Review

Reviewed Work(s): DeWitt Clinton and Amos Eaton: Geology and Power in Early New York by David I. Spanagel

Review by: Camden Burd

Source: *New York History*, Vol. 97, No. 2 (Spring 2016), pp. 229-231

Published by: Fenimore Art Museum

Stable URL: https://www.jstor.org/stable/10.2307/90018249

Book Reviews

DeWitt Clinton and Amos Eaton: Geology and Power in Early New York.

By David I. Spanagel. Baltimore, MD: John Hopkins University Press, 2014, 288 pages, $54.95 Cloth.

Reviewed by Camden Burd, University of Rochester

In *DeWitt Clinton and Amos Eaton*, David I. Spanagel writes a compelling history that blurs the boundaries between science, politics, and the arts in early New York State. Through a history centered mostly on geologist Amos Eaton, the author demonstrates how Eaton's passion to explore the Earth's origins helped define New York State as the center of political, economic, scientific, and cultural development in the early nineteenth century. Creatively reading source material, Spanagel depicts a period of scientific exploration situated between natural theology and professionalized science. In this space Governor DeWitt Clinton, driven by his political ambition, married science and politics in an unprecedented manner. The results of the union carried implications beyond the construction of the Erie Canal. Spanagel argues that Eaton and Clinton transformed the relation between science, politics, and broader American culture.

Spanagel successfully redeems Eaton's reputation from a dated historiography that defined his work as derivative and unoriginal. By arguing that Eaton's contributions lie beyond simple scientific theory, the author describes a dynamic scholar, teacher, and father of American geological study. Through collaboration with Stephen Van Rensselaer, Eaton helped establish the Rensselaer School with a mission to provide technical education to students through his unique hands-on approach to scientific study. Eaton's efforts as a teacher informed an entirely new generation of thinkers such as William Cullen Bryant, John Torrey, Emma Willard, and Douglas Houghton. Eaton's approach, with the help of those with financial and

political power, laid the groundwork for what would become a formalized study in nineteenth-century America.

The marriage between DeWitt Clinton's political activity and Eaton's scientific study created what the author describes as science's "essential complicity" with Clinton's goal of internal improvement. Therefore, the advancement of Eaton's science developed as a result of Clinton's political ambition (118). Readers of *New York History* will find themselves refreshed by the new perspective on "Clinton's Ditch." Rather than reiterate the canal's economic significance, or its implications for the settlement of the Great Lakes region, Spanagel demonstrates the ways in which civic action and science changed as a result of the Erie Canal's construction. Following the opening of the canal, Clinton's model for internal improvements became a sought out standard by political leaders throughout the Eastern United States. Clinton became a prominent advocate and consultant for canal projects from Ohio to Connecticut. As historians have long suggested, America suffered from canal fever in the 1820s and 1830s. Spanagel situates Clinton at the forefront of the movement, helping to spread his infectious enthusiasm (131).

Spanagel effectively conveys the larger implications of Eaton's science as it developed during his time with the Erie Canal project. Prior to glaciation theory, the prevailing thought on the history of the earth fit into either flood or diluvial theory. This theory, culturally informed by a Christian timeline, explained the earth's age in reference to Noah's flood. Eaton, inspired by his British counterparts, struggled to fit diluvial geologic theory onto the New York landscape. As a result, Eaton developed an entirely new nomenclature for minerals he found to be unique to New York State. Modern critics dismiss Eaton's false assumptions regarding American geology. However, Spanagel argues that Eaton provided the intellectual foundation for later geologists to break away from European theories. In an attempt to discover a distinctive North American system of geology, Eaton's model encouraged American geologists to organize and create their own system of geologic study that downplayed the significance of Europe's place as a global authority in geology. Though Eaton's theories proved ultimately incorrect, Spanagel correctly identifies his desire to prove a distinctive American system of geologic theory as a cultural current that was

pervasive throughout much of American society, attempting to understand what it meant to be "American."

The final third of the book offers an interesting departure from the preceding pages. Readers will find three chapters where Spanagel makes larger claims about the connection of geology in literature, landscape art, and religion in the early decades of the nineteenth century. Given the title of the book, one may be surprised by Spanagel's shift in historical inquiry. However, the reader will be rewarded to find an examination of an era where art, religion, and geology influenced one another. Although Spanagel makes somewhat loose connections between Eaton and Washington Irving, his interpretation of the geologist's influence in the writings of William Cullen Bryant is compelling. As a student of Eaton's, Bryant experienced the effects of the instructor's distinctive teaching style that featured experiential learning. Bryant's introduction to the concept of "deep time" carried creative implications for his writings. Spanagel suggests, "this geological perspective may have helped the young poet to formulate the sophisticated philosophical outlook in his contemplation of eternity" (175). Bryant's poems such as "The Ages" (1821) and "The Prairie" (1832) harness a language that fused landscape, history, and mortality in a distinctive style of American writing. As we see with Spanagel's examination of Bryant, the author contends that Eaton's significance should be considered beyond his geologic theory, highlighting instead the ways in which Eaton's approach to the American landscape worked itself into broader American culture.

Spanagel's work is an important contribution to the study of the history of geology and its place in the development of American science and culture in the early nineteenth century. Through an examination of Amos Eaton and DeWitt Clinton, Spanagel restores Eaton's place in the development of the Erie Canal, the origins of American schools of science, and the intersections of political ambition and scientific study in early New York State history. Although the final third of the book at times feels disconnected from the previous six chapters, its addition to the overall work allows for a wider exploration of geology and the American mind. Future historians will benefit from many of the questions Spanagel poses regarding the role science played in the development of American literature, painting, and its effects on religion.