

The Middle Eastern Heritage of the Petroleum Industry: The Archaeology of Bitumen

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ABSTRACT

The Near East has always been an important supplier of petroleum as early as the late 19th century A.D. As soon as petroleum was hit in Masjid-I Suleiman in 1908, Iran became one of the major exporting countries. It is now estimated that Iran holds about 10% of the world's proven reserves of oil with new discoveries still being made. But the export of Iranian petroleum-related products is by no means a 20th century novelty, archaeological research has identified a flourishing ancient bitumen-industry from the Bronze Age (ca. 2000 B.C.) onwards. Bitumen is a material very closely related to petroleum and quite indigenous to the Near East. It has long been applied by mankind for various purposes, especially in areas where bitumen naturally surfaces. Archaeological fieldwork combined with chemical studies (mainly EA-IRMS & GC-MS) has been used from the eighties onwards to analyse bitumen and consequently determining interregional networks and human spheres of influence and trade. This specific field of study makes it possible to define the first real 'industry' in petroleum; i.e. the deliberate overexploitation and interregional export of hydrocarbon-matter. This talk will focus on the close connection and interactions between geochemical sciences and archaeology; how advances from the former have helped shape the latter and contributed not only to our understanding of the history of mankind, but also of that of the petroleum industry and its heritage. We will cover the history of this field of study, the most commonly used techniques, the challenges we encounter, and future technological perspectives. We will also focus on the results that have been booked in this field over the last decennia, and how we may define southwest-Iran as the first-ever region creating and supporting an industry in petroleum-related products.