

Early Botany Illustrated



June 14 - September 10, 2004

*The Exhibit Gallery
Second Floor
Smathers Library
George A. Smathers Libraries
The University of Florida*

INTRODUCTION

The idea of an exhibit of some of our botanical books seemed to be perfect. The stacks are filled with such books as we have a fine collection of botanical books. That soon became the problem. Imagine that you are given entry to Aladdin's treasure cave with one small sack and told that you may take anything you desire. But, although you may fill the sack, you may not take anything else. You fill the sack and then immediately find another gem. What to do? Rummage through the sack and take something out. This was repeated many times as I sat on the floor in the stacks looking through our many beautiful books. What remains can only be a sampling. The grandeur of the whole treasure cave is only barely glimpsed.

The focus of the exhibit is illustration. There is just passing mention of the founder of taxonomy Carl Linnæus. Works by John Ray and John Evelyn of the 17th century are not shown. The eye is the target and the accompanying text is only complementary. The various techniques employed to create the images are explained to give some sense of the means used to create the different effects. The technology of a period has benefits and limitations. The methods used to illustrate botany books evolved as did printing and they have been applied in all printed visual representations of their time.

Likewise, the nature and appeal of botanical illustration has evolved. The herbals, which are the foundation of botanical illustration, were directed to scholars, primarily physicians, yet Mattioli's 1544 *Commentarii* is reputed to have sold nearly 40,000 copies in various editions and translations, surely a best seller acquired by nonspecialists. To go about 300 hundred years further, there were the wonderful Victorian illustrated books, which were surely purchased by those who had neither gardens nor greenhouses. It is the eye and the eye is entranced.

The exhibit is divided into six sections:

Herbals

Herbals are a form of *materia medica*, which examines the worlds of animal, vegetable, mineral for their therapeutic or poisonous effect. Herbals concentrate on the effects of plants and try to describe and illustrate them so that physicians may be able to identify them. The books have indexes to common names, Latin names, and also for the illnesses the plants would cure, such as, "For the swelling of the Goute" in Dodoens. The quality of the images can vary, which did make the gathering of plants somewhat risky for the patients.

Gardening

An offshoot of herbals, books on gardening encompassed more, most importantly propagation. Gardens began as simple kitchen gardens and orchards, then expanded to include the development of formal flower gardens and exotics. The concern was no longer solely medical. In John Parkinson's book on gardening, the pure pleasure and joy of growing plants simply because they produce beautiful flowers is luminously apparent. Parkinson's name comes up many times in the exhibit.

Botany of Places: The Americas

Along with other valuable commodities, plants and plant specimens were shipped back to Europe. Much of the work of identification of new plants and animals was specifically directed and people in America would be contracted to supply specimens. Beyond the purely scientific interest and the desire for exotics in gardens, the contribution of food plants, such as the potato and tomato, had a revolutionary culinary impact.

Individual Plants

As the study of plants became more scientific and the popularity of exotics in formal gardens increased, there was a demand for books related to specific plants. Many of these books were printed in a large format with an emphasis on ornamental plants and are at the height of color printing of their time.

Periodicals

Plants began to appear in periodicals of a scientific nature, like the *Philosophical transactions* of the Royal Society of London, which was first issued in 1666. All aspects of the sciences appeared in its pages, including botany. Over a century later, William Curtis founded a journal that was exclusively devoted to botany with equal measure given to scientific and aesthetic considerations.

Children's Literature

The most surprising thing about children's literature on botany is their complexity. Most read like a thinly disguised college textbook. Although the context is that of a children's book, the content is assuredly not. Rita Smith, curator of the Baldwin Library of Historical Children's Literature, assisted in the selection of the titles displayed.

In entries, a citation to the Hunt catalogue is given where appropriate. The full citation to the Hunt catalogue is given at the end of the exhibit catalogue along with other selected references. The Hunt catalogue is of works up through 1800.

Jeffrey A. Barr
Curator of Rare Books

Mattioli, Pietro Andrea, 1500-1577.

[Commentarii in libros sex Pedacii Dioscoridis ... de materia medica. French.]

Commentaires de M. Pierre André Matthiolo, medecin senois, svr les six livres de Ped. Dioscoride, Anazarbeen, de la matiere medecinale, reueuz & augmentés en plus de mille lieux par l'auteur mesme, & enrichis pour la troisieme fois, d'un grand nombre de pourtraits, de plantes, & animaux tirés au vif, plus qu'aux precedentes editions, avec certaines tables medecinales, tant des qualités & vertus des simples medicamens, que des remedes pour toutes maladies, qui peuuent auenir au corps humain, comme aussi des sentences, mots, & matieres traictees esdicts commentaires: davantage y a sur la fin, diuers pourtraits de fourneaux & alembics, pour distiller & tirer les eaux de toutes plantes, avec le moyen de les conseruer en leurs naïues odeurs mis en françois sur la derniere edition latine de l'auteur, par M. Iean des Moulins ...

Lyon: G. Roville, 1572.

[136], 819, [22] p. : ill. ; 37 c

Page 653 "Narcisse"



The *Commentarii* was first printed in Venice in 1544 and was followed by more than forty editions in several languages, this being a French edition from 1572. Following his father, he studied medicine and excelled in botanical studies. The commentaries are on a *materia medica* in Greek by Dioscorides of the 1st century A.D. and it also includes descriptions of all the plants known to Mattioli. The diplomat Ogier Ghiselin de Busbecq was instrumental in securing an early 6th century copy of the text *Codex chigianus* for the court in Vienna and also gave Mattioli manuscript copies of Dioscorides. Following the publication of the *Commentarii*, he was summoned to the court as physician to Archduke Ferdinand and then to Maxmilian II.

Cf. Hunt 59, 145

Woodcuts.

Dodoens, Rembert, 1517-1585.

A nievve herball, or, Historie of plantes: wherein is containyd the vvhole discourse and perfect description of all sortes of herbes and plantes, their diuers and sundry kindes, their straunge figures, fashions, and shapes: their names, natures, operations, and vertues, and that not onely of those whiche are here growyng in this our countrie of Englande, but of all others also of forrayne realmes, commonly used in physicke / first set forth in the Doutche or Almaine tongue, by that learned D. Rembert Dodoens, physition to the Emperour / and nowe first translated out of French into English, by Henry Lyte Esquyer.

At London: By me Gerard Dewes, dwelling in Pawles Church-yarde at the signe of the Swanne, 1578.

[24], 779, [25] p. : ill. ; 32 cm.

Page 221 "Orchis Serapias"

Rembert Dodoens was the first of a distinguished line of Belgian botanists. He was educated in medicine at various universities in Europe, eventually becoming a physician at the court of Emperor Maxmillian II, like Mattioli, and Maximillian's successor Rudolf II in Vienna. He published his *Cruydeboeck* (the title under which the herball was originally published) in 1554 and in 1557 it was published in a French translation *Histoire des plantes* by his friend and fellow botanist Charles de L'Escluse (Carolus Clusius.) This is the edition that Henry Lyte translated, but it was far more than a translation; a considerable amount of new material and corrections were added, some supplied by Dodoens himself. The *Herball* was printed in Antwerp by Hendrik van der Loe for the London bookseller Garrat D'Ewes.

Hunt 132

Woodcuts.

Woodcut - Relief

A woodcut is made on the plank side (with the grain) of a piece of wood. An image is drawn on the surface and all the wood not part of the image cut away with a sharp knife in the areas near the drawn lines and with a gouge where such delicacy was not required.



When inked, only the raised level surface of the image receives the ink. This type of printing is termed relief, just as the printing from type is relief. The great benefit of woodcuts is that the block can be adjusted to be the same height as the type and can therefore be put into the press with the set type and both can be printed at the same time.

Gerard, John, 1545-1612.

The herball, or, Generall historie of plantes / gathered by John Gerarde of London, master in chirurgerie.

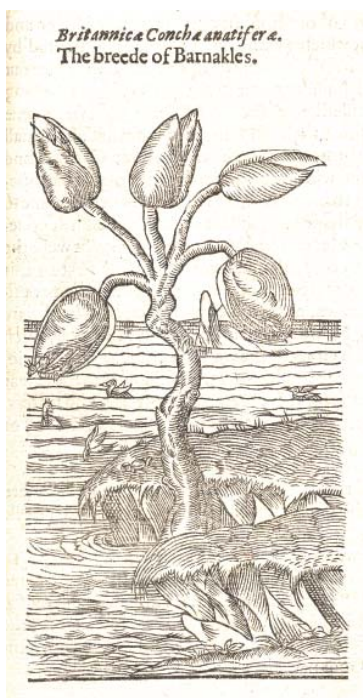
Imprinted at London: By Iohn Norton, 1597.

[20], 1392, [72] p.: ill.; 34 cm.

Page 781 “Potatoes of Virginia”

Page 1391 “The breede of Barnakles”

John Gerard was a member of the Barber-Surgeons’ Company, but his true interest lay in botany. He published a catalogue of his garden in 1596, the first complete catalogue ever done. The appearance of the *Herball* was controversial. The publisher John Norton had originally commissioned Dr. Robert Priest, a member of the College of Physicians, to translate Rembert Dodoens’ *Stirpium historiae pemptades sex*, first printed in 1583. Priest died before he finished the translation and the manuscript was acquired by Gerard, who finished it. He rearranged the



order of the plants from the method of Dodoens to that of Matthias de L’Obel, who was asked by the publisher to correct errors, of which there were many. The book is not a straight plagiary, for it is filled with Gerard’s own observations. The woodcuts were acquired by the English publisher John Norton from the German publisher of the *Neuw Kreuterbuch* by Iacobus Theodorus (Tabernaemontanus), printed in 1588-1591. There are sixteen original woodcuts, including the first illustration of the potato. There are some recountings of folklore in the text. For example, the Barnacle-Goose tree is described and Gerard makes the unfor-

tunate claim to have seen it. The *Herball* was reprinted in 1636, much expanded and corrected by Thomas Johnson.

Hunt 175

Woodcuts.

Parkinson, John, 1567-1650.

Theatrum botanicum: The theater of plants, or An herball of a large extent : containing therein a more ample and exact history and declaration of the physicall herbs and plants that are in other authours, encreased by the accesse of many hundreds of new, rare, and strange plants from all the parts of the world ...: shewing vvithall the many errors, differences, and oversights of sundry authors that have formerly written of them ... : distributed into sundry classes or tribes, for the more easie knowledge of the many herbes of one nature and property, with the chiefe notes of Dr. Lobel, Dr. Bonham, and others inserted therein / collected by the many yeares travaile, industry, and experience in this subject, by John Parkinson ...

London: Printed by Tho. Cotes, 1640.

[20], 1755 [i.e. 1745], [3] p.: ill. ; 37 cm.

Page 355 “Capsicum longum”

John Parkinson was appointed “Herbarist” to Charles I and was noted for the garden he cultivated in London. The first book he published, *Paradisi in sole paradisus terrestris* in 1629 was on gardening. (A later edition is included in the exhibit.) In the title, he refers to Matthias de L’Obel and Johann Bauhin, both noted botanists. Last in a line of herbalists before the beginnings of the scientific study of plants, Parkinson divided his subject into seventeen classes or tribes. The pepper is in the third tribe, “venomous, sleepey, and hurtful plants.”

“... the fierce vapours that arise from the huskes or cods, while one doth but open them ... will so pierce the senses by flying up into the head by the nostrills, that it will procure abundance of neesings, and draw downe such an abundance of thin rheume, that it is to be admired, forcing tears very plentifully ...”

Hunt 235

Woodcuts.



GARDENING

The expert gardener: or, A treatise containing certaine necessary, secret and ordinary knowledges in grafting and gardening: with divers proper new plots for the garden. Also sundry expert directions to know the time and season when to sow and replant all manner of seeds. With divers remedies to destroy snails, canker-wormes, moths and other vermine. Faithfully collected out of sundry Dutch and French authors.



London: Printed by William Hunt, 1654.
54 p.: ill.; 21 cm.

Page 34 [Tools]

This volume was originally published in 1594 as *The orchard and the garden* and reprinted as the *The expert gardener* in 1640 and 1654 as one of three titles included in *The country-mans recreation*. All the illustrations, except for the tools, are diagrams of possible formal garden layouts. Many of the garden books of this time were dominated by such layouts, some extremely elaborate. The tools are of interest as they are readily identifiable.

Cf. Hunt 170 note, 233, 262

Woodcuts.

Parkinson, John, 1567-1650.

Paradisi in sole paradivs terrestris, or, A choise garden of all sorts of rarest birth, time of flowring, names, and vertues to each plant, useful in physick, or admired for beauty: To which is annex a kitchin-garden furnished with all manner of herbs, roots, and fruits, for meat or sawce used with us. With the art of planting an orchard of all sorts of fruit-bearing trees and shrubs, shewing the nature of grafting, inoculating, and pruning of them. Together with the right ordering, planting and preserving of them, with their select vertues: all unmentioned in former herbals. Collected by John Parkinson.

The 2d impression much cor. and enl.

London: Printed by R.N. and are to be sold by R. Thrale, 1656.

[12], 612, [16] p.: ill.; 33 cm.

Frontispiece.

Parkinson's delight in gardens emerges clearly in these pages. Divided into three sections — flower garden, kitchen garden, and orchard — the book, when published in 1629, was the first on horticulture printed in England. The title is a play on the author's name; it translates as “terrestrial paradise of park in sun.” On the title page near the center in the background is the legendary Scythian lamb or lamb of Tartary, half plant, half animal. It was accepted



as a real creature from the 14th through the 17th centuries. The woodcut is signed Switzer with an A above. It is generally believed to be the work of Christoph Switzer who came to England in 1614 and was highly regarded for his woodcuts and engravings. The printer is undoubtedly Roger Norton.

Hunt 267

Woodcuts.

Volkamer, Johann Christoph, 1644-1720.

Nurnbergische Hesperides, oder, Grundliche Beschreibung der edlen Citronat- Citronen- und Pomerantzen-Fruchte: wie solche in selbiger und benachbarten Gegend, recht mogen eingesetzt, gewartet, erhalten und fortgebracht werden, Samt einer ausfuhrlichen Erzehlung der meisten Sorten, welche theils zu Nurnberg wurcklich gewachsen, theils von verschiedenen fremden Orten dahin gebracht worden, auf das accurateste in Kupffer gestochen, in vier Theile eingetheilet und mit nutzlichen Anmerckungen erklaret: Beneben der Flora, oder curiosen Vorstellung verschiedener raren Blumen samt einer Zugabe etlicher anderer Gewachse, und ausfuhrlichem Bericht, wie ein richtig zutreffende Sonnen-Uhr im Gartenfeld von Bux anzulegen, und die Garten nach der Perspectiv leichtlich aufzureissen: Wie auch einem Bericht von denen in des Authoris Garten stehenden Columnis miliaribus ... / herausgegeben von J.C.V.

Nurnberg : Zu finden bey Johann Andrea Endters seel. Sohn & Erben, 1708-1714.

2 v. ([8], 255, [13] p., [115] leaves of plates (some double, some folded); [20], 239, [2] leaves, [132] leaves of plates (some double, some folded)): ill., maps; 36 cm.

Page 166 “Limon dolce”

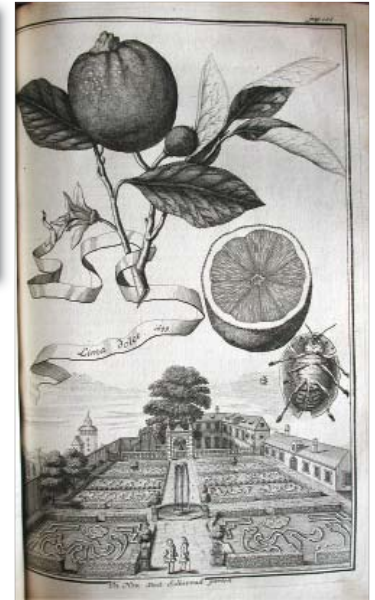
This work could as well be part of the Botany of Places. Volkamer was a wealthy Nuremberg merchant who was especially devoted to the cultivation of citrus. Linnaeus refers to the first part and even named a genus *Volkameria*, since merged with *Clerodendum*. He hired a number of talented engravers and artists to illustrate the book, which is stunning with its giant beribboned fruit floating in the sky over towns, estates, and gardens. Often, the manor would be identified, as here, “In Hrn Doct Silberrad garten.” The gardens in the volume depict fine examples of the formal style with precise geometrical layouts popular at this time.

Hunt 420

Engravings.

Line Engraving - Intaglio

A line engraving is made by incising lines on a plate, usually copper, with a burin, a tool with a sharp V shaped tip, looking something like an awl. The lines can vary in width depending on how deeply the cut is made. The sheet, or plate as it is termed, is then



rubbed with ink and then wiped clean, leaving the ink in the cut lines and the surface free of ink. The plates are printed on an engraving press where the plate and paper are put under great pressure by rollers. The ink in the incised lines is picked up by the paper from the plate. The process for all prints that are produced from pulling ink from the recesses, not the surfaces, is called intaglio.

BOTANY OF PLACES: THE AMERICAS

Josselyn, John, fl. 1630-1675.

New-Englands rarities discovered: in birds, beasts, fishes, serpents, and plants of that country.: Together with the physical and chyrurgical remedies wherewith the natives constantly use to cure their distempers, wounds, and sores.: Also a perfect description of an Indian squa, [sic] in all her bravery; with a poem not improperly conferr'd upon her.: Lastly a chronological table of the most remarkable passages in that country amongst the English.: Illustrated with cuts. / By John Josselyn, gent.



London.; Printed for G. Widdowes at the Green Dragon in St. Pauls Church-Yard., 1672.

[6], 114, [2] p., [1] folded leaf of plates: ill.; 15 cm.

Following page 54 “Hollow Leav'd Lavender”

Josselyn traveled to New England twice, 1638-1639 and 1663-1671 and this is the first book he wrote on his experiences, the second

being largely an expansion of the first. He was most familiar with Maine, where he visited his brother Henry, who later became deputy governor of Maine and New Hampshire. Josselyn recorded his observations of the flora and fauna with great accuracy, including the medical use made of plants; one third of the text is comprised of lists of the plants and animals he encountered. This is one of the earliest books on the natural history of New England.

Hunt 322

Woodcut

Ellis, John, 1710?-1776.

Directions for bringing over seeds and plants, from the East Indies and other distant countries, in a state of vegetation: together with a catalogue of such foreign plants as are worthy of being encouraged in our American colonies, for the purposes of medicine, agriculture, and commerce. To which is added, the figure and botanical description of a new sensitive plant, called *Dionaea muscipula*: or, Venus's fly-trap. By John Ellis, F. R. S.

London, Printed and sold by L. Davis, 1770.

[2], 41 p.: ill., 1 col.; 25 cm.

Frontispiece

Plate facing page [35]



John Ellis was called a “bright star of natural history” by Linnaeus. In 1754, he became a fellow of the Royal Society and proceeded to produce many innovative works in natural history. In 1764, he was appointed agent for Florida in 1764 and also for Dominica in 1770. He was greatly concerned with shipping plants and seeds back to England, being especially

concerned with shipping over longer distances. He decried the poor survival rate and proposed various methods of packing and crating. This was a matter of no small concern to Great Britain, as witnessed by the expedition of Captain Bligh and the *Bounty* to Tahiti in 1787 for the sole purpose of gathering breadfruit to introduce into the West Indies. Almost as an afterthought, Ellis provides a description of the Venus’s flytrap in this small book.

Hunt 606

Engraving and hand-colored engraving.



Hand-colored Line Engraving - Intaglio

The engraving is done in the usual manner, then color is added by hand. Hand-coloring refers to any print that is then colored by hand, usually with water-color. The term distinguishes the process from color added by mechanical means.

Catesby, Mark, 1683-1749.

The natural history of Carolina, Florida, and the Bahama Islands: containing the figures of birds, beasts, fishes, serpents, insects, and plants: particularly, those not hitherto described, or incorrectly figured by former authors, with their descriptions in English and French. To which is prefixed, a new and correct map of the countries; with observations on their natural state, inhabitants, and productions. / By the late Mark Catesby ... Revised by Mr. Edwards ... ; To the whole is now added a Linnaean index of the animals and plants. = Histoire naturelle de la Caroline, de la Floride, et des isles de Bahama: : contenant les desseins des oiseaux, des quadrupedes, des poissons, des serpens, des insectes, & des plantes, qui se trouvent dans ces pays-la en particulier, de ceux qui n'ont point ete decrits jusqu'a present par les auteurs, ou peu exactement dessine. Avec leurs descriptions en francois & en anglois. On trouve au commencement une carte de ces pays, avec des remarques sur leur etat naturel, leurs habitans, & leurs productions. / Par feu Monsieur Marc Catesby ... reveue par Monsieur Edwards ... On y a adjoute uaeusne table selon le systeme de Linnaeus.

[3rd ed.]

London.: Printed for Benjamin White, at Horace’s Head, in Fleetstreet., MDCCLXXI. [1771]

2 v.: col. ill., col. map; 56 cm. (fol.)

Plate 106 “Cacao Arbor”

The *Natural history* is the most famous book of American flora and fauna. It is a foundational and original work on American species. The plates vary from well designed and accurate to somewhat clumsy, where it is difficult to identify the subject. Overall, it is a masterpiece and a delight to leaf through. The first edition was published in parts, 1731-1743, with an appendix published in 1747. A second revised edition was issued in 1754 and the third edition was issued in 1771, which also includes a list of Linnaean names. The date, however, is misleading. This copy has two watermarks and countermarks, translucent images left in the paper caused by wire designs. These are readily visible when the paper is held to the light. One is I Taylor with a Strasburg lily used in the letterpress leaves. John Taylor was not associated with a papermill until 1786 and this form of the watermark is not recorded until the mid 1790s. More startling, the other watermark is J Whatman 1794. It is known that there are issues of the 1771 edition far after that date based on evidence of the paper, but this indicates a printing of at least 23 years later.

Hunt 486

Hand-colored etchings.

Hand-colored Etching - Intaglio

In etching, the surface of a plate is covered with a wax coating that is impervious to acid. In all types of prints in which acid is used the resistant coating is termed the ground. In an etching, the illustration is made with an etching needle, which cuts through the ground and exposes the surface beneath. The plate is put in an acid bath and the acid works away at the exposed surface of the plate. The process can produce different effects if the plate is removed from the bath and certain exposed areas are treated with a ground, a procedure termed stopping, and the plate returned to the bath, more deeply etching the still exposed areas. The lines of an etching look different than those of an engraving. The sides of the lines look eroded and irregular, while those of



an engraving are smooth. The ends of the lines in an etching are blunt, unlike the sharpness of an engraving, unless the etching was touched up with a burin.

Byam, Lydia.

A collection of exotics from the Island of Antigua / by a lady.
[London, White, 1799]

[5] leaves, [12] leaves of plates : col. ill. ; 47 cm.

Plate 12 "Coffea Ociidentalis or Coffee Tree"

This is an extremely rare botanical work on the Americas, with less than ten copies known to exist. The attribution of the work to Lydia Byam comes from a letter laid-in the Hunt Botanical Library copy identifying her as the older sister of William Gunthorpe, governor of Antigua, which also has the initials "LB": handwritten at the bottom of the dedication. Two other copies are bound with *A collection of fruits from the West Indies, drawn and colored from nature* in which the dedication is signed "Lydia Byam." The imprint comes from a review in the *Monthly review*, n. s., v. 30, p. 333, November, 1799.

This may be faulty as the *Collection of fruits*, printed in a similar manner, does have an imprint being the Oriental Press of Wilson & Co. The dedicatée, Viscountess Galway, was Jane Westenra Monckton. A copy offered for sale by H.P. Kraus in 1952 has Frances Jane Monckton written on an endpaper and the Hunt copy has Elizabeth Mary Monckton. This copy has Frances Jane Monckton. The Kraus description of the binding and the signature indicate it could possibly be the Kraus copy, but it was acquired in 1955 with no indication of provenance.



Hunt 749

Hand-colored etchings. Some plates also have aquatinting.

Bigelow, Jacob, 1786-1879.

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 colored engravings. By Jacob Bigelow, M. D. Rumford professor and lecturer on materia medica and botany in Harvard University ...

Boston: Published by Cummings and Hilliard, at the Boston Bookstore, no. 1, Cornhill. [Cambridge] University Press Hilliard and Metcalf. 1817-20.

3 v., LX leaves of plates: col. ill; 27 cm.

Plate XXXI "Lirodendron tulipifera Tulip tree"

Bigelow received his A.B. from Harvard in 1806 and then attended medical lectures under Dr. John Gorham. He later went to the University of Pennsylvania, earning his M.D. in 1810 and studied botany under Benjamin Smith Barton. In 1811, he returned to Boston and began a medical practice with Dr. James Jackson. Beginning in 1812, Bigelow lectured on botany at Harvard with W. D. Peck and compiled the *Florula Bostoniensis*, which was published in 1814. From 1817-1820 he published *American medical botany*, for which he drew many of the plates.

A thousand copies of the first edition were issued. This is one of the two first color plate books printed in America, the other being William P. C. Barton's *Vegetable materia medica of the United States*, also printed in 1817. Originally, Bigelow intended to publish

the work with hand-colored engravings, but it soon became obvious that this method was too costly in both time and money. He developed a special method of making the prints that is difficult to positively identify. It looks most like a dust-ground aquatint, yet it has been suggested that he etched on stone. Details were added by hand.

Dust-ground aquatint on stone(?) with hand colored details.

Hand-colored Dust-ground Aquatint - Intaglio

There are two types of aquatints, spirit and dust-ground. A dust-ground aquatint is made from a plate that is sprinkled with particles of ground. The plate is heated and the ground melts. Depending on the size of the particles and where they are placed on the plate, a great variety of effects can be achieved. Lines were often drawn on the plate with an etching needle to delineate outlines, as in etching.



When magnified, prints made from this process look like little islands of white in a sea of ink. The effect is very tonal and was first used to imitate watercolor painting.



INDIVIDUAL PLANTS



Chandler, Alfred, 1804-1896.

Illustrations and descriptions of the plants which compose the natural order Camellieae and of the varieties of *Camellia japonica*, cultivated in the gardens of Great Britain / the drawings by Alfred Chandler ; the descriptions by William Beattie Booth. [Vol. 1]

London: J. and A. Arch, 1831.

xii, 48 p., 40 leaves of plates: col. ill.; 39 cm.

Plate 4 "Camellia reticulata"

No more published.

William Beattie Booth was recognized as a leading expert on camellias, presenting a paper on the subject in two sessions of the Horticultural Society in London in 1829.



Although fellowship in the Society largely consisted of the landed gentry, esteemed gardeners on the estate were often granted the status of corresponding members. Booth is listed in the published papers as "Garden Clerk." Alfred Chandler was a well-known nurseryman in Vauxhall.

Hand-colored lithographs. Note the glossy effect on the leaves from a material overlaying the watercoloring.

Elwes, Henry John, 1846-1922.

A monograph of the genus *Lilium* / by Henry John Elwes. Illustrated by W.H. Fitch.

[London]: Printed by Taylor and Francis, 1877-80.

7 pts. in 1 v. (xv, [83] p.), 48 leaves of plates: col. ill.; 57 cm.

Plate 20/1 "Lilium elegans, var. incomparabile"

Walter Hood Fitch was the most prolific and outstanding botanical artist of the 19th century, publishing nearly a thousand images. When William Hooker was appointed director of the Royal Gardens at Kew in 1841, he brought Fitch with him from Glasgow, where he had employed him in his work as chair of botany. Fitch started publishing in the *Botanical magazine* in 1834, became its sole artist soon after, and remained so until 1877. In the *Kew bulletin* of 1915, W. B. Hemsley describes Fitch at work on the *Lilium*, "without hesitation, and with a rapidity and dexterity that was simply marvelous."

Hand-colored lithographs.



Sander, F. (Frederick), 1847-1920.

Reichenbachia: Orchids illustrated and described / by F. Sander, with the assistance of scientific authority ...

London: H. Sotheran & Co. ... ; St. Albans [Eng.]: F. Sander & Co. Orchid growers & importers; New York: I. Forstermann ... , 1888-1894.

2 v., 96 leaves of plates: col. ill.; 69 cm.

Volume 1, plate 21 "1. *Oncidium Jonesianum* 2. *Oncidium Jonesianum phaeanthum*"

A 2d series was issued, 1892-94.

The series was named after Heinrich Gustav Reichenbach, an eminent botanist and specialist in orchids. Sanders was the founder of a large nursery firm and determined to publish a book on orchids from all over the world. He employed about 20 collectors to gather specimens. For the illustrations, he chose Henry Moon, who firmly believed that flowers should be portrayed as they are and not altered to an ideal image.

Chromolithograph.

Chromolithograph - Planographic

In chromolithography, a number of stones would be prepared, each bearing a different color ink. The print would be carefully placed in the same position, or registered, on the stone so the ink would go where intended.



Hand-colored Lithograph - Planographic

Lithography was invented by Alois Senefelder in Germany in 1798. An illustration or text is drawn with a grease pen or chalk on the surface of a specially prepared stone. The stone is then dampened and ink applied. The water repels the ink while adhering to the greasy areas. The print is made on a press somewhat similar to the presses for intaglio printing. Lithographs can be done in a variety of ways, but this example was done in the chalk style. The surface of the stone was roughened and a type of chalk or crayon and a pen was used. The bits of chalk stuck to the hilltops of the stone, not the valleys, and produce an irregular dotted pattern when printed. The degree of darkness is controlled by how hard the chalk is applied to the stone. Any method of printing from a flat surface is termed planographic. This example was hand-colored after printing.

PERIODICALS

The Botanical magazine, or, Flower-garden displayed / by William Curtis.

[London: Printed for W. Curtis by S. Couchman]
Vol. 1 [(1787)]-v. 14 (1800).

Volume 1, plate 1 “Iris Persica”

The *Botanical magazine* was started by William Curtis for the express purpose of illustrating and describing exotic plants found in English gardens. His first publication *Flora Londinensis* received praise for its large carefully reproduced illustrations of plants that grew within ten miles of London. However, its expense could not be supported. Curtis then turned to a smaller size and concentrated on the colorful. His magazine was issued in parts starting in 1787 and under different names and publishers and is still being published today. Note the reference to John Parkinson's *Paradisi in sole paradisy terrestri* at the end of the description.



Hunt 689

The hand-colored engraving is the first part issued.

Nuttall, Thomas, 1786-1859.

“Description of *Collinsia*, a new genus of plants”

Volume 1 (1817), page 189-192 (Plate IX “*Collinsia*”) of:
Journal of the Academy of Natural Sciences of Philadelphia.

The Academy was interested in all varieties of the natural sciences, so naturally it is a good place to search for botanical illustrations. Thomas Nuttall was a British botanist and ornithologist who came to the United States in 1805 and returned to England in 1842. During his time in America, he traveled extensively, published numerous works, primarily on botany, and was the curator of the gardens at Harvard University from 1825 to 1834. This particular article describes a plant he first collected, then lost, near Lake Erie on an expedition in the spring of 1810. In the spring of 1816, he returned to the region and found another specimen near the Ohio River.

The illustration is a stipple engraving colored a la poupée drawn by Charles Alexandre Lesueur. He was a naturalist who was the expedition artist on a voyage of discovery in the seas about Australia, came to Philadelphia in 1816, and soon became the curator of the Academy of Natural Science, moved to Indiana 1825-1834, returned to France in 1835, and became curator of the museum at Le Havre, 1845-1846.

Not all issues of this engraving are colored. The Rare Book Collection has another copy from the personal library of the naturalist Louis Agassiz that is printed in plain black ink.

Stipple engraving printed in color.

Stipple-engraving à la Poupée - Intaglio

Stipple engraving uses the burin or a special tool like a punch with irregular teeth on one end, a mattoir. Small bits of the metal plate could be flicked off the surface with the burin or a pattern of dots with the mattoir. Like an engraving, the plate would be covered with ink and the excess on the surface wiped off. This method produces a tonal quality. In this example, each color has been applied to the plate separately with a dauber known as a poupée. Each color would be applied to the plate at the same time, so the plate would go through the press only once.



Paxton's magazine of botany, and register of flowering plants.

London : Orr and Smith, 1834-1849.

v. 1-16; 1834-1849.

Volume 1, pages 54-63 "Minulos Smithii (Mrs. Smith's Monkey Flower)"

Like the *Botanical magazine* of William Curtis, John Paxton's periodical is devoted to the illustration in color of new and uncommon plants grown in British gardens. Although primarily horticultural in appeal, it contains the first descriptions of many new species. It is clearly designed to be a popular journal with appeal to the informed amateur.

Hand-colored spirit aquatint with added etching and engraving.

Hand-colored Spirit Aquatint - Intaglio



In spirit aquatint, the ground is dissolved in a medium such as alcohol and poured over the plate. As the alcohol evaporates, the ground forms distinctive patterns, most often like the cracking pattern of a dried up mud puddle. By using different grounds, the patterns can be altered in predictable ways, some less circular and more linear.



The orchid album, comprising coloured figures and descriptions of new, rare, and beautiful orchidaceous plants. / Conducted by Robert Warner, and Benjamin Samuel Williams; the botanical descriptions by Thomas Moore; the coloured figures by John Nugent Fitch.

London, B.S. Williams, 1882-97.

11 v., 528 plates: col. ill.; 32 cm.

Volume 1, plate 8 "Cypripedium stonei"

The *Album* was started in response to the great interest in England in growing orchids, the more exotic the better. It was designed to satisfy the expectations and needs of growers, both commercial and amateur.



"Being of Royal Quarto size, the pages of the Album are sufficiently large to enable to artist to produce ample and intelligible portraits of the plants ... Thus we trust we may be permitted to lay before our patrons an acceptable Annual Album of Floral Pictures, which will be, at once, welcomed both to the Drawing-room and the Library."

John Nugent Fitch both drew and lithographed the plates. He was the nephew of the celebrated Walter Hood Fitch and continued his uncle's work for the *Botanical magazine*.

Hand-colored lithographs.

CHILDREN'S LITERATURE

A botanical ladder for the young.

London: Religious Tract Society, [185-?]
176 p.: ill.; 15 cm.

Page 33 "Saffron crocus"

This volume uses a common technique of a conversation for teaching purposes. In this case, it is between Emma and her mother. These are not simple books and the instruction is quite detailed. One may feel like Emma after her mother lists twelve Linnaean orders, like Monogynia, Heptagynia, and Polygynia: "Oh, mamma, do not tell me any more hard names."

Wood-engravings.

Wood-engraving - Relief

Unlike a woodcut, the wood-engraving is made on the end grain, or butt, of a piece of wood instead of with the grain. The end grain is much harder and stable, allowing a much finer line and greater detail to be achieved. Wood-engraving using similar tools to those employed in metal engraving and the process



is similar. The difference is that in a metal cut, the ink is printed from the recess; with wood, the ink is printed from the surface left behind. Like a woodcut, the blocks were type high and could be printed with the letterpress type.

Cheney, Emma L. (Lewis)

Leaves / Emma L. Cheney.
[United States?]: The Author, [1861?]
ca. 110 leaves: ill.; 20 cm.

Page [8] "Feverfew"

On binding cover: Emma L. Cheney. Date of album from first leaf in book with signature: "Emma L. Cheney October 1861."

This is a private album of ca. 110 botanical illustrations of leaves that may have been produced by preparing actual plant specimens, pressing them on a lithographic stone and then printed off the stone, along with some evidence of hand drawing. Illustrations are gray toned and identified in manuscript ink inscriptions with botanical names. Some locales where plants were found are identified: Windsor Woods, Sunset Hill, Cowper's Hill, Willis' Falls, Birch Mountain and "Old Homestead". Possibly a collection of native American leaves and some from England. Includes leaves of various heaths, common medicinal plants, flowers, water lilies, and trees such as the Mulberry, American Elm, Mountain Oak, and ferns.

Nature print.

Nature Print

Nature prints could be produced by intaglio or planographic techniques. They both involve the transfer of a thin natural object, such as a leaf, to a surface for printing. Early nature prints were made by lightly oiling the object, then blackening it with soot from a smoking lamp, and then pressing it onto paper. For a lithographic print, the object is soaked in a greasy mixture, then laid on a lithographic stone to transfer the image. In intaglio, the object would be put between two plates, one of steel and the other of lead, and then subjected to great pressure, leaving behind an impression of the object. The lead sheet could then be electroplated with copper.



Lankester, Phebe, 1825-1900.

Talks about plants, or, Early lessons in botany / by Mrs. Lankester; with six coloured plates and twenty-six wood engravings.

London (West Corner of St. Paul's Churchyard): Griffith and Faran, 1879.

252, 4, 32 p., [6] leaves of plates : ill. ; 19 cm.

Frontispiece.

Phebe Lankester wrote several popular books on botany, particularly on wild flowers and ferns. This title was written specifically for children. The colored plates are chromolithographs.

Ewing, Juliana Horatia Gatty, 1841-1885.

Mary's meadow / by Juliana Horatia Ewing.

London : Society for Promoting Christian Knowledge, [1886]

96 p. : ill. ; 22 cm.

Front cover.

Juliana Ewing was a prolific writer of children's books. This story is based upon children reading Parkinson's *Paradisi in sole paradisis terrestri* and then creating their own garden.

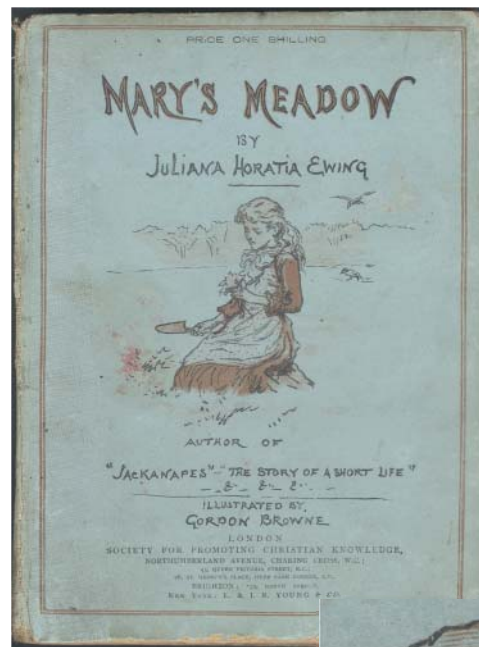


"I got out the *Book of Paradise* too, and propped it up in an arm-chair, and sat on a footstool in front of it, so that I could read in between whiles of making the bonnet. There is an index, so that you can look out the flowers you want to read about."

Color-printed wood-engravings.

Color-printed Wood-engraving

Properly called chromoxylographs, the technique is color printing from wood as chromolithographs are color printing from stone. As many wood engravings would be prepared as there were colors to be printed.



Selected References

Arber, Agnes Robertson, 1879-1960.

Herbals, their origin and evolution; a chapter in the history of botany, 1470-1670 / by Agnes Arber.

A new ed., rewritten and enl.

Cambridge [Eng.] The University press, 1938.

xxiv, 325, [2] p.: ill., facsims.; 24 cm.

Blunt, Wilfrid, 1901-

The art of botanical illustration / Wilfrid Blunt and William T. Stearn.

New ed., rev. and enlarged.

Woodbridge, Suffolk: Antique Collectors' Club in association with the Royal Botanic Gardens, 1994.

368 p.: ill. (some col.); 29 cm.

Gascoigne, Bamber.

How to identify prints: a complete guide to manual and mechanical processes from woodcut to ink jet / Bamber Gascoigne.

[London]: Thames and Hudson, c1986.

1 v. (various pagings): ill. (some col.); 26 cm.

Henrey, Blanche.

British botanical and horticultural literature before 1800 comprising a history and bibliography of botanical and horticultural books printed in England, Scotland, and Ireland from the earliest times until 1800 / Blanche Henrey.

London; New York: Oxford University Press, 1975.

3 v.: ill.; 28 cm.

Hunt, Rachel McMasters Miller, 1882-1963.

Catalogue of botanical books in the collection of Rachel McMasters Miller Hunt.

Pittsburgh, Hunt Botanical Library, 1958-1961.

3 pts. in 2 v.: ill, port.; 26 cm.

Note: The Hunt catalogue covers publications through 1800.

Rohde, Eleanour Sinclair.

The old English herbals / by Eleanour Sinclair Rohde...; with coloured frontispiece and 17 illustrations.

London, New York Longmans, Green and Co. 1922

xii, 243, p. col. front., plates, ports., facsims. 26 cm.



Cover art from *Paxton's magazine of botany*. See page 12.
Catalog design: Barbara Hood



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