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978-1-107-02635-3 - Vesalius: The China Root Epistle: A New  
Translation and Critical Edition  
Andreas Vesalius and Daniel H. Garrison  
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## *Vesalius: The China Root Epistle*

 A NEW TRANSLATION AND CRITICAL EDITION

This book provides the first annotated English translation from the original Latin of Andreas Vesalius' *The China Root Epistle*. Ostensibly his appraisal of a fashionable herbal remedy, *The China Root Epistle* concentrates on Vesalius' skeptical appraisal of traditional Galenic anatomy, which was based on animal rather than human dissections. Along with reflections about his life as a young anatomist, Vesalius argued that the new science of anatomy should devote itself less to rhetorical polemics and more to the craft of direct observation based on human dissection. This volume provides annotations to link the Epistle with Vesalius' earlier and more famous *On the Fabric of the Human Body*, and includes illustrations from the famous woodcuts first used in the 1543 edition of the *Fabrica*.

Daniel H. Garrison is Professor Emeritus in the Department of Classics at Northwestern University. He is the translator of *The Fabric of the Human Body* (with Malcolm Hast) and the author of several books, including *Sexual Culture in Ancient Greece*, *The Student's Catullus*, and *Horace Epodes and Odes: A New Annotated Latin Edition*.

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*Vesalius:*  
The China Root Epistle



*A New Translation and Critical Edition*

ANDREAS VESALIUS

EDITED AND TRANSLATED BY  
DANIEL H. GARRISON

*Northwestern University*

WITH ADDED ILLUSTRATIONS FROM THE  
1543 AND 1555 *De humani corporis fabrica*



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[More information](#)

 CONTENTS

*(Page numbers of the 1546 edition appear in italic.  
 Bracketed heads do not appear in the 1546 edition.)*

TRANSLATOR'S INTRODUCTION	<i>page</i> xvii
<i>Text</i> 	1
DEDICATORY PREFACE BY FRANCISCUS VESALIUS – 3	5
AUTHOR'S GREETING TO JOACHIM ROELANTS – 11	13
Occasion for Writing about the China Root – 12	14
With What Success Many Have Used the China – 12	15
Description of the China Root – 18	22
Method of Preparing the China Decoction – 23	27
Quantity of the First China Decoction to be Administered, and the Time to Give It – 24	28
How a Sweat Should Be Induced – 25	29
What Drink Is Useful – 29	33
Sleep and Wakefulness – 29	34
Movement and Rest – 30	34
Concern about Bodily Wastes – 30	34
What Affects of the Mind Are Applicable – 31	36
Sexual Activity – 31	36
How Long the First Decoction Should Be Used – 32	37

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 978-1-107-02635-3 - Vesalius: The China Root Epistle: A New  
 Translation and Critical Edition  
 Andreas Vesalius and Daniel H. Garrison  
 Frontmatter  
[More information](#)

*Contents*

---

A Method of Preparing and Taking a Second Decoction – 33	38
A Way of Administering Sparta Parilla – 34	39
Native and Familiar Drugs Should Be Put to Use Rather Than Exotics – 36	41
Decoction of Chamaedrys – 36	42
No Small Results Can Be Expected from Genuine Rhapontic – 37	43
Hapless People Who Gratify Themselves by Publishing Something – 40	46
Occasion for the Letter of Sylvius in Which It Was Declared That Nothing Written by Galen Is Completely in Error – 41	47
Occasion for the Opinion, Here to Be Recorded, of the Letter in Which Vesalius Replied to Sylvius – 45	51
Galen Did Not Dissect Humans, But Teaches the Study of Animals Instead of Man – 46	52
A Number of Conjectures from the Bones – 46	53
[Sutures of the Skull] – 47	53
[Foramina of the Skull] – 47	54
[Condyles of the Occiput] – 47	55
[Midline of the Mandible] – 48	55
[Hyoid Bone] – 48	56
[Seventh Cervical Vertebra: Perforation of Transverse Processes] – 48	56
[Tenth Thoracic Vertebra] – 48	56
[Processes of the Lower Vertebrae] – 49	57
[Bones of the Sacrum and Coccyx] – 49	58
[The Shape of the Human Sternum] – 52	60
[The Fetal Urachus] – 53	61
[Bony Rib Cartilages] – 53	61
[Whether the Human Heart Has a Bone] – 53	61

[Joint of the Clavicle with the Acromion] – 53	62
[The <i>os pisiforme</i> and the <i>ramus palmaris nervi ulnaris</i> ] – 54	63
Conclusions Drawn about the Fat, Muscles, and Ligaments, Whereby It Is Concluded That Galen Did Not Describe the Human Fabric – 55	64
[Subcutaneous Fat and the Fleshy Membrane] – 56	65
[A Muscle Adducting the Arm to the Chest in Caudate Apes] – 57	66
[A Simian Muscle Raising the Scapula] – 57	66
[The <i>m. levator scapulae</i> ] – 58	67
[Two Muscles of the Head and Neck] – 58	67
[The Second Pair of Muscles Moving the Head] – 59	68
[Muscles Moving the Thorax] – 59	69
[Lumbar Muscles] – 60	70
[The Tendon Hidden in the Hand] – 60	71
[Muscles that Extend the Forearm] – 62	72
[The Biceps Brachii Muscle] – 62	73
[Muscles Moving the Tibia] – 63	73
[The Tendon Beneath the Sole of the Foot] – 64	75
[The Tendon of the First Two Tendons Moving the Foot] – 65	76
[The Tendon of the Soleus Muscle] – 65	76
[Three Muscles in the Back of the Tibia] – 65	76
[The Sixth Muscle Moving the Foot] – 66	77
[A Flexor of the Toes] – 66	78
[Extensor Muscles of the Toes] – 68	79
Several Places Taken from the Series of Veins and Arteries in Which It Is Inferred That Galen Did Not Dissect Humans – 69	80

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 978-1-107-02635-3 - Vesalius: The China Root Epistle: A New  
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 Andreas Vesalius and Daniel H. Garrison  
 Frontmatter  
[More information](#)

*Contents*

---

[Veins to the Stomach and the Spleen] – 69	81
[Course of the Vena Cava Through the Thorax] – 70	82
[Course of the Vena Cava Through the Transverse Septum] – 71	83
[Procedures in Bloodletting] – 71	83
[Origin of the Unpaired Vein] – 72	84
Galen Did Not See the Inner Veins That Hide Deep in the Human Arm – 74	87
[Origin of the Humeral Vein] – 75	87
[Further Disputes about the Veins of the Arm] – 76	89
Reasons Taken from the Nerves by Which It Is Known That Humans Were Not Dissected by Galen – 77	90
Reasons Selected from the Contents of the Peritoneum – 78	91
[Connection from the Omentum to the Colon] – 79	92
[Curvature and Course of the Colon] – 81	95
[Construction of the Liver] – 81	96
[Two Ligaments Attached to the Liver] – 82	97
[Connection of the Bladder to the Peritoneum] – 82	98
[The Site of the Spleen] – 83	98
[The Structure of the Penis] – 83	98
[The Uterus] – 84	99
[Vessels Inserted into the Neck of the Bladder] – 87	103
[Vessels to the Uterus] – 87	104
[Size of the Uterus; Length of the Vagina] – 88	105
[Bovine vs. Human Uterus] – 88	105
[Uterine Acetabula] – 89	106
[Fetal Acetabula] – 90	108



Some Conjectures Based upon the Parts That Are Contained in the Thorax – 90	108
[The Fifth Lobe of the Lung in Galen] – 91	109
[The Wrapping of the Heart; Position of the Heart] – 91	109
Reasons Taken from Those Contained in the Skull – 92	110
[Position of the Cerebellum] – 92	110
Some Places Where Galen Openly Criticized the Ancients Because They Had Dissected Humans and Not Apes, as He Did – 93	111
Not Everything in His Description of the Parts Was Correctly Reported and Described by Galen – 95	115
A Number of Untrue Descriptions in the Bones – 96	115
[Errors of Galen in Describing Joints] – 97	116
[The Ethmoid Bone of the Head] – 98	118
[The Gland That Receives Cerebral Phlegm] – 99	118
[Depressions and Protrusions in the Skull Cavity] – 99	119
[No Bone in the Human Cerebrum] – 99	119
[Bones in the Tympanic Cavity] – 100	119
[Roots of the Teeth] – 100	120
[Foramen for the Optic Nerve] – 100	120
[The Reticular Plexus] – 101	121
[Foramen for the Carotid Artery] – 101	121
[Composition of the Upper Maxilla] – 101	121
[Course and Naming of Skull Sutures] – 102	122
[Ossicles of the Hyoid Bone] – 102	122
[Distinction Between Thoracic and Cervical Vertebrae] – 102	123
[Attachment of Ribs to Vertebrae] – 102	123
[The Fibula Is Longer than the Humerus] – 103	124

*Contents*

---

[Tubercles at the End of the Humerus] – 103	124
[Articulation of the Wrist with the Lower Arm] – 103	124
[Cartilage at the Wrist] – 104	125
[Similar Cartilaginous Coatings] – 105	126
[Shape of the Digital Bones] – 105	126
[Variations in Joints of the Fingers] – 105	127
[Muscle Insertions in the Digital Bones] – 106	127
[Galen’s Failure to Find Sesamoid Bones] – 106	128
[Sockets in the Tibia for the Femur] – 106	128
[The Human Foot Compared to Feet of Other Animals] – 107	128
[Articulation of the Tibia to the Talus in Quadrupeds] – 108	129
[Comparative Anatomy of the Elbow Joint] – 109	130
[Comparative Anatomy of the Foot] – 109	131
Several Inaccurate Descriptions Taken from the Account of Muscles and Ligaments – 110	131
[Galen’s Descriptions of Ligaments and Nerves] – 110	132
[Insertion of Nerves into Muscles] – 111	133
[Difference Between Nerves and Ligaments] – 111	133
[Fleshy vs. Sinewy Muscle Origins] – 111	134
[Muscles Without Tendons] – 112	134
[Muscles That Do Not Originate from Bone] – 112	134
[Number of Common Laryngeal Muscles] – 112	135
[The Pectoralis Minor Muscle] – 113	135
[The Deltoid Muscle of the Arm and Chest] – 113	136
[Insertion of the Deltoid Muscle] – 114	137
[The Latissimus Dorsi Muscle] – 114	137

[The Iliocostal Muscle of the Thorax] – 115	138
[Foramina of the Transverse Septum] – 115	138
[Orifices of the Stomach] – 116	139
[Muscles Moving the Back] – 116	139
[Vertebral Ligaments] – 116	140
[Third Wrapping of the Dorsal Medulla] – 117	140
[Tissues Between the Vertebrae] – 117	140
[Adipose Fat in the Hand] – 117	141
[Tendon Flexing the Second Bone of the Four Fingers] – 117	141
[Other Flexors of the Fingers and Thumb, and an Extensor] – 118	141
[Extensors of Fingers Not Always Attached to Bones] – 119	142
[A Second Function of the Fleshy Mass Below the Little Finger] – 119	143
[Insertion of Tendons Moving Fingers to the Sides] – 120	143
[Grooves and Ligaments of the Carpal Tunnel] – 120	144
[Membrane Covering the Transverse Ligament of the Wrist] – 120	144
[Inner Beginning of the Anterior Muscle Flexing the Forearm] – 121	145
[Muscles Unmentioned by Galen] – 121	145
[Galen's Errors in <i>De Anatomicis Administrationibus</i> ] – 121	145
Some False Descriptions Gathered from the Account of Veins and Arteries – 122	147
[The Vena Cava in the Back of the Liver] – 122	147
[Branches of the Vena Cava Near the Liver] – 123	148
[The Vena Cava Does Not Originate in the Liver] – 123	148

*Contents*

---

[The Vena Cava and the Great Artery] – 124	149
[Galen's False Partition of the Vena Cava] – 124	149
[The Size of the Vena Cava Below the Liver] – 124	150
[The Vena Cava and the Heart] – 126	152
[The Vena Cava and the Arterial Vein] – 126	152
[The Coronary Vein] – 126	152
[Other Errors of Galen Regarding Veins, Especially in the Cerebrum] – 127	152
Accepted Descriptions in the Account of Nerves Which Are Not Quite True – 128	154
[No Foramen in the Optic Nerve] – 129	155
[Nerves Unnoticed by Galen] – 129	155
[Origin of the Dorsal Medulla from the Cerebrum] – 130	155
Descriptions of the Parts That Are Contained in the Peritoneum, Which Are Not Entirely True – 130	156
[Shape and Position of the Stomach] – 131	157
[Galen on the Position of the Lower Orifice of the Stomach] – 132	158
[Whether the Fundus of the Stomach Should Be Considered More Fleshy] – 132	159
[The Pancreas Does Not Close the Lower Orifice of the Stomach] – 133	159
[Fables about Blood Vessels to the Stomach] – 133	160
[Location of the Omentum] – 133	160
[Position of the Colon] – 134	160
[No Vein from the Vena Cava Enters the Omentum, Mesentery, or Intestines] – 134	161
[Galen's Errors Regarding the Liver] – 135	161
[No Vein from the Spleen Passes to the Upper Orifice of the Stomach] – 135	162
[The Search for the Vein from the Spleen] – 136	162
[The Left Gastric Vein] – 137	164

[Construction of the Kidneys] – 138	165
[The Seminal Arteries] – 138	166
[Distribution of the Seminal Vein and Artery in the Testicle] – 139	166
[The Uterus and the Hymen] – 139	166
[A Nun’s Cadaver Brought to Pisa] – 140	167
[A Girl’s Body in the Cemetery at Pisa] – 140	168
[A Prostitute’s Cadaver Stolen by Students at Padua] – 141	168
[Post-Mortem Examination of an Eighteen-Year- Old Girl in Holland] – 141	169
[Wrappings of the Fetus] – 142	170
Several Untrue Descriptions Gathered from the Parts Contained in the Thorax – 143	171
[Orifice of the Pulmonary Vein Compared to That of the Great Artery] – 144	172
[Galen’s Rejection of Statements by the Ancients] – 144	172
[Fibers of Membranes Controlling the Orifice of the Vena Cava] – 145	173
[Small Glands in the Throat Missed by Galen] – 145	173
False Descriptions among the Parts That Are Surrounded by the Skull – 145	174
[The Cerebrum Is Single at its Base] – 146	175
[The Dorsal Medulla Is Continuous with the Cerebrum] – 146	175
[Galen’s Errors Regarding the Cerebral Ventricles] – 147	175
[Galen’s Belief in the Reticular Plexus] – 147	176
Some Places Where It Is Known That Galen Was Not Altogether Sound in Assigning the Functions and Uses of the Parts – 148	177

*Contents*

---

In His Account of the Bones – 149	178
[Where an Epiphysis Does Not Develop] – 149	179
[No Epiphyses on the Vertebrae] – 150	179
[Motion of the Head Over the First Vertebra] – 150	179
[Sylvius as a Professor of Anatomy] – 151	180
[Galen on Motions of the Head] – 152	181
[Self-Contradictions in Galen] – 154	183
[Lateral Movement of the Hand] – 155	184
Several Uses and Functions Not Well Assigned in	
Galen’s Account of the Muscles and Ligaments – 156	185
[Galen’s Inconsistency on the Function of the	
Eyelid Muscles] – 156	186
[Galen on the Muscles of the Eye] – 157	186
[Colors in the Uveal Tunic] – 158	188
[Galen on the Temperaments of the Eyes] – 158	188
[Human Muscles Unknown to Galen] – 158	189
[Muscles and Actions Misunderstood by	
Galen] – 159	189
[The Intercostal Muscles, Unknown by	
Galen] – 161	191
[Galen’s Inattention to Muscles Moving	
the Back, and Other Muscles] – 162	193
[Pronation and Supination of the Wrist] – 164	194
[Muscle Controlling the Neck of the	
Bladder] – 165	195
[Muscles Moving the Lower Leg] – 166	196
[The Popliteal Muscle] – 169	199
Places Collected from the Description of Veins,	
Arteries, and Nerves Where It Is Known That	
Galen Consistently Assigned Incorrect Uses and	
Actions – 169	200
[Motor vs. Sensory Nerves] – 170	201
[The Flow of Humors in the Nerves] – 171	202

A Description of Some Things That Are Contained in the Peritoneum – 171	203
[An Alleged Function of the Pancreas] – 172	203
[How the Upper Orifice of the Stomach Is Closed] – 172	204
[Function of the Spleen] – 172	204
[The Death of Marcantonio Belloarmto of Siena] – 173	205
[Post-Mortem Examination of Prospero Martello] – 175	207
[Post-Mortem Examination of Seigneur de Hallewyn] – 176	208
[Sylvius' Galenism] – 177	208
[Ioannes Eck's Complaint] – 177	209
[Ioannes Dryander's Publications] – 178	209
[The Quarrel of Cornarius and Fuchs] – 179	210
[Galen on Vessels Delivering Material to the Left Testicle] – 179	211
From the Description of Parts Located in the Thorax and Skull – 180	211
Some Invalid Anatomical Proofs of Galen Are Mentioned – 181	213
[Galen on the Origin of Veins] – 182	213
[Galen on Plants and Seeds] – 182	214
[Galen on the Vena Cava] – 184	216
[Blood Vessels Connected to the Heart] – 185	218
[Galen on the Right Ventricle of the Heart] – 186	218
[Not All Veins Are Connected to the Liver] – 187	219
[The Umbilical Vein] – 188	220
[The Venous Artery and the Vena Cava] – 188	220
[Topics to Be Passed Over Here] – 188	221
[The Relative Positions of the Left and Right Kidneys] – 189	221

Cambridge University Press  
 978-1-107-02635-3 - Vesalius: The China Root Epistle: A New  
 Translation and Critical Edition  
 Andreas Vesalius and Daniel H. Garrison  
 Frontmatter  
[More information](#)

*Contents*

---

[The Glandular Attendants Do Not Produce Semen] – 190	223
[Location of Human Breasts, and the Effect of Monthly Purgations] – 190	223
[Veins Between the Breasts and the Uterus] – 191	224
How Useful the Annotations of Vesalius Have Been in Galenic Anatomy, and How Little They Are to Be Needed Hereafter – 192	225
[On Annotating Galen] – 193	225
[Writings Which I Destroyed] – 195	229
[Commentaries on Rhazes] – 196	230
[The Usefulness of Comments on Galen] – 197	230
[The Folly of Condensing Others' Writings] – 199	232
[PREFACE TO AN ITALIAN TREATISE ON USE OF THE CHINA ROOT DECOCTION] – 200	235
Method of Administering the Water of the China Root – 201	236
PROSOPOGRAPHY OF EARLY MODERN PERSONS MENTIONED IN THE CHINA ROOT LETTER	239
BIBLIOGRAPHY	243
VESALIUS' INDEX OF WORDS AND SUBJECTS	247



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---

## TRANSLATOR'S INTRODUCTION

When Vesalius' friend Bernardo Navagero, the Venetian ambassador to the court of Charles V, fell ill at Nymwegen in the Netherlands and was not well enough to travel, Charles V assigned Vesalius the task of staying behind to care for him. It was early January 1546, three years since the publication of his epochal atlas of human anatomy, *De humani corporis fabrica*. For about twelve weeks, with little else to do, Vesalius thought and wrote about his work as an anatomist and its meaning for the discipline. The result of his reflection was the book here translated. Its significance lies to a great degree in what Vesalius had to say about the method that would eventually become what we call scientific.

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---

For most of its pages, the *China Root Epistle* is Vesalius' sometimes barbed response to Jacobus Sylvius' vendetta which later (1551) came to print as *Vaesani cujusdam calumniarum in Hippocratis Galenique rem anatomicam depulsio* (A Refutation of Calumnies by a Certain Madman against Hippocratic and Galenic Anatomy), which maliciously turned the genitive *Vesalii* into *Vaesani* "madman."

What was the cause of Sylvius' malice? When Vesalius was a medical student in Paris from 1533 to 1536 he had been (to judge from his earliest remarks in print) an ardent disciple of Sylvius, who in defiance of tradition performed his own dissections while he lectured. Vesalius had probably earned his teacher's favorable attention, though nothing is recorded about the actual relationship between the two. Sylvius (Jacques Dubois) was a committed humanist who believed that the Ancients wrote nothing wrong, and that the best their latter-day admirers could do was to transmit ancient Greek (as opposed to medieval Arabic) wisdom uncontaminated. In taking this position, Sylvius and his fellow humanists placed their faith in personalities, especially that of Galen of Pergamon (AD 129–199 or 216), rather than a method.

When Vesalius moved on to Padua in 1537, he began to make a reputation there and at Bologna pointing out Galen's errors that resulted from projecting animal anatomy onto humans. Sylvius would have seen this as a treacherous abandonment of the humanist faith. When Sylvius wrote about anatomy, he skirted the errors of Galen in silence. Vesalius' repeated, insistent, and overt assertion of Galen's errors would have seemed flamboyant and insolent to Sylvius' cautious but caustic nature. To the mind of Sylvius, the controversy about anatomy had been poisoned by disloyalty. Worse yet, it had become clear soon after 1543 that Vesalius' anti-Galenic *Fabrica* was destined to eclipse any Galenic anatomy book Sylvius could aspire to write.

Vesalius' response in the *China Root Epistle* to Sylvius' attacks was in the first place a fresh articulation of Galen's many errors and in the second an effort to protest that he was no traitor to the humanist

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cause. The truth was more complicated. A great deal of what Vesalius had published three years earlier about the fabric of the human body was still Galenic and left many of Galen's errors and other faults of traditional anatomy unchallenged. At the same time, even while he was writing the *Fabrica* Vesalius' own thinking had evolved and he could no longer be the faithful disciple of the Ancients, as he wished to be perceived. To fit that paradox, Vesalius needed to throw some rhetorical sand in his readers' eyes.

To start with, he draped his response to Sylvius in the sheep's clothing of a monograph on a fashionable herbal remedy that was in great demand by wealthy patients who suffered from any of the three great scourges of the age: syphilis, gout, and stone. All three were practically incurable, and seemed to concentrate their attacks upon the most successful and gifted: stone, for example, afflicted Thomas Linacre (1460–1524), Desiderius Erasmus (1466–1536), Francis Walsingham (1532–1590), Michel de Montaigne (1533–1592), Oliver Cromwell (1599–1658), John Dryden (1631–1700), Samuel Pepys (1633–1703), and Isaac Newton (1643–1727).

Gout, “the patrician malady,” tortured the Medici patriarch Cosimo de' Medici (1389–1464), his son Piero il Gottoso “the Gouty” (1416–1469), Vesalius' patron Charles V, his medical colleague Ambroise Paré (1510–1590), Elizabeth I's chief advisor William Cecil (1521–1598), and scores of other notables. Because syphilis, the *mal Francese*, bore the stigma of sexual incontinence, its victims were often unacknowledged. They may have included Cesare Borgia (1475–1507), the English monarch Henry VIII (1491–1547), and the Russian Czar Ivan the Terrible (1530–1584), and certainly included numerous princes of the Church, including Giuliano della Rovere (1443–1513), who became Pope Julius II in 1503. Its later victims included Franz Schubert, who died at 31 in 1828.

The demand for a cure was insistent and well funded, as was the demand for professional appraisals of the most celebrated treatments for all three afflictions. Such an appraisal by the author of the *Fabrica*,

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who was also a member of the Holy Roman Emperor's personal medical staff, was sure to circulate widely in the medical community. It was published twice (Basel and Venice) in 1546, the year of its completion, and a third time the next year in Lyon. A German version dealing only with the China root question was published in Würzburg in 1548. More Latin reprints appeared in 1566, 1599, and 1728.<sup>1</sup>

Though not the main subject of the monograph that bears its name, the China root was a hot topic in 1546. The eponymous herbal was the rootstock of *smilax china*, a plant native to the East Indies that is still used in traditional Chinese medicine. Its aqueous extract is believed to have anti-inflammatory and analgesic properties,<sup>2</sup> making it roughly comparable to aspirin (whatever additional placebo effects it may have had). Introduced into Europe as early as 1525 and a widely known specific against syphilis by 1535,<sup>3</sup> it was thought to promote perspiration and urine and was used for a variety of other diseases, including gout and stone. It remained unmentioned by the leading botanists of the time.<sup>4</sup> But by 1546, it was a celebrated panacea demanded by wealthy clients such as Vesalius' own patron, the Holy Roman Emperor Charles V. Vesalius' professional judgment of the China root was at best polite and agnostic, but long before the end of his *Epistle* he dismissed it as *stupidus* and devoted the rest of his monograph to topics that were closer to his heart: his insistence that Galen was an unreliable authority on human anatomy because he had dissected animals instead of humans, and his defense against Sylvius' scurrilous attacks.

It is likely that some of this larger part of the *Epistle* originated from the projected annotations to the anatomical works of Galen that

<sup>1</sup> Cushing 1962, 163–7.

<sup>2</sup> Shu et al. 2006. The rhizome of a related plant, *Smilax glabra*, known in English as the glabrous greenbrier rhizome, has been used recently in combination with other Chinese herbs in the treatment of syphilis (Bensky & Gamble 1986, 144f.).

<sup>3</sup> Schmitz and Tan 1967, 221.

<sup>4</sup> For example, Johannes Ruellius *De medicamentorum compositione* (1540), Leonhard Fuchs *De historia stirpium* (1542), Pierandrea Mattioli *Commentarii in sex libros Pedacii Dioscoridis* (1544), Johannes Actuarius *De medicamentorum compositione* (1546).

Vesalius referred to at the end of his chapter in the *Fabrica* on the flexors and extensors of the radius, Bk. II ch. 46: "I shall reveal all of this in my annotations to the Anatomical Works of Galen, which I have already well begun and shall at some time publish separately or together with the books of Galen much better corrected than formerly."<sup>5</sup> But near the end of this *Epistle* (page 195 of the Basel edition) Vesalius says that he burned those annotations along with other writings when he left his academic post at Padua to enter the service of Charles V. By that time, he says, his notes on Galen had grown into a massive work, *ingens volumen*. Either he reconstructed some of them from memory for the *Epistle* or he exaggerated when he said he had burned them. Whatever the case, the length of his remarks in the *Epistle* on the errors of Galen reflects the regret he expresses here at the *petulencia* with which he had abandoned his research as an anatomist.

Taken in this way, the *Epistle* may be thought of as the core of the lost commentary on Galen, drawing upon what Vesalius had already published in the *Fabrica* and expanding those remarks into a sustained polemic using a series of discrepancies between Galen's animal-based anatomy and Vesalius' anatomy founded upon human dissection. It testifies more than the *Fabrica* to Vesalius' substantial work in comparative anatomy, particularly in parallel dissections of human parts with corresponding parts of common mammals and caudate and non-caudate simians, with a view to identifying which parts corresponded to Galen's descriptions and which did not. The *Epistle* reminded its readers that the case against Galenism was massive, pervading the functions as well as the fabric of the entire human body.

The rapidity with which the *Epistle* was written and the lack of an editor resulted in some repetitiveness in the later pages, where

<sup>5</sup> On these abandoned projects, see O'Malley 1964, 190 f., 223. Nancy Siraisi has called this type of commentary, in which Giovanni Argenterio also engaged, a "counter-commentary" because it concentrated on pointing out errors. (Siraisi 1990, 172).

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 Translation and Critical Edition  
 Andreas Vesalius and Daniel H. Garrison  
 Frontmatter  
[More information](#)

*Translator's Introduction*

---

Vesalius restates criticisms of Galen he had mentioned earlier. Though these repetitions give those pages a rambling quality, they also reveal some errors of Galen that were particularly on the author's mind. These include the observation that the omohyoid muscle does not move the scapula (pp. 58, 159), the correct length of the styloid process of the ulna (pp. 104, 154), and the function of the pancreas relative to the lower orifice of the stomach (pp. 111, 172). The most persistent repetition regards the absence of any vessel that might convey black bile from the spleen to the stomach (pp. 133, 135, 138, 173). Though Vesalius refrains from mentioning the effect of this vascular hiatus upon the folklore of melancholia and humoral medicine generally, it may be speculated that the question was something he hoped his readers would take up.

In centering his *Epistle* on criticisms of Galen and Galenism, Vesalius wished to avoid being perceived as a traitor to the humanist cause, which aimed to restore the pristine dominance of Greek medicine, still held up as the one and only *prisca medicina*. He sometimes, therefore, casts Galen as the wrong-headed detractor of the Ancients who substituted animal anatomy for the human anatomy in which they (especially the Alexandrians of the 3rd century BC) were supposedly versed. Just before the middle of the *Epistle* he stakes out his ground as the champion of Greek (as opposed to Galenic) anatomy:

When Galen cut up his monkeys and saw that they differed from the description of the ancients, who trained themselves on human dissections, he did not scruple to state that they had not seen that [third] fiber of the lung and who knows what else. I should therefore be thought more impious if I had not vindicated those Ancients with a true description of the human fabric. If because of the powerful devotion to Galen under which I labor and my special regard for him I were to leave his opinions everywhere undisturbed contrary to the testimony of my eyes

and the truth of the matter, I should be willing to have my generation wander in confusion like all the ages that have followed Galen, and let his misrepresentation of the Greeks go undetected.<sup>6</sup>

As he draws nearer the end of the *Epistle*, Vesalius articulates a critique of medical work that sets aside the vendettas and polemics with which Galen and his successors (including Vesalius himself) had overly occupied themselves. The craft of medicine, he says, is not about criticizing the books others have written or the authors who wrote them but about

the diligent and careful dissection of humans, simians, and certain other animals. Nor is it sufficient to occupy oneself in speaking ill of someone or ridiculing the efforts of others and to detract equally from one's own and others' glory ... when one should rather be working up a sweat in common efforts at the truth, and believing that we too were born human. Something in the vast art of medicine may be present in us, as well as a faculty of discovery, if we are more strongly held by a desire for truth than for calumniating others.

In making this remark he is not only distancing himself from the critiques of Galen and Galenists to which he had devoted his writing career, he is also distancing medical research from personal rivalry and from the philological work that humanist scholars like Cornarius were doing, and asserting its focus upon "diligent and careful dissection."

<sup>6</sup> Galenus enim, quum simias suas scinderet, illasque a veterum qui hominum dissectionibus sese exercebant historia abesse videret, non veritus est testari, eos illam pulmonis fibram, & nescio quae alia, latuisse. Adeo ut magis impius censi deberem, si in vera hominis fabricae historia Veteres illos non excusassem: quam si propter insignem quo erga Galenum laboro affectum, singularemque observantiam, illius placita undique imperturbata reliquisssem: atque hoc nostrum seculum, perinde atque omnia quae Galenum secuta sunt, hallucinari, & Graecorum imposturam latère voluisssem. (p. 95).

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 Translation and Critical Edition  
 Andreas Vesalius and Daniel H. Garrison  
 Frontmatter  
[More information](#)

*Translator's Introduction*

---

Vesalius is no longer thinking like a humanist; he is and beginning to think like a scientist.

It is clear from a letter that Vesalius sent to Thomas Gast, his friend in Basel, that he set great store by this little publication:

I should be happy to have the work published soon and in elegant format. I request you to advise Oporinus to use the best paper and to see that the book has wide margins. I shall bear the extra cost. Thereby the printing is clearer and the work of the typographer made easier. The larger a book is, the greater my pleasure in it. I know you will laugh at my wishes; nevertheless, I wish it. Nothing gives me more pleasure than a splendid edition of my work. ... Impress it upon Oporinus that he is not, as is his custom, to allow my manuscript to remain for a long time in his drawer.<sup>7</sup>

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VESALIUS ALWAYS WROTE BEST WHEN DESCRIBING A PROCEDURE such as a dissection (in the *Fabrica*) or the preparation of a decoction (in the *Epistle*). His language is most tortured in his polemical mode, when he is putting his mental agility on display. Vesalius took from Galen and from the worst vices of medieval scholasticism a preference for dense polemic where we should have preferred clear exposition and economy of language.

His Latinity, seldom transparent at any time, is especially slapdash in the *Epistle*, changing constructions in mid-sentence, moving in weird ellipses, using nonstandard constructions, and more than once abandoning the rules of syntax altogether. This could be the result of lacking an editor for the *Epistle* or of writing even more hastily than he had for the 1543 *Fabrica*. It could also be the result of

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<sup>7</sup> English translation from O'Malley 1964, 455 n. 149.



the transmission of his text, which appears from the preface written by Vesalius' brother Franciscus to be a fourth-generation copy. From the autograph (first generation), Jacob Scepper made a copy (second generation) to carry to Ferrara; a copy of that was then made (third generation, by Franciscus) for delivery to Vesalius' publisher Oporinus in Basel, whose printed *Epistle* became the fourth generation. O'Malley speculates that Vesalius sent a revised version of his monograph to Oporinus containing his corrections of the copy set to type by the printer,<sup>8</sup> but we see little evidence of a careful recension by the author before it went to press. Whatever the case, this translation is based upon Oporinus' *editio princeps*. The Latin, sometimes rapid and clear, more often falls into a congested state that requires careful unpacking and diligent guesswork.

Vesalius is not the only important author whose prose was notoriously unreadable. Writing in the first century BC, the literary critic and historian Dionysius of Halicarnassus said about Thucydides' Greek "If people actually spoke like this, not even their mothers or their fathers would be able to tolerate the unpleasantness of it; in fact they would need translators, as if they were writing in a foreign language."<sup>9</sup> Vesalius' Latin in the *Epistle* makes it a foreign language even to the lifelong reader of Latin. It shows an impatience with the language of the humanists which he increasingly seems to have felt had become an end in itself rather than the means to an end. Yet instead of trying to make it more transparent, he made it still more opaque.

Vesalius' language is insistently visual and his working vocabulary is immense.<sup>10</sup> Though humanist Latin endeavored to use only

<sup>8</sup> O'Malley 1964, 455 n. 149.

<sup>9</sup> Quoted by Mary Beard in "Which Thucydides Can You Trust?" *New York Review of Books* LVII.14 (September 30, 2010), p. 52.

<sup>10</sup> Like every serious writer of his time in Europe, Vesalius was influenced by Erasmus' *De copia*, first sketched in 1499 but emended and expanded throughout his life until Froben's edition of 1534, which begins "The speech of man is a magnificent and impressive thing when it surges along like a golden river, with thoughts and words pouring out in rich abundance." (tr. Betty I. Knott, *De Copia. Foundations of the*

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 Translation and Critical Edition  
 Andreas Vesalius and Daniel H. Garrison  
 Frontmatter  
[More information](#)

*Translator's Introduction*

---

the classical vocabulary, this would have been difficult in a field such as medicine which had for centuries been developing new words and meanings. As we have already seen, it is no longer strictly accurate to call the Vesalius of 1546 a humanist.

The resulting complexity of Vesalius' Latin makes a literal translation more difficult than it would be for a classical author (not including Thucydides) who was a native speaker. Some word meanings have to be backed out of the Oxford English Dictionary, and many eccentric constructions can only be paraphrased. As when translating the *Fabrica*, I have not tried to mask the way Vesalius wrote, though I have always tried to make it clear and I regularly break down sentences that ramble on too long. The resulting English will not resemble the crisp, efficient language we have been taught to write, because the canons of Early Modern style favored bulk and complexity over concision. What Vesalius feared most to write was something that would seem *sterilis* or *ieiunus*, barren or meager.<sup>11</sup>

In preparing this annotated translation I have mapped the most important links to the 1543 *Fabrica* which serve as a background to what Vesalius wrote in the *Epistle*. Of course, the *Epistle* is not simply a recitation or précis of what was in the *Fabrica*, being often more detailed in its account of Galen's errors and sometimes offering new evidence that Galen did not dissect human cadavers. The annotations here sometimes repeat what I wrote for the *Fabrica* where that is relevant, and where it might be helpful I supply the *nomina anatomica* that my co-author Malcolm Hast provided for the *Fabrica*, with his kind permission.

Except for the portrait of Vesalius in the frontispiece, three large historiated capitals, two of a smaller type, and a colophon figure of Arion, the *Epistle* was printed without illustrations. Partly to relieve

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*Abundant Style*. Vol. 24, Collected Works of Erasmus. Toronto: University of Toronto Press, 1974).

<sup>11</sup> *ut non quantum sterili mea ieiunaeque dictione datum fuit* (p. 44 in the 1546 *Epistola*).

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Andreas Vesalius and Daniel H. Garrison  
Frontmatter  
[More information](#)

---

*Translator's Introduction*

---

the tedium of two hundred pages of unbroken text without paragraph or chapter breaks, and more importantly to help the reader visualize what Vesalius saw in the human body, I have interpolated several illustrations from the *Fabrica*. Some of these are details of larger woodcuts, and most have been reduced in scale lest they overwhelm the smaller page size of the *Epistle*.

For an online scanned facsimile of the *editio princeps* of the *Epistle* I am grateful to the Bibliothèque interuniversitaire Santé (or Biusanté) at the Université Paris Descartes, and to Northwestern Library's bibliographer William A. McHugh for locating this PDF. To Karen Reeds and an anonymous second referee for the Press, I am grateful for numerous corrections and suggested additions to the notes. The result has been a clearer window into the world that the *China Root Epistle* reveals.