Materia Medica and Herbal Highlights from Special Collections

Among the holdings of the Galter Health Sciences Library Special Collections are many rare and curious volumes on the subject of *materia medica*.

The texts describe the physical appearance and the virtues of the *materia*. Most are complimented with woodcuts or engravings illustrating the plants, minerals, and animal products which were once used as curatives in the practice of medicine.

The first printed herbals which appeared in the fifteenth century relied on ancient authors for text.

The accessibility and standardization of these works perpetuated the influence of venerable authors such as Theophrastus (371–287 BCE) and Dioscorides (circa 40-90 CE).

2000 BCE "Here, eat this root." 1000 CE "That root is heathen, say a prayer." 1850 CE "That prayer is superstition, drink this potion." 1940 CE "That potion is snake oil, swallow this pill." 1985 CE "That pill is ineffective, take this antibiotic." 2000 CE "That antibiotic is artificial, here, take this root." — Anonymous Apuleius Barbarus (4th century CE)

The herbal of Pseudo-Apuleius from the ninth-century manuscript in the abbey of Monte Cassino (Codex casinensis 97) together with the first printed edition of Joh. Phil. de Lignamine (Editio princeps Romae 1481) both in facsimile, described and annotated by F. W. T. Hunger. Leyden, Brill, 1935.

The facsimiles of the manuscript and of the first printed edition appear on opposite pages.

The herbal depicts 131 plants with instructions for their use in medicines. This was the first printed work on plants having numerous illustrations and is generally termed the first printed illustrated herbal.

The history of the work has been lost with the passage of time, leading to endless speculation on the identity of the author.

This publication also inspired similar texts such as *Hortus sanitatis*...



Hortus sanitatis, germanice. Strassburg, Renatus Beck, 1515.

Originally published in Latin in 1485, Hortus sanitatis,

in its many editions and translations, was the most popular and influential herbal of its time, serving as an encyclopedia of the plant, animal and mineral kingdoms and the medical applications of their products.

The contents includes a short treatise on urine analysis as depicted in the wood-cut image.



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The Library's German language edition is filled with

quaint, hand-colored woodcuts depicting life in the late Middle Ages and early Renaissance.

This text was printed by Renatus [Reinhard] Beck in Strasbourg (Alsace).



Printer's Mark

Theophrastus (c. 371 – c. 287 BCE)

De Historia Plantarum... Amstelsdami : Apud Henricum Laurentium, 1644.

Successor to the great philosopher Aristotle, Theophrastus compiled this survey of plants which is among his most important works and is the first systemization of plant life. Usually translated as *Enquiry into Plants*, it was written between the 3rd and the 2nd century BCE.

The *Enquiry* was originally ten



books, of which nine survive. The work is arranged into a system whereby plants are classified according to their modes of generation, their localities, their sizes, and according to their practical uses such as foods, juices, herbs, etc. The first book deals with the parts of plants; the second book with the reproduction of plants and the times and manner of sowing; the third, fourth, and fifth books are devoted to trees, their types, their locations, and their practical applications; the sixth book deals with shrubs and spiny plants; the seventh book deals with herbs; the eighth book deals with plants that produce edible seeds; and the ninth book deals with plants that produce useful juices, gums, resins, etc.

Dioscorides Pedanius (circa 40-90 CE)

De medica materia... Coloniae, Opera et impensa Joannis Soteris, 1529.

Dioscorides was a Greek physician and botanist; he practiced medicine in Rome at the time of Nero and was a surgeon with the army of the emperor. He had the opportunity to travel extensively, seeking medicinal substances (plants and minerals) from all over the Roman and Greek world. His text is the premiere historical source of information about the medicines used by the Greeks, Romans, and other cultures of antiquity. It formed the core of the European pharmacopeia through the 19th century.

This is the first Greek-Latin parallel edition; the Greek text is based on the 1518 Aldine edition. The Latin translation and commentary was prepared by Marcellus Vergilius (1464-1521) and it is known for its excellence.

The text is an encyclopedia of *materia medica* in five books which embodied the results of Greek research in pharmacy and applied botany. More than 600 plants and plant ingredients, 90 minerals, and 35 animal products are described. The work is of importance also for the history of ancient chemistry, as it describes simple chemical preparations and mentions the earliest reaction of wet analysis.

Elizabeth Blackwell (1707-1758)

A curious herbal, containing five hundred cuts, of the most useful plants, which are now used in the practice of physick. Engraved on folio copper plates, after drawings, taken from the life by Elizabeth Blackwell. To which is added a short description of ye plants; and their common uses in physic. London : Printed for John Nourse at the Lamb without Temple Bar, 1739. (2 volumes)

Blackwell, a Scot, achieved fame as a botanical illustrator, as both artist and engraver for the plates of *A Curious Herbal*, published between 1737 and 1739. The book illustrated



Illustration on preliminary page granting Blackwell permission to publisher her work by the Royal College of Physicians, July 1727

many odd-looking and unknown plants from the New World, and was designed as a reference work on medicinal plants for the use of physicians and apothecaries.

Rembert Dodoens (1517-1585)

Stirpium historiae pemptades sex. Antverpiae : Ex officina Christophori Plantini, 1583.

Dodoens was a Flemish physician and botanist. His work, translates as *History of plants* organized in six large sections each composed of five chapters. His work is considered one of the foremost botanical works of the late 16th century.



He grouped plants according to their properties and common

similarities as opposed to an alphabetical order.

Through Henry Lyte's English translation, the text became a standard in England.

It was the basis of John Gerard's celebrated *Herball*. Dodoens served as physician to the Holy Roman emperor Maximilian II and his successor, Rudolph II. He joined the faculty of medicine at Leiden University in 1582.

John Gerard (1545-1612)

The herball or generall historie of plantes … Imprinted at London : By John Norton, 1597.

Gerard was a botanist and herbalist. He maintained a large herbal garden in London. His chief notability is as the author of a big – 1480 pages – and heavily illustrated Herball, or Generall Historie of Plantes. First published in 1597, it was the most widely circulated botany book in English in the 17th century. Except for the additions of a number of plants from his own garden and from North America, Gerard's Herbal is largely an English translation of Rembert Dodoens Herbal of 1554, itself also highly popular (in Dutch, Latin, French and other English translation). Gerard's Herball is profusely illustrated with high-quality drawings of plants, with the printer's woodcuts for the drawings largely coming from Dodoens' book and from other Continental European sources. After Gerard's death in 1633, his *Herbal* was corrected and expanded (to about 1700 pages), which strengthened the book's position in the 17th century.

John Gerard (1545-1612)

The herball or generall historie of plantes ...London : Printed by Adam Islip, Joice Norton and Richard Whitakers, 1633.

The botantical genus Gerardia is named in his honor.

Paul de Reneaulme (1560-1624)

Specimen historiae plantarum. Paris: Hadrianus Beys, 1611.

A beautifully illustrated prototype history of plants based on a selection of species cultivated at the Royal Garden in Paris, which Reneaulme described using a nomenclature of his own invention derived from Greek rather than Latin.

This is an important but neglected work with engravings that are of the highest quality, exquisitely sensitive and extremely personal in treatment.



A physician and native of Blois, Reneaulme was ahead of time in showing the necessity of plant classification, but unfortunately the book created no stir among his contemporaries.

William Woodville (1752-1805)

Medical botany containing systematic and general descriptions, with plates of all the medicinal plants, indigenous and exotic, comprehended in the catalogues of the materia medica, as published by the Royal Colleges of Physicians of London and Edinburgh accompanied with a circumstantial detail of their medicinal effects, and of the diseases in which they have been most successfully employed... London : Printed and sold for the author, by James Phillips...1790-1794 (3 volumes + supplement)

Woodville's medical career was distinguished by his contributions to the prevention of smallpox and his deep interest in botany. He was elected to the Linnean Society in 1791, and maintained a botanic garden within the grounds of the Smallpox Hospital.

The compendium has detailed descriptions of the physical appearance, location, and therapeutic use of 274 herbs believed to hold healing and other health promoting properties. Woodville provided genus and species wherever applicable, and each herb is illustrated by a copper engraved plate.

Samuel Stearns (1741-1809)

The American herbal, or materia medica : wherein the virtues of the mineral, vegetable, and animal productions of North and South America are laid open, so far as they are known; and their uses in the practice of physic and surgery exhibited. Comprehending an account of a large number of new medical discoveries and improvements, which are compiled from the best authorities ... Walpole [New Hampshire], printed by David Carlisle, for Thomas & Thomas, and the author, 1801.

Born in Bolton, Massachusetts in 1747, Stearns became a physician and astronomer, practicing his profession first in Worcester, Massachusetts, then in New York, and finally in Brattleborough, Vermont.

At the beginning of the nineteenth century, Stearns published the first herbal produced and printed in the United States, as opposed to those which were reprints of European works.

From the 17th to the 19th centuries, colonial housewives had to supervise or do their own growing and harvesting of herbs. Living in a wilderness separated from any near-by source of supply, they were forced to provide as liberally as they could for food and medicine during the coming year. The work also includes information on Native American medicines.

Jacob Bigelow (1787-1879)

American medical botany : being a collection of the native medicinal plants of the United States, containing their botanical history and chemical analysis, and properties and uses in medicine, diet and the arts, with coloured engravings... Boston : published by Cummings and Hilliard; [Cambridge] University Press, Hilliard and Metcalf, 1817-1821.

Bigelow's text is a milestone in the history of North American medicinal plant literature and an important landmark in the history of printing, as it is the first American book printed with color plates!

Bigelow_was a native of Massachusetts. He earned his medical degree from the University of Pennsylvania in



1810 and went on to practice medicine in Boston. Later he became a lecturer in botany at Harvard.