

Book Reviews

Harold J. Cook. *Matters of Exchange; Commerce, Medicine, and Science in the Dutch Golden Age*. London: Yale University Press, 2007. Pp. 562. Paper \$25.00.

Harold J. Cook, a Professor of History at Brown University, examines the Dutch Scientific Revolution and the emergence of global commerce during the seventeenth century. He argues that Dutch society modernized by using science in nature, medicine, and commerce. Cook claims that global commerce brought prosperity to the Netherlands, creating a large middle class who in turn learned and promoted the new science. Cook contends that "the passion for goods" or materialism elevated science to new heights and brought prosperity to Dutch society. Traditionally, historians have supported Weber's theory that the Protestant work ethic and theology gave rise to the Scientific Revolution. Cook, on the other hand, argues that economic exchange was both the cause and the agent of modernism in the Netherlands.

The first three chapters of the book explain the cultural background of the Netherlands' market, society, and religion. In it, the author explains the inventions of paper money, credit, and the modern use of time during the Dutch Scientific Revolution. The Dutch created paper money replacing bartering or metal coins. They also changed the old medieval use of time for the clock. Moreover, they invented credit in commercial transactions. Cook claimed that the Dutch commercial world turned their society to scientific secularism. Subsequent chapters present case studies, that explain how the VOC (The Dutch East India Company) colonized different areas of Asia and the role of famous scientists like Jacobus Bontius and Voltaire.

As the Netherlands prospered, the new middle class valued material objects and matters of fact. Matters of fact were objective information forged through experience (empirical knowledge). The combination of exchanging goods for matters of fact transformed the Dutch world, bringing methods of scientific knowledge into commerce. Cook explains that commerce and scientific knowledge created organized systems. One of them was the concept of commensurability or a measurement between two different variables. For example, the Amsterdam Exchange bartered goods for goods. However, once inventory accumulated, the Amsterdam Exchange transformed the trade of goods into one universal value, paper money. Instead of exchanging goods, the Amsterdam Exchange commensured paper money with goods, creating a new universalized method of exchange called the monetary system.

According to Cook, the seventeenth-century Dutch Republic was limited in natural resources. The Netherlands opted to colonize other parts of the world, embracing global commerce for the survival of the motherland. The Dutch became unique visionaries in accepting global commerce as a source of economic, scientific, and socio-cultural development. Dutch commerce produced a remarkably rich and diverse culture at home as well

as in their colonies in Asia. In addition to commerce, the political system encouraged the development of overseas colonization and scientific development through the VOC. The VOC organized colonization with its quasi-governmental power to wage war, imprison and execute convicts, coin money, and negotiate treaties. It was the first global corporation in charge of organizing Dutch colonization worldwide.

Cook also discusses objective knowledge. While metaphysical knowledge (religion) brought chaos to European countries during the Reformation, he claims that naturalists escaped the constraints of religious doctrines through the search of scientific knowledge. As Protestants and Catholics warred against each other for political and religious supremacy in Europe, scientists collaborated with each other without divisions.

The book is a valuable addition to the historiography of the European Scientific Revolution. It is a landmark at the forefront of Dutch colonial history. Cook used Dutch archives as primary sources, not available in English, and he listed fifty pages of Dutch secondary sources. He spent twenty years traveling back and forth to the Netherlands to write this book while mastering the Dutch language. *Matters of Exchange* appeals to readers interested in European cultural history and of the Dutch scientific revolution.

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