

Alexander Klose; Benjamin Steininger. *Erdöl: Ein Atlas der Petromoderne*. 324 pp., notes, bibl., index. Berlin: Matthes & Seitz, 2020. €26 (cloth); ISBN 9783957579423.

Research into the history of this or that substance, which might also be referred to as the substance-historical method, has long been established in the history of science and technology. Ferdinand Hoefer included more than sixty historical studies of substances in the first volume of his *Histoire de la Chimie*, which appeared in 1842. James Riddick Partington, who took a primarily biographical approach in his monumental four-volume *History of Chemistry* (1964–1970), also did substance-historical research, especially on black powder. The approach of following certain substances throughout history has been an established part of research in the history of science and technology, alongside approaches based on the history of ideas, on biographies, on the history of companies, and others. Substance-historical research can also be found in economic history, environmental history, and geography.

Since the 1930s, an increasing number of monographs and even novels on this or that substance have appeared. Whereas previously the interest was exclusively in the role of substances inside the laboratory, the journal, the textbook, or industry, these more recent studies also followed substances beyond the laboratory doors and the factory gates, on their way through society, parliaments, courtrooms, and ecosystems. The method thus responded to the increased mobility of practically all the elements of the Periodic System, which the chemist

Vladimir Vernadsky identified as an essential characteristic of the age that he called the Psychozoic in his work *Geochemie* (Leipzig, 1930) and that today is generally referred to, with a certain shift in meaning, as the Anthropocene. Research into the history of substances has experienced a further boost in the last decades. Not only have numerous monographs been published, but more and more researchers outside the narrow communities of chemical historians and historians of technology have been dealing with substances.

The historian of science Benjamin Steininger and the cultural scientist Alexander Klose have dedicated a monograph to petroleum, complementing an exhibition they curated entitled “Oil—Beauty and Horror of the Petroleum Age,” which was shown at the Kunstmuseum Wolfsburg from September 2020 to January 2021. The boldness of the authors is to be applauded, for petroleum is not only a basic supplier of energy but also a basic material of the modern world. Almost everything in our modern world is linked to petroleum. Coping with this omnipresence is possible only by limiting oneself spatially, temporally, and methodologically. Various studies on petroleum that have appeared recently have taken this approach, such as the justly well-regarded work of Stephanie LeMenager. Klose and Steininger choose a different option. Their book consists of shorter articles, each picking out individual aspects. This creates a kaleidoscope of impressions: a master story is not told—and shall not be told.

The very well written book takes on the form of the ironic encyclopedia that has been popular since the nineteenth century, as a parody of the great encyclopedias of the Enlightenment era. Impressive color illustrations complement the text and, according to the authors, justify the “Atlas” of the subtitle (p. 15). In their individual glosses, the authors almost always succeed in offering interesting and often novel discoveries. For example, the topic of drilling is presented in a well-founded and stimulating manner in a brief account. The catalytically controlled chemical transformation of petroleum constituents is also solidly presented under the heading “Molecular Mobilization” (pp. 49–57). Often, the reader’s expectations are deliberately played with—as, for example, when the essay entitled “Animals in the Oil Field” (pp. 199–203) deals not with seabirds that are glued together and dying but, rather, with animals that visit drilling grounds. This approach arouses interest and curiosity but also increases perplexity. The reader is left alone with the material and must tell his own story.

And this is precisely the goal; it also fits the form of the ironic encyclopedia, which from the outset does not lead one to expect that an overview will be presented. The history of oil is a history that crashes over us. *Erdöl: Ein Atlas der Petromoderne* aims to use brief spotlights, from very different perspectives, to draw attention to a substance that is part of the everyday life of modernity. It succeeds in doing so; at the same time, the well-documented individual articles offer suggestions for further study and some connections that may be new even to researchers who have been in the field for some time. An English edition is in preparation.

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