"Qualitates vegetabilium," "vires medicamentorum" und "oeconomicus usus plantarum" bei Carl von Linné (1707-1778): Erste Versuche einer zielgerichteten Forschung nach Arznei- und Nutzpflanzen auf wissenschaftlicher Grundlage (review)

Staffan Müller-Wille

Bulletin of the History of Medicine, Volume 76, Number 1, Spring 2002, pp. 138-139 (Review)

Published by Johns Hopkins University Press
DOI: *https://doi.org/10.1353/bhm.2002.0032*

his medical outlook, which Hunter notes "was integral to [his] vision for natural philosophy" (p. 157). Many of Boyle's private views about medicine were repressed in what he allowed to be printed, but his public hints and private expressions all point to his keen support for medical reformers, and even empirics, in a period of intense controversy. Indeed, he may have been even more radically opposed to the medical establishment than Hunter suggests here. The fourth of the chapters details Boyle's interest in the collecting and dissemination of useful medical recipes. He dispensed medicines to friends, relatives, and dependents, and worked for more than fifteen years on a book of simple medicines for the public that was not published until after his death (as *Medicinal Experiments*).

Boyle's private and public medical activities underline Hunter's major contention that he had a terribly convoluted and fearful conscience that caused him both to reach bold conclusions and simultaneously to seek the avoidance of confrontation. It makes him both admirable and pitiful. If Boyle had been bolder in public, it might have been easier for earlier generations of scholars to recognize the central importance of medicine in his naturalist agenda. But with new work on Boyle now appearing regularly, much of it stimulated by Hunter's work and interpretation, it should be clear how fundamentally the new philosophy was bound up with discussions about life, disease, and the soul.

Harold J. Cook
Wellcome Trust Centre for the History of Medicine at
University College London

Gerlinde Hövel. *"Qualitates vegetabilium," "vires medicamentorum" und "oeconomicus usus plantarum" bei Carl von Linné (1707–1778): Erste Versuche einer zielgerichteten Forschung nach Arznei- und Nutzpflanzen auf wissenschaftlicher Grundlage.* Braunschweiger Veröffentlichungen zur Geschichte der Pharmazie und der Naturwissenschaften, no. 42. Stuttgart: Deutscher Apotheker Verlag, 1999. ix + 452 pp. Ill. DM 48.00; öS 350.00; Sw. Fr. 48.00 (paperbound, 3-7692-2500-7).

"Plantae quaecunque genere conveniunt, etiam viribus propius accedunt" (Whatever plants agree generically also approach each other in their powers). Even this apparently self-evident principle of analogical reasoning guiding pharmacology in its search for new drugs has a historical origin: it was not formulated in a prominent and influential place before 1735, the year in which Carolus Linnaeus, then a twenty-eight-year-old student of medicine from Sweden, published his *Systema naturae* in Leyden.

With her book, Gerlinde Hövel has closed an important research lacuna, both in respect to the history of pharmacology, medicine, and botany and in respect to Linnaean scholarship. Linnaeus has mainly been perceived by historians of science as the "system-maker" who tried to uncover the hidden order behind the

diversity of life (e.g., James Larson, *Reason and Experience: The Representation of Natural Order in the Work of Linnaeus,* 1971). His chemical, pharmocological, and medical research has not been the subject of any book-length study since some publications resulting from the Linnaean bicentennial in 1907 (e.g., Oskar Hjelt, *Carl von Linné sasom läkare och medicinsk författare,* 1907). And besides the recent publications of Anders Liedmann (*Den synliga handen,* 1986) and Lisbet Koerner[1]—both of whom Hövel unfortunately misses—there have been no studies of Linnaeus's multifarious engagement in projects of medical, economic, and political reform.

Hövel's aim here is to "determine and study Linnaeus's contribution to the research into the efficacy of plants" (p. 3). In her introduction, she sets out the political context of this research, with "attempts of governmental powers at countering population-diminishing conditions, mainly famines and epidemic diseaeses, according to the mercantilist principle that wealth equals population" (p. 2) as its main motive force. The ensuing three parts of the book successively scrutinize (1) the "experiences and interests" structuring Linnaeus's search for economically or medically useful plants; (2) the concepts of "qualitas," "vis," and "usus" he applied in this search; and (3) the heuristic principle of a "correspondence between plant affinity and efficacy" that guided the search. By exploring and carefully analyzing a broad selection of sources in all three parts—even drawing upon such obscure Linnaean works as the *Clavis medicina duplex* (1766)—Hövel is able to show two things: (1) how closely Linnaeus's research was tied to the economical motive of national autarky to be reached by import substitution or the use of surrogates for scarce resources (both motivating his principle of analogical reasoning); and (2) how flexible he was in the application of scientific methods, embracing various strains of contemporary medicine, chemistry, and biology without forcing them into one coherent "system." Thus he accepted qualitative (by odor and taste), chemical, and taxonomic approaches as coexistent and equally valid, though tentative, approaches to testing plants for their virtues as medicines or foodstuffs.

Besides these two important results, Hövel's book is valuable for the wealth of material it prepares for the reader. Mastering both Swedish and Latin, Hövel gives summaries for every possible Linnaean source on plants and their uses, including such seemingly trifling writings as his popular essays on tea, coffee, tobacco, beer, and brandy. Furthermore, she carefully retraces contemporary debates around Linnaeus's principle of analogy, and its few predecessors at the end of the seventeenth century. The contents of many sources are presented in a great number of useful tables. Further, indices of personal names as well as of Latin, German, and Swedish plant names add to the usefulness of this volume as a source book for early-eighteenth-century pharmacology.

Staffan Müller-Wille
Max-Planck-Institute for the History of Science, Berlin

1. Lisbet Koerner, "Linnaeus's Floral Transplants," *Representations,* 1994, *47:* 144–69.