village of Linum, in particular, were closely associated with Berlin's peat supply due to their high-quality peat deposits. In 1861, the novelist, poet, and journalist Theodor Fontane (1819–1898) referred to Linum as the "Newcastle of our residential city," considering the village to play the same role for Berlin as Newcastle's coal mines played for London. In the midnineteenth century, peat dominated the local economy and transformed the landscape in the Rhinluch. Individual extraction sites employed up to 1,800 people, but only during summer because cutting and air-drying peat depended on relatively dry weather. Cutting peat was hard labor, which in this region and at this time was still done manually. Teams of three to five male laborers produced, on average, thirteen thousand peat sods per day, which were subsequently laid out to dry by female workers. While peat provided only seasonal employment for the workers from the surrounding villages, some entrepreneurs amassed great fortunes.



This map of the waterways in Brandenburg from 1909 shows the connection between the Rhinluch (top left) and Berlin (centre) that enabled the transport of peat by barges from the extraction sites to the urban market.

Unknown cartographer. Print by Bogdan Gisevius, 1909.

Uebersichtskarte der Märkischen Wasserstrassen. Herausgegeben von der Verwaltung der Märkischen Wasserstrassen in Potsdam 1909 - 1909 - National Library of France, France - No Copyright - Other Known Legal Restrictions. https://www.europeana.eu/item/9200517/ark__12148_btv1b53061967f.

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In most cases, peat was closely linked to waterways, which enabled drainage and a cost-effective connection between the extraction area and the consumers. Large-scale peat extraction around Linum only started after the construction of the Ruppiner Kanal in 1788, which connected the Rhinluch eastwards to the River Havel and further via the Spree to Berlin. The peat barges mentioned above took this route and, within the city, mostly moored near the Weidendammer Bridge, west of the city's historic core but still central at the time.



A snapshot from Berlin's energy transition: In 1873, the merchant C. F. Schüler offered his clients coal, firewood, and peat.

From Berliner Börsen-Zeitung 518, second supplement, 6 November 1873, p. 9. Accessed via Deutsches Zeitungsportal. Click here to view source.

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Peat was an important but never the only fuel in Berlin in the mid-to-late nineteenth century. Customers could choose from a wide range of fuels. For example, in 1873, the merchant C. F. Schüler placed newspaper advertisements in which he equally offered hard coal, lignite, coke, peat, and firewood from his store situated directly by the Weidendammer Bridge. Although consumers were initially reluctant to use fuels other than wood, the growth of the city generated an energy demand that could no longer be met solely by wood and households and trades in Berlin consumed increasing amounts of peat. Later, the increased supply of hard coal from Silesia and England and lignite from Bohemia pushed peat aside. Its higher energy density gave coal the edge over other fuels, while improving transport connections, especially by rail, made coal competitive even at greater distances from the mines. In addition, households used new, more efficient stoves better adapted to coal than peat.

While burning peat emits considerable amounts of smoke compared to wood, the resulting pollution was—at

least in retrospect—not always thought of negatively. The *Berliner Volksblatt* fondly remembered the days when "the not exactly pleasant, but homely smell of burned peat filled the homes of the poor and the rich," but this was in 1885 when peat had been already replaced mainly by lignite, another highly fuming and smelly fuel. However, the fens around Berlin were not yet exhausted, and peat experienced a brief revival during and after the First World War when coal had become scarce.



A present-day picture of peat sods piled up to dry in Northwest Germany.

Photograph by JoachimKohler-HB, 2022. Click here to see Wikimedia source.

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The case of Berlin is not unique, though the contribution of peat to industrialization and urbanization is largely forgotten today. In the nineteenth and sometimes up to the twentieth century, urban and rural households, trades, industries, and locomotives used peat in parts of northwest Germany, Bavaria, Swabia, and other regions, where peat acted as a bridge fuel closing the gap between firewood and coal.

In many regions, digging peat and land reclamation for agriculture went hand in hand. Most bogs and fens in Germany have been turned into farmland, resulting in the loss of this habitat and the associated biodiversity. In the Rhinluch, however, the fuel extraction for Berlin dominated all other considerations, and drainage in the

interest of peat production often even negatively affected neighboring meadows. Some peat pits also became waterlogged after drainage stopped. Near Linum, former peat pits were later turned into fish ponds. Fish farming has long stopped like peat digging before, and nature has reclaimed parts of the landscape in a way. The former "Newcastle" of Berlin is nowadays best known for numerous white storks who nest in the village and large numbers of cranes who flock to Linum's ponds during their migration.

However, peat extraction also has long-term effects on the climate, which are increasingly recognized today. Not only is the peat in the ground gone, and the carbon it contained was emitted to the atmosphere, but the landscape no longer acts as a carbon sink as intact peatlands do.

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About the author:

Ole Sparenberg

Ole Sparenberg is a lecturer at the Karlsruhe Institute of Technology (Germany). He works at the intersection of environmental history, economic history, and the history of technology with a focus on natural resources. In his first book, he analyzed the role of fishing and whaling in the Nazi autarky economy. A second book on the history of deep-sea mining from the 1960s to the present is due to be published in 2024. He is currently working on the history of peat as an energy resource in nineteenth-century Germany.

https://orcid.org/0000-0003-0052-7657