

Between The Boards



FIG. 39.

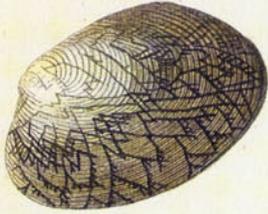


FIG. 40.



FIG. 41.



FIG. 42.



FIG. 42.

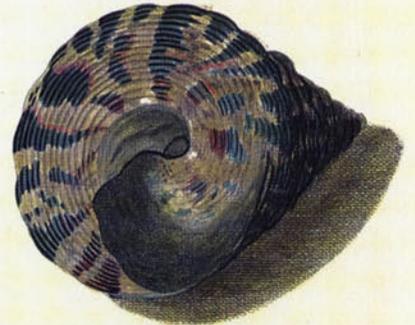


FIG. 38.

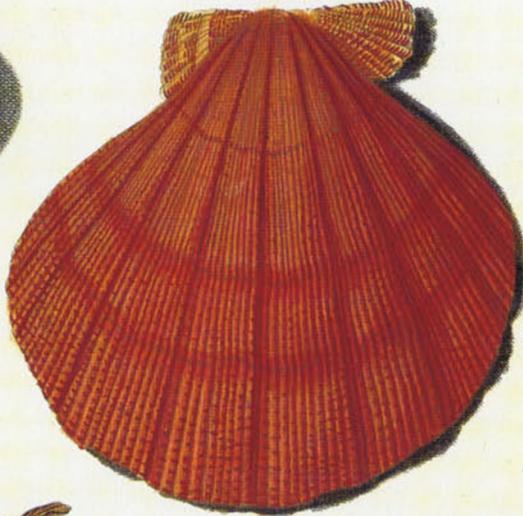


FIG. 43.



FIG. 44.



FIG. 45.



FIG. 45.



FIG. 46.



FIG. 47.



FIG. 47.



FIG. 48.



1,000 copies of this catalog
were published in conjunction with an exhibition held in
the Special Collections Research Center, University of Chicago Library
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By Alice Schreyer *with* Naomi Hume

Between The Boards

Collections, Compilations and Curiosities
from the John Crerar Collection of Rare Books in the
History of Science and Medicine

The University of Chicago Library 2003



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Preface

This publication, and the exhibition it accompanies, look “Between the Boards” of unique and unusual books in the John Crerar Collection of Rare Books in the History of Science and Medicine. With support from University Trustee Harvey Plotnick, the University of Chicago Library recently completed a project to catalog the collection and provide information about its approximately 20,000 titles on international databases. The Crerar rare book collection includes first editions of most of the famous landmark books in the history of science, medicine and technology, some in copies of exceptional interest, such as a censored copy of Copernicus’s *De revolutionibus* (1543). “Between the Boards” focuses on lesser-known works, in particular examples of previously unrecorded titles discovered during the cataloging project and books that reveal how a bound volume can serve as an active agent in collecting and classifying knowledge.

The John Crerar Library was founded by the will of John Crerar (1827-89), who was born in New York and moved to Chicago in 1862 to manage the office of a railway supply company that became Crerar, Adams & Co. the following year. Crerar achieved immediate financial success and soon became a prominent and influential leader in the business community. John Crerar’s philanthropy reflected his deeply religious character and his commitment to religious, educational and civic organizations in the city. His will included bequests to a number of Chicago institutions, with the remainder of his estate to be used

“for the erection, creation, maintenance and endowment of a Free Public Library” for the citizens of Chicago. Crerar was a reader, not a book collector. He did not specify the subject scope of the library, stipulating, famously, that “the books and periodicals be selected with a view to create and sustain a healthy moral and Christian sentiment in the community and that all nastiness and immorality be excluded . . . dirty French novels and all skeptical trash and works of questionable moral tone shall never be found in this library.” Not surprisingly, interpreting this dictum caused much debate among those charged with establishing the library.

Apothecary and collector Albert Seba amassed his natural history collections by offering medicines and treatments in exchange for specimens to sailors and others returning to Amsterdam from far-flung journeys. After his death, his family sold the collection to fund completion of the catalog. He is shown in this frontispiece portrait surrounded by his collection and the drawings and volumes of the publication that preserved it for posterity.

Albert Seba. *Locupletissimi rerum naturalium thesauri accurata descriptio*. 1734-1765. [no. 3]

When Crerar's executors Norman Williams and Huntington W. Jackson set out to determine the nature of the library, they surveyed the local environment to see what was needed. Taking into consideration other public libraries in Chicago such as the Chicago Public Library and the Newberry Library, in 1895 the following areas were identified for the Crerar: "Philosophy, the Physical and Natural Sciences; the Useful Arts (Technology); the Fine Arts in part; Sociology and Economics."

The John Crerar Library opened to the public on April 1, 1897. From the start, rare books were acquired alongside current materials. Norman Williams, who became the first president, remarked, "I do not sympathize with the suggestion that only the newest and latest publications be selected. Such a library would have neither beginning nor end. The student, every student, requires and demands a knowledge of the history of the subject he pursues and should have at hand the means of investigation from the beginnings." Williams emphasized the research value of early books: "It was not a question of a first edition cult as practiced by private collectors. It was meeting the need of clear visions and conceptions of origins, of fundamental researchers, original statements, transcendent views and theories. It was the necessity of supporting history by documents. . . . The Natural and physical sciences increasingly are studied by the historical method."

Crerar's first librarian, Clement Walker Andrews, compiled lists of needed books and periodicals based on the holdings of MIT, Harvard and other libraries; and connections were established with dealers in the United States and abroad. In the early decades, entire collections were purchased from dealers and at auction; as the library grew, gifts of single volumes and collections were received. Annual reports announce with equal enthusiasm the purchase of a long-desired rare book and the acquisition of a technical journal. In 1909, for example, the Library purchased the monumental *Description de l'Égypte* as well as *Transactions of the Chesterfield and Derbyshire Institute of Mining Engineers* and publications of the *Circolo matematico* of Palermo and the *Trigonometrical Survey of India*. As happens in all research libraries over time, the Crerar purchased many contemporary publications issued in small editions that soon went out of print and are now rare.

Libraries are organic entities, adapting their collections and services in response to environmental conditions. In 1898, the Crerar purchased approximately 300 ornithological books from the Newberry, among them the elephant folio edition of John James Audubon's *Birds of America*. In 1906 the Newberry sold and donated some 70,000 medical books to the Crerar with the strong endorsement of Dr. Nicholas Senn, from whom the Newberry had received a large part of its medical collection. In 1951, as a result of the post-World War II

explosion in scientific publishing, the John Crerar Library decided to focus on science, medicine and technology; existing collections in other areas were sold.

Physical changes followed: in 1962, facing economic pressures, the Crerar relocated from its building at Michigan Avenue and Randolph Street, which it had occupied since 1920, to the campus of the Illinois Institute of Technology. Finally, in 1981, a merger agreement was signed between the John Crerar Library and the University of Chicago, and the Crerar collection was moved to Hyde Park in 1984. General collections were combined with the University's science and medicine holdings in the newly constructed John Crerar Library on the University's campus; rare books and manuscripts were transferred to the Joseph Regenstein Library, where they are maintained as distinct collections within the Special Collections Research Center.

Making information about some 20,000 Crerar rare books available to researchers was a formidable task, because cataloging such materials requires specialized skills and careful research. Advances in technology have made records of already-cataloged titles available for use by other libraries, and new records added to shared bibliographic databases is of great benefit to scholars, because they are so widely accessible. Cataloging of the John Crerar Collection of Rare Books in the History of Science and Medicine was completed in April 2002. Nearly 10% of the titles in the Crerar rare book collection required "original cataloging," meaning that no other library had contributed a record for this particular title or edition. Over the course of the project, University of Chicago Library catalogers created new records for approximately 1,800 items and recorded the Crerar holdings for over 18,000 titles.

This exhibition marks the conclusion of the John Crerar Library rare book collection cataloging project and the resulting uncovering of many scholarly treasures. It celebrates the generosity of the donor, Harvey Plotnick, who made the project possible; the John Crerar Library staff who collected these remarkable books; and the University of Chicago Library catalogers and many other staff whose efforts to describe and physically prepare the collection have now made it fully accessible to researchers worldwide. Thanks are also due to Naomi Hume, graduate student in the Department of Art History, who researched and described the items in the exhibition; to Catherine Uecker, Rare Books Coordinator, for checking bibliographic information; and to Valarie Brocato, Exhibition and Preservation Manager, who coordinated the publication and exhibition.

ALICE SCHREYER

Director

Special Collections Research Center

Antennaria arvensis

Abutilon pubescens

Poa

Pedicularis lanceolata



Helianthus divaricatus



Between The Boards

“Between the Boards” presents the role of the book form in collecting, classifying and conveying knowledge. As with so many objects that we use on a daily basis, our familiarity with books leads us to overlook their flexibility and complexity. In routine interactions, we use the codex (the form of folded sheets of paper, parchment or other materials; attached at the spine and usually protected by a cover or binding) as a highly convenient container for texts of all lengths and subjects. Theological, scientific, literary, legal and educational writings; records of business and official transactions; diaries, journals, albums, anthologies, sketchbooks and scrapbooks; encyclopedias, dictionaries and other reference sources, often with maps, charts or other illustrations, are among the many types of works we expect to find “between the boards.”

The processes of book manufacture and distribution have been transformed several times since the codex replaced the roll nearly 2,000 years ago. Although these developments caused profound changes in the availability and cultural impact of books, handwritten and printed books alike continue to function as efficient structures for delivering works to readers. This ubiquitous physical object also has the capacity to serve more subtle and varied purposes. Foremost among these is preservation: copying a manuscript greatly increases the likelihood of its survival, and printing was hailed as “the art preservative of all arts” soon after its invention.

In addition to disseminating and preserving texts, the material form of a book contributes to its intellectual content and actively shapes the reader’s experience. The physical structure allows for pages containing illustrations, folding tables or devices with moving parts, handwritten or pasted-on slips of paper and other materials to be bound up together, facilitating consultation and comparison of ideas and images presented in the book. When separate texts are combined together in one book, as in an anthology or the collected works of an author, the juxtaposition creates new relationships among the individual works. A book that has been annotated or otherwise “altered” by its readers, perhaps over several generations, creates layers of memory and meaning, not unlike an archaeological site. The binding of a codex, intended

Nicholas Senn was a renowned Chicago surgeon and an important medical book collector. Senn’s collection of plants is mounted on paper with handwritten labels and arranged according to the months of the year. Herbaria in book form bypass the expensive process of producing printed illustrations and avoid the need to reduce nature to two dimensions, but suffer from variations between specimens and changes in color over time.

Nicholas Senn. [*Herbarium*]. Mounted specimens. [189–]. [no. 7]

to protect its contents, also creates boundaries; the book form thus provides a tangible means of delimiting seemingly infinite ideas or topics and helps to define the universe enclosed within it. In the process of organizing the text and its parts, authors use books to structure and impose order on their subject matter. The act of publishing a letter announcing the discovery of a new world, or the results of a scientific experiment, is a way to stake a claim to physical or intellectual territory by taking a private form of communication into the public realm.

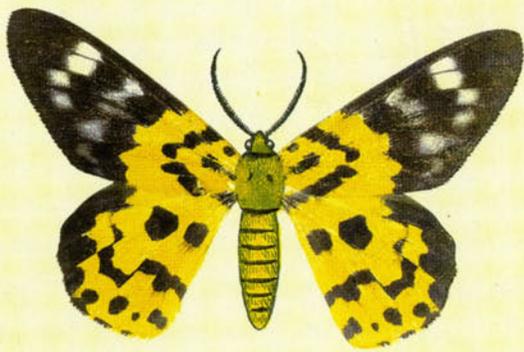
The physical structure of the book thus offers authors, compilers and readers opportunities to present and preserve information tailored to their unique purposes. Since these basic functions emerged early on and endure, the organization of "Between the Boards" creates a typology, rather than following a chronological sequence. The exhibition opens with two groups of books that show strong parallels between books and collections. The first, "Curiosity in Context," considers printed catalogs of collections, illustrating how the book form has been used to provide permanent integrity for a group of objects that has been dispersed. In the second section, "Collecting By the Book," the book itself is the collection—of actual specimens or reproductions—and a vehicle for encompassing the universe of its subject. "Visible Hands" looks at how books are created, altered and appropriated by individuals; while "Picturing the Text" examines illustrated books that function as tools for various arts and sciences.

Curiosity in Context

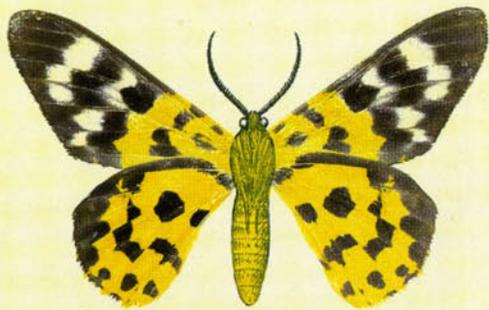
Amassing a collection of objects can be motivated by status or study, entertainment or empire. In the early modern period, objects of "curiosity" or "wonder" were collected as part of growing interest in the new and unknown as well as the desire to possess scarce and valuable artifacts. Books often formed part of these collections, displayed right alongside other objects prized for their rarity and monetary value. The concept of "curiosity" is an ambivalent one, describing both the inclination to delve into the arcane or obscure and the objects of such investigation. Today we value "curiosity" as a sign of a lively mind and adventuresome spirit, but early observers also saw the dangers inherent in pursuing forbidden areas of knowledge. The collectors of the 16th, 17th and 18th centuries who formed cabinets of natural and manmade objects emphasized the

Denton adapted the process of nature printing by combining actual specimens and engravings. This special copy, produced for Alice Steele Cheney of Boston, contains nine "extra" volumes, composed entirely of "Nature Prints" with handwritten labels. Shown are the upper and under sides of *Euschema militaris* (India) and the bindings of the additional volumes, which were decorated with gold-tooled butterflies on green morocco.

Sherman Foote Denton. *As Nature Shows Them: Moths and Butterflies of the United States, East of the Rocky Mountains*. n.d. [no. 10]



upper side



under side

Euschema militaris
(India)



unusual and rare. They eagerly acquired artifacts and fabulous specimens brought back by travelers to foreign lands, the more “curious” the better. If their enthusiasm sometimes caused them to believe fraudulent claims about the objects, it also paved the way for speculation to be replaced by observation.

Collections formed by early naturalists often served practical purposes. The great naturalist Ulisse Aldrovandi used his collection of natural history specimens for teaching in his native Bologna, in conjunction with the botanical garden he founded there. Ole Worm, a Danish physician and antiquarian who had visited Aldrovandi, followed him in using his collection for teaching and emphasized its use for study. Albert Seba, an apothecary, began his collection for professional reasons, to acquire ingredients for the manufacture of medicines, although the passion for collecting soon took over.

In deciding what to collect and protecting their collections, the activities of collectors influence what is saved of our culture and history. Thus it is not surprising that so many collectors—of books, art, antiquities, natural and manmade objects—seek to achieve permanence for their collections through a published catalog. The publication can also fulfill scientific purposes by presenting the collection according to an organizational scheme that may have been lacking in the physical installation. Especially when the collector aimed to be comprehensive or contribute to understanding, the catalog records the state of knowledge for its era. Often illustrated works produced at great expense—requiring a patron or other subvention, sometimes even the sale of the collection, to fund the publication—the catalogs themselves have become rare books sought by collectors. The posthumously published catalogs documenting collections formed by Aldrovandi, Worm and Seba use the printed book to preserve the integrity and accomplishment of the collection and open the doors of a private collection—or museum—to a specialized audience dispersed over place and time.

Collecting By the Book

Some volumes transform the metaphorical “book of nature” into reality by actually collecting the world of nature “between the boards.” Naturalists frequently use the book form for taxonomic purposes: describing and illustrating exemplars from many places, whether or not they were ever collected together, makes it possible for others to study and compare them. The book itself becomes a

Romeyn Hough emphasized the ecological and practical importance of trees. He developed a system of cutting wood so thinly that light passes through the slices, illuminating the grain. For each sample, Hough presents three sections: a transverse, a radial and a tangential cut, in order to give a full sense of each specimen. He published 14 portfolios, each consisting of at least 25 unbound sets of wood sections mounted in page-sized paper frames.

Romeyn Beck Hough. *The American Woods*. 1893-1928. [no. 12]

3. *TILIA AMERICANA*, L.

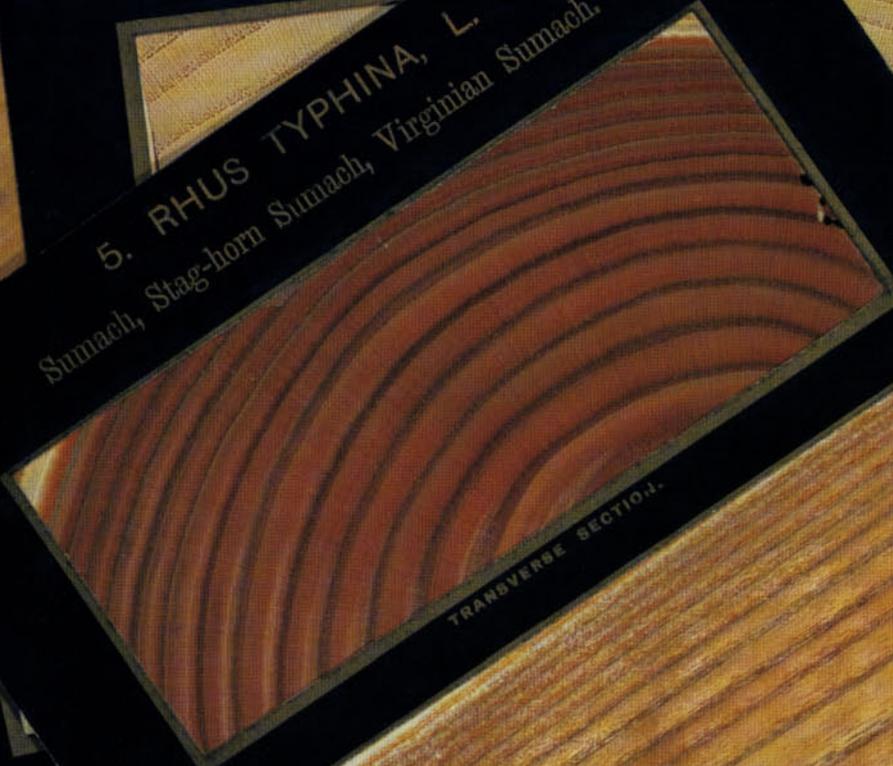
Tree, Lime-Tree, Bee-Tree.

4. *AILANTHUS GLANDULOSUS*, DESF.

Ailanthus, Tree.

5. *RHUS TYPHINA*, L.

Sumach, Stag-horn Sumach, Virginian Sumach.



TRANSVERSE SECTION.



RADIAL SECTION.



TANGENTIAL SECTION.

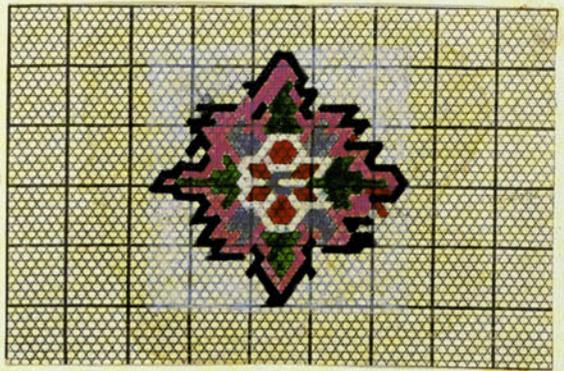
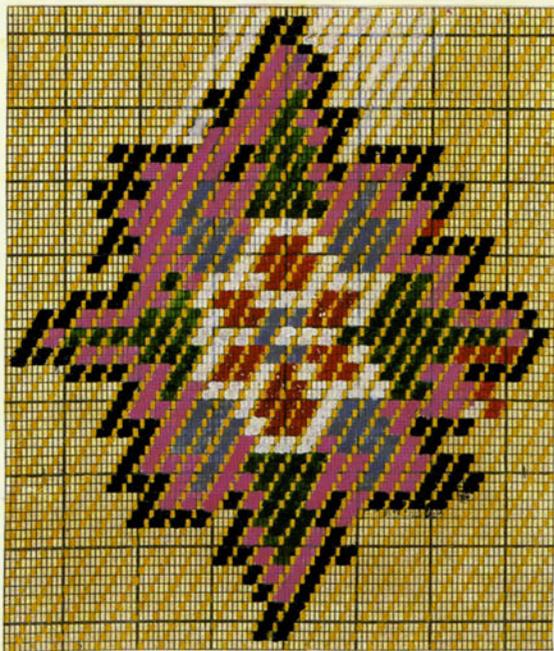
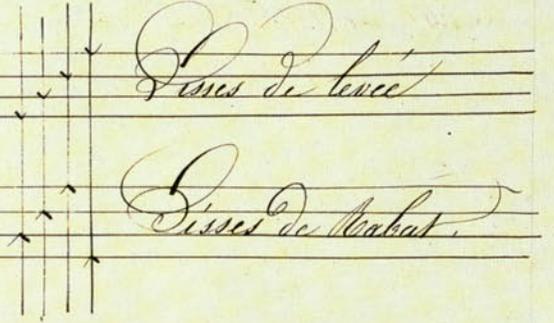
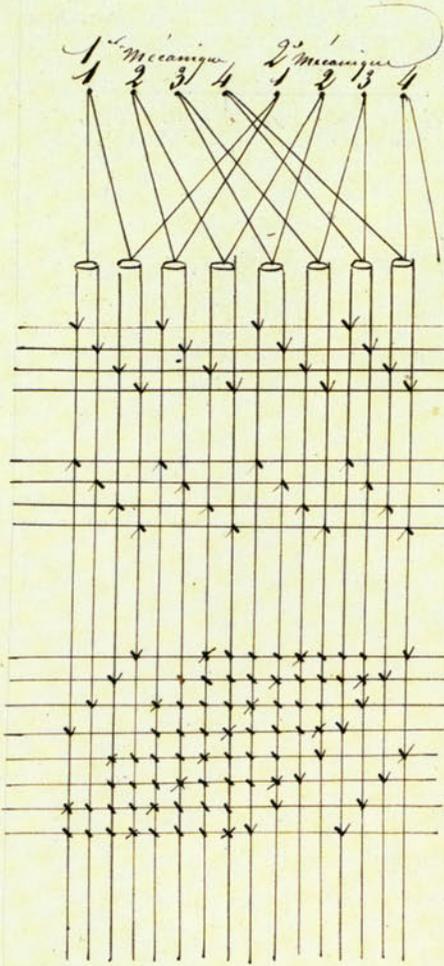
Ger. Hirschkolben Sumach. *Fr. Sumac.* *Sp. Zinn*

Published and Sections made by Romeo B. Haugh, B. A., Lowville, N. Y., U. S. A.

Ger. Dru

Published at

Remettage du Cachemire ..



collection, filled with exquisite and detailed reproductions, such as the ones depicting birds' eggs collected by Jacob Klein and the shells and mussels drawn by Franz Regenfuss. More surprisingly, actual specimens have been collected in book form, producing a portable museum or herbarium. Such uses challenge our definition of a book: Does the presence of a printed title page and captions in the volume containing lichens collected by Edward Tuckerman mean that it is a "publication"? How can readers be sure that all of the specimens in each copy of the book compiled by Tuckerman are the same, or have remained so over time? Does the absence of any printed information within the boards surrounding Nicholas Senn's plants and Alexander Braun's algae make them "scrapbooks"?

Graphic reproductions of specimens, such as the hand-colored engravings of moths and butterflies made by Jacob Hübner, can be of breathtaking beauty and astonishing detail. Jan Sepp explicitly intended his publication, depicting wood samples from all over the world, to serve as a "collection" for those who could not afford to form a physical one like the cabinets of kings and princes. The 19th century abounded in efforts to reproduce nature ever more faithfully; and the technique of "nature printing," where the original is used to produce the printing plate, represents a bridge between the world of graphic reproduction and the collected specimen. Examples in works by Alois Auer and Sherman Foote Denton display the potential and deficiencies of nature printing, which never achieved a commercial success. Although in the 19th century photography made "objective" reproductions possible, Romeyn Hough's *American Woods* testifies to the continuing interest in collections of specimens and exemplars to serve specialized purposes.

Encompassing an entire world in book form serves scientific goals, but it also has been used for nationalistic and imperial aims. Constantin von

Ettingshausen paid tribute to the Austrian empire by bringing together botany of the realm. The massive *Description de l'Égypte* represents an effort to conquer and classify Egypt through meticulous documentation of its past history and present civilization. While Napoleon's imperial ambitions failed, the resulting study had profound scientific and cultural importance. It also created an encyclopedic compilation of design motifs, as did many of the natural history books. In art nouveau portfolios such as those by Ferdinand Luthmer and Richard Kühnel and Hugo Sachs, natural speci-

Instructions for producing cashmere from a textile design manual for manufacturing fabrics. The manuscript defines silk weaving terms and explains techniques for the production of particular fabrics and patterns. The samples collected in this book, together with the text and technical drawings, create a specimen book for industrial production.

Principes de fabrique pour les étoffes de soie.
Manuscript. 1848-1856. [no. 18]

mens are the source of stylized patterns based on organic forms. The “book of nature” is transformed into a source of inspiration for designs and decorations.

Visible Hands

Medieval scribes left their marks on manuscripts in every word they transcribed, and sometimes they wrote their names and other details of their labors in colophons at the end of the book. Although scribes introduced intentional and accidental changes to the texts from which they copied, creating puzzles that generations of textual scholars strive to solve, their work was intended to be invisible. Individual owners, readers and compilers of books are not so constrained; and their “visible hands” often create or alter meaning. Printed books with additions by individuals become unique objects and sometimes transform a published text into a working manuscript.

Commonplace books, with origins in the classical era, consist of quotes or other materials copied down from other writers, often combined with personal thoughts and reflections. During the Renaissance, commonplace books helped students and others to organize their reading and study. With the expansion of newspapers in the 19th century, printed information and illustrations became available to a mass audience; and individuals could select, compile and organize items of interest to them in books. Creating a scrapbook brings together many different formats—newspaper and almanac clippings, letters, photographs, programs, advertisements, menus, tickets and samples—into a book. Whether created to commemorate a personal or historic event, to record the life of a family or document a subject, a scrapbook is the result of an individual act of collecting. A detailed manuscript of instructions and diagrams for manufacturing silk fabrics with samples, and a scrapbook compiled by aviation pioneer Octave Chanute, suggest the range of personal, collective, industrial and institutional uses of scrapbooks.

Book owners affix bookplates, write their names on title pages and elsewhere, and use inside covers, flyleaves and other open areas as spare notepaper. Readers underline and annotate texts with reactions and references, creating a one-sided dialogue with absent authors. When the reader has made important contributions to the same field, as is the case with Gaspard Bauhin, who annotated his copy of Jacobus Theodorus’s *Eicones plantarum*, such “graffiti” provide clues to influences. Authors

R*ecipes for preserved fruits, pastes and butter. This manuscript, in a handy format, documents the history of a family through its use of the book. Generations of family names are inscribed on the covers, and the recipes are written in many different hands. The book contains recipes and remedies, demonstrating that the natural world bridged the realms of cooking and healing in early science and medicine.*

John Martin. [*Book of Receipts*]. Manuscript in several hands. [1718-1720]. [no. 24]

Take a pint of water & a pint of sugar
Works it into sugar take & put the seeds in and
lay the sides a little over & bake them with a
little heat

To Preserve Pippins in Jelly

Take the pippins when they are almost at
the biggest Coddle them as Neer as you can & pill
them take the Green kinds of the Pippins & the
remainder of the Pippins boyle in running Water
till they be all to a pulp & straine them & weigh
the liquor wth the peeces of Green pippins against
double refined Sugar take weight for weight put the
Sugar to the liquor Set it to the fire scum it & scum
put the peeces of Green pippins then boyle it till the
pippins be Cleare then take it out & put in 6 or 7
peeces into a glass & boyle the liquor till it Jelly and
pours it on them when they be cool.

To Preserve Orranges

Cut out a peeces all the stalks end of the Orranges
then take out the seeds & lay the Orranges in Water 2 4
or 5 days shifting them Morning and Evening into
fresh water then boyle them in Water till the
water is almost dry

(15)

Cut them & cut them make some pippin Water
then put in a peeces of Singliss which have been
Water 3 Days & take your Orranges and weigh
them against your Sugar weight for weight then
take $\frac{1}{2}$ a pint of Pippin Water to 2 Orranges and take
the weight of Water in Sugar till the scum Rise
which take off and put in the Orranges and let them boyle
till they begin to Jelly then take them out and boyle
the Syrup higher then take it off the fire & let it stand
till it be cool then fill up the Orranges and stop them
up with the peeces you cut out and put them into
Glasses and Cover them

To make Pastes of Orra nges & Lemons

Take your Orranges or Lemons Pill & boyle them
tender in faine Water straine them through a
Sieve then boyle them to a Candy height put halfe
a peeces of Orange or Lemon & $\frac{1}{2}$ a lb of the pulpe
of Pippins keep it stirring over the fire till it
come Cleare from the bottom of the Pan lay it on a
Sheet of Glass to dry the Next day Shape it up
into what forme you please then take a little
double refined Sugar & boyle it to a Candy height
and when yo^r Past be almost drye Annoynt it
with a Cleare Feather

To make the Cambridge Amber Butter

Take one pint of the thickest Cream you can get
and put in as much Beaton Maie as will lye
on a six pence halfe a Nutmeg Grate and
Sett them on the fire and when it boyle put in
the

send copies of their works to colleagues, sometimes inscribed with notes that reveal a professional relationship, and they mark up copies of their texts for subsequent editions, allowing us to scrutinize the places where changes and additions were made. Revisions to Carl von Linné's *Species plantarum* and Nicholas Senn's *Surgical Bacteriology* reveal extensive development over the course of several editions. Binding previously published writings into one or more volumes, as the John Crerar Library did with articles by Emil Du Bois-Reymond, creates a set of "collected works." And when a manuscript or book is passed down in a family, with each owner or user making further contributions, as was the case with John Martin's "Book of Receipts," the book becomes a space for collected memory, an archaeological site. In each of these examples, the appropriation of the book for unique purposes confers upon it an afterlife unforeseen by the author and illustrates that the book is indeed a capacious and organic artifact.

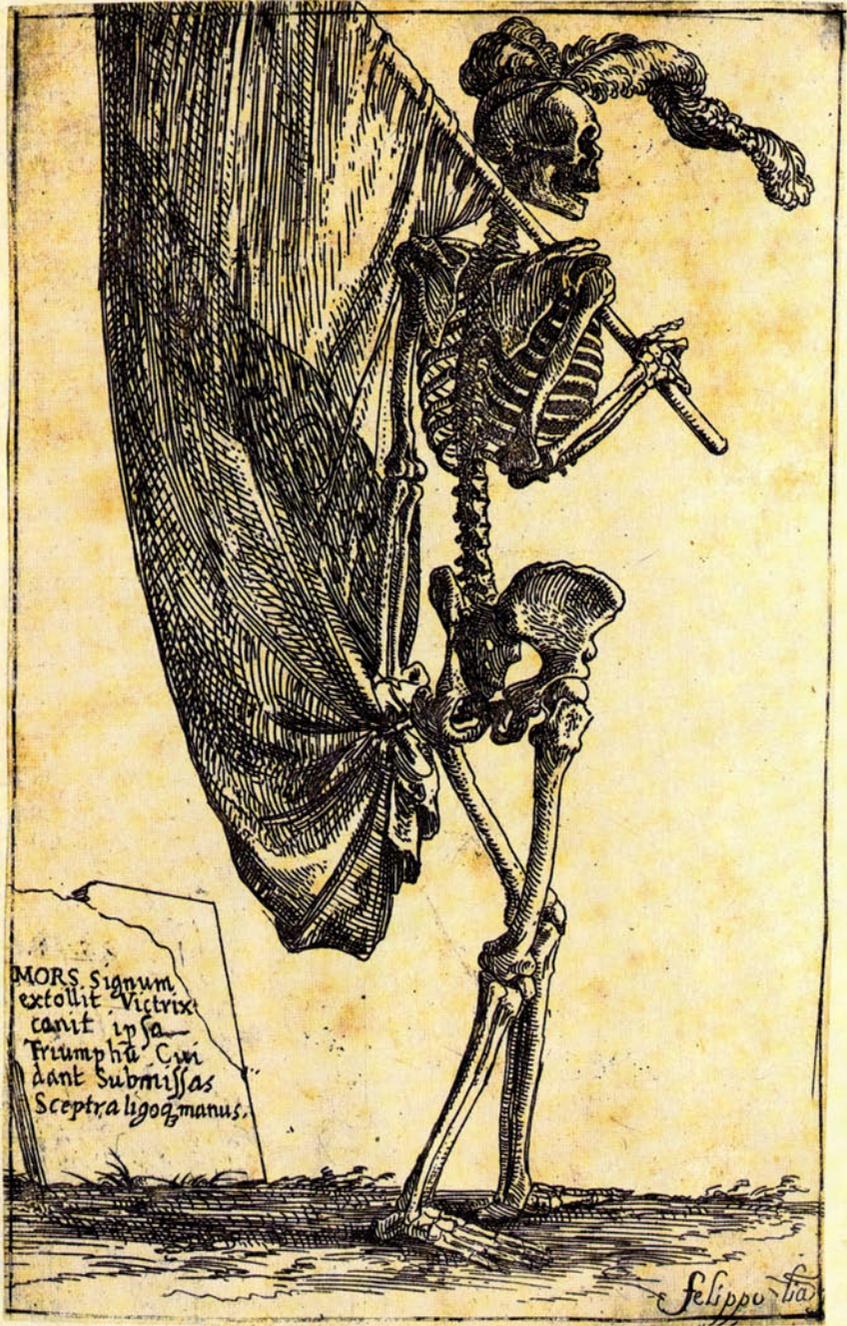
Picturing the Text

Images, such as the ones in most of the books in this exhibition, can inform, instruct and delight. As cultural critics have pointed out, pictures, too, are texts; "visual literacy" is a special skill and we must learn to read pictures as well as words. The ability to produce printed pictures was well developed by the late 15th century, and scientific and technical books depend heavily on information conveyed through illustrations. When illustrations are added to a literary work, they can clarify and help readers understand the author's meaning. In the hands of different illustrators, the same text has a range of interpretations and appeals to diverse audiences. Some books are made up solely of images, or have no text other than what is needed to identify the pictures. A familiar example is the atlas, a collection of terrestrial or celestial maps. Anatomical atlases contain detailed images that map the human body.

Pictures can demonstrate what is to be performed in books that are "tools" for specialized or popular audiences. In such books, visual representation is an integral part of the pedagogical or utilitarian purpose of the text. The diagrams in a very early carving manual, *De sectione mensaria*, were intended for practical use, although they appeal to us as stunning abstractions. Anatomical atlases that go to great lengths to achieve accuracy of detail, such as

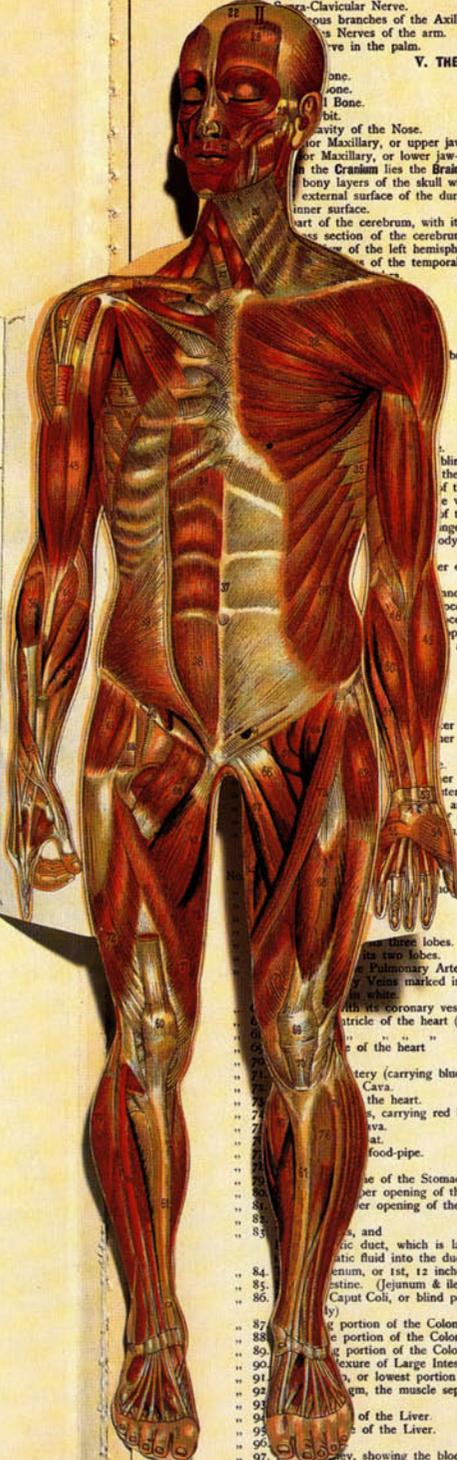
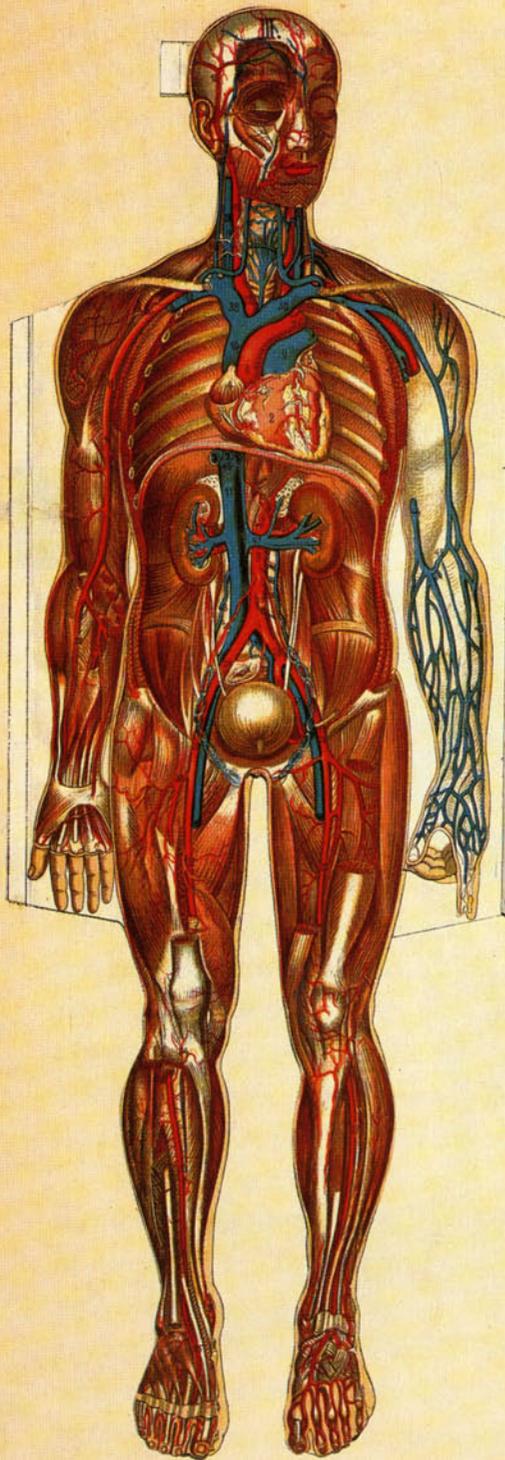
A human skeleton bearing a large banner, the first in a series of 17 engravings of human and animal skeletons. The collection belonged to the anthropologist Johann Friedrich Blumenbach, who was instrumental in showing the value of comparative anatomy. Blumenbach had the prints bound into book form, much like Renaissance collectors who formed portfolio collections of prints and engravings for ease of storage, study and display.

lesum in
itive ana-
te opere
ad Gicle-
n delinea-
dit Phil-
ni avice-
qui vero
floruit, &
Hernandez
p. x 488.



MORS signum
extollit. Victrix
canit in sa-
Triumphu. Cui
dant Submissas
Sceptra ligoq. manus.

Felippo



- No. 29. Superficial Popliteal Nerve.
- 30. Cutaneous Nerves of the foot.
- 31. External Peroneal Nerve.
- 32. Its inner branch. Internal branch of musculo-cutaneous nerve.
- 33. Its outer branch. External " " " " " "
- 34. Median Nerve of the arm.
- 35. Musculo-cutaneous branch of the Median Nerve.
- 36. Infra-Clavicular Nerve.
- 37. Its branches of the Axillary Nerves.
- 38. Its branches of the Axillary Nerves.
- 39. Its branches of the Axillary Nerves.
- 40. Its branches of the Axillary Nerves.

V. THE SKELETON

bone.
bone.
l Bone.
bit.
cavity of the Nose.
for Maxillary, or upper jaw-bone with the teeth.
for Maxillary, or lower jaw-bone with the teeth.
in the Cranium lies the Brain. In lifting a small bony flap, one sees—
bony layers of the skull with their blood channels.
external surface of the dura-mater, or outer covering of the brain.
inner surface.
part of the cerebrum, with its convolutions and sulci.
cross section of the cerebrum (showing the course of the nerve tracks)
of the left hemisphere.
of the temporal bone.

bra.
bling a pulley.
the fore-arm.
of the fore-arm.
e wrist.
of the hands.
ngers.
ody of same.)
er extremity.
ominatum (un-named bone).
cess.
cess.
pening in the hip-bone.
articulation of the pubic bones).

er tuberosity of the femur.
er " " " "
er ankle.
er ankle.
ankle.
of the foot.
"VISCERA."
e skeleton lie the Viscera:
in small children.

three lobes.
two lobes.
Pulmonary Arteries marked in blue,
Veins marked in red, and
white.
with its coronary vessels
tricle of the heart (opened).
" " " "
e of the heart " "
tery (carrying blue blood).
Cava.
the heart.
s, carrying red blood.
Cava.
at.
food-pipe.
se of the Stomach.
per opening of the Stomach.
per opening of the Stomach.
s, and
gic duct, which is laid open on the posterior side. It conveys
atic fluid into the duodenum.
84. enum, or 1st, 12 inches of the intestine, open on the posterior side.
85. -stine. (Jejunum & Ileum)
86. Caput Coli, or blind pouch, with its Vermiform Appendix. (Opened
ly)
87. g portion of the Colon.
88. e portion of the Colon.
89. g portion of the Colon.
90. xture of Large Intestine
91. a, or lowest portion of the intestine.
92. m, the muscle separating the chest and Abdominal cavities.
93. of the Liver.
94. of the Liver.
95. of the Liver.
97. Left Kidney, showing the blood supply of the kidney
98. Left Kidney, showing the pelvis and the pyramids of the kidney
99. The Ureter.
100. Psoas Magnus Muscle.
101. The Urinary Bladder.
102. The Internal openings of the Ureter.
103. The Internal surface of the bladder.
104. Transition into the Urethra.

Govard Bidloo's *Ontleding des menschelyken lichaams*, and the engravings of human and animal skeletons by Filippo Napoletano, were often used by artists.

Comparisons between physical and electronic books often cite the ability of the digital form to involve the reader in constructing meaning and to provide for an interactive experience. While this is true, it obscures that fact that books have always engaged readers directly and often physically. Books with moveable parts or pop-up constructions, and flap books, go back to the manuscript era and soon appeared in print. By the late 19th century, advances in color reproduction and paper and printing technology had made it possible for them to be produced inexpensively, and moveable books ranged from children's literature to demonstrating the intricate workings of the human body and industrial machinery. *Dr. Minder's Anatomical Manikin* and Apian's *Cosmographia* are excellent examples of the book form as an effective and enjoyable medium for popular instruction.

Strategies for selecting, preserving, organizing and presenting information "between the boards" of books, the subject of this exhibition, are also fundamental to the work of research libraries. In some ways not unlike private collectors who formed cabinets of curiosities, the John Crerar Library collected materials in all formats, and from all times and places, considered useful and pertinent to a comprehensive collection within the Library's scope. Items of great wonder abound, a selection of them on view in this exhibition. "Between the Boards" illustrates that within context, such "curiosities" are an essential

part of understanding and learning about our world. Rare book collections such as the one formed by the John Crerar Library remind us that as libraries are reshaped by the co-existence of print and electronic resources in the 21st century, we need to preserve the mix of the standard and unusual that make research library collections as varied and complex as the book form itself.

A*natomical model illustrating various layers of the body. Moving parts were a feature of early books, and 19th-century advances in printing made it possible to produce them for a mass audience. Anatomical flap books generalize for teaching purposes and are intended to popularize understanding. By manipulating the illustrations, the reader effortlessly gets beneath the skin to look inside the body.*

William S. Furneaux, ed. *Dr. Minder's Anatomical Manikin of the Human Body*. [1902?]. [no. 28]

Checklist

CURIOSITY IN CONTEXT

I

Ulisse Aldrovandi (1522-1605?). *De piscibus libri v. et de cetis lib. unus.*
Bologna: apud Bellagambam, 1613.

2

Ole Worm (1588-1654). *Museum Wormianum.* Amsterdam: Apud Ludovicum & Danielem
Elzevirios, 1655.

3

Albert Seba (1665-1736). *Locupletissimi rerum naturalium thesauri accurata descriptio.*
Amsterdam: apud J. Wetstenium, 1734-1765. 4 volumes.

COLLECTING BY THE BOOK

4

Jacob Theodor Klein (1685-1759). *Ova avium plurimarum.* Leipzig: J.J. Kanter, 1766.

5

Franz Michael Regenfuss (1712?-1780). *Auserlesne Schnecken, Muscheln und andre
Schaalthiere.* Copenhagen: Gedruckt bey A.H. Godiche, 1758.

6

Edward Tuckerman (1817-1886). *Lichenes Americae septentrionalis exsiccati.* Cambridge:
Metcalf; Boston: Nov. Ang. typis Joh. Wilson et fils., 1847-54. 6 parts in 3 portfolio cases.

7

Nicholas Senn (1844-1908). [*Herbarium*]. Mounted specimens, n.p. [189-?].

8

Alexander Carl Heinrich Braun (1805-1877).
Die Characeen Europa's in getrockneten Exemplaren. Dresden: C. Heinrich, 1859-78.

9

Jacob Hübner (1761-1826). *Geschichte europäischer Schmetterlinge.* [Augsburg, 1793-1842].
500 plates in 2 portfolio cases.

10

Sherman Foote Denton (1856-1937). *As Nature Shows Them: Moths and Butterflies
of the United States, East of the Rocky Mountains.* Boston: J. B. Millet Company, 1900.
3 volumes. No. 343 of 500 copies; and
*As Nature Shows Them: Moths and Butterflies of the United States, East of the
Rocky Mountains.* Boston: J. B. Millet Company, n.d. 9 volumes, special extended and extra-
illustrated copy, printed and bound for Alice Steele Cheney, Boston, Massachusetts.

11

Jan Christiaan Sepp (1739-1811). *Houtkunde.* Amsterdam: J. C. Sepp, 1791.

12

Romeyn Beck Hough (1857-1924). *The American Woods*. Lowville, N.Y. Pub., and sections prepared by the author, 1893-1928. Volume 14 with text by Marjorie G. Hough. Volumes 1 and 2, 2d edition. 14 volumes in portfolio cases.

13

Alois Auer (1813-1869). *Die Entdeckung des Naturselbstdruckes*. Vienna: K.K. Hof- und Staatsdruckerei, 1853; and *Die Entdeckung des Naturselbstdruckes*. Vienna: K.K. Hof- und Staatsdruckerei, 1854.

14

Constantin Freiherr von Ettingshausen (1826-1897) and Alois Pokorny (1826-1873). *Physiotypia plantarum austriacarum*. Vienna: Hof- und Staatsdruckerei, 1856-1873. 12 volumes.

15

Description de l'Égypte. Paris: Imprimerie impériale, 1809-28. 9 volumes of text and 14 volumes of plates.

16

Ferdinand Luthmer (1842-1921). *Bluethenformen als Motive fuer Flachornament*. Berlin: E. Wasmuth, 1893.

17

Richard Kühnel and Hugo Sachs. *Neue einfache Ornamente zur Anwendung für Innendekoration, Kunststickereien, Kunstverglasung, Keramik und Textilkunst*. Plauen i. V.: C. Stoll [1905].

VISIBLE HANDS

18

Principes de fabrication pour les étoffes de soie. Manuscript [Lyons?], 1848-1856.

19

Octave Chanute (1832-1910). [*Aeronautics*]. Scrapbook, n.p., 1878-1923.

20

Jacobus Theodorus (d. 1590). *Eicones plantarum seu stirpium*. Frankfurt: [N. Bassaeus], 1590. Gaspard Bauhin's copy with his annotations.

21

Carl von Linné (1707-1778). *Species plantarum*. Ed. secunda, aucta. Stockholm: Impensis Direc. Lenrentii Salvii, 1762. 5 volumes, with manuscript revisions.

22

Nicholas Senn (1844-1908). *Surgical Bacteriology*. 2d ed., thoroughly revised. Philadelphia: Lea, 1891. With manuscript revisions.

23

Emil Heinrich Du Bois-Reymond (1818-1896). [*Collected Papers on Physiology*]. n.p., 1843-1894. 5 volumes.

24

John Martin. [*Book of Receipts*]. Manuscript in several hands [between 1718 and 1720]. Howard C. Levis Collection.

PICTURING THE TEXT

25

De sectione mensaria. [Paris? 16—?]. Howard C. Levis Collection.

26

Govard Bidloo (1649-1713). *Ontleding des menschelyken lichaams*. Amsterdam: by de weduwe van Joannes van Dyk, Hendrik en de weduwe van Dirk Boom, 1690.

27

Filippo Napoletano (ca. 1587-ca. 1629). [*Human and Animal Skeletons*]. Rome, 1621.
With the bookplate of Johann Friedrich Blumenbach.

28

William S. Furneaux, ed. *Dr. Minder's Anatomical Manikin of the Human Body*. Students ed., rev. by Ethel Mayer. New York: American Thermo-Ware [1902?].

29

William S. Furneaux, ed. *Dr. Minder's Anatomical Manikin of the Female Human Body*. Rev. by Ethel Mayer. New York: American Thermo-Ware [1902?].

30

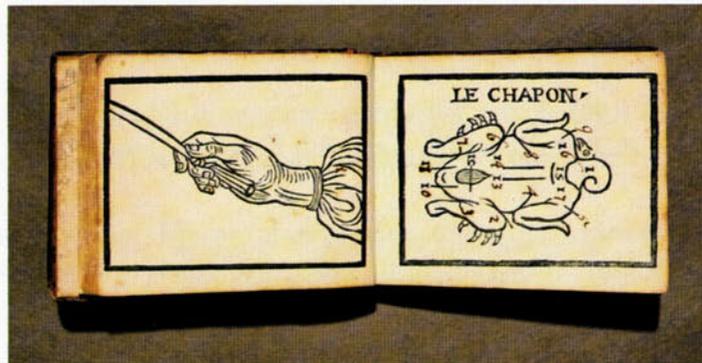
Jan Leendert Hoorweg (1841-1919). *De gas- en petroleum-motoren*. Deventer: A.E. Kluwer [1899?].

31

Duikboot (onderzeeboot). Leiden: A.W. Sijthoff's Uitgevers-Maatschappij [190-?].

32

Peter Apian (1495-1552). *Cosmographia*. Antwerp: In pingui gallina Arnolfo Berckma[n]no, 1540.



Illustrations showing how to hold a carving knife and carve a capon. This early carving manual contains 48 woodcut diagrams for the carving of fowl, meats, fish and fruits. The drawings, with numbers keyed to the text, are intended for use. Like anatomies and other books designed to function as tools for learning or experimentation, the manual visually represents what the reader is preparing to do.

De sectione mensaria. [16—?]. [no. 25]

