A HISTORY OF PETROLEUM GEOLOGY TEXTBOOKS

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Petroleum geology textbooks have been an essential tool for training generations of students, researchers, explorers, and managers ever since the modern petroleum industry began in the second half of the 19th century. This paper chronicles the petroleum geology textbooks (in English language) and how their contents have evolved through time as the petroleum industry itself has changed both in theory and technology. *Rock Oil* by Thomas Gale was a small book that came out in 1860, only a year after Drake's discovery well. This was followed by Abraham Gesner's *Treatise* in 1861. The first books on petroleum published in Pennsylvania during the 1860-70s naturally focused on the State's oil history and opportunities.

However, over time, economic, geopolitical and educational considerations became an important factor in the writing and publishing of petroleum textbooks. This is remarkably evident in the series of petroleum books published in the 1890s-1920s in the United Kingdom by Sir Boverton Redwood, R. Nelson Boyd, Arthurs Beeby Thompson, and Edward Hubert Cunningham-Craig, who indeed laid the foundations of petroleum industry textbooks. The largest effort in the UK to synthesize the knowledge of oil in the first half of the 20th century was the four-volume *The Science of Petroleum* (1938). In North America, Dorsey Hager, a founding member of the AAPG, was a pioneer author; his 1915 book *Practical Oil Geology* saw its sixth edition in 1951.

The early history of oil was shaped by wildcatters. However, between two world wars of the 20th century, field-based knowledge of petroleum geology rapidly expanded and thus more theoretical and encyclopedic works appeared. Some of these early textbooks came from the pen of American *economic geologists* such as Ernest Lilley and William Emmons. In contrast, texts written by *structural geologists* focused

on the mapping of subsurface structures including books by Leslie LeRoy and Peter Badgley. Shortly after World War II, oil consumption increased worldwide (especially because of Europe's reconstruction) and petroleum geology courses were thus in high demand. Petroleum textbooks to address these needs were written by Cecil Lalicker, William Russell, and Kenneth Landes. Arville Leveron's *Geology of Petroleum* (1954) is perhaps the most influential textbook in the field as indicated by its reprint in 2001 by AAPG. Leverson's book represents a transition from the petroleum geology textbooks published prior to 1950s and the modern textbook of our time.

A comparative review shows that the early textbooks focused on *oil habitats*, field descriptions, structural and regional understanding of oil provinces, while the modern texts attempt to teach the processes of the *petroleum system*, the methods of basin analysis, and a more integrative work-flow in petroleum exploration and development.