

PICTURING THE BOOK OF NATURE



Image, Text, and Argument
in Sixteenth-Century Human Anatomy
and Medical Botany

CONTENTS



Acknowledgments *ix*

List of Illustrations *xiii*

Introduction 1

PART 1 PRINTING PICTURES 26

1 Techniques and Craftsmen 28

2 Publishers' Calculations 48

3 Copying and Coloring 62

4 Control 82

PART 2 PICTURING MEDICINAL PLANTS 98

5 Accidents and Arguments:
Fuchs's *De Historia Stirpium* 100

6 Arguments over Pictures:
Reactions to Fuchs's *De Historia Stirpium* 124

7 Gessner and the Making of the *Historia Plantarum* 138

8 The Authority of Pictures:
Gessner, Mattioli, and Jamnitzer 162

PART 3 PICTURING HUMAN ANATOMY 178

9 Vesalius and the Bloodletting Controversy 180

10 The Canon of the Human Body:

Vesalius's *De Humani Corporis Fabrica* 198

11 Text, Image, Body, and the Book 228

Epilogue 249

Notes 259

Bibliography 293

Index 325

ILLUSTRATIONS



Figures

- 0.1 Leonardo da Vinci, *A Dissection of a Female Figure* (c. 1508) 5
- 0.2 Albrecht Dürer, *Large Piece of Turf* (1503) 7
- 0.3 “A counterfeit anatomy,” in Hans von Gersdorff, *Feldtbuch der Wundtartzney* (1517) 10
- 0.4 “A counterfeit death,” in Hans von Gersdorff, *Feldtbuch der Wundtartzney* (1517) 12
- 0.5 Gregory Reisch, *Margarita Philosophica* (1503) 14
- 0.6 “A counterfeit bloodletting man,” in Hans von Gersdorff, *Feldtbuch der Wundtartzney* (1517) 14
- 0.7 Bloodletting man in a fifteenth-century manuscript 15
- 0.8 *Lappa*, in Otto Brunfels, *Herbarum vivae eicones* (1531) 16
- 0.9 *Narcissus*, in Otto Brunfels, *Herbarum vivae eicones* (1530) 17
- 0.10 *Narcissus*, in *Hortus sanitatis* (1491) 17
- 0.11 *Incensaria*, in *Hortus sanitatis* (1491) 18
- 0.12 “Pop-up” pyramids, in Euclid, *Elements* (1570) 23
- 1.1 Woodcut of St. Jerome (c. 1425–35) 30
- 1.2 Woodcuts stamped into the page in Roberto Valturio, *De re militari* (1472) 31

- 1.3 Inset diagrams in Johannes Regiomontanus, *Disputationes contra Cremonensia deliramenta* (1475) 32
- 1.4 Engraved volvelles in Lazarus Beham, *Kalendarii duo* (1476) 33
- 1.5 Engraved map of Libya in Francesco Berlinghieri, *Geographia* (1482) 34
- 1.6 Engraving in Juan de Valverde, *Historia de la composicion del cuerpo human* (1556), copied from Andreas Vesalius, *De fabrica* (1543) 35
- 1.7 Engraving from Basilius Besler, *Hortus Eystettensis* (1613) 36
- 1.8 Nature print of *mercurialis* 38
- 1.9 Nature prints on the blank sheets of Leonhart Fuchs, *De historia stirpium* (1542) 39
- 1.10 Nature-print drawing by Fabio Colonna, which served as a model for an etching in his *Ekphrasis* (1616) 40
- 1.11 Manuscript copy of Leonhart Fuchs's *polygonatum latifolium* 42
- 1.12 Hand-drawn portrait in Francesco Petrarca, *Libro degli homini famosi* (1476) 43
- 1.13 Metal-cast figures in Euclid, *Elementa* (1482) 44
- 1.14 Craftsmen, in Leonhart Fuchs, *De historia stirpium* (1542) 46
- 2.1 Portrait of Jean Calvin and frame for Louis de Berquin, in Théodore de Bèze, *Icones* (1580) 51
- 2.2 Engraving in Juan de Valverde, *Anatomia del corpo humano* (1560), copied in the *Vivae imagines partium corporis humani* (1566) 52
- 2.3 Engraved plate subscribed by Robert Boyle, in Robert Morison, *Plantarum Historiae Universalis Oxoniensis pars secunda* (1680) 57
- 2.4 Original watercolor drawing of the *psittacus erythrociannus*, for Conrad Gessner's *Historia animalium* (1551–58) 58
- 3.1 Repeated woodcuts in Hartmann Schedel, *Liber cronicarum* (1493) 66
- 3.2 Embroidery of a cat by Mary, Queen of Scots, based on Conrad Gessner's woodcut 67
- 3.3 *Nymphaea candida*, in Otto Brunfels, *Herbarum vivae eicones* (1530–36), and in Leonhart Fuchs, *De historia stirpium* (1542) 68
- 3.4 Blue geometry, Euclid, *Elementorum libri XV* (1572) 70
- 3.5 Red and black ink printing in Ibn Butlan, *Tacuini sanitatis* (1531) 71
- 3.6 Gold ink printing in Euclid, *Elementa* (1482) 72
- 3.7 Coloring by stencil in Johannes de Sacrobosco, *Sphaera Mundi* (1485) 72
- 3.8 Printing with colored blocks in Ptolemy, *Geographia* (1513) 73
- 3.9 Chiaroscuro print of Charles V in Hubertus Goltzius, *Vivae omnium fere imperatorum imagines* (1557) 73
- 3.10 Hand-colored title page, Andreas Vesalius, *Epitome* (1543) 74
- 3.11 Hand-colored map of Italy, Ptolemy, *Cosmographia* (1482) 75
- 3.12 Illuminated copy of Jerome, *Epistolae* (1470) 77

- 3.13 Woodcuts of *polygonatum*, in Leonhart Fuchs, *De historia stirpium* (1542) and in Rembert Dodoens, *Pemptades* (1583) 78
- 3.14 Engraving of *polygonatum vulgare* in Denis Dodart, *Mémoires pour servir à l'histoire des plantes* (1676), and colored woodcut of the same plant in Leonhart Fuchs, *De historia stirpium* (1542) 80
- 4.1 Comparative physical sizes of books: Leonhart Fuchs, *De historia stirpium* (1542) and *Primi de historia stirpium* (1545), and Dioscorides, *De medicinali materia* (1543) 88
- 4.2 Censored copy of Nicolaus Copernicus, *De revolutionibus* (1543) 92
- 4.3 Anatomy of the brain, in Charles Estienne, *De dissectione partium corporis humani libri tres* (1545) 95
- 4.4 Correction of figures in Andreas Vesalius, *De fabrica* (1543) 96
- 5.1 Author portrait in Leonhart Fuchs, *De historia stirpium* (1542) 108
- 5.2 Jeorg Ziegler, drawing of *phu* for Leonhart Fuchs 110
- 5.3 Repeated woodcuts for *atriplex* and *mercurialis*, in Theodore Dorsten, *Botanicon* (1540) 112
- 5.4 Different woodcuts for *atriplex* and *mercurialis*, in Leonhart Fuchs, *De historia stirpium* (1542) 114
- 5.5 *Dracunculus*, in Leonhart Fuchs, *De historia stirpium* (1542) 115
- 5.6 *Prunus*, in Leonhart Fuchs, *De historia stirpium* (1542) 116
- 5.7 *Lamium*, in Leonhart Fuchs, *De historia stirpium* (1542) 117
- 5.8 Two types of martens, in Conrad Gessner, *Historia animalium* (1551–58) 118
- 5.9 Turkish corn, in Leonhart Fuchs, *De historia stirpium* (1542) 119
- 5.10 *Petasites*, in Leonhart Fuchs, *De historia stirpium* (1542) 121
- 6.1 *Petasites*, in Pietro Andrea Mattioli, *Commentarii* (1558) 129
- 6.2 *Lamium*, Leonhart Fuchs, *Primi de stirpium historia commentariorum tomi* (1545) 132
- 6.3 Picture of rhubarb roots sent by Andreas Vesalius to Leonhart Fuchs 135
- 7.1 Drawing of *cotonago*, at Erlangen 140
- 7.2 *Cotonago* and *nicotiana rustica*, from Conrad Gessner, *Opera botanica* (1771) 140
- 7.3 Drawing of *gladiolus indicus*, at Erlangen 142
- 7.4 Drawing of *pulmonaria*, at Erlangen 144
- 7.5 Drawing of *pulmonaria gallica*, at Erlangen 146
- 7.6 Drawing of *rapunculus sylvestris*, at Erlangen 146
- 7.7 Jos Murer, glass painting from the Abbey of Wettingen (1569) 148
- 7.8 Drawing of *parvus verbascum*, at Erlangen 149
- 7.9 Drawing of *dianthus*, at Erlangen 149
- 7.10 Drawing of *leucoia*, at Erlangen 150
- 7.11 Drawing of *gentianella*, at Erlangen 151

- 7.12 Drawing of unknown plant, at Erlangen 153
- 7.13 Conrad Gessner's copy of André Thévet, *Les singularitez de la France antarctique* (1558) 154
- 7.14 Conrad Gessner's copy of Rembert Dodoens, *Histoire des plantes* (1557) 155
- 7.15 Albrecht Meyer, drawing of *priapeia* for Leonhart Fuchs 157
- 7.16 Conrad Gessner, drawing in Pietro Andrea Mattioli, *Commentarii* (1558) 158
- 8.1 Conrad Gessner, annotation on the *doronicum Romanum* in Rembert Dodoens, *Histoire des plantes* (1557) 165
- 8.2 Conrad Gessner, annotation on the *aconitum primum* in Pietro Andrea Mattioli, *Commentarii* (1558) 166
- 8.3 The *tora* in Conrad Gessner, *De raris et admirandis herbis* (1555) 166
- 8.4 Johannes Kentmann, image of the *aconitum pardalianches* 167
- 8.5 Caspar Ulich, *Handstein* (1556/62) 172
- 8.6 Wenzel Jamnitzer, writing utensil casket (1560/70) 173
- 9.1 Diagram in Pierre Brissot, *Apologetica disceptatio* (1525) 182
- 9.2 Diagram in Hippocrates, *Liber de somniis*, edited by J. C. Scaliger (1539) 183
- 9.3 "Method" for students, in Jacques Dubois, *Methodus sex* (1539) 186
- 9.4 Fourth figure in Andreas Vesalius, *Tabulae* (1538) 187
- 9.5 Second figure and detail of azygos vein in Andreas Vesalius, *Tabulae* (1538) 189
- 9.6 Woodcut of azygos vein in Andreas Vesalius, *Epistola* (1539) 193
- 10.1 Title page in Andreas Vesalius, *De humani corporis fabrica* (1543) 201
- 10.2 Dissection scene in Johannes Ketham, *Fascicolo di medicina* (1493) 202
- 10.3 Author portrait in Andreas Vesalius, *De humani corporis fabrica* (1543) 203
- 10.4 Jan Stephan Calcar, *Portrait of Melchior von Brauweiler* (1540) 205
- 10.5 Jan Stephan Calcar, *Studies of human bones* (n.d.) 207
- 10.6 Woodcut of bones in Andreas Vesalius, *De humani corporis fabrica* (1543) 208
- 10.7 Nude male and female figures in Andreas Vesalius, *Epitome* (1543) 211
- 10.8 Layered figure in Andreas Vesalius, *Epitome* (1543) 212
- 10.9 Late sixteenth-century drawing of the Belvedere Torso 216
- 10.10 Woodcut of the Belvedere Torso, in Andreas Vesalius, *De humani corporis fabrica* (1543) 217
- 10.11 Bones of the hands, in Andreas Vesalius, *De humani corporis fabrica* (1543) 220
- 10.12 Human and canine skulls, in Andreas Vesalius, *De humani corporis fabrica* (1543) 222
- 10.13 Table V, Andreas Vesalius, *De humani corporis fabrica* (1543) 223
- 10.14 Table VI, Andreas Vesalius, *De humani corporis fabrica* (1543) 223
- 10.15 Table VII, Andreas Vesalius, *De humani corporis fabrica* (1543) 223

- 10.16 Internal margins in Andreas Vesalius, *De humani corporis fabrica* (1543) 224
- 10.17 Veins of the arm, in Berengario da Carpi, *Isagoge breves* (1523) 226
- 11.1 Five skulls, in Andreas Vesalius, *De humani corporis fabrica* (1555) 230
- 11.2 Instruments on a table, in Andreas Vesalius, *De humani corporis fabrica* (1543) 232
- 11.3 Tabular anatomical description in Loys Vassé, *In anatomen corporis humani, tabulae quatuor* (1541) 234
- 11.4 Engraving of kidneys, in Bartolomeo Eustachi, *Opuscula anatomica* (1564) 238
- 11.5 Azygos veins, in Bartolomeo Eustachi, *Opuscula anatomica* (1564) 240
- 11.6 Comparison between etching and woodcut: Felix Platter, *De corporis humani structura et usu* (1583), and Andreas Vesalius, *De fabrica* (1543) 242
- 11.7 “Philosophical synthesis,” in Felix Platter, *De corporis humani structura et usu* (1583) 244
- 11.8 Azygos vein, in Felix Platter, *De corporis humani structura et usu* (1583) 245
- 11.9 “Anatomical analysis,” in Felix Platter, *De corporis humani structura et usu* (1583) 245
- E.1 Thomas Lorkyn’s drawing in Pietro Andrea Mattioli, *Commentarii* (1558) 252
- E.2 Annotation and drawing in Matthaeus Silvaticus, *Pandectae medicinae* (1499) 253
- E.3 Thomas Lorkyn’s annotations in Andreas Vesalius, *De humani corporis fabrica* (1555) 254
- E.4 Thomas Lorkyn’s drawing in Andreas Vesalius, *De humani corporis fabrica* (1555) 255
- E.5 Thomas Lorkyn’s tabulations in Loys Vassé, *In anatomen corporis humani, tabulae quatuor* (1541) 256

Tables

- 2.1 Comparative costs of images in Christopher Plantin’s accounts 53
- 2.2 Prices of colored and uncolored copies of Conrad Gessner’s *Historia animalium* 60