

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

MAKING THE *HERBALL*: JOHN GERARD AND THE FASHIONING
OF AN ELIZABETHAN HERBARIST

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

DOCTOR OF PHILOSOPHY

BY

MELISSA L. RICKMAN

Norman, Oklahoma

2011

MAKING THE HERBALL: JOHN GERARD AND THE FASHIONING
OF AN ELIZABETHAN HERBARIST

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF HISTORY OF SCIENCE

BY

Dr. Steven Livesey, Co-Chair

Dr. Karen Reeds, Co-Chair

Dr. Kerry V. Magruder

Dr. Paul Minnis

Dr. Marilyn B. Ogilvie

For Jane, Calvin, and Travis

Acknowledgments

It is a pleasure to thank those who made this dissertation possible. I would like to thank my family for their love and unyielding belief in me. I owe deepest gratitude to Karen Reeds, Steven Livesey, Kerry Magruder, Marilyn Ogilvie, and Paul Minnis. Their encouragement and guidance deepened my understanding of my topic and made this project a pleasure. I am indebted to my many colleagues but especially Cornelia Lambert, Joann Palmeri, and Maureen McCormick.

Table of Contents

| | |
|---|-----|
| List of Figures | vii |
| Abstract | ix |
| Introduction | 1 |
| Chapter One Gerard: Barber-Surgeon | 9 |
| Chapter Two Gerard: Gardener | 38 |
| Chapter Three Gerard: Client of a Powerful Patron | 64 |
| Chapter Four Gerard: Author | 97 |
| Conclusion Gerard: Herbarist | 130 |
| Bibliography | 145 |
| Appendix One: Time line | 159 |
| Appendix Two: Images from the <i>Herball</i> (1597) | 166 |
| Appendix Three: Comparison of <i>Catalogus</i> (1596) and <i>Catalogus</i> (1599) | 186 |

List of Figures

- Figure 1 “Aromaticall Reedes” (Acorus and Calamus) 167
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 2 Portrait of John Gerard 168
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 3 “Variable Flower de-Luce” (Iris) 169
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 4 “Meadow Saffron” (Colchicum) 170
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 5 “Sowbread” (Cyclamen) 171
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 6 “Clownes Alhele” (Panax Coloni) 172
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 7 “Stinking Gladdon” (Xyris) 173
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 8 “Shrubbe Trefoile” (Polemonium) 174
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 9 “Tabaco of Henbane of Peru” (Hoscyamus Peruvianus) 175
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 10 “The marvale of Peru” (Mirabilia Peruviana) 176
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 11 “Navew gentle” and “Wilde Navew” 177
(Bunias and Bunias sylvestris L’Obelii)
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,

University of Oklahoma Libraries

- Figure 12 “Fruitfull Marigold” (*Calendula prolifera*) 178
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 13 “Candie Mustard” (*Thlaspi Candie*) 179
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 14 “The red Lillie of Constantinople” (*Lilium Bizantinum*) 180
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 15 “The Nettle tree” (*Lotus arbor*) 181
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 16 Title Page 182
Engraving from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 19 Title Page with tentative plant identifications 183
Engraving from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 17 Title page lozenge 184
Engraving from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries
- Figure 18 The month of April 184
Image from *The Monthes* (1581)
Adriaen Collaert (engraver) and Hans Bol (artist)
From the collection of Museum van Boijmans Beuningen
[http://collectie.boijmans.nl/en/work/L_1965/114_d_\(PK\)](http://collectie.boijmans.nl/en/work/L_1965/114_d_(PK))
- Figure 20 “Potatoes of Virginia” (*Battata Virginiana*) 185
Woodcut from Herball, 1597
By Courtesy of the Curator, History of Science Collections,
University of Oklahoma Libraries

Abstract

John Gerard (1545-1612) would not be remembered except for the fact that he wrote *the* Elizabethan book on plants: *The Herball or Generall History of Plantes. Gathered by John Gerarde of London Master of Chirurgerie* (London: John Norton, 1597). Although there are few documentary records about this barber surgeon and supervisor of the gardens of William Cecil, Lord Burghley, Gerard's *Herball* (1597) is itself a rich source of information about his activities and ambitions. Drawing on this material as well as the two catalogues Gerard published about his own garden of medicinal, indigenous, and exotic plants, I reconstruct five roles Gerard took on over the course of his life: surgeon, gardener, client, author, and herbarist. Applying the models of Renaissance self-fashioning and Renaissance scientist-courtier offered by Stephen J. Greenblatt and Mario Biagioli to this member of the minor gentry and London guild community allows us to see Gerard in a new light. I argue that he consciously and energetically shaped his career by finding a powerful patron and a place among the newly emerging community of early modern naturalists. This allows us to see the *Herball* (1597) in the context of his own expectations and the assumptions of Renaissance book culture and to give Gerard more credit for his accomplishment than previous historians have generally done.

Introduction

John Gerard, master barber surgeon and citizen of London, would not be remembered today except for the fact that he wrote the Elizabethan book on plants: *The Herball or Generall History of Plantes. Gathered by John Gerarde of London Master of Chirurgerie* (London: John Norton, 1597): an immense compilation of information about plants and their uses that continues to be consulted today. But what do we know of the man whose name appears on the title page?

Few details are readily available about the life of John Gerard (1545-1612). Most of what we know derives from the *Herball* (1597) and the record books of the London Company of Barber Surgeons. We know that Gerard was born in Nantwich, Cheshire in 1545. He went to school in “Wistaston” (probably Willaston) also in Cheshire. His family was gentry, a branch of the Gerards of Ince, Cheshire. As a young man, Gerard served a seven-year apprenticeship with Alexander Mason of the Company of Barber Surgeons. In 1569, after gaining his freedom of the company, he became a successful London surgeon. He made one voyage to Baltic countries and Russia, but we do not know when or why. In 1577, Gerard was given a position as superintendent of gardens for Burghley House and Theobalds, two stately homes of William Cecil, Lord Burghley, Queen Elizabeth's chief advisor and Treasurer. That meant Gerard enjoyed the protection and support of one of the most powerful men in England. Gerard and his family lived in Holborn, a suburb west of London, in a tenement with a large walled garden nearby, all owned by Burghley. Gerard grew his own plants in this garden and in 1596 published a catalogue of the plants in the garden. A few years earlier, an ambitious bookseller-publisher, John Norton, had asked Gerard to help him complete a book project based on an herbal by the Dutch physician, Rembert Dodoens. The resulting book, *The Herball*, was published at the end of 1597.¹ The following year, Norton printed a second and enlarged catalogue of Gerard's garden. In 1603, Gerard was given the title of Herbarist to James I. He held this post for two years. In 1609, he became the

¹ There were two other editions, one in 1633 and another in 1636. Throughout this study, I use the short title and publication date, i.e. *Herball* (1597) and *Herball* (1633), to differentiate between the *Herball* of 1597, which Gerard saw through publication, and the second edition of 1633, which was extensively revised, enlarged, and corrected by Thomas Johnson. In the botanical literature, Johnson's edition of 1633 is often called *Gerardus emaculatus* (*Ger. emac.*). The third edition of 1636 is essentially a reprint of Johnson's 1633 *Herball*. No one has done a systematic analysis of Johnson's revisions, and I have not attempted that here. Because Johnson's comments and editing have strongly influenced later historians' opinions of Gerard, I have generally preferred to rely on Gerard's own words in the first edition to understand Gerard himself. The second and third editions are available on Early English Books Online. The third edition is freely accessible online at the Biodiversity Heritage Library.

Master of the Company of Barber Surgeons. Gerard died in 1612, at the age of 67, leaving behind his widow, Ann (or Agnes) Gerard, a married daughter, and three granddaughters.

From this limited amount of information, how can one reconstruct Gerard's life with any certainty? The *Herball* (1597) is the best known book of its kind from Elizabethan England, but what do we know about the man whose name was placed on the title page? We are lucky to have the *Herball* (1597): it provides a rich source of information about many aspects of Gerard's interests and work.² A close examination of the personal remarks that Gerard embedded in the *Herball* (1597) makes it clear that he wrote with multiple goals in mind. In this dissertation, I make extensive use of Gerard's references to himself in the *Herball* and the two garden catalogues (1596, 1599), along with other contemporary records of his work, to delineate Gerard's career and its "local frames of meaning"—to use Robert Westman's helpful phrase—in both Elizabethan London and the wider circles of Renaissance natural history.³

Recent historiography in history of science and medicine as well as literary and cultural history has offered strategies for analyzing a text not only for its intellectual content but also for its value as a piece of historical evidence about its author's life and self-image.⁴ My main avenue of inquiry is to ask what natural

² High quality images of the copy of the *Herball* (1597) in the History of Science Collections, University of Oklahoma Libraries are available on the open web at: <http://129.15.14.63/galleries//16thCentury/Gerard/1597/>

³ Robert S. Westman and David C. Lindberg, "Introduction," in *Reappraisals of the Scientific Revolution*, edited by David C. Lindberg and Robert S. Westman (New York: Cambridge University Press, 1990): xix. Deborah Harkness also talks about the local frames of meaning in Elizabethan London. Deborah Harkness, *The Jewel House* (New Haven, Connecticut: Yale University Press, 2007).

⁴ For self-fashioning and patronage historiography, I found Stephen Greenblatt, Mario Biagioli, and Bruce Moran especially fruitful as guides to Renaissance strategies: Stephen Greenblatt, *Renaissance Self-Fashioning* (Chicago: University of Chicago Press, 1980/2005); Mario Biagioli, *Galileo Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: University of Chicago Press, 1993); and Bruce T. Moran, "Patronage and Institutions: Courts, Universities, and Academies in Germany; an Overview: 1550-1750," in *Patronage and institutions: Science, technology, and medicine at the European court, 1500-1750*, Bruce T. Moran, ed., pp.169-183. (Rochester, NY: Boydell Press, 1991). Dr. Peter Barker personal communications.

For history of Elizabethan medicine, I used the work of Margaret Pelling, Frances White, Andrew Wear, and Harold J. Cook extensively; Andrew Wear, *Knowledge and Practice in English Medicine, 1550-1680* (Cambridge: Cambridge University Press, 2000), 23; Margaret Pelling and Frances White, eds., *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640* (Oxford: Clarendon Press, 2003); Harold J. Cook, "The Cutting Edge of a Revolution? Medicine and Natural History Near the Shores of the North Sea," in *Renaissance and Revolution: Humanists, Scholars, Craftsmen, and Natural Philosophers in Early Modern Europe*, edited by J.V. Field and Frank A. J. L. James, (Cambridge: Cambridge University Press, 1993), 45-61.

knowledge meant to Gerard personally, professionally, and intellectually. With this in mind, I have organized this discussion of Gerard's activities and ideas, as evidenced by his writings, around the roles that he developed for himself over the course of his life.

I focus on five different but interrelated roles: surgeon, gardener, client, author, and herbarist. By looking at all five in the context of the medical and plant world of Elizabethan England, I can offer a richer picture of Gerard's career than has been previously available. In each chapter, I explain how a particular role provided Gerard with new skills and opportunities.

I feel comfortable assigning Gerard volition in creating these facets of his career for several reasons. Gerard's life was marked by multiple successes and increasing influence in a competitive and politically charged society. Gerard began his career as one among many London surgeons. By the end of his life, he had achieved the highest positions open to a man of his skills: Herbarist to the monarchy, supplying the queen with the fruits of his garden, and Master of the Company of Barber Surgeons. More generally, he lived in a time and place that took for granted the necessity of what we might consider to be social-climbing today.

"Self-fashioning" was standard procedure in Elizabethan England.⁵ Fashioning an identity for oneself by manipulating one's outward appearance and behavior to succeed in the world was accepted, expected, and rewarded. This included molding one's speech, clothing choices, and actions towards specific goals and personal benefit. Castiglione's influential work, *The Courtier*, laid out the ways a successful courtier could create the best impression: the aspiring courtier should

determine with himselfe what he will appeere to be, and in such sorte as he
desireth to bee esteamed so to appaiaile himselfe, and make his garments helpe
him to be counted such a one, even of them that heare hym not speake, nor see

I am also greatly indebted to Rebecca Bushnell, *Green Desire: Imagining Early Modern English Gardens* (Ithaca: Cornell University Press, 2003); Andrew Cunningham, "The culture of gardens," in *Cultures of Natural History*, edited by Nicholas Jardine, 38-56, (Cambridge: Cambridge University Press, 1996); Pauline Croft, ed., *Patronage, Culture and Power: The Early Cecils, 1558-1612*, (New Haven, Connecticut: Yale University Press, 2002); Adrian Johns, *The Nature of the Book: Print and Knowledge in the Making* (Chicago: University of Chicago Press, 1998); Florike Egmond. *The World of Carolus Clusius: Natural History in the Making, 1550-1610*. (London: Pickering & Chatto, 2010).

⁵ Stephen Greenblatt, *Renaissance Self-Fashioning* (Chicago: University of Chicago Press, 1980/2005). Mario Biagioli, *Galileo Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: University of Chicago Press, 1993). These texts are fundamental for the interpretation of self-fashioning in the history of science. Greenblatt and Biagioli wrote about major courtiers, but their approaches also apply to Gerard, who had only a minor role in the court of his patron William Cecil.

him do any manner of thing...⁶

It was not at all exceptional for John Gerard to use the strategies of a courtier to achieve his own ends. What is unusual is our opportunity to observe it happening with a member of the guild community, on the fringes of courtly and scholarly circles. Gerard's interests and store of natural knowledge fed into his self-fashioning. The two are intertwined in ways that are not immediately obvious. One of the products of this dissertation is to show the complex interplay between self-fashioning and the making of natural knowledge through collecting and growing plants. As he fashioned his identity with and in his garden, Gerard made knowledge about the natural world.

Gerard did not, of course, begin his career wanting to be herbarist to the king—the position did not even exist then. But none of the many successes over Gerard's life happened accidentally. To put it another way, in Elizabethan England, a man could not accomplish the things Gerard did by good luck alone. It took native ability coupled with deliberate effort to build up a successful surgical practice in London, to establish a huge garden of rare plants, to seek out new plants and the men who would covet them, to acquire and keep an extraordinarily powerful patron, to publish the first garden catalogues in England, and to put his name on the title page of a book that continues to be read with pleasure centuries later.

Throughout this dissertation, I argue that each role built one upon the other, each time allowing Gerard to establish his authority in London to a greater degree and to expand his group of colleagues. There were certain requirements and social expectations—mores if you will—for these undertakings. Piece by piece, Gerard acquired the knowledge or accoutrements that he needed to move forward. Each achievement did require energetic self-fashioning, so I do not hesitate to argue that he set goals for his life and that, through his texts, we can discern those goals and his methods of reaching them.

Throughout his life, Gerard identified himself first as a London surgeon. It is important to remember that he apprenticed with a man who would soon be Master of the Company of Barber-Surgeons. Thanks to his master, Gerard was exposed to the reforms in surgical training that were being instituted by the Company's leadership. By the time he gained his freedom from the company, Gerard had viewed several dissections, learned the theory of *materia medica*, knew the physic (that is, the medicine) that had to do with

⁶ Baldassare Castiglione, *The Book of The Courtier, from the Italian of Count Baldassare Castiglione: Done into English by Sir Thomas Hoby, Anno 1561, With an Introduction by Walter Raleigh* (London: David Nutt, 1900), Book 2: 135-6.

surgery, and had some knowledge of Latin. He would have seen his master deal with London guild politics in a tense time for medical practitioners.

Like every ambitious Elizabethan, Gerard knew the value of having a powerful patron and must have actively pursued a relationship with William Cecil, secretary and sometime treasurer to Elizabeth I. Cecil was a very busy man and employed his own secretary through whom all solicitations had to pass before coming to the Cecil's attention. Gerard may have had to pass through two social brokers and many introductions just to demonstrate to Cecil his skills and to offer his services. Because gardens were sites of courtly recreation and intrigue and the possession of rare plants was a source of prestige, Gerard's expertise in plants and gardens was both politically useful and intellectually interesting to Cecil.

Gerard's knowledge of plants arose from his medical background and, it is fair to assume, a predilection from his youth. Sixteenth-century England was predominantly rural, and no child could have grown up in the countryside wholly unaware of plants and their manifold uses.⁷ Gerard's childhood home in Cheshire would have had a kitchen and herb garden from which the cook and his mother would have made meals and medicines. In chapter four, I note that in the *Herball* (1597) Gerard recalled that blackberry bushes had grown near the track that led to his school.⁸ He knew that in Cheshire, the English Cuckowe flowers were called Ladiesmockes, that *Phalaris pratensis*, "Quaking grasse," was called "Quakers and Shakers," and that Horse Radish grew in "Namptwich in Cheshire where I had my beginning."⁹

⁷ Leah Knight, *Of Books and Botany* (Aldershot: Ashgate, 2009).

⁸ John Gerard, *Herball* (London: John Norton, 1597), Book III, Chap. 2: 1089. *Of the Bramble, or blacke Berrie Bush*. When using a quote from the *Herball* (1597), I give the reference for each instance in this manner. I will include the book number, chapter number, page number, and chapter heading.

⁹ Gerard, 1597, Book II, Chap. 18: 203, *Of wilde water Cresses or Cuckow flowers*; Book I, 81, Chap. 57, *Of Canarie seede, or Petie Panick*; Book II, Chap. 7: 187, *Of Horse Radish*. When naming plants, I use the sixteenth-century Latin names (in italics) and the English names used by Gerard. I typically follow Gerard in capitalizing English common names. Mats Rydén offers a discussion of the language of the 1597 herbal in Mats Rydén, "The English Plant Names in Gerard's *Herball* (1597)," *Studies in English Philology, Linguistics and Literature; presented to Alarik Rynell 7 March 1978*, edited by Mats Rydén and Lennart A. Byrk (Stockholm, Sweden: Almqvist & Wiksell Int., 1978): 142-150. For identification of Gerard's plants by modern scientific names see: John H. Harvey, *A Service Index of Latin Binomials to Gerard's Herball as revised by Thomas Johnson 1633* (London: Linnean Society of London, 1981).

Gerard's goal of running his own garden may have arisen first from the demands of his surgical practice: he wanted to grow the plants needed for salves and lotions. However, both the plant and medical world were in flux in Elizabethan London, allowing mobility and authority where there had been only boundaries before. Gerard's own curiosity and ambition provided the impetus for making his Holborn garden very different in form, content, and purpose from most surgeons' gardens and from the gardens that had preceded it on those grounds. His two garden catalogues had no precedents and should be seen as further examples of Gerard's self-fashioning as an unusual kind of surgeon and gardener. Similarly, when Jon Norton asked him to complete a pre-existing herbal, Gerard saw an opportunity to express his own knowledge, opinions, and experiences. He was not simply a surgeon who merely gardened on the side.

The motivation for undertaking the difficult work of preparing the *Herball* (1597) would have come from many places. Gerard had models in successful Continental and English herbal authors. John Frampton translated the Spanish text by Nicolas Monardes under the name of *Jouyfull newes out of the newe founde world* (1577). This work enthusiastically explained the virtues of New World plants and minerals for physicians and surgeons. Henry Lyte had translated Rembert Dodoens' herbal *Cruydeboeck* (1564) (from the French edition by Charles de L'Ecluse) into English: *A niewe Herball or Historie of Plantes...* (1578). The physician and cleric, William Turner, wrote in both Latin and English. His two English works were *The names of herbes* (1548) that attempted to rectify the confusion surrounding the panoply of plant names in many languages. His *A new herbal* (1551 and 1568) was the first humanist herbal in English and incorporated many of Turner's own observations. Other models included a number of surgical antidotaries in multiple editions including: Italian surgeon Giovanni da Vigo's *Worckes of Chirurgery* (1543, 1550), and English surgeon Thomas Gale's *An Institution of a Chirurgian* (1563) that ended with *An Antidotarie conteyning the principall and secrete medicines, used in the art of Chirurgerie*. Several anonymous editions of an antidotaries, all called *The antidotharius*, were printed and sold by printer John Wyer in 1535, 1548, 1552, 1554, and 1556. These works included information on plasters, salves, ointments, powders, balms, oils, and wound drinks.

The *Herball* (1597) was also the right kind of gift to please his patron: lavishly produced and full of valuable information. The nature of Gerard's patronage gift was expressed within the title page—just as he collected plants from many locations, Gerard “gathered” the information from multiple sources to complete the book. This mode of authorship and Gerard's understanding of the role of an author-anthologizer are

important to notice, because during Gerard's lifetime, in the realm of natural history, expectations of originality from individual investigators were beginning to emerge. Like the medical and plant world, the world of writing and publishing in Elizabethan London was very much in flux.

Gerard's first four roles— surgeon, gardener, client, and author—fit into recognized slots in Elizabethan society. The fifth, however, deserves special attention. In the course of writing this dissertation and studying Gerard's text closely, I became increasingly conscious of Gerard's sense of himself as an active citizen of London, and more specifically as a participant in the London natural history community. Gerard knew some of these men who were most prominent in London's natural history circles, and he wanted to be counted among them. I began to see that Gerard viewed himself as an herbarist, that is, someone who had knowledge of plants and production of medicines from them, but that he was redefining the word in a way that would be equivalent to what we would call a "naturalist." The word "naturalist" itself was not yet used in the sense in Europe or England until somewhat later but it was emerging on the Continent there was already emerging a group of people identified themselves with the Latin phrase: *studiosus rei botanicae, rei herbariae, or rerum naturae*.¹⁰ Gerard used an existing term in English (herbarist) to align himself with the Continental "naturalists," some of whom traveled to and lived in London. Gerard both took on and elevated this role to become a scholarly herbarist. Through the skills he gained as a surgeon, gardener, client, and author, Gerard did participate in the "naturalist" community in London.

As an herbarist, Gerard tested known and unknown plants to determine their heat and moisture to better understand how to use them as medicines. He grouped indigenous and exotic plants with the canonical medicinal plants of classical *materia medica* according to their natures, virtues, and morphology that he knew empirically. He traveled to find new plants and to meet others interested in plants. He traded his knowledge and some of his plant materials with these other men. Gerard used his horticultural knowledge of the environment's effect on plants to grow rarities in his garden other men could not. The *Herball* (1597) provides a great deal of detail about his herbarizing treks, his friends, his gardens, and his views on contemporary controversies about the uses and identifications of plants. Finally, by acknowledging

¹⁰ Brian W. Ogilvie, *The Science of Describing* (Chicago, University of Chicago Press, 2006), 45, 54. In a very few cases, "naturalists" could hold a paid position, as for example the director of a botanical or physic garden, say. We would call an herbarist by the name of herbalist in modern speech.

that a second edition of the *Herball* would correct his mistakes and by expanding the scope and descriptiveness of his garden catalogue, Gerard showed his awareness of new standards of knowledge-sharing in the community of naturalists.

For most of Gerard's readers, the *Herball* (1597) was a reference book, not intended to be read as a whole, but consulted as needed for particular pieces of information. In this dissertation, I use it to show John Gerard acting in several London communities and striving to accomplish his own goals. For each of those ambitions and roles, the *Herball* (1597) can be seen as a tool of self-fashioning and as a concrete representation of his achievements. However, if we look closely at the *Herball* (1597), we can also recognize the book and its author as a work-in-progress. Ragged bits, humorous phrases, and raw edges are evidence of this lengthy process. This perspective gives us an unusual opportunity to see a large text in the making, and the making of an Elizabethan man as well. The *Herball* (1597) gives us Gerard as he "desired to be esteemed," but also as an imperfect human being, as full of irrepressible life as his own garden:

The faculties of these wilde Roses are referred to the manured Rose, but not used in Phisicke where the other may be had: notwithstanding Pliny affirmeth that the roote of the Brier bush is a singular remedy found out by Oracle, against the biting of mad dogge, which he setteth downe in his 8 booke, 41 chapter... The fruit when it is ripe maketh most pleasant meates and banketting dishes, as Tartes and such like: the making whereof I commit to the cunning Cooke, and the teeth to eat them in the rich mans mouth.¹¹

¹¹ Gerard, 1597, Book III, Chap. 3: 1089. *Of the wilde Roses*.

Chapter One, John Gerard: Barber-Surgeon

In *The Herball* (1597), John Gerard wrote,

There hath beene from time to time great controversie, and many disputations among writers about these two names, *Calamus* and *Acorus*. The which hath been taken generally to be one, and the selfe same plant; which controversie may easily be decided, if men that have travailed in this qualitie, had but common sence: for that it is most evident, that *Acorus* is one, and *Calamus* another, and both reedes, and yet differ as their descriptions do shew. But if my censure might be received, the errour hath growen through the ignorance of the apothecaries, who have taken for *Calamus* a roote called *Acorus*: generally I must confesse taken among the ignorant for the true *Calamus Aromaticus*; the which by tradition hath been observed to this day; I thinke by reason that *Acorus* is verie cheape, and easie to be gotten; and the right deere [expensive], and hard to come by.¹

In this passage from his chapter on “Aromaticall Reedes,” Gerard took a position in a longstanding controversy about the identity and medicinal use of two water reeds, *Acorus* and *Calamus*. He chastised the English apothecaries who substituted *Acorus* for *Calamus*. Some, he said, did it out of ignorance; others out of greed: *Acorus* was less expensive and more easily acquired. Gerard supported his case with evidence both from his readings and from his personal gardening experience. He too had been confused by these very similar plants. Although he had read that *Acorus* (which he called Bastard or False Calamus) was barren and had seen that his own *Acorus* in his Holborn garden bore no flower, nevertheless, Gerard believed the botanist Clusius, who “saith he hath seene it beare his flower in that place where it doth growe naturally.”² (See Appendix 2, Figure 1)

This passage and many others like it reveal Gerard as an active participant in the medical culture of Elizabethan London. In this chapter, I examine aspects of this lively and competitive community and use it as a backdrop against which to explore Gerard’s surgical training and career. Long before Gerard displayed his knowledge of medicinal plants in print, he had built up a successful surgical practice, that in large part rested on his skill in herbal medicine. I argue that Gerard’s apprenticeship in the Company of Barber-Surgeons not only gave him the technical skills and knowledge of a surgeon, but also prepared him for the challenge of competing in London’s

¹ John Gerard, *The Herball* (London: John Norton, 1597), Book I, Chap. 39: 57, *Of Aromaticall Reeds*.

² Gerard, *Herball*, Book I, Chap. 39: 56, *Of Aromaticall Reeds*. Although Gerard probably did not meet Carolus Clusius (Charles de L'Ecluse, 1526-1609) when the celebrated Flemish physician visited England briefly in 1581 (to meet Sir Francis Drake), Gerard would have heard about Clusius from Matthias L'Obel and Jacob Garret. Clusius described and illustrated the *Acorus* from life in *Rariorum aliquot stirpium: per Pannoniam, Austriam, & vicinas quasdam provincias observatarum historia* (Antwerp: Ex officina Christophori Plantini, 1583), 257-261. Clusius was the superintendent of gardens for Emperor Maximilian II and created a botanical garden associated with a university at Leiden.

medical marketplace. Through the Company, Gerard learned the realities of politics, patronage, and the need to construct a public persona.

This purposeful construction of one's identity in early-modern society is often called self-fashioning in scholarly literature. In *Renaissance Self-Fashioning*, Stephen Greenblatt laid the groundwork for this approach to understanding how an individual might construct an identity. This concept has been used in anthropology, literature, and English cultural studies. The idea of self-fashioning came into history of science with Mario Biagioli's *Galileo Courtier: The Practice of Science in the Culture of Absolutism*. In this work, Biagioli used Greenblatt's concept to understand Galileo as a self-promoting historical figure competing for patronage in order to support his studies and interests.³ Because the way one was perceived played an important role in court culture and patronage relationships, self-fashioning is often yoked with patronage to understand social and political strategy in historical context. In the Elizabethan court, one's identity in the eyes of others was manipulated in many ways including clothing-choice, political and social contacts, and work positions. Gerard's apprenticeship with his master was instrumental in his formation as a surgeon but also in achieving his goals, as Gerard was an ambitious man.

Following his apprenticeship, Gerard used the tension around *materia medica* to fashion an identity for himself as a competent surgeon with apothecary knowledge. His training and work opened both applied and theoretical knowledge up to him. This, in turn, allowed him to apply classical ways of knowing the nature and virtues of plants to both New World and indigenous plants and to use them in his medical practice.⁴ Gerard's *Herball* (1597) not only records his active use of herbal treatments—notably for his use of indigenous herbs to treat wounds—but also reveals him drawing on his own experience to take stands in controversies about *materia medica* like the apothecaries' provocative substitution of *Acorus* for *Calamus*. By taking these positions, I contend, Gerard sought to establish greater authority for himself as a surgeon among London medical practitioners.

Medical competition and the marketplace

In the late sixteenth-century London three medical organizations competed for patients: the Apothecaries (under the aegis of the Company of Grocers), the Company of Barber-Surgeons, and the College of Physicians. These clear divisions within the community of London medical practitioners were, however, an abstraction imposed

³ Stephen Greenblatt, *Renaissance Self-Fashioning* (Chicago: University of Chicago Press, 1980/2005). Mario Biagioli, *Galileo Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: University of Chicago Press, 1993).

⁴ Margaret Pelling, "Medicine, Apprenticeship, and the Process of Exclusion in Early Modern England" (paper presented at the Ways of Making and Knowing Conference, London, July 2005).

on apothecaries, surgeons, and physicians by the members of the College of Physicians to enhance their own position. In truth, neither training nor practice was so standardized: surgeons and apothecaries often practiced a bit of physic, and numerous fringe practitioners were engaged in all manner of medicine.⁵ It was not uncommon for a surgeon or apothecary to belong to more than one guild. The city's growing population created an ever-present abundance of unmet medical need. This, in turn, established a lucrative marketplace for a wide range of practitioners.⁶ While physicians had historically claimed highest status, followed by surgeons, and then the apothecaries, the members of all three groups were often of very similar socio-economic backgrounds. This fostered fierce competition for patients and patronage among the three kinds of practitioners and encouraged increasing differentiation among them by training and regulation.⁷

The College of Physicians followed the mold of classical medicine in asserting that, in the body of the Elizabethan medical community, physicians were the head and mind, while the Barber-Surgeons and Apothecaries played the role of hands. While this may have been a false duality, as education was not standardized and a profit motive drove physicians, apothecaries, and surgeons to act as they saw fit in the privacy of their own practice,⁸ it did influence what medical actions were legally permissible.

Under the law, members of the College of Physicians wrote prescriptions and focused on internal ailments as these related to astrology and an individual's humoural balance. Members of the Company of Barber-Surgeons dealt with teeth, broken bones, letting blood, and conditions with external manifestations. The Apothecaries processed simple and compound medicines and filled the prescriptions from the surgeons and physicians; they were

⁵ Andrew Wear, *Knowledge and Practice in English Medicine, 1550-1680* (Cambridge: Cambridge University Press, 2000), 23. Margaret Pelling and Frances White, eds., *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640* (Oxford: Clarendon Press, 2003). I use upper-case for practitioners acting in their capacity as members of these associations.

⁶ Pelling and White, 84-135. Elizabeth Lane Furdell, *Publishing and Medicine in Early Modern England* (Rochester, NY: University of Rochester Press, 2002), 4. The other guild memberships would not necessarily have been medical in nature. Other guilds and companies, such as the Drapers and the Stationers, often admitted members from other trades and crafts; however, according to Ian Gadd, there do not seem to have been physicians, surgeons, or apothecaries among the Stationers, nor members nor were there printers in the medical guilds during Gerard's lifetime (personal communication to Karen Reeds, Prof. Ian Gadd, University of Bath, March 28, 2011, in response to online discussions on SHARP listserve in March 2011). I am deeply grateful to Prof. Gadd for clarifying the overlapping guild memberships.

⁷ Harold Cook, *The Decline of the Old Medical Regime in Stuart London* (Ithaca, New York: Cornell University Press, 1986), in which he coined the term medical marketplace. Pelling and White, 1, 342-3.

⁸ Richard Grassby, *The business community of seventeenth-century England* (Cambridge: Cambridge University Press, 1995), 122, 124.

also allowed to provide basic medical treatment to the poor. Under an Act of Parliament passed in 1542, unlicensed medical practitioners could offer their services only in the case of charity.⁹ These provisions reflect the increased need for medical services to the poor of the realm following the dissolution of the monasteries and hospitals under Henry VIII.¹⁰ Areas of overlap, such as who could prescribe for and treat the poor and decide what was an internal ailment, caused friction among the three groups of medical practitioners.¹¹

Although the Company of Barber-Surgeons had only received its royal charter in 1540 when the barbers' guild joined with the surgeons' guild, both groups had their roots in earlier centuries. The Barbers' guild was present as early as 1308 and became a company with a royal decree in 1461-2. After the Council of Tours of 1163 forbade priests from letting blood, certain medical treatments passed out of the hands of clerics to lay practitioners.¹² Surgeons began to let blood, to set broken bones, and to do surgery and dentistry at that time.¹³ The Act of Union of the Barbers and Surgeons joined the two groups and "gave the company the right to claim yearly the bodies of four criminals who had been executed, and to dissect them or use them in any other way for the advancement of anatomy and surgery."¹⁴

The Apothecaries too had a long medieval history: they were part of the Grocers' Company, one of the first twelve, and therefore the most powerful, London companies. The Grocer's Company received its royal charter in 1373 from Edward III. The apothecaries did not establish an independent identity for themselves until 1617 when they seceded from the Company of Grocers and became the Society of Apothecaries.¹⁵

⁹ Pharmaceutical Society of Great Britain, *Pharmaceutical Journal* 56 (April 11, 1896): 295.

¹⁰ Furdell, 4.

¹¹ Christopher Hill, *The Intellectual Origins of the English Revolution, Revisited* (New York: Oxford University Press, 1997), 72-73. Melissa Rickman, "The Historical Context of Gerard's Herball and Johnson's Gerard, a comparison" (master's thesis, University of Oklahoma, 2001).

¹² Henry R. Thompson, "Sargeant Surgeons to their Majesties, Thomas Vicary Lecture delivered at the Royal College of Surgeons of England on 29th October 1959," *Annals of the Royal College of Surgeons of England* (January 26, 1960): 1-23.

¹³ Sue Minter, *The Apothecaries' Garden: A New History of the Chelsea Physic Garden* (Thrupp, Stroud, Gloucester: Sutton, 2000), 2.

¹⁴ J. C. Buckland-Wright, "Readers of anatomy at the Barber-Surgeons' Company in the Tudor Period," *Journal of the Royal Society of Medicine* 78 (October 1985): 802.

¹⁵ Minter, 2.

By contrast, the College of Physicians was rather a new organization. This put physicians at a political and economic disadvantage in England. At the behest of many English physicians, the College was created in 1518 to provide better training through new regulation and structure of Latin-based medical education. Once organized, the members of the College of Physicians monitored London medicine to ensure quality care through examination, licensure, and punishment. They spent a great deal of time censoring irregular practitioners, controlling the activities of the apothecaries and barber-surgeons, and prosecuting licensed and unlicensed medical practitioners.¹⁶ Physicians focused on pursuit and apprehension of all non-Galenic non-university practitioners of physic.¹⁷

Physician John Securis expressed this concern in his work *A Detection and Querimonie of the Daily Enormities and Abuses Committed in Physik* printed in London in 1566. Securis wrote,

And in dede it were very mete and necessarie, that the Surgion should undertake no hard or dangerous cure, without the phisitions advyse. Nowbeit as I see nowe a dayes, the most part of them do al thynges, followynge onely theyr owne fantasies. They sticke not to geve Electuaries, syropes, and other medicines them selves, yea and purgations also: which thinge me semeth is very uncomely. It is not reason that he that shoulde be but as a minister unto the phisition (as I alleged before out of Galen, when I intreated of Poticaries) shoulde use the parte of a maister and philosopher, and ordeyne suche thinges as he knoweth nothing the nature of. It is not unknowen, that many pore pacientes perisheth under suche rashe and lewde surgions.¹⁸

Securis concluded by calling for a reform of the laws as a way to glorify God, the Queen's "honor, and the profite of we her subjectes and common weale. Amen."¹⁹ Seemingly fearful for their livelihood and the health of the nation, physicians wrote and used their political influence "against the intrusion of the lower orders into medicine"; however, as Pelling and White observe: "the tendency has been to take this at face value."²⁰ It is important to remember that our understanding of medical practice in this period has been shaped by the sources that survived and the biases of their authors. The treatises that contemporary and later physicians valued most were frequently the best preserved, and these views skew our idea of the past.

¹⁶ Pelling and White, 25-56. This topic dominated many of the College of Physician meetings. For more information, see George N. Clark, *A History of the Royal College of physicians of London* (Oxford: Clarendon Press, 1964-72).

¹⁷ Furdell, 4.

¹⁸ John Securis, *A Detection and Querimonie of the Daily Enormities and Abuses Com[m]itted in Physik* (London: Thomas Marsh, 1566), E4^{R-V}.

¹⁹ Securis, F3^R.

²⁰ Pelling and White, 148.

There were, however, other Renaissance viewpoints about the best ways to serve the medical needs of England and to make medical knowledge available to the people in need of it. Sir Thomas Elyot, for example, felt that printing medical information in English was a step in this direction. Elyot was one of many who held that, with the correct information in their hands and a desire to study medicine, any intelligent man could practice medicine. In his *Castel of Helth* (1541), Elyot approved of the example set by the ancients such as Avicenna and Galen who had written in their own vernacular languages and thereby made the information widely available. He added that, by sharing their knowledge in this way, these ancients were more charitable than the English physicians who called themselves Christians.²¹ Charitable care to the poor was a duty required by the Company of Barber-Surgeons of its members and a task taken on by many lay-women who learned from medical books written in English.²²

Although the actions and standards of the College of Physicians created a “very narrow definition of what a medical practitioner looked like, and how he... behaved,” the early modern English person recognized and sought out many types of medical practitioners.²³ Perceptions of physicians were negatively tinged by the high price for their services, their secretiveness about their knowledge, and their habit of abandoning London during the summer and epidemics.²⁴ As a result, there were profits to be made and good lives to be had in London as an Apothecary or Surgeon for young men who could navigate guild training and politics and establish themselves in practice. An apprenticeship to a London guild was one way to take hold of these opportunities and achieve this status.

Apprenticeship, self-fashioning, and the middling-sort

In 1562 John Gerard’s father arranged a valuable apprenticeship for him with Alexander Mason, a member of the governing body of the Company of Barber-Surgeons and a citizen of London.²⁵ The Barber-Surgeons required young men to learn their trade from a master of the company by serving a seven-year apprenticeship (a

²¹ Thomas Elyot, *The Castel of Helth* (London, 1541), A4^{L-V}.

²² Wear, 45. See also Rebecca Laroche, *Medical Authority and Englishwomen’s Herbal Texts, 1550-1650* (Burlington, Vermont: Ashgate, 2009). Laroche curated an exhibit at the Folger Shakespeare Library during the first half of 2011 focused on this topic of Renaissance women herbalists called “Beyond Home Remedy: Women, Medicine and Science.”

²³ Pelling and White, 138.

²⁴ Wear, 28.

²⁵ Jeffers, 10.

traditional length of service that was affirmed by the Statute of Artificers of 1563).²⁶ After John passed an interview and examination, his father paid the fee for his apprenticeship.²⁷ Not surprisingly, the amount of the premium reflected the “prestige and potential profitability” of the different trades.²⁸ While apprenticeships were available in other towns, an apprenticeship in London carried with it greater value from the increased number and quality of contacts that could be made and the economic potential of a shop in a bustling city. Gerard's father's ability to pay the premium for his son suggests that the family owned considerable property.

The Gerards were gentry, a branch of the Gerards of Ince.²⁹ If John had been the eldest son, he would have taken over the family lands. That he undertook to learn a trade rather than going to the university indicates that Gerard was a younger son.³⁰

It may seem surprising that a gentleman's son learned a trade that involved work with his hands. However, in Elizabethan England, this was not an unusual path: most gentry families included both university and guild-trained men. While treatises such as the *Institution of a Gentleman* (1555) set apart the craftsman from the gentleman, the *de facto* truth was that “genteel families did not just perform roles imposed by birth or allocated by convention.”³¹ The gentry had to mix necessity with preference and predilection when choosing direction for their sons. With primogeniture, only the eldest son could live “as a man of independence and leisure”³² while the younger sons had to consider other options that would let them earn a living for themselves.³³ Grassby suggests that the

²⁶ Christopher Brooks, “Apprenticeship, Social Mobility and the Middling Sort, 1550-1800,” in *The Middling Sort of People: Culture, Society and Politics in England, 1550-1800*, ed. Jonathan Barry and Christopher Brooks, 52-54 (New York: St. Martin's Press, 1994). G. G. MacDonald, “General medical practice in the time of Thomas Vicary. Thomas Vicary lecture delivered at the Royal College of Surgeons of England on 27th October 1966,” *Annals of the Royal College of Surgeons of England* 40 (1966), 8. Joan Lane, *Apprenticeship in England, 1600-1914* (Boulder, Colorado: Westview Press, 1996), 3.

²⁷ Robert Jeffers, *The Friends of John Gerard (1545-1612), Surgeon and Botanist* (Falls Village, Connecticut: Herb Grower Press, 1969), 10.

²⁸ Brooks, 60. Lane, 131.

²⁹ Jeffers, 9.

³⁰ Brooks, 61.

³¹ Grassby, 125.

³² *Ibid.*

³³ Grassby, 30, 125.

gentry rarely lived up to the high standards of the conduct books, just as they were never as worried about acquisitiveness as intellectuals. They recognized the wealth and power of commerce and considered that their participation would civilize it.³⁴

Enrolling sons as apprentices in guilds was, however, a profitable investment for gentry families: sons could become citizens and guild members after their seven years training and even enjoy a higher standard of living than their parents. Upward mobility was possible within this middling group that fell between the commoner and gentry although the chances of continued movement up the hierarchy diminished as a man gained his freedom from his apprenticeship and his own shop.³⁵ Over the course of his life, a guild member could expect to achieve greater wealth until he had to retire or provide dowries or apprenticeship premiums for his own children.³⁶ Brooks makes the point that Elizabethan parents understood these, often weak, class boundaries and made investments in their children's future early on in their lives through the manner of their instruction.³⁷

However, when the second, third, and fourth sons of gentry families dropped down to servant status during apprenticeships, strife between them and fellow apprentices not from gentry families could result. Puritan divine William Gouge responded to the problems of gentle-born apprentices when he wrote about the troubling ways some servants addressed their masters.

Arrogancy, when their words are high and lofty against their master, pretending that they are as good as he, though for a time they be vnder him. Clerkes, prentises, waiting women, and such like, being borne of gentlemen, and men of good degree, are for the most part guilty of this fault: the reason is, because their birth and parentage maketh them forget their present place and condition; or else (which is worse) maketh them wilfully presume above it.³⁸

Some contemporaries condemned the apprenticeship because of this mixing of social classes, saying that it tainted the gentleman with mechanical skills and relegated him to the level of the governed rather than governor.³⁹ These critics felt that a university education was the proper choice for sons of gentry families.

³⁴ Grassby, 41.

³⁵ Steve Rappaport, *Worlds within Worlds: Structures of Life in Sixteenth-Century London* (New York: Cambridge University Press, 1989), 285-376.

³⁶ Peter Earle, "The Middling Sort in London," in *The Middling sort of People: Culture, Society and Politics in England, 1550-1800*, eds. Jonathan Barry and Christopher Brooks (New York: St. Martin's Press, 1994), 152-5.

³⁷ Brooks, 52. Grassby, 41.

³⁸ William Gouge, *Of domesticall duties, Eight Treatises* (John Haviland for William Bladen: London, 1622), 600.

³⁹ C. W. Brooks, *Pettyfoggers and Vipers of the Commonwealth: The 'Lower Branch' of the Legal Profession in Early Modern England* (Cambridge: Cambridge University Press, 2004), 180.

The purpose of a liberal education from a university was to prepare a young gentleman for a lifetime of thought and judgment while a practical apprenticeship prepared a young man for physical work and manual skill. Education theorists who focused on humanist ideals emphasized the classic separation between those who lived a life of the mind and those who had to use their skill with their hands to make a living.⁴⁰ Elyot's *Boke of The Governour* (1531), for example, explained the skills that were necessary for governance and regarded the aristocracy as capable of producing children with these abilities. Ferne's *Blazon of Gentry* (1586) stated bluntly that the "mechanicall artisans, and churls broode" will not like his book "bycause she pictureth out their base and servile conditions, much inferior to the shining and franke estate of gentleness."⁴¹ Ferne later equated the artisan apprenticeship with the taint of bondage.

But not all felt that apprenticeships were a dark mark upon a young man's life. Some, like Edmund Bolton in *The Cities Advocate* (1628), upheld apprenticeship as necessary to the industry of the country. He argued that it was "farre from being a kinde of bondage" and instead could be one step on the path toward becoming an honorable man of trade.⁴² While apprentices had the lowest rank in London, this position could lead to citizenship and through diligent service, potentially to the position of Lord Mayor of London. Bolton explained that the nature of a man came from his ancestors and young gentleman apprentices could not be permanently harmed by learning practical skills. While both gentle- and common-born could have honor, he wrote "Citizens are not Gentlemen, but Citizens."⁴³ Bolton added:

The ordinarie Citizen therefore, is of a degree beneath the meere Gentlemen, as the Gentleman is among vs in the lowest degree, or classe of Nobilitie in England. And all Citizens, yea, the Lord Major himselfe, simply as a Citizen, is not a Gentleman, but Burgensis [Citizen]. As the greatest Princes, and Despots that ever were, or ever shall be in the world, considered in their first naturall condition, are at most but *Ingenui*, or free-borne, in which respect all are equall, for *omnes natura aequales*, and their first ciuill degree, or generall state, which either comprehends all the orders of Nobilitie, or is capable of them, is among vs the Gentleman. In which respect he who shall say, That this or that King, or Emperour is a Gentleman, speakes rightly, and as the thing is. For Gentleman is the title, about which all other titles, as they concerne honor, and coueigh no jurisdiction, are put as robes and ornaments. This therefore is my meaning; That some Citizens may be a Citizen, and yet truely a Gentleman, as one, and the same man may in seuerall respects be both a lord and

⁴⁰ Brooks, 180-181.

⁴¹ John Ferne, *Blazon of Gentry* (London: John Windet for Andrew Maunsell, 1586), A6r.

⁴² Edmund Bolton, *The Cities Advocate* (London: Miles Flesher for William Lee, 1629), 37.

⁴³ Bolton, 45.

Tenant. Citizen in regard of his incorportion in *London*, Gentleman in regard of birth... Hence it followes, that as an Apprentise being a Gentleman-borne remaineth a Gentleman, which addition of splendor, and title, as God blesseth his labours, so a worthy Citizen is capable of honor and Armes, notwithstanding his Apprentiship.⁴⁴

The very fact that such statements were made testifies to anxieties over class boundaries and to the presence of citizens fashioning gentle lifestyles for themselves.

Margaret Pelling suggests that this type of medical self-fashioning was “going on at all levels of society”⁴⁵ amongst licensed and unlicensed practitioners. Self-fashioning was deemed necessary by those who practiced the art to enhance their competitiveness in a medical community that was generally of the same socio-economic status, called generally the middling sort.⁴⁶

The idea of the middling sort was a somewhat vague notion of a social group that fell between aristocracy and commoner.⁴⁷ It was about constructing a life concerned with appearance and respectability in the community, parish, and guild.⁴⁸ It was about building one's personal authority. Earle writes that the term covered a large section of the London population, a wider group than one might initially think. Practically speaking, one's education, wealth, family connections, fashionable appearance, conduct, or a mixture of these could lead to being counted among the middling sort.⁴⁹ John Stowe referred to the large number of Londoners living within this “middle place” between laborers and wealthy merchants in his *Survey of London* (1603).⁵⁰

With the middling-sort being educated in both university and guild, the College of Physicians chose to define its members as separate from the apothecaries and barber-surgeons and as both governors of and participants

⁴⁴ Bolton, 45-48

⁴⁵ Pelling and White, 139. Pelling adds that in other ways “it appears that much of the population saw such self-consciousness as out of place in the medical context. That is, occasional or opportunistic practice did not usually require the practitioner to make a profession of his or her occupational credentials.”

⁴⁶ William Birken, “The social problem of the English physician in the early seventeenth century,” *Medical History* 31 (1987): 205-207.

⁴⁷ Earle, 156.

⁴⁸ Earle, 155-7.

⁴⁹ Earle, 156.

⁵⁰ C. L. Kingsford, ed., “The singularities of London,” *A Survey of London*, by John Stow: Reprinted from the text of 1603, British History Online, <http://www.british-history.ac.uk/report.aspx?compid=60066>. Keith Wrightson “Estates, degrees, and sorts,” in *Language, History, and Class*, Penelope J. Corfield, ed. (Oxford: Basil Blackwell, 1991), 48-52 offers an opposing viewpoint.

in London medical practice.⁵¹ The Company of Barber-Surgeons increased the status of its members by implementing requirements for Latin amongst the apprentices, making training more closely resemble medical students' training with anatomical dissections and lessons in humoral theory, and claiming a classical theoretical foundation even though surgery remained a manual occupation. For example, an examination of the training and texts used for the apprentices of barber-surgeons reveals that these young men received textual guidance in the theory of disease, practical anatomy, and the use of herbal medicines.

Learning the Surgeon's Craft

As an apprentice and yeoman surgeon, John Gerard learned his craft just at the time the Company of Barber-Surgeons was responding to the physicians' moves to exert authority over London medical practitioners. The Company called for a reform of the apprenticeship that would make the training more learned. In 1566, Gerard's master, Alexander Mason, and other leaders of the Company paid to send Thomas Hall to Oxford University to learn the physic that intersected with surgery.⁵² In return, Hill gave anatomy lectures that were required for all apprentices.⁵³

Several surgeons dealt with the charge that they were mere empirics by calling attention, in good humanist fashion, to ancient surgeons who had dealt with internal ailments and had prescribed manipulations of the six non-naturals to balance the humours in addition to surgical procedures. Other surgeons did much to bring medical theory into the surgical apprenticeship through the teaching of ancient medical texts. Among the many classical works that the royal physician and humanist Thomas Linacre (1460-1524) retranslated from Greek into Latin was Galen's *Methodus medendi (Method of Healing)*, printed in 1519. This fundamental textbook of sixteenth-century medical education surveyed the Hippocratic theory of health, illness, and medicines.⁵⁴

⁵¹ Pelling and White, 4.

⁵² Sidney Young, *Annals of the Barber-Surgeons of London*, (London: Blades, East & Blades, 1890), 183.

⁵³ Wear, 220-3. Buckland-Wright, 809. Hall went on to get his MD and became a member of the College of Physicians.

⁵⁴ Vivian Nutton, "Linacre, Thomas (c. 1460–1524)," *Oxford Dictionary of National Biography*, (Oxford: Oxford University Press, Sept 2004); online ed., Oct 2008. [<http://www.oxforddnb.com/view/article/16667>, accessed 25 July 2009]. Wear, 36.

To facilitate learning by surgeons who had no Latin, the surgeon Thomas Gale (c. 1507-67) supported the translation of *Methodus medendi* into English in 1566.⁵⁵ Gale himself wrote an English surgical textbook called *Certaine Workes of Chirurgerie* (1563). Framed as a dialogue between a master and student, this work covered the theory of surgery while giving practical methods of treating injuries (including gunshot wounds) according to their types and locations in the body. The last section provided a surgical antidotary of simple and compound drugs organized according to their actions, followed by instructions for creating unguents, oils, plasters, powders, and waters from them.⁵⁶ Thomas Vicary (1490?-1561/2), Sergeant-Surgeon to Henry VIII, who was responsible in part for uniting the Barbers and Surgeons in 1540, wrote *A profitable treatise of the Anatomie of mans body* (1577) that was also used as one of the first surgical textbooks printed in English.⁵⁷

The 1591 will of Robert Balthrop, the Queen's Surgeon, helps us to further understand the texts used by both apprentices and accomplished Surgeons.⁵⁸ Balthrop required his apprentices to know other languages, especially Latin, but his bequests reveal the complex state of their actual knowledge. Balthrop bequeathed to one assistant copies of Guidi's *Chirurgia* in Latin, the same in French, Bartholomaeus's *De proprietatibus rerum*, Cataneus's *De morbo gallico*, Valescus's *Practica*, as well as texts by Albucasis, Dioscorides, Celsus, Mesue, Fuchs, and an English manuscript of Quintus Curtius. Another assistant received English translations of the Geminus edition of Vesalius, Vigo's *Chirurgerye*, Turner's *herbal*, and manuscripts of works by Guidi and Leonhard Fuchs. The third assistant received the Latin surgical texts of the medieval surgical authors, Guy de Chauliac, Bruno, and Lanfranc. Balthrop gave his personal translations of Tagault and Paré to the Company of Barber-Surgeons, along with many of his English works for the use of surgeons who did not know Latin or French.⁵⁹ The Company had attempted to require some knowledge of Latin prior to a boy beginning an apprenticeship. This was codified into law in 1557 but was not strongly enforced by even the next year.⁶⁰ While still living with his

⁵⁵ Furdell, 20.

⁵⁶ Thomas Gale, *Certaine Workes of Chirurgerie* (London: Rouland Hall, 1563).

⁵⁷ Thomas P. Duncan, "Thomas Vicary and the *Anatomie of Mans Body*," *Medical History* 50 (2006): 235-246. Vicary's work was based on medieval Galenic manuscripts, a 15th century copy of which is MS 564 in the Wellcome Library.

⁵⁸ Pelling and Webster, 176.

⁵⁹ Young, 530-2. Pelling and Webster, 176-7. The works by Leonhart Fuchs were probably not his much reprinted, *Historia stirpium* (first edition, 1542), but his medical textbooks.

family in Cheshire, Gerard would have learned Latin in school although his proficiency at the start of his surgical training is unclear.⁶¹

Between the years of 1567 and 1577, apprentices were required to attend Thomas Hall's weekly classes in the theory and practice of surgery; their attendance at four dissections a year was also mandatory. At the end of the apprenticeship, the young men were examined on their ability to do the work competently.⁶²

In 1569, John Gerard completed his seven-year apprenticeship and was examined by his master, Alexander Mason, and the other Wardens and Master of the Company. That year, when Gerard gained his freedom from his apprenticeship, he was, because of his family's connections and wealth and his master's prestige, most likely admitted to the Livery at the same time.⁶³ This meant that, while he was not yet a master surgeon, he could work as a tradesman.

As an ambitious young surgeon, Gerard had only to look at his own master for a social, political, and medical role model. Alexander Mason had a large successful practice and had risen swiftly in the guild during the years of Gerard's apprenticeship, serving as Middle Warden in 1556, Upper Warden in 1561, and Master in both 1567 and 1573.⁶⁴

However, Gerard took a somewhat unusual path. Rather than setting up his own practice right after his apprenticeship, he traveled with the Company of Merchant Adventurers on a trade expedition over water and land to Moscow along the Baltic route.⁶⁵ Gerard mentioned his experiences at several points in the *Herball* (1597). He took note, for example, of trees growing in and absent from "Denmarke, Swevia, Poland, Livonia, or Russia, or in

⁶⁰ Pelling and Webster, 175. Duncan, 235-46.

⁶¹ Jeffers, 10. Jeffers seems to think Gerard would have gotten a fairly good grounding in Latin. In the *Herball* (1597), Gerard wrote several times of his home in Cheshire. In the chapter devoted to the bramble, for example, Gerard wrote of seeing the plant growing along the track he traveled on his way to school.

⁶² Margaret Pelling and Charles Webster, "Medical practitioners" in *Health, Medicine and Mortality in the Sixteenth Century*, ed. Charles Webster (Cambridge: Cambridge University Press, 1979), 175.

⁶³ Jeffers, 16. Being a member of the Livery meant that Gerard was a yeoman with privileges above those other apprentices who had just gained their freedom. One of the privileges was wearing ceremonial clothing or badges specific to the guild on feast days and processions.

⁶⁴ Eleanor Rohde, *Old English Herbals* (New York: Longmans Green, 1922).

⁶⁵ Jeffers, 18.

any of those colde countries where I have travelled.”⁶⁶ Unfortunately, it is not known how long the trip lasted or whether he traveled as a passenger or as a ship’s surgeon. Ship’s surgeons, like battlefield surgeons, were expected to diagnose internal ailments, prescribe and make medicines, as well as do surgical procedures.⁶⁷ In this way, surgeons at sea were very much like the ancient surgeons who had so stirred the Barber-Surgeons’ leadership while Gerard was learning his trade. Whether Gerard served as ship’s surgeon or simply observed his colleagues at work, his travels gave him experience that later allowed him to move comfortably in the areas of practice where surgery blurred into physic and pharmacy.

After his return to London, Gerard continued to travel within England, both to treat patients and to collect plants in the surrounding counties. During his travels, Gerard did not hesitate to offer his surgical services as a charity to those he saw were in need, as was expected of members of the London Company. He had at least two apprentices of his own, Richard Holden and William Marshall. His London patients included Edmund Cartwright, a barrister of Grey’s Inn, whom Gerard successfully treated for a deep chest wound and a “double quotidian fever.”⁶⁸ Gerard used an ointment of Saracens Consoude, Clownes Woundwoort, and Turpentine to treat the terrible wound.⁶⁹

The culmination of Gerard’s successful career as a surgeon came in his long relationship with his patron, William Cecil, Lord Burghley, and in his work on the *Herball* (1597).⁷⁰ Both of these accomplishments testify both to his surgical skills and to his adeptness at marketing himself.

Portrait of the surgeon

In the ornate opening pages of the *Herball* (1597), John Gerard and his publisher, John Norton, went to considerable expense to underscore Gerard’s standing as a London surgeon. The engraved title page describes him

⁶⁶ Gerard, Book III, chap. 64: 1223. *On Baie, or Laurell Tree*. Gerard also wrote about his travels on pages 1177 and 1181.

⁶⁷ Wear, 228.

⁶⁸ Gerard, Book II, Chap. 374, 852, *Of Clownes Woundwoort, or Alheale*.

⁶⁹ Gerard, Book II, Chap. 97: 348, *Of Saracenes Consound* and Book II, Chap 374, 852, *Of Clownes Woundwoort, or Alheale*.

⁷⁰ Harkness mentions that Gerard became surgeon to the Queen but I am uncertain of her evidence and have not heard its mention previously. Deborah Harkness, *The Jewel House: Elizabethan London and the Scientific Revolution* (New Haven, Conn.: Yale University Press, 2007), 49.

as “John Gerarde of London, Master in Chirvrgerie.” Following the prefatory text, the engraved figure of John Gerard faces the first page of the herbal itself.⁷¹

This half-length portrait is a distillation of the persona Gerard worked throughout his life to create and so is very important. (See Appendix 2, Figure 2) In early modern England, the way a person was portrayed revealed their “identity, . . . morality, . . . aspiration, and . . . honor.”⁷² The choices made by the subjects in the manner of their depiction revealed much about them. Gerard’s portrait, therefore, should be viewed as emblematic of many aspects of his life – his background, training, professions, and ambitions. Here I note the details of the portrait that are germane to Gerard's identity as a surgeon; other aspects of the portrait will be discussed in later chapters.

There are three coats-of-arms along the bottom of the portrait. The shield on the bottom right represents his guild, the Company of Barber-Surgeons, and is inscribed with their motto, “De Praescientia Dei,” that is, “From the Foreknowledge of God.”⁷³ The shield of the City of London in the center emphasizes Gerard's standing as a Citizen. In the lower left corner of the image, the coat-of-arms Gerard inherited from his father established his gentle birth; it bears the Italian motto “D'assenti buone,” “With good agreement.”⁷⁴ Taken together, these shields represented Gerard’s loyalties, education, and achievements.

⁷¹ The portrait is signed by William Rogers, who also engraved the titlepage. I discuss the title page at length in Chapter 4.

⁷² Mary E. Hazard, *Elizabethan Silent Language* (Lincoln, Nebraska: University of Nebraska Press: 2000), 108.

⁷³ This motto might arise from Acts 2:23: “hunc definito consilio et **praescientia Dei** traditum per manus iniquorum adfigentes interemistis,” in the Latin Vulgate, which the King James Version renders as: “Him, being delivered by the determinate counsel and foreknowledge of God, ye have taken, and by wicked hands have crucified and slain.” The phrase was evoked in the fourteenth century in the title of William of Ockham's *Tractatus de praedestinatione et de praescientia Dei et De futuris contingentibus*. I do not know the significance of this motto to the Company of Surgeons.

⁷⁴ B. D. Jackson pointed out that these arms at the bottom left of the portrait show Gerard was “descended from some younger branch of the Gerards of Ince, in Lancashire, as we learn from his own Coat of Arms, which bears a crescent for difference, the crest, a lion’s gamb, erased, inverted, holding a hawk’s lure. . . There are no records at the College of Arms to shew his parentage.” Benjamin Daydon Jackson, *Catalogue of plants cultivated in the garden of John Gerard, in the years...* (London: Privately printed, 1876), xi. For more information on the Gerards of Ince, see John Burke, *A genealogical and heraldic history of the commoners of Great Britain and Ireland, Vol. 1*, (London: Henry Colburn, 1836), 279. These arms are described as “Quarterly, first and fourth, gules on a chief ermine, two hurts, for Walmesley; second and third, argent a saltire gules for Gerard.” See also William Betham, *The baronetage of England: or The History of the English baronets*, Vol. 1 (London: Burrell and Bramby, 1801), 60-62.

As was customary in author portraits, an inscription around the oval identified the subject: “EFFIGIES IOANNIS GERARDI CESTRESHYRII CIVIS ET CHIRURGI LONDINENSIS ANNO ÆTATIS SVÆ 53, 1598,” i.e. portrait of John Gerard of Cheshire, citizen and surgeon of London, at the age of 53, in the year 1598.⁷⁵

Gerard chose to be portrayed wearing a sober black sleeveless doublet over a shirt with a long collar starched into elaborate folds.⁷⁶ The dark outer garment showed Gerard’s awareness of both England’s sumptuary laws and the expectations of courtly society: the courtier should “make his garment after the fashion of the most, and those to be blacke, or of soe darkish and sad colour, not garish.”⁷⁷ The extravagant cut of the puffed sleeves, many-buttoned lapels, and elaborately worked cuffs, however, belied the garment’s subdued color and testified to the prosperity of its wearer.⁷⁸ Gerard’s straight rigid posture expressed his authority and importance.⁷⁹ His serious expression and solemn clothing established his character and status as a reliable citizen of London while the pleated collar, puffed sleeves, many-buttoned jacket, and elegantly worked cuffs identified him as a fashionable, affluent member of society.

Because of the tilt to his left hand, we can clearly see that Gerard wore jewelry on this hand. From the portrait page held by the History of Science Collections at the University of Oklahoma, one can see a ring with a stone on the first finger of his left hand.⁸⁰ Gerard’s will of December 1611 mentioned a gift of “a gold ring set with an agate stone.”⁸¹ Rings worn on the first finger demonstrated guild membership and merchant status.⁸² At the Guildhall, Gerard would have often seen the celebrated group portrait of the Company of Barber-Surgeons with King Henry VIII (attributed to Hans Holbein, 1543) where similar rings are shown on the fingers of the Masters

⁷⁵ In Chapter 4, I discuss the discrepancy between the portrait date and the title page date and what it implies about the production of the *Herball* (1597).

⁷⁶ Jane Ashelford, *Dress in the Age of Elizabeth I* (New York: Holmes & Meier, 1988), 43-73.

⁷⁷ From Sir Thomas Hoby’s summary of the rules of courtly behavior at the end of his English translation of Castiglione’s *Libro del cortegiano: The courtier of Count Baldessar Castilio deuided into foure bookes. Verie necessarie and profitable for young gentlemen and gentlewomen abiding in court, pallace, or place* (second edition, London: Iohn Wolfe, 1588), fo. Pp 6^R. Ashelford, 108-110.

⁷⁸ Hazard, 91-3, 106-7.

⁷⁹ Hazard, 3.

⁸⁰ The colored copy held by the History of Science Collections at the University of Oklahoma Libraries depicts the ring as having a green stone while the ring image in the Linnean Society of London has a white stone.

⁸¹ Wayne H. Phelps, “John Gerard, the Herbalist,” *The Library, Sixth Series* (1980): 78.

⁸² George F. Kunz, *Rings for the Finger* (Philadelphia: J.B. Lippincott Company, 1917), 56.

(who are also garbed in sober black).⁸³ From the portrait page held by the Linnean Society of London, one can see a second gold band on the smallest finger of the left hand not visible in the other portrait. Mary Hazard has shown that “rings were valued for their talismanic and symbolic functions” over all other common jewelry.⁸⁴ While the specific significance of this ring is lost to us now, it should not be dismissed without notice.⁸⁵

In the *Herball* portrait, Gerard holds a book in his right hand and a potato plant in flower in his left hand. In author portraits, the book symbolizes both authorship and learning. Here the book depicted is small, about the size of one of Gerard’s hands, so it cannot signify the massive *Herball* itself but perhaps a more portable reference work of surgery or *materia medica*. The presence of the flower was typical of the early modern European portraits of men who pursued plant knowledge. Time and again, the printed portraits of botanists and herbalists from England and the Continent in this period show them holding sprigs of leaves and flowers.⁸⁶ This flower is particularly notable as the first depiction of a potato plant in an English book: it commemorates Gerard's pride at being the first Englishman to grow the white potato.⁸⁷ With this portrait, Gerard called together the elements of his proud past and his ambitions for the future.

The plant world of the Elizabeth surgeon

By the time Gerard's portrait was engraved for the *Herball*, he had built a successful surgical practice and trained at least two apprentices, and he had seen his hard work, loyalty, and service recognized by his peers in the Company of Barber-Surgeons. In 1595 Gerard was chosen to be a member of the Court of Assistants in the Company of Barber-Surgeons, which examined apprentices before allowing them the freedom of the company. The

⁸³ Roy Strong, “Holbein’s Cartoon for the Barber-Surgeons Group Rediscovered – A Preliminary Report,” *The Burlington Magazine* 105 (January, 1963): 4-14.

⁸⁴ Hazard, 112.

⁸⁵ Hazard, 114.

⁸⁶ Agnes Arber, *Herbals, their origins and evolution* (Cambridge: Cambridge University Press, 1912). On page 53, Hieronymus Bock held a flowering plant in his *Kreuter Buch* (1551). On page 71, Rembert Dodoens was depicted with a tall flowered stalk in his *A Nieuwe Herball*, translated by Lyte (1578). On page 62, Arber wrote of Fuchs’ portrait with a spray of Veronica in his *De historia stirpium* (1542). On page 78, 88, and 111 Arber displayed engraved portraits of Matthias de L’Obel, Fabio Colonna, and John Parkinson holding sprigs of flowers.

⁸⁷ The information appeared in Gerard’s first garden catalogue, *Catalogus* (1596). Jeffers, 45. John Reader, *Potato: A History of the Propitious Esculent* (New Haven, Connecticut: Yale University Press, 2008), 83-5. I discuss the significance of the potato-flower image further in Chapter 4.

same year the *Herball* (1597) appeared, he became one of the Junior Wardens. A decade later, in his early sixties, Gerard would become a Master of the Company.

Thus, during the time Gerard was compiling the *Herball*, he was also engaged in the Company's affairs. In the *Herball*, we can see him actively drawing on his own experience to defend the barber-surgeons' theoretical and practical knowledge of plants. Unlike the other craft guilds in London, the members of the Company of Barber-Surgeons were trained in both surgical theory and practice; and this “enabled them to define their occupational identity as both learned and artisanal.”⁸⁸ Their knowledge and experience in diagnosis and healing meant that barber-surgeons encroached upon the practice of both physicians and apothecaries, and controversies over the borderlines between the professions often ensued.

In particular, during the sixteenth- and early seventeenth- centuries, the competition among the barber-surgeons, apothecaries, and physicians often arose around the right to prescribe, prepare, and administer medicines, that is, who was knowledgeable enough about herbs to determine the correct use of simples and compound medicines. While there had been earlier points of contention among English medical practitioners, the influx of hitherto unknown plant materials had a destabilizing effect on the structure of medical authority and brought debates about *materia medica* to center stage. Although Gerard died five years before the secession of the Apothecaries from the Company of Grocers, his comments on physicians, apothecaries, and medicines in the *Herball* (1597) have to be understood in the context of the extended debates about herbal medicines that culminated in the founding of the Worshipful Society of Apothecaries of London in 1617 and the College of Physicians' publication of the *Pharmacopoeia Londinensis* a year later.

Physicians had the theoretical training to test the novel imported herbs and place them into traditional Galenic categories. As they put the new plants into therapeutic use, however, the doctors ignored the cost of the drugs. This added to the elitist cloud that hung over the physicians. Merchants, grocers, and apothecaries also profited from the sale of exotic herbs. Although potential profits may have motivated the surgeons, as well, they were equally anxious to claim, by virtue of their theoretical training, the right and capacity to interpret the new plants.

⁸⁸ Celeste Chamberland, “Honor, Brotherhood, and the Corporate Ethos of London’s Barber-Surgeons Company, 1570-1640,” *Journal of the History of Medicine and Allied Sciences* 64, (2009): 304.

Medically, a concern about the purity of these unfamiliar plants lay at the heart of this struggle for authority. Who should determine how the new herbs should be used? Because the plants were unfamiliar, they were “especially prone to be counterfeited, adulterated, and substituted since the profits to be made from expensive foreign drugs were generally greater than those produced with local ingredients.”⁸⁹

Each of the medical communities included pragmatic and public-spirited practitioners who spoke out against fraudulent practices, shared information about the new drugs through vernacular treatises, or sought easily accessible alternatives among plants native to England. Their goal was to establish a reliable textual authority to stop the controversies over medicines and to bring quality care to patients. In the late sixteenth-century, the College of Physicians began work on an official pharmacopoeia in Latin to solve this problem, but their *Pharmacopoeia Londinensis* was not published until 1618, close upon the heels of the Apothecaries' split from the Company of Grocers.⁹⁰

John Gerard had a personal stake in these controversies over *materia medica*; they challenged his expertise as a surgeon and affected the care of his patients and the health of the nation. In the *Herball* (1597) he often recorded his own opinions about controversial ingredients and the reasons for his stands. He appealed to his surgeon's training in classical medical theory but even more to his first-hand experience of the plants' natures and virtues. Gerard did not hesitate to challenge other kinds of practitioners when he thought they were wrong about a particular plant's name, qualities, or uses. These passages reveal the way he saw himself in relation to both the physicians and apothecaries and show us how Gerard's identity as a surgeon and his knowledge of plants intersected.

Gerard personally tested many indigenous and exotic plants. In this way, he knew that Couch and Dew Grass had a pleasant taste.⁹¹ Gerard reported a singular incident on the sea coast of Essex. Refusing to “write by report of others,” Gerard and his companion, “Master Rich,” both tasted a drop of Spurge sap that

⁸⁹ Andrew Wear, “The Early Modern Debate about Foreign Drugs: Localism versus Universalism in Medicine,” *Lancet* 354 (1999): 150.

⁹⁰ Deborah Harkness, *The Jewel House* (New Haven, Conn.: Yale University Press, 2007), chap. 2. Juanita Burnby, “John Gerarde and his Contemporaries,” *Pharmaceutical Historian: newsletter of the British Society for the History of Pharmacy* 29/2 (1999): 19-23. See also Pelling and White, 2003, Furdell, 2002, Wear, 2000, Pelling and Webster, 1979, 172, and Margaret Pelling, *The Common Lot: Sickness, Medical Occupations and the Urban Poor in Early Modern England* (London: Longman Publishing Group, 1998). For the participation (in English rather than Latin) of apothecary John Parkinson in these debates, see Anna Parkinson, *Nature's Alchemist: John Parkinson, Herbalist to Charles I* (London: Frances Lincoln, 2007).

⁹¹ Gerard, Book I, Chap. 17: 22, *Of Couch grasse or Dogs grasse* and Book II, Chap. 20: 26, *Of Dew grasse*.

did so inflame and swell in my throte that I hardly escaped with my life: And in like case was the gentleman which caused us to take our horses, and poste for our lives unto the next farme house to drinke some milke to quench the extremitie of our heate, which then ceased.⁹²

In the case of Flower-de-luce, Gerard had tasted the root and determined that it was “hot and bitter,” contrary to the famous Dioscorides commentator, the Italian Renaissance physician Petrus Andreas Matthiolus, who had called it sweet-tasting.⁹³ (See Appendix 2, Figure 3) However, in another situation where he disagreed with contemporary physicians' judgment of a plant's humoural qualities, Gerard declined to challenge the London doctors. He modestly noted that he had no university learning to bring to the subject of the differences among the various types of Dock:

Other distinctions and differences with the temperature and every other circumstance, I leve unto the learned phisitions of our London colledge (who are very well able to search into this matter) as a thing far above my reach, being no graduate, but a countrie scholler, as the whole framing of this historie doth well declare: but I hope my good meaning will be well taken, considering I do my best, not doubting but some of greater learning will perfect that which I have begun according to my small skill, especially the ice being broken unto him, and the woode rough hewed to his handes. Notwithstanding I thinke it good to saie thus much more in mine owne defence: that although there be manie wants and defects in me, that were requisite to performe such a worke; yet may my long experience by chaunce happen upon some one thing or other that may do the learned good...⁹⁴

He cast himself as a rough country scholar who might stumble upon an unknown plant in his herbarizing travels and persuade the more learned physicians to investigate it in depth. With their “sharper wit,” the Physicians of the College in London, “where there are many singularly learned, and experienced in naturall things,” could then “seeke farther into their nature then any of the auncients have done.”⁹⁵

Gerard was not always so deferential to physicians. He felt secure enough in his knowledge of Avicenna to stand up to a physician on the nature of the herb, Madder. Gerard had been called on the carpet by an unnamed physician to justify his ideas about how it should be used. Gerard explained

Of the temperature of Madder, it hath been disputed among the learned, and as yet not censured, whether it do binde or open; some say both, divers diversly deeme: a great Phisition (I do not say the great learned) called me to account as touching the faculties hereof, although he had no commission so to do, notwithstanding I was content to be examined upon the point, what the nature of Madder was, bicause I have written that it performeth contrary effects, as shall be shewed: the rootes of Madder, which both the

⁹² Gerard, Book II, Chap. 132: 407, *Of Spurge*. See Jeffers, 51, for identification of this Master Rich, who is not to be confused with Gerard's London colleague, the Royal Pharmacist, John Rych.

⁹³ Gerard, Book I, Chap. 36: 51, *Of variable Flower de-luce*.

⁹⁴ Gerard, Book II, Chap. 78: 315, *Of water Dockes*.

⁹⁵ Gerard, Book II, Chap. 78: 315, *Of water Dockes*.

Phisitions and Diers do use, as they have an obscure binding power and force; so be they likewise of nature and temperature colde and drie: they are withall of divers thin parts, by reason whereof their binding qualitie presently following it; which not onely we our selves have observed, but also *Avicen* the prince of Phisitions, (the great Phisitions master) who in his 58 Chapter hath written, that the roote of Madder hath a rough and harsh taste: nowe master Doctor, whether it binde or open I have answered, attending your censure: but if I have erred, it is with the multitude, and those of the best, and best learned.⁹⁶

When a common use of a remedy conflicted with ancient teaching, however, Gerard acknowledged the problem, but trusted his own experience with the nature and use of a plant. One such herb was Honeysuckle or Woodbind as a treatment for sore throats:

There hath an error in times past growen amongst a fewe, and now almost past recouerie to be called againe, being growen an error universall, which error is, how the decoction of the leaves of Honisuckles, or the distilled water of the flowers, are rashly given for the inflammations of the mouth and throte, as though they were binding and cooling. But contrariwise Honisuckle is neither colde nor binding; but hot and attenuating or making thinne.⁹⁷

To support the condemnation of this practice, Gerard quoted Galen. However, he concluded: “Notwithstanding the words of *Galen*, it is certainly found by experience that the water of Honisuckles is good against the sorenesse in the throte and Uvula.”⁹⁸

Gerard implicitly criticized the physicians' enthusiasm for expensive imported New World remedies by invoking the classic maxim that native plants were excellent remedies for native illnesses. If exotic remedies were to be used, they should be at least grown at home. He argued that tobacco raised in England was better for treating English bodies than that grown and imported from “India”

but being now planted in the gardens of Europe, it prospereth very well, and commeth from seede in one yeere to beare both flowers and seede. The which I take to be better for the constitution of our bodies, then that which is brought from India; not so thought nor receiued of our Tabackians; for according to the English prouerbe; Far fetcht and deere bought is best for Ladies.⁹⁹

⁹⁶ Gerard, Book II, Chap. 444: 962, *Of Madder*. The confrontation seems to have been at least somewhat public, perhaps in the new medicinal garden of the College of Physicians; Gerard had been selected as its Curator in 1586 (see Jeffers, 30).

⁹⁷ Gerard, Book II, Chap. 314: 744. *Of Woodbinde, or Honisuckle*.

⁹⁸ Gerard, Book II, Chap. 314: 745. *Of Woodbinde, or Honisuckle*.

⁹⁹ Gerard, Book II, Chap. 63: 286. *Of Tabaco or Henbane of Peru*.

Gerard's friendships with a number of apothecaries did not stop him from making scathing remarks about dangers of the substitutions made by many others. He condemned, for example, the greed and deceit that led to fraudulent substitutions for holie Wormwood, the source of Wormseed used for treating worms in children:

a foraine plant, the seedes being sowen in the gardens of hot regions do prosper well; in these colde countries it will not growe at all. Neverthesse there is one or two companions about London, who have reported unto me that they had great store of it growing in their gardens yeerely, which they solde at a great price unto our London Apothecaries, and gained much money thereby; one of the men dwelleth by the Bagge and Bottle neere London, whose name is *Cornwale*, into whose garden I was brought to see the thing that I would not beleeve; for being often solde that there it did growe, I still persisted it was not true; but when I did behold this great quantitie of Wormwood, it was nothing else but common *Ameos*. How many Apothecaries have beene deceived, how many they have robbed of their money and how many children have beene nothing the better for taking it, I referre it to the judgement of the simplest, considering their owne report, to have solde manie hundreth poundes waight of it; the more to their shame be it spoken, and the lesse wit or skill in the Apothecaries: therefore have I set downe this as a caveat unto those that buie of these seedes, forst to taste and trie the same before they give it to their children, or commit to any other use.¹⁰⁰

The apothecaries' substitution of *Ameos* for Wormseed or *Acorus* for *Calamus* meant that the patients were "nothing the better for taking it."¹⁰¹ In the case of the substitution of Wild Saffron (also called meadow saffron) for *Hermodactylis*, however, the apothecaries' ignorance or greed could be fatal. The Wild Saffron was commonly called *Hermodactylis*, but, Gerard wrote, the true herb *Hermodactylis* was not used in medicines in the apothecary shops. Wild Saffron differed from the Saffron called *Hermodactylis* in the color of its root. (See Appendix 2, Figure 4) The healthful Saffron had a root that was white on the outside and inside while the other was black or reddish in color. While both could cause distress if eaten, the Wild Saffron caused death. Gerard recommended

the powder of Ginger, long Pepper, Annise seede, or Commin seed, and a little Masticke, [to] correcteth the churlish working of that Hermodactile, or meade saffron, which is used in shops. But those which have eaten of the common meadow Saffron must drinke the milke of a cow, or els death presently ensueth.¹⁰²

In the case of the poisonous Water Pennywoort, Gerard accused the apothecaries of knowing less about the plant than farmers did. The apothecaries used it in place of the Pennywoort that grew upon walls, "which they cannot do without great error, and much danger to the patient: for husbandmen know well, that it is noisome unto

¹⁰⁰ Gerard, Book II, Chap. 435: 941-2. *Of holie Wormwood*.

¹⁰¹ Gerard, Book II, Chap. 435: 942. *Of holie Wormwood*.

¹⁰² Gerard, Book I, Chap. 81: 131. *Of wilde Saffron*.

sheepe, and other cattell that feede theron, and for the most part bringeth death unto them, much more to men, by a stronger reason.”¹⁰³

Gerard’s account of the uses and dangers of Sowbread offers an unexpected glimpse of another aspect of the London medical community and his own household. His wife, Ann (or Agnes), apparently practiced as a midwife under his supervision. For women in “their extreme travell with childe,” Sowbread was used in two ways. Its roote was hung around the neck as an amulet to speed the childbirth and relieve pain, and its leaves were put into the womb “with like effect, as my wife hath prooued sundrie times vpon diuers women, by my aduise and commandement, with good success.”¹⁰⁴ But this “strong medicine” could also, Gerard warned, cause miscarriages, just by coming near it or stepping over it.¹⁰⁵ He took the danger so seriously that, in his own garden, he had fastened sticks around and “crosswaies ouer” the Sowbread plants “least any woman should by lamentable experiment find my words to be true.”¹⁰⁶ (See Appendix 2, Figure 5)

The Surgeon at Work: Burghley's Gout

To understand how important herbal medicines were to Gerard’s practice as a surgeon, the treatment of gout serves as a particularly good case study. To correct the illness’s underlying causes and relieve the patient’s pain, gout required both internal and external therapies and thus became a surgeon’s concern. Gerard had a very good opportunity to study the illness closely and a very strong motive for recording remedies for it: gout plagued his patron Lord Burghley for decades.¹⁰⁷

¹⁰³ Gerard, Book II, Chap. 143: 424. *Of Navelwoort, or Penniwoort of the wall.*

¹⁰⁴ Gerard, Book II, Chap. 296: 695. *Of Sowbreaude.* Gerard’s will of December 11, 1611 mentions that his wife nursed him well when he was ill. Jeffers, 84, 86. See also Wayne H. Phelps, “John Gerard, the Herbalist,” *The Library, Sixth Series* (1980): 76-80 for a discussion of the will.

¹⁰⁵ Gerard, Book II, Chap. 296: 695-696. *Of Sowbreaude.* Within the London guild culture, many wives took part in guild activities, much like a women’s auxiliary, and assisted in their husbands’ work. The wives of gardeners, for example, often helped their husbands. In both market gardening and printing, women might continue the business after becoming widowed. In Tudor England, there is at least one example of a woman practicing as “surgeon-apothecary”: Mrs. Cook at Christ’s Hospital. See A.L. Wyman, “The Surgeoness: The Female Practitioner of Surgery 1400-1800,” *Medical History* (1984) 28: 22-41, especially 28-29. See also Deborah E. Harkness on the roles of Doctor John Dee’s wife: “Managing an Experimental Household: The Dees of Mortlake and the Practice of Natural Philosophy,” *Isis* 88 (1997): 247-262.

¹⁰⁶ Gerard, Book II, Chap. 296: 696. *Of Sowbreaude.*

¹⁰⁷ A fascinating research project is underway at Royal Holloway, University of London: Department of History under the direction of Peregrine Horden and Pauline Croft. This project, *The Health of the Cecils* (c. 1550-1660), may be found online at <http://www.rhul.ac.uk/History/Research/cecils/>

Modern medicine defines gout physiologically as the accumulation of uric acid in joints, but it is important to remember that centuries-old diagnoses do not map exactly onto modern diseases. Hippocrates had called it *podagra*, i.e. foot pain; Celsus, the Roman medical encyclopedist, gave different names to the disease as it appeared in different parts of the body: *podagra* involved the feet, *chiagra*, the hands and arms.¹⁰⁸ With Burghley, his legs were afflicted first, and at times gout rendered him unable to walk. Sometimes the pain in his legs was so great he could not attend the Queen but sent his counsel to her via correspondence. Over the years, the gout spread to his hands. When his hands became too painful to write, his secretary wrote for him. Burghley's gout worsened with time and his last years of life were marked by an ongoing struggle with his pain. As a result, he had "more than an academic interest in medicine."¹⁰⁹ He collected medical texts and had several dedicated to him. He requested and received many gout receipts. After years of suffering, Burghley was all too familiar with his condition and its treatment. "By the 1570's he had been at the mercy of eminent physicians for years, treated with all kinds of pills and medicines."¹¹⁰

To explain joint pain from natural causes, Elizabethans turned first to Hippocrates. According to the numbered *Aphorisms* of Hippocrates:

28. Eunuchs never suffer from podagrical affections, or become bald.
29. Women are exempt from podagrical affections, until the cessation of the menses.
30. Gout does not appear in adolescence, previous to venery.¹¹¹

According to Hippocrates, gout resulted when a humour became corrupted and settled into a joint, although it could shift and lodge in any organ or place in the body. Corrupted phlegm was the humour usually associated with gout. The degradation of this flux was thought to arise from extreme amounts of male sexual indulgence and rich foods. Because of these triggers, gout was associated with the wealthy, and older men in particular. Hippocrates had

¹⁰⁸ Porter, Roy and G. S. Rousseau, *Gout: The Patrician Malady* (New Haven, Connecticut: Yale University Press, 1998): 16.

¹⁰⁹ Beckingsale, B. W., *Burghley: Tudor Statesman, 1520-1598*, (New York: Macmillan, 1967): 257.

¹¹⁰ Alford, Stephen, *William Cecil at the Court of Elizabeth I* (New Haven, Conn.: Yale University Press, 2008): 212-213; see also 226-227. Alford cites Christopher Ballista [Arbaleste, Balista], *The ouerthrow of the gout written in Latin verse by Doctor Christopher Balista* (London: Abraham Veale, 1577). STC (2nd ed.) 1312.7.

¹¹¹ Hippocrates, *The aphorisms of Hippocrates from the Latin version of Verhoef, with a literal translation on the opposite page and explanatory notes by Elias Marks* (New York: Collins & Co., 1818): 131. The use of the term 'gout' to describe joint pain began in the medieval period.

avored changes in diet to help gout sufferers.¹¹² Extending Hippocrates, Galen had suggested that gout arose from an accumulation of sinful humours rather than a general imbalance.¹¹³

The seventh edition of *Method of Phisicke* (1583) by physician Phillip Barrough was dedicated to Burghley. Barrough listed the several causes of gout: excess wine, excessive sexual activity, lack of exercise or sudden cessation of regular exercise, rich diet, cessation of normal purgings and fluxations. Barrough added that mental disturbances altered the humours so much that they would bring on gout.¹¹⁴ The abstemious Burghley attributed his own gout, which had begun when he was about forty-five years old, to excessive study in his youth.¹¹⁵

Because early modern medicine regarded gout as a matter of behavior corrupting humours internally, addressing the causes of gout fell within the province of physicians. Many thought gout pains were the wages of sin (like syphilis) and looked for a cure in righteous and moderate living. In addition to a mild diet, Galen had recommended a gentle purging as the best way to deal with the bad humours in the extremities. An intense purge was contra-indicated as it would drive the corrupt humours inward where it could attack internal organs.¹¹⁶ In the *Herball* (1597), Gerard noted Meadow Saffron roots as a useful purge for gouty humours (even though, as a surgeon, Gerard could not legally prescribe this purge himself).¹¹⁷

While there were new exotic herbal cures for gout, like a “decoction of guaiac wood, or *lignum vitae*, recently introduced from the New World,” early modern practitioners, including Gerard, turned to the ancient authority Dioscorides for many of their remedies.¹¹⁸ In his *De materia medica*, they found, for example:

a decoction of Nepal cardamom that warmed and dried; a black poplar and vinegar plaster; a rinse of the decocted juice of willow leaves and bark; a poultice of figs, fenugreek, and vinegar; goat fat, goat dung, and saffron as an ointment; and milk, opium poppy, and saffron as an embrocation.¹¹⁹

¹¹² Porter and Rousseau, 13-21.

¹¹³ Porter and Rousseau, 16-17.

¹¹⁴ Barrough, Phillip, *Method of Phisicke* (London: By Thomas Vautroullier dwelling in the Blacke-friars by Ludgate, 1590), 210.

¹¹⁵ David Loades, *The Cecils: Privilege and Power behind the Throne* (Kew: The National Archives, 2007), 76.

¹¹⁶ Porter and Rousseau, 16-17.

¹¹⁷ Gerard, 1597, Book I, Chap. 82: 131, *Of Meadow Saffron*.

¹¹⁸ Porter and Rousseau, 28. Guaiac was also regarded as a cure for syphilis.

¹¹⁹ Pedanius Dioscorides of Anazarbus, Lily Y. Beck, trans., *De materia medica* (New York: Olms – Weidmann, 2005): 16, 63, 75, 92, 120, and 274. Dioscorides offers many more medications for gout treatment. A decoction is

External treatments of poultices and decoctions to reduce pain were the purview of surgeons. Within the surgical realm, Gerard offered more than a dozen recipes for waters, ointments, and poultices to ease gout symptoms (and still more for joint pains). One such external application was for a decoction of onion juice and “Penniriall” for painful limbs.¹²⁰ May lily flowers, steeped in water for a month, created a “liquor” that helped the gout when rubbed on the painful limb.¹²¹ There were several recipes for a soothing ointment called Populeon from its use of black poplar buds.¹²² Henbane leaves, for example, added to Populeon helped with gout pain because Henbane “causeth drowsinesse, and mitigateth all kinde of paine.”¹²³ Another Populeon recipe called for both leaves and buds “of black Poplar” to “asswage the paine of the gout in the handes or feete, being made into an ointment with Maie butter.”¹²⁴ A poultice of Poppy leaves, buds, and seeds, “stamped with vineger, womans milke, and saffron,” was good for gout pain.¹²⁵ Another plaster that could be applied to painful swelling joints was made from Meadow Saffron “stamped and mixed with the whites of egges, barly meale, and crums of bread.”¹²⁶

If only for its name, one gout remedy that would have had special meaning for Gerard and his patron was a kind of Masterwoort or Goutwoort known as “Herbe Gerard”:

Herbe Gerard with his rootes stamped, and laid vpon members that are troubled or vexed with the gout, swageth the paine, and taketh away the swelling and inflammation thereof, which occasioned the Germaines to giue it the name *Podagraria*, bicause of his vertues in curing the gout.¹²⁷

It grew in Gerard's garden, all too well, as he had to acknowledge: “Herbe Gerarde groweth of it selfe in gardens...where it hath taken roote, it will be hardly be gotten out again.”¹²⁸

removal of the effective part of an herb by boiling and then concentrating the liquid. A plaster or a poultice is a warm moist cloth bearing medicaments applied to the area. An embrocation is a medicinal liquid rubbed into the skin.

¹²⁰ Gerard, 1597, Book I, Chap. 84: 135, *Of Onions*.

¹²¹ Gerard, 1597, 332. Chap. 87, *Of Lilly in the valley, or May Lillie*.

¹²² “† populeon, n.”. OED Online. March 2011. Oxford University Press.
<http://www.oed.com/view/Entry/147926?redirectedFrom=populeon> (accessed April 29, 2011).

¹²³ Gerard, 1597, 283. Chap. 61, *Of Henbane*.

¹²⁴ Gerard, 1597, 1303. Chap. 113, *Of the Poplar tree*.

¹²⁵ Gerard, 1597, 298. Chap. 68, *Of garden Poppie*.

¹²⁶ Gerard, 1597, 131. Chap. 82, *Of Meadow Saffron*.

¹²⁷ Gerard, 1597, 848-849. Chap. 372, *Of Masterwoort and herbe Gerard*. The name refers to Saint Gerard.

Conclusion: Gardening as applied knowledge

Within the world of the Elizabethan medical economy, divisions among practitioners may be drawn to gain historical insight. It is important to remember, however, that these may be artificial and modern constructions and not those of the early modern actors themselves. This seems to be the situation with much previous historiography: the categories set upon the period do not reflect the path of most medical practitioners. Accepting such distinct categories of medical practitioners for early modern England is to ignore the “flexibility and responsiveness in the trades and crafts of the early modern economy, at the formal as well as the informal level.”¹²⁹ Barber-surgeons, for example, often did more than one type of work at a time and changed their occupation throughout their lifetime in response to community need, age, wealth, and opportunity.¹³⁰ When we look at the life of John Gerard, we see this was certainly the case.

There were some paths and “trade associations” that were especially common “in the middling ranks of medicine and among the barber-surgeons in particular.”¹³¹ Two surgeon-apothecaries, for example, were Robert Hitchcock and John Harris.¹³² Another apothecary and friend of Gerard’s, James Garret, was a gardener. The life of John Gerard was an example of that frequent trade association between surgery and growing plants.

At first glance, it does not seem obvious or inevitable that Gerard would have his own garden and travel to investigate and collect plants unknown to him. To him, however, this association of activities made sense, as “medicines... were almost as important to Surgeons as they were to Physicians.”¹³³ In discussing two water Dockes, Gerard casually mentioned that, even though they grew “in ditches and water courses” throughout England, they were also cultivated “in gardens, [by] myselfe and others in London and elsewhere...for our vse in Phisicke and chirurgerie.”¹³⁴ To insure a supply of an exotic plant he found useful to his treatment of burns, he first grew the little-known Thorne Apple, in his own garden and then proceeded to spread the plant all over the landscape. Gerard

¹²⁸ Gerard, 1597, 849. Chap. 372, *Of Masterwoort and herbe Gerard*.

¹²⁹ Pelling and White, 148.

¹³⁰ Pelling, 1998, 203-229.

¹³¹ Pelling and White, 163.

¹³² Furdell, 16.

¹³³ Wear, 228.

¹³⁴ Gerard, Book II, Chap. 78: 313. *Of water Dockes*.

had received seeds of this plant from Lord Zouche and Jean Robin of France. He wrote that he used it almost daily and so “have great use [for it] in Chirurgerie, as well in burnings and scaldings, as also in virulent and maligne ulcers, apostemes, and such like.”¹³⁵

Interestingly, Galen’s words were used to justify and attack this flexibility of members of the medical marketplace, for he wrote that physicians were next to philosophers because of their knowledge of the causes of disease.¹³⁶ This was used again and again to support the physicians’ claim to jurisdiction over all other medical practitioners.

In Book 3 of *De compositione medicamentorum*, however, Galen wrote of the necessity of thorough plant knowledge.¹³⁷ Galen’s words were used to demonstrate the need for instructive botanical gardens, naturalistic images in herbals, and hands-on experience with plants by all medical practitioners. Surgeons took note:

Therefore it is necessarie to have good knowledge in the nature and qualytie of Simples, whereoff medicens have their baeinge. For without the knowledge thereof it is not possible to doe anything in this art, and especially in the cure of sinewes worthy commendation. It sufficeth not to have great store of receipts, except ye know the particular nature of every simple. And with having knowledge, he shalbe able to frame his composition himselfe, according as the nature of the grieffe shall require. The perfect knowledge of Simples, is in three thinges, that is to saye, of plants, of mettalls, and of lyving thinges, and it is not sufficient to see them once or twice: but you must must marke and beholde them often as in their beginning, growing state, and declynation. For by this beholding: you shall know in what time it is best to gather them, if they be not gathered in their due time: the heat of the Sunne will burne and take away their vertue. And also the place where they must be kept, ought to be temperate in heate and moysture, for feare of chaunging their nature or vertue, for without the knowledge thereof it is not possible for a Chirurgion to have the true understanding and method to compounde medicines nor to gouerne well the curation of diseases.¹³⁸

As a “Chirurgion,” Gerard took this direction seriously. To serve his patients, he felt he had to become a gardener, a plant collector, a domesticator of wild indigenous and exotic plants, and a collector of receipts for

¹³⁵ Gerard, 278.

¹³⁶ Peter N. Singer, “The Best Doctor is also a Philosopher,” in Galen, *Selected Works* (New York: Oxford University Press, 2002), 30.

¹³⁷ Karen Meier Reeds, *Botany in Medieval and Renaissance Universities* (New York: Garland Publishing, 1991), 28, 185.

¹³⁸ Guy de Chauliac, *Guidos questions newly corrected. Whereunto is added the thirde and fourth booke of Galen, with a treatise for the helps of all the outward parts of mans body....De compositione medicamentorum per genera. Book 3* (London: Thomas East, 1579), 56 or P4r.

remedies. However, it is clear that medicinal herbs formed only part of his own interest in plants and that his own style of gardening went well beyond “the gardens of those that love phisicall plants.”¹³⁹

¹³⁹ Gerard, Book I, Chap. 61: 283, *Of Henbane*.

Chapter Two, John Gerard: Gardener

In *The Herball* (1597), John Gerard shared a useful recipe for a poultice of Clounes Alheale and hog's grease. (See Appendix 2, Figure 6) He had learned of Clounes Alheale while in Kent to see a patient. There he had come across a husbandman who had deeply cut his leg with a scythe while harvesting a field of peas. The man

crept unto this herbe [Clounes Alheale] which he brused in his hands, & tied a great quantitie of it unto the wound with a peece of his shirt, which presently stanchd the bleeding and ceased the pain, insomuch that the poore man presently went to his daies worke againe, & so did from daie to daie, without resting one day untill he was perfectly hole, which was accomplished in a few daies by this herbe ... so laid upon in maner of a pultis, which did as it were glewe or soder the lips of the wounde together, and heale it according to the first intention (as we tearme it) that is without drawing or bringing the wounde to suppuration or matter, which was fully performed in seaven daies, that would have required fortie daies with Balsam it selfe: I sawe the wounde, and offered to heale the same for charitie, which he refused, saying, that I coulde not heale it so well as himselfe: a clownish answer I confesse without thanks for my good will, whereupon I have named it Clounes Woundwoort as aforsaide.¹

Despite the peasant's unmannerly rebuff of Gerard's services, Gerard capitalized on the experience and used the poultice himself on many wounds with good results. In the case of a gentleman "of Graies Inne in Holburne," the remedy produced a notable cure:

master Edmund Cartwright, who was thrust into the lungs, the wound entring in at the lowermost part of Thorax or the brest plate, even through that cartilaginous substance, called *Mucronata Cartilago*, insomuch that from day to day, the frothing and puffing of the lungs did spewe forth of the wound such excrements as it was possessed of; besides the gentleman was most dangerously vexed with a double quotidian feaver, whom by Gods permission I perfectly cured in very short time, and with this Clounes [experiment], and some of my foreknowne helpes...²

This passage reveals the interplay between Gerard's surgical practice and his plant investigations, or herbarising. Even while he traveled some distance to see patients, he offered charity to the poor in need of a surgeon. In doing so, he learned about an indigenous plant used by the common folk, took note of it, and tested the plant in his surgery. When Clounes Alheale performed well, Gerard adjusted his practice to utilize the excellent herb even on a prominent barrister of London.

¹ John Gerard, *Herball* (1597), 852. Chap. 374, *Of Clounes Woundwoort, or Alheale*. Gerard wrote that this occurred "about Southfleete neere to Gravesend," about 25 miles to the south and east from Holborn.

² Gerard, 1597, 852. Chap. 374, *Of Clounes Woundwoort, or Alheale*. Edmund Cartwright was admitted to Gray's Inn in 1578, according to Joseph Foster's *The register of admission to Gray's inn, 1521-1889* (London: Hansard Publishing Union, Limited, 1889): 53. A double quotidian fever is a fever that spikes twice a day. In sixteenth-century England, the word experiment referred to a first-hand experience, not an experiment. Gerard's treatment also saved a shoemaker's servant who had tried to commit suicide by stabbing himself in the throat, breast, and belly.

In this chapter I examine the importance of gardening in Gerard's personal and professional world. I argue that, for Gerard, gardening was more than a natural part of his surgical practice. It was also a valuable addition to his livelihood, a source of intellectual and aesthetic pleasure, an avenue to patrons, and an assertion of his status as a gentleman and citizen of Tudor London.

Gerard's Physic Garden

Gerard and his family lived in Holborn, a suburb west of London with the Fleet River and the parish of St. Sepulchre separating it from the western wall of the city. Elijah Williams suggests that his home was a tenement on the west side of Fetter Lane and that Gerard's garden "lay between Staple Inn and Cursitor Street."³ This area was the location of many other wealthy citizens' gardens.⁴ Although the exact location of this garden is not known, we do know quite a bit about it. It was a large garden in which he grew many of the herbs he used in his surgery. Wherever Gerard went—in town or traveling to visit patients, meet colleagues, or herbarise—he collected plants and seeds to grow in his garden.

The area around the garden may have once been part of the grounds of a religious order. One possibility links Gerard's Holborn garden to St. Giles-in-the-Fields.⁵ The lands of the Hospital of St. Giles-in-the-Fields went from the Hospital eastward toward the Holborn Bar. This could have included the land around Fetter Lane and Gerard's garden.⁶ It is thought by some that their large walled abbey garden became Gerard's garden. A close

³ Elijah Williams, *Early Holborn and The Legal Quarter of London: A Topographical Survey of the Beginnings of the District Known as Holborn and of the Inns of Court and of Chancery*, (London: Sweet & Maxwell, Limited, 1927): vol. 1, 356-7.

⁴ B. D. Jackson, *A catalogue of plants cultivated in the garden of John Gerard, in the years...* (London: Privately printed, 1876), xii.

⁵ Williams, vol. 1, 356-7. See also Miranda Threlfall-Holmes, *Monks and markets: Durham Cathedral Priory, 1460-1520*, (Oxford: Oxford University Press, 2005): 55-6. Many monasteries had an orchard, infirmary garden, and kitchen garden. Mary Clay Rotha, *The Mediaeval Hospitals of England*, (London: Methuen & Co., 1909): 262, 304. St. Giles-in-the-Fields was a leper hospital for a great deal of its history. For the vegetables, herbs, and fruits grown in late medieval English monastic gardens, see John H. Harvey, "The First English Garden Book: Mayster Jon Gardener's Treatise and Its Background," *Garden History*, Vol. 13, No. 2 (Autumn, 1985), pp. 83-101

⁶ "Religious Houses: Hospitals," *A History of the County of Middlesex: Volume 1: Physique, Archaeology, Domesday, Ecclesiastical Organization, The Jews, Religious Houses, Education of Working Classes to 1870, Private Education from Sixteenth Century* (1969), pp. 204-212. URL: <http://www.british-history.ac.uk/report.aspx?compid=22122> Date accessed: 15 July 2010.

examination of a contemporary map reveals, however, that St. Giles-in-the-Fields was too far away to have encompassed the area later called Fetter Lane.⁷

There is another possibility that links Gerard's garden to an earlier monastic garden. In 1544 when the monasteries were dissolved, Sir Henry Willoughby purchased church land from the crown that had been in possession of the Convent of Malmesbury. The Convent of Malmesbury in Wiltshire owned land in Holborn "within the parish of S. Andrew the Apostle."⁸ Legal documents from that sale allow for the monks to return to the chapel and the hall on what was called "Castell Aleye." The documents specifically mention the monks' continuing right to visit the garden attached to the hall. They were at "liberty to walk in the great garden there at their will as often as they should happen to come to the city of London or for any other occasion of the said late Monastery."⁹ In legal documents from the year 1591, Willoughby paid rent to Lord Burghley, Gerard's patron, for the large monastery building called the "Castell." Perhaps in the intervening years the lands had become Burghley's, or Burghley had accepted rent for them on behalf of the crown. Other legal documents ensure that John Gerard's wife Anne continued to have living space until her death in a flat on the "Castell yard" on Fetter Lane. With this in mind, the "great garden" that lay further south along Fetter Lane was most likely occupied by Gerard.¹⁰

English monastery records show that sixteenth-century monastic gardens and orchards grew medicinal plants, fruits, and vegetables. While it is not known how many of the plants were carried over when the gardens changed hands, they could easily have become market gardens that supplied fresh produce to urban areas.¹¹ If Gerard took over a walled garden that had once been in the care of a religious group, it could have already contained

⁷ Adrian Prockter and Robert Taylor, *The A to Z of Elizabethan London*, (London: London Topographical Society, 1979).

⁸ Williams, vol. 2, 1157. If this was the garden that Gerard inherited, it would have been 25 years since the lands were surrendered under King Henry VIII and Gerard gaining his freedom. With this in mind, it is likely that in the intervening years the appearance and organization of the garden changed considerably.

⁹ Williams, vol. 2, 1157.

¹⁰ Williams, vol. 2, 1084, 1159. Liza Picard, *Elizabeth's London: Everyday Life in Elizabethan London* (New York: St. Martin's Griffin, 2004): 79-81. Another garden is mentioned in John Timbs, *Curiosities of London, New Edition, Corrected and Enlarged* (London: J.S. Virtue & Co., 1867). Without any citations, Timbs writes on page 365 that "Gerarde had another physic-garden, in Old-street" and on page 620 that "Old-street was also famous for its nursery-grounds." B.D. Jackson (1876) noted this information and could not find the documentation. Unfortunately, these are the only mentions of this garden that I can find.

¹¹ John Harvey, *Early Nurserymen* (London: Phillimore & Co. Ltd., 1974), 27-36. Many monastic gardens were rented out and became commercial gardens even before their dissolution by Henry VIII.

an orchard and physic herbs. According to Jeffers, Gerard says that some of his plants died in the harsh winter of 1579-1580, which suggests he had established his Holborn home and garden by then.¹²

From the bits of description throughout the *Herball* (1597), Gerard's garden sounds similar to the standard offered in garden manuals from the time. Brick walls surrounded it for protection from thieves, prying eyes, and the cold.¹³ The garden had hedges and structures to support vining plants. Whether or not it had been part of the Abbey, Gerard's garden would have grown well on the alluvial soil of the riverbank of the Fleet River. It did not have to rely, however, on the pre-existing soil (as farmers would have) because Gerard could easily have added manure and other soil amendments.¹⁴ He irrigated with the cold water from his garden well. Typical gardens from this time period were divided into long rectangular beds with alleys or pathways between them for weeding, watering, and harvesting.¹⁵ In preparation for planting, the beds themselves were first weeded and then double-dug with soil amendments added all the while.¹⁶ The garden must have been sizeable as Gerard listed many fruit trees in his garden plant lists. Even espaliered, these would have needed support and room to grow.

To grow some plants from warmer climates, Gerard prepared special hot beds. These were garden beds filled with fresh manure. A layer of six inches of soil went over the top in which the seeds were planted. As the

¹² Unfortunately, Jeffers, 39, does not give the names of the plants, page references, or other sources; and I have not yet identified any passage that fits. One of these plants may have been the Dittanie of Crete which Gerard succeeded in getting to bloom and set seed before the "whole plant perished...of the iniurie of our extraordinarie cold winter that then hapned." Gerard, 1597, Book II, Chap. 268, p. 651, of Dittanie; Jeffers 34-35, Fig. V. Gerard rarely gave dateable weather references to his garden. Gerard, 1597, 723, Bk. II, Chap. 307, *Of black Bryonie, or the wilde vine*: Bk. II, 271, Chap. 52. *Of winter Cherries*: "The blacke winter Cherrie is brought out of Spaine and Italy, or other hot regions, from whence I haue had of those blacke seeds marked with the shape of a mans hart, white, as aforesaid: and haue planted them in my garden where they haue borne floures, but haue perished before the fruit could grow to maturitie, by reason of those vnseasonable yeeres, 1594. 95. 96." Gerard, 1597, 542, Bk. II, Chap.. 208. *Of wilde Marjerome*: "Bastard Marjerome of Candy...The root endured in my garden and the leaues also greene all this winter long, 1597, although it hath been said that it doth perish at the first frost, as sweete Marjerome doth." I am deeply grateful to Alexander Hall, William Calvert, Geoffrey Parker, and Christopher Otter, whose responses to a listserve query by Karen Reeds on my behalf (H-Environment, April 4, 2011) confirmed that London had extraordinary snowfall early in 1579. See J. M. Stratton, *Agricultural Records A.D. 220-1968*, ed. R. Whitlock (London: J. Baker, 1969), 43; *The Abridgement of the English Chronicle*, first collected by M. Iohn Stow, and after him augmented with very many memorable antiquities, and continued with matters forreine and domesticall, vnto the beginning of the yeare, 1618. by E.H. Gentleman (London: [By Edward Allde and Nicholas Okes] for the Company of Stationers, 1618), 329.

¹³ Gerard, 1597, Book II, Chap. 317: 749. *Of Capers*.

¹⁴ Malcolm Thick, *The Neat House gardens: early market gardening around London*, (Totnes, Devon: Prospect Books, 1998): 12-13.

¹⁵ Gerard, 1597, 48, 275. Chap. 35, *Of Flower de-luce of Florence* and Chap. 55, *Of apples of Love*.

¹⁶ Thick, 93-95.

fresh manure decomposed, heat was released into the surrounding soil which simulated warm soil temperatures. Some of these beds had their north ends raised to tilt the seed bed for a warmer southern exposure. Once the seeds were planted, a layer of straw or dock leaves was laid over the top as insulation. Hoops or poles held woven mats over the seed beds to protect them from the frost and wind.¹⁷

Gerard's garden of physic plants

While Gerard's garden must have provided produce and herbs for his own family, he loved growing 'phisicall' plants, that is, those used for medicine.¹⁸ For Gerard, collecting plant seeds and roots and growing them at home was one way to increase his knowledge of herbs used in physic and surgery and to ensure he had an abundant and high-quality supply of those herbs upon which he relied. His knowledge allowed him to have strong opinions about the ingredients chosen by apothecaries for their herbal simples and compounds. His knowledge and judgments, in turn, enhanced his reputation among other London medical practitioners.

Gerard gave firsthand information about the surgical and apothecary use of most herbs including those found widely in England. Not surprisingly, Gerard took an extra interest in those herbs that helped him treat burns and wounds in his surgical practice. Golden Rod, for example, was noted for its use as an excellent wound drink ("in my practise...placed in the first rank") while "the roote of Xyris of Gladdon, is of great force against wounds and fractures of the head, for it draweth out all thornes, stubs, pricks and arrow heads, without greese."¹⁹ (See Appendix 2, Figure 7) He regarded the Dittanie of Crete as especially valuable for "Chirurgians that vse the sea and lande in wars" for treating wounds made by "invenomed weapons, arrowes shot out of guns, or such like," and drawing out splinters of wood and bones.²⁰ He was proud that he had succeeded where Dioscorides had not, in getting the Dittanie in his garden to bloom and set seed.²¹

Gerard's firsthand experience with the plants growing in his garden often enabled him to sort out the confusing array of names attached to most plants. For example, botanists, physicians, and apothecaries could not

¹⁷ Gerard, 1597, 763-5. Chap. 326, *Of Cucumbers*. Thick, 103-4, 100.

¹⁸ Gerard, 1597, 283. Chap. 61, *Of Henbane*. See also, e.g., recipes for preparing beans and salad: Gerard, 1597, 1042, Bk II, Chap. 490, *Of Kidney Beane*, 1253, Bk. II, Chap 509, *Of Goates Rue*.

¹⁹ Gerard, 1597, 349, 54. Chap. 98, *Of Golden Rod* and Chap. 37, *Of stinking Gladdon*.

²⁰ Gerard, 1597, Book II, Chap. 268, p. 651, *Of Dittanie*. See also Gerard, 1597, 278. Chap. 57, *Of Thorne apples* (discussed in Chapter 1, above).

²¹ Gerard, 1597, Book II, Chap. 268, p. 651-652, *Of Dittanie*.

agree upon the one plant that should bear the name of Turbith of Antioch. Gerard commented that this had also happened with the *Hermodactyles* and that it seemed that “any milkie root which doth strongly purge flegme” was given the name Turbith by the “Arabians and halfe Moores that dwell in the east parts.”²² Although some thought that the Turbith of Antioch was the same as *Tripolium marinum*, Gerard declared that the Tripolium was a Sea Starwort or Serapias Turbith that grew along the English coastline.²³ To the claim that the Turbith of Antioch was a type of *Tythimales*, Gerard countered that the French physician-botanists Matthias L’Obel and Pierre Pena had harvested all the different kinds of *Tythimales* roots, dried them, and compared them to the Turbith of Antioch, but had found no similarities.²⁴ In the end, Gerard agreed with

the judgement of men which are of great experience; i thinke assuredly that the roote of Scammonie of Antioch is the true & undoubted Turbith: one reason especially that mooveth me so to thinke is, for that I have taken up the rootes of Scammonie which grewe in my garden, and compared them with the rootes of Turbith, betweene which I founde little or no difference at all.²⁵

It was handling the living plant in his own garden that allowed Gerard to conclude that the valuable imported root could in fact be found easily in England.

Gerard (and "other Herbarists...in England") grew a yellow-flowered shrub from Montpellier in his garden. Although many called it "*Cytisus*," Gerard thought it was better to call it "*Trifolium fruticans* for it doth not agree with *Cytisus* or milk-Trefoile" because its flowers were yellow, not white or blue. Still others made the mistake of calling it *Polemonium*, because they thought the leaves "seeme to be somewhat like those of common Rue," but that, Gerard pointed out, ignored the difference between the simple, single leaves of common Rue and the shrub Trefoile's "small leaues...alwaies three ioined together vpon little footstalkes."²⁶ (See Appendix 2, Figure 8)

Gerard, gentleman gardener

Gerard was both a medical man and a gentleman. English gardening—as opposed to agriculture—was initially regarded as a gentlemanly pursuit because it imposed order on nature. Thus, when the gentleman gardener

²² Gerard, 1597, 335. Chap. 89, *Of Turbith of Antioch*. For Gerard on the Hermodactyles, see above, Chapter 2, and Gerard, 131, Book I, Chap. 82, *Of Meadow Saffron*, 126-131.

²³ Gerard, 1597, 333. Chap. 88, *Of Serapias Turbith, or Sea Starwort*.

²⁴ Gerard, 1597, 335. Chap. 89, *Of Turbith of Antioch*.

²⁵ Gerard, 1597, 335. Chap. 89, *Of Turbith of Antioch*.

²⁶ Gerard, 1597, 1128, Bk. III, Chap. 14, *Of the shrub Trefoile called also Makebate*.

directed the labor of other men in the garden, it was a task fit for a member of the governing classes. However, the tense economic and food climate of late sixteenth-century England and the influx of exotic plant materials pushed many more men into horticulture. The undocumented plants included hitherto unknown plants from the rest of the world as well as native plants not recorded in classic pharmaceutical texts. Consequently, knowledge of useful indigenous plants and horticultural experience increased in value.²⁷ Men from all classes—gentlemen, medical practitioners, and commoners—began to grow plants and use them in ways that reflected their needs and resources.

Gentlemen typically grew exotic plants both for personal interest and the prestige associated with these expensive and difficult to obtain curiosities. Physicians, surgeons, and apothecaries incorporated newly discovered indigenous herbs and some imported plants into their repertoire of physic herbs and used classical categories and ideas about how to know their nature and virtue. Commoners grew native and naturalized plants for food, sources of fiber, or other economic commodities. Thus the word "gardener" meant different things based on who was being called by that title, what was being grown, and where. In plant husbandry books,

some of these gardening manuals addressed the land's master himself as the 'gardener' (although he was certainly not imagined to use the spade and knife himself), while others fashioned the gardener as the ideal gentleman's servant.²⁸

Whatever the purpose or the man's family background, growing unfamiliar plants was interesting and useful; and, because it could often be prestigious, it "became a way to get somewhere in the world."²⁹

Gerard directed and was also an active participant in his Holborn garden. He learned about growing plants through gardening, reading, and speaking with others who also grew plants. He planted, transplanted, pruned, dug garden beds, watered, tasted and smelled plants, and used different types of manure. He knew to use fresh dung and row covers to begin the growing season earlier, and to bring plants in to help them survive the winter. Gerard collected these plants at the central market of London, through diplomatic contacts of his patron Burghley, and from other botanizing friends. He traveled from the Yorkshire Dales in the northwest to the Isle of Thanet in the southeast collecting plants from the marshes, beaches, hedgerows and fields on his herbarising expeditions.

²⁷ Bushnell, Rebecca W., *A Culture of Teaching: Early Modern Humanism in Theory and Practice* (Ithaca: Cornell University Press, 1996), 85.

²⁸ Bushnell, 1996, 85.

²⁹ Rebecca Bushnell, *Green Desire: Imagining Early Modern English Gardens* (Ithaca: Cornell University Press, 2003), 24. Jennifer Munroe, *Gender and the Garden in Early Modern English Literature* (Burlington, Vermont: Ashgate, 2008), 3.

Gerard returned from all these places and tried to tame these wild native and exotic plants to the conditions of his Holborn garden. He did have assistance. He had both servants and his apprentices to help him with the plant collecting and gardening. Gerard sent his apprentice William Marshall to work as a ship's surgeon and to collect plant materials. One such prize was the fruit of the Plane Tree: Marshall,

whom I sent into the Mediterranean sea, as chirurgion unto the Hercules of London, found divers trees heerof growing in Lepantae, hard by the sea side, at the entrance into the towne, a port of Morea, being a part of Greece, and from thence brought one of those rough buttons, bearing the fruite thereof.³⁰

Primarily, Gerard gave horticultural direction to his servants and garden workers. They watered and weeded around the desirable plants in the garden and seemed to seldom make mistakes. In one instance, however, Gerard explained that he did not know as much about a plant as he would like: one of his servants mistakenly did away with his Scammonie of Valentia vine when he went to "Bristow faire." This "ignorant weeder" pulled the plant up and "cast it away in my [Gerard's] absence, in steede of a weede."³¹ Gerard had given away his only other Scammonie vine to an apothecary friend in Colchester with whom the vine "continueth to this daie, bearing both flowers and ripe seede."³² Sometimes the servants knew more about the plants than their master, and Gerard was open to acquiring their knowledge. In the example of the Sugar Cane, Gerard learned about the process of producing sugar from the cane from "an Indian, my seruant" who worked in his garden.³³ Regardless of the amount of soil and scrapes on his hands, Gerard learned horticulture in and through his Holborn garden, and the experience enabled him to think broadly and comment knowledgeably about botanical theory.

³⁰ Gerard, 1597, Book III, Chap. 114: 1304. *Of the Plane tree*. According to the Westminster Session Rolls of April 11 and 12, 1616, William Marshall of Kensington identified himself as a gardener upon giving evidence against Roger Weston, husbandman, and servant to Robert Prudens of Kensington. If this is the same Marshall who traveled to Greece as ship's surgeon on the Hercules for Gerard, he too made the transition from surgeon to gardener. See also 'MARSHALL, William', *Physicians and Irregular Medical Practitioners in London 1550-1640: Database* (2004). URL: <http://www.british-history.ac.uk/report.aspx?compid=17641>. Marshall is not to be confused with the "right expert Chirurgion...my friend master William Martin, "who sent his own servant as a ship's surgeon to the Barbary Coast to procure Euphorbium plants for Gerard's garden; Gerard, 1597, 1016, Bk. II, Chap. 476, *Of the gummie Thistle called Euphorbium* (where incidentally Gerard muses on the possibility of a "further consideration, or a second Edition). See also Gerard, 1597, 187, Bk. I, Chap. 7, *Of Horse Radish*; and Charles E. Raven, *English Naturalists from Neckam to Ray: A Study of the Making of the Modern World* (Cambridge: Cambridge University Press, 1947; rept. 2010), 213.

³¹ Gerard, 1597, 718. Chap. 305, *Of Scammonie, or purging Bindweed*.

³² Gerard, 1597, 718. Chap. 305, *Of Scammonie, or purging Bindweed*.

³³ Gerard, 1597, 35. Chap. 25, *Of Sugar Cane*. Sugar cane grew, Gerard said, in both the East and West Indies; he did not specify which Indies his servant came from.

Horticulture

Gerard's attempts to grow plants unfamiliar to him in his garden made him think a great deal about plant propagation and the challenges of getting strange plants to grow in the cool English climate. From his travels and garden, Gerard knew that some plants preferred to grow in sun, shade, rocky soil, watery places, well-dunged soil, or deeply-dug soil. Unless he continued to observe, to record, and to apply this knowledge to improve the growing conditions in his garden, more plants would end up like his small Dalmatica Iris. It died when Gerard poured cold well-water on its leaves.³⁴

Rebecca Bushnell's book, *Green Desire*, implicitly takes up this story by describing how gardeners made horticultural knowledge through their work of trying to grow plants unfamiliar to them.³⁵ We can see their struggle in books of horticultural directions and recipes. These books gave instructions for both realistic and unrealistic outcomes (or so we would now regard them). Bushnell cites examples in Hugh Plat's *Floraes Paradise* (1608). Plat described how to extend the season of cherries by bending down the branches and placing them in

pottes or tubs standing in the earth; then cover them with boardes and earth from the sunne, and the sap of the tree will keepe them growing a long time... Prove [ie. test] this in greene fruit, ripe fruit, and almost ripe fruite; also in the blooming time, if you fear frost...³⁶

In the example of Gilliflowers (now commonly called carnations, pinks, and wallflowers), Plat suggested the plants would double by shading and transplanting them three times while the moon is on the wane.³⁷ Gerard described some similar practices in his herbal.

Gerard knew from observation that many plants in his Holborn garden died from the cold at the onset of winter and that some annual plants took many months to grow to maturity, flower, and set seed. To simulate warmer climates and provide a longer growing season, Gerard planted seeds in early Spring in warm garden beds containing fresh dung covered over with a layer of soil. Seeds and seedlings in these same beds were often protected from the cold air with warming covers to encourage those plants to germinate and leaf earlier so they could have time during the standard English growing season to flower and set seed before the onset of winter. This

³⁴ Gerard, 1597, 48. Chap. 35, *Of Flower de-luce of Florence*.

³⁵ Bushnell, 2003.

³⁶ Hugh Plat, *Floraes Paradise*, (London: Printed by H. L[ownes] for William Leake, 1608): 101.

³⁷ Hugh Plat, *Floraes Paradise*, (London: Printed by H. L[ownes] for William Leake, 1608): 78-79.

early sowing was necessary for “colde fruits” such as Madde Apples, Musk Melons, Apples of Love, and Cucumbers among others.³⁸ The Savoie Cole and Cole florey, for example, had to be sown in

Aprill in a bed of hot horsedung, and covered with strawe or such like, to keep it from the cold & frostie mornings... otherwise if you tarrie for temperate weather before you sowe, the yeere will be spent before it come to ripenesse.³⁹

Gerard wrote that the Floramor seeds given him by Lord Edward Zouche needed to be sown in March to set seed before frost. While they were growing in March, they should be in “a bed of hot horsdung with some earth strowed thereon...and so covered with mats or such like in the night and laid to the sun in the day time; otherwise the winter wil approach before it commeth to perfection, for that it is very impatient of our colde clymate.”⁴⁰ For those plants that needed the heat of a hot bed to germinate, Gerard knew it was unwise to transplant the seedlings until there were several leaves on the plant, as in the Balme Apple and Cucumber.⁴¹

For other kinds of seeds, Gerard had to experiment to find the right timing and procedure for planting. With the tobacco seeds, he knew that he should not cover them with soil but should instead cast them over the surface of the ground “as my selfe haue found by prooffe, who haue experimented euey way to cause it quickly to growe.”⁴² He did not know, however, when it might be too early and cold for them to be sown. His solution was to cast some seed in March, in April, and in May “because I durst not hazard all my seede at one time lest some unkindly blast should happen after the sowing, which might be a great enimie therunto.”⁴³ The staggered planting schedule protected his precious tobacco seed from the total loss to the cold that so easily killed the tender seedlings. (See Appendix 2, Figure 9)

Because it took so long for the Ginnie or Indian Pepper to ripen, Gerard recommended that the plant be sown in a hot bed with horse manure, transferred into a pot once it had three or four leaves, “that it may the more conveniently be carried from place to place to receive the heate of the sunne: and are towarde Autumne to be carried

³⁸ Gerard, 1597, 274, 764. Chap. 54, *Of madde Apples*, Chap. 55, *Of apples of Love*, and Chap. 326, *Of Cucumbers*.

³⁹ Gerard, 1597, 249. Chap. 36, *Of Colewoorts*.

⁴⁰ Gerard, 1597, 255. Chap. 40, *Of flower Gentle*. These warming mats were held above the plants by hoops or poles.

⁴¹ Gerard, 1597, 290, 762-4. Chap. 65, *Of Balme apple, or apple of Hierusalem* and Chap. 326, *Of Cucumbers*.

⁴² Gerard, 1597, 286. Bk. II, Chap. 63, *Of Tabaco or Henbane of Peru*.

⁴³ Gerard, 1597, 286. Bk. II, Chap. 63, *Of Tabaco or Henbane of Peru*.

into some house” in the evenings to give the fruit enough time to mature.⁴⁴ Gerard knew that Spinach, unlike the tender Indian Pepper, could be sown in the Fall, would grow through the winter, and be ready to eat in the Spring.⁴⁵

To overwinter tender plants, Gerard brought them into his home to keep warm. The seeds of Endive were sown in the summer and then the whole plant dug up in the early winter. They were then wrapped up and “buried in the earth with the rootes upward.”⁴⁶ Stored this way, the pile would overwinter and be fresh for eating throughout the Winter and into the Spring. Gerard dug up the root of the Marvaile of the World in October and stored it inside the house in a pot of dry sand and kept it dry until it could be replanted in March of the next year.⁴⁷ (See Appendix 2, Figure 10) Aloë had to be dug up, hung by the soil-wrapped roots from the ceiling, and watered every so often. With this treatment, it “bringeth fourth new leaves: for it must have a warme place in winter time, by reason it pineth away if it be frozen.”⁴⁸

Gerard observed that some annual plants re-seeded themselves over the winter. One such plant was the stinking Orach. Gerard wrote that this plant was “an herbe for a yeere, which springeth up, and when the seede is ripe it perisheth, and recovereth it selfe againe of his owne seede, so that if it be gotten into a ground, it cannot be destroyed.”⁴⁹ In another instance, Gerard collected French Mercurie from the edge of the house of the Bishop of Rochester for his Holborn garden. Once established, Gerard wrote, he could not get rid of it because it set and spread its seed each year as readily as the stinking Orach.⁵⁰ The Calathian Violet similarly spread its own seed each year and so “recovereth it selfe.”⁵¹ Gerard only planted Coriander in his garden one year but it came “of it selfe from time to time” in his fertile garden soil.⁵² Gerard took advantage of several plants’ abilities to reproduce themselves yearly or to live through the winter by sowing seeds in fields to make them more widely available. He

⁴⁴ Gerard, 1597, 293. Chap. 66, *Of Ginnie or Indian Pepper*.

⁴⁵ Gerard, 1597, 260. Chap. 45, *Of Spinach*.

⁴⁶ Gerard, 1597, 221. Chap. 27, *Of garden Succorie*.

⁴⁷ Gerard, 1597, 273. Chap. 53, *Of the marvaile of the World*.

⁴⁸ Gerard, 1597, 409. Chap. 134, *Of herbe Aloë, or Sea Housleeke*.

⁴⁹ Gerard, 1597, 258. Chap. 42, *Of stinking Orach*.

⁵⁰ Gerard, 1597, 262. Chap. 47, *Of French Mercurie*.

⁵¹ Gerard, 1597, 354. Chap. 103, *Of Calathian Violet, or Autumne bell flower*.

⁵² Gerard, 1597, 859. Chap. 379, *Of Corianders*.

spread the seeds of the Garden Mustarde “into sundrie parts of this lande, so that I thinke it reasonable well knowne at this day.”⁵³ This mustard was used for many things: flavorings for food, drawing plasters and as a chew for toothache. Gerard dispersed seeds of the exotic Thorne Apple “through this lande” as it was of great use in his surgical practice for burns and ulcers.⁵⁴

Other plants reproduced themselves vegetatively from root and stem cuttings. Gerard saw the potential for successfully growing other plants after he planted a grass in his garden that could then not be eradicated because of its spreading underground roots. The Sopewoort, too, he observed, was very hard to remove from ground in which it has “once taken good & sure rooting.”⁵⁵ He tried this technique on Sugar Cane that he knew grew from cuttings in its home environment but he could not get them to grow. He wrote “My selfe did plant some shootes thereof in my garden, and some in Flaunders did the like: but the coldnes of our Clymate made an end of mine, and I thinke the Flemmings will have the like profit of their labour.”⁵⁶ He noticed the plants’ drive to re-establish itself when he pruned the Apples of Love plant and threw the branches into the alley of his garden in the heat of the summer. There they established roots and again grew. Gerard surmised that these cuttings rooted themselves despite the sun and dryness because of their extreme moist and cool nature.⁵⁷

Like many of his contemporaries, Gerard was sure that most plants were altered when transferred from the wild into cultivated soil. The outward appearance of a plant could change and, frequently, the nature of physic herbs weakened when grown in the culture of the garden soil. He saw it himself with navewes and artichokes, where “the soile and the clime do much prevaile in altering of plants, as not onely *Theophrastus* teacheth, but also even experience it selfe declareth.”⁵⁸ (See Appendix 2, Figure 11) Reading and experience agreed that lettuces could take many shapes based on the effects of manure added to the soil, transplanting, and the lunar timing of propagation.⁵⁹ With certain techniques, an “artificial” lettuce could be created. Gerard wrote that

⁵³ Gerard, 1597, 190. Chap. 9, *Of Mustard*.

⁵⁴ Gerard, 1597, 277. Chap. 57, *Of Thorne apples*.

⁵⁵ Gerard, 1597, 360. Chap. 108, *Of Sopewoort*.

⁵⁶ Gerard, 1597, 35. Chap. 25, *Of Sugar Cane*.

⁵⁷ Gerard, 1597, 275. Chap. 55, *Of apples of Love*.

⁵⁸ Gerard, 1597, 992-3. Chap. 463, *Of the Artichoke*. Chap. 3: 181. *Of Navewes*.

⁵⁹ Gerard, 1597, 239. Chap. 34, *Of Lettuce*.

by manuring, transplanting, and having regarde to the moone and other circumstances; the leaves of the artificiall Lettuce be oftentimes transformed into another shape: for either they are curled, or else so drawne together, as they seem to be like a cabbage or headed colewoort, and the leaves which be within and in the midst, are something white tending to a very light yellowe.⁶⁰

These changes after transplanting had implications for the medical uses of the herbs. The wild Hollyhock, for example, was much more hot and moist than the plant grown in the garden.⁶¹ Similarly, the sap of the Laserwoort was hot and dry in the third degree, but the quality of that sap “varieth according to the countrie or climate wherein the plant groweth. For the best groweth upon the high mountaines of Cyrene, and Africa.”⁶² So too the Turkie Rhubarb sold in the Apothecary shops was quite dissimilar to the root described by Dioscorides. Gerard explained that the difference arose because the entire plant “doth not a little varie according to the difference of the regions, ground and weather, which (as we must ever nowe and then repeat) be oftentimes great causes of alteration and difference in plants.”⁶³ He went on to describe the color and texture of the fresh root from China that was the best for treating spleen problems.

Sometimes the change in the plant was extreme. In these instances, the plant could degenerate into another type. In the case of Panick, Gerard wrote that the wild and garden Panick had degenerated into many different types “differing in stature, as also in colour, according to the soile, climate, or countrey.”⁶⁴ In some cases, seed that would normally replant itself and grow again the next year might instead degenerate. In the case of several grains, when they were grown in the same field three years in a row they were altered in the third year. Wheat degenerated into Lolium or Darnell, Barley into Festuca, and Spelt became Wheat. While Wheat and Barley changed from an edible grain into a bad grain, Spelt became a better quality grain. Gerard took Galen as his authority when he explained that the vector of change was the climate when Darnell arose from “the corrupt and bad [Wheat and Barley] seede...especially in a moist and dankish soile.”⁶⁵ The Crowflower was a non-grain example of this phenomenon. It was a “degenerate kinde of wild Gilloflower” rather than a type of Cukowe flower or Sweet William as some

⁶⁰ Gerard, 1597, 239. Chap. 34, *Of Lettuce*.

⁶¹ Gerard, 1597, 784. Chap. 336, *Of the garden Mallow called Hollihocke*.

⁶² Gerard, 1597, 853. Chap. 375, *Of Magydare or Laserwoort*.

⁶³ Gerard, 1597, 316. Chap. 79, *Of Rubarbe*.

⁶⁴ Gerard, 1597, 78. Chap. 56, *Of Panick*.

⁶⁵ Gerard, 1597, 71. Chap. 51, *Of Darnell*.

herbarists thought.⁶⁶ The flower of the Fruitfull Marigold, too, could degenerate into a new strange type of flower different from the others Gerard knew.⁶⁷

Horticultural metaphors in surgery, class, and education.

Elizabethans knew that most familiar plants changed the intensity of their virtues (external or secondary characteristics) when moved from growing in the wild to garden soil. These changes were taken for granted and into consideration when one needed a certain remedy. When growing unfamiliar plants in their gardens, however, gardeners could not know exactly how much their improved soil and care had altered the plant's appearance or virtues. Gerard's training in surgery and the humoral theory behind medical diagnosis helped him to understand how the characteristics of the environment might be manipulated to alter the growing plant. Just as in surgery, there were specific qualities that could be removed or augmented to get some plants to grow. As the non-naturals in medicine affected the humoral balance of the human body, soil additives, seed bed tilt, shade, and woven covers could heat, cool, dry or moisten the soil to meet a plant's needs. This was the reason Gerard thought the seeds of the "colde fruits" like the cucumber, melon, and "madde apple" needed the heat from the sun simulated by the hot manured seed-bed.⁶⁸

Gerard was aware that some plants were very limited as to the environmental regimen they needed to grow and simply would not grow in a garden or as well in the cool of England as in its homeland. The Yellow Violet, for example, had the nature of a wild violet and grew in the hills and mountains of England. Many times the attempt had been made to bring the plant into the garden but it could "hardly be brought to culture, or growe in the garden without great industrie," Gerard complained.⁶⁹ The Thorne Mallowe, too, was "most impacient of our cold clymate, in so much that when I had with great industrie nourished up some plants from the seede, and kept them unto the middest of Maie; notwithstanding one colde night chauncing among many, hath destroyed them all."⁷⁰

⁶⁶ Gerard, 1597, 480. Chap. 175, *Of Crowe flowers, or wilde Williams*.

⁶⁷ Gerard, 1597, 602. Chap. 243, *Of Marigoldes*.

⁶⁸ Gerard, 1597, 274, 764. Chap. 54, *Of madde Apples*, Chap. 55, *Of apples of Love*, and Chap. 326, *Of Cucumbers*.

⁶⁹ Gerard, 1597, 701. Chap. 298, *Of Violets*.

⁷⁰ Gerard, 1597, 792. Chap. 340, *Of Venice Mallowe, or Goodnight at noone*.

These experiences prompted new questions. If it was possible to purposefully alter a plant by moving it from the wild to the garden or changing the type of garden soil in which it was grown, to what extent and in what other ways could one purposefully change a plant? Were these changes inherited by the next generation?

From this interest and work, there arose a literature and practice around horticulture that was akin to natural magic. William Eamon suggested that early modern gardeners increased their plant knowledge to “bring to light the hidden secrets of nature and to put them to practical use.”⁷¹ Popular books of secrets indirectly invoked the occult workings of nature by offering recipes, techniques, and horticultural information for personal and family use. Della Porta, for example, explained this relationship between nature and its misunderstood ways by writing in his *Natural Magick* (1658) that “the works of Magick are nothing else but the works of Nature, whose dutiful hand-maid Magick is, ... as in Husbandry, it is Nature that brings forth corn and herbs, but it is Art that prepares and makes way for them.”⁷²

Gerard explained how nature could alter itself when he wrote about the “Fruitfull Marigold.” (See Appendix 2, Figure 12) This flowering plant

Doth bring foorth at the top of the stalke one flower like the other Marigoldes, from the which start foorth sundrie other small flowers, yellowe likewise and of the same fashion, as the first, which if I be not deceived commeth to passe per accidens, or by chaunce, as nature oftentimes liketh to plaie with other flowers, or as children are borne with two thumbes on one hand, and such like, which living to be men do get children like unto others; even so of the seede of this Marigold, which if it be sowen, it bringeth foorth not one flower in a thousand, like the plant from whence it was taken.⁷³

Another plant that made a sport of itself in a similar manner was the beet. Gerard received beet seeds from Master Lete that grew to a “height of viii cubites.”⁷⁴ After he shared the seed from his own plants with Master Norden, Gerard noted that the resulting plants in Norden’s garden were of many “beautifull colours”⁷⁵ and not the same color

⁷¹ Eamon, William, *Science and the Secrets of Nature*, (Princeton, NJ: Princeton University Press, 1996): 313, 217.

⁷² della Porta, Giambattista, *Natural Magick*, (London: Printed for Thomas Yound and Samuel Speed, 1658): 2. Giambattista della Porta (1535-1615) and Gerard were contemporaries. Although this English translation only became available long after Gerard’s death, the Italian text was available in England much earlier, along with other books of secrets.

⁷³ Gerard, 1597, Book II, Chap. 243: 602. *Of Marigoldes*.

⁷⁴ Gerard, 1597, Book II, Chap. 38: 251. *Of Beetes*.

⁷⁵ Gerard, 1597, Book II, Chap. 38: 252. *Of Beetes*.

as the plant that bore the parent seed. Gerard explained that this was the act of nature who “doth seeme to plaie and sport hirselve.”⁷⁶

In these examples, Gerard observed the characteristics of the seeds and plants in his own garden and the characteristics of their progeny. He believed that man might alter some plants in ways that would be passed on to their offspring through their seeds. When he discussed the Cucumber, Gerard wrote

There be also of this kinde certaine long Cucumbers, which were first made (as it is saide) by art and manuring, which nature afterwards did preserve. For at the first, when as the fruit is very little, it is put into some hollow cane, or other thing made of purpose, in which the Cucumber groweth very long, by reason of that narrow hollownesse being filled up, the Cucumber increaseth in length. the seede of this kinde of Cucumbers being sowen, bringeth forth not such as were before, but such as art hath framed: which of their owne growth are found long, and oftentimes very crookedly turned...⁷⁷

Just as there was an art to knowing the secrets of nature and applying them to manipulate and grow exotic and wild native plants, so too there was an art to correctly raising and teaching a child to be gentle and cultured, and (by extension) an art to living the life of a successful gentleman at court.

In Tudor literature and culture, horticulture was closely linked to education. Just as herbarists were uncertain about just how malleable an unfamiliar plant was, Renaissance English culture wrestled with the desire to mold English children into the best members of society possible through appropriate education. Teachers were likened to gardeners and students to seedlings. Educational texts were full of weeding, pruning, and cultivating metaphors. While there were accepted methods of instruction, the question of innate human potential remained: how deeply could teaching alter a young person?⁷⁸

Traditionally sixteenth-century English men and women thought that people of different classes were born with essential natures that were determined by their economic and social circumstances. The quality of this starting material determined how much success would be possible in a person’s life. Into this paradigm came Castiglione’s *The Book of the Courtier* (1561), newly translated into English by Thomas Hoby, brother-in-law to William Cecil. Castiglione suggested “virtue flourishes through education and cultivation, not as a result of purely innate

⁷⁶ Gerard, 1597, Book II, Chap. 38: 251-2. *Of Beetes*

⁷⁷ Gerard, 1597, Book II, Chap. 326, 763. *Of Cucumbers*.

⁷⁸ Bushnell, 1996, 85.

characteristics.”⁷⁹ Moral uprightness could be taught and encouraged in everyone. Combining these ideas produced the attitude that education and improvement were very well received by the aristocracy, less so among the middling sort, and very little by the commoners. Just as with plants, altering or educating people was best done when they were young. Care or education needed to be constant and consistent to create the desired result.

The categories of plant and gentleman were challenged and so became more loose in late sixteenth century England. As a result, many men shifted to create a benefit for themselves. Many families gained land with the dissolution of the monasteries and titles were given to those who had served the monarchy well. Economic challenges such as the break down of trade between Spain and England made some families wealthy when they met the demand for certain goods. In these situations, when a family’s lifestyle improved, often gentle manners followed to match. At a time when two culturally linked ideas, man and plant, were in transition, both plants and “the self could be imagined as cultured or cultivated” in many ways.⁸⁰ Most texts that described the process of bringing foreign or wild plants into the English garden used words such as taming or gentling to express how a transformation of the plant was taking place. This transformative language is similar to that used in texts of courtly manners that emphasize virtue and style. This was no accident. On one hand, man and plant were already closely linked as previously discussed. On the other hand, with this process of taming, gardeners domesticated wild plants into their gardens. If they succeeded in taming the plant, they might also transform themselves into gentler men of greater means, governors and masters of the secrets of nature and culture.

Discussions of Hill’s *Gardener’s Labyrinth* (1594), a popular sixteenth century gardening manual, make the point clear. Bushnell writes that it portrayed “the gardener as sensualist, man of wit, lover of God, and creator of wealth...someone who reads and works to better himself and his world.”⁸¹ Hill offered the secrets of growing plants along with assertive marketing of Hill’s other works and his expert services.⁸²

Dolman’s *La Primaud* (1618), writing on cinnamon trees, explicitly linked taming foreign plants to social manners and class, but strongly believed in limits to social transformation. He wrote:

⁷⁹ Craig Ashley Hanson, *The English Virtuoso: Art Medicine, and Antiquarianism in the Age of Empiricism* (Chicago: University of Chicago Press, 2009), 3.

⁸⁰ Bushnell, 1996, 81.

⁸¹ Bushnell, 2003, 16.

⁸² Bushnell, 2003. Francis R. Johnson, “Thomas Hill: An Elizabethan Huxley,” *The Huntington Library Quarterly*, 4, August (1944): 329-351.

The love of ones native soile hath a marvelous power in all things: for nature produceth in some places such stubborne plants, that for any endeavour and paines which one may take with them, yet can they not be retained or kept but in their owne proper ground. Many great personages both in France and Italy have taken paines to tame them, and cause them to grow in gardens, orchards, and other most pleasant places, as any in the world. But as [ie. just as] rustically mountainers despise the delights and gallantness of cities, and esteeme not of civility and honesty of manners, not being able to live any where at ease and pleasure but in their owne cottages; so it seemeth that many plants, which are brought amongst us, and husbanded with great care and labour, despising the sweetnesse of the aire, this beauty of gardens, the pleasant watring of fountains, and the goodly company of infinite herbes and trees already made familiar, having at last retired into their owne deserts and wildernesses, and into the place of their originall.⁸³

Gerard understood that becoming a successful gardener of indigenous, physic, and exotic plants could change the trajectory of his life. His special knowledge of plants could give him the opportunity to control a piece of land and enhance the value of the property. As Bushnell observes, the ideas of owning property and having certain personal properties of mind and character were connected (although less rigidly than before the commons were enclosed and religious lands confiscated). Having property signaled that a man had the individual and political qualities necessary for achievement.⁸⁴ Furthermore, for those who could not afford to buy property, just being associated with the control over a piece of land, as in the case of gardening, carried with it a sense of proprietorship. The Holborn garden brought Gerard a gentlemanly occupation and, by association, the prestige of land ownership despite the fact that he never inherited any land from his father.

Gerard, social gardener

Gardens had social power: Gerard's international living collection attracted and impressed men whose knowledge, wealth, power, and connections he could use to further his own goals. Thanks to his work as a surgeon and to his gentle family background, Gerard had entry into two quite different levels of society and enabled him to construct an effective network of contacts throughout England.

Gerard's garden and plant collecting reinforced his status as a worthy citizen of London among his fellow apothecaries, physicians, and surgeons. His garden in Holborn was both a topic of discussion and a site for those discussions. There, with other medical practitioners and citizen gardeners, he could observe medicinal plants and trade herbal recipes and stories of their efficacy. The friends he made in his garden received plants from Gerard and

⁸³ Dolman, Richard (trans.) of *The third volume of La Primaudaye's (P. de) French academie englished 1601* (London: Printed by [John Legat] for Thomas Adams, 1618): 795. This discussion seems to be implicitly discussing the horticultural equivalent of the Galenic non-naturals.

⁸⁴ Bushnell, 1996, 73-116. Munroe, 3.

gave plants to him in return. From his “verie good friend master Bredwell practitioner in Phisick, a learned and diligent searcher of Symples, and master William Martin one of the fellowship of Barbers and Chirurgians, my deere and loving friend in company,” Gerard learned that Horse Radish grew wild in Cheshire and Middlesex.⁸⁵ Master Nicholas Lete, citizen merchant of London, gave Gerard seeds of the Beete and Swollen Colewoort upon his return from France.⁸⁶ Gerard noted that Lete was

greatly in love with rare and faire flowers and plants, for which he doth carefully send into Syria, having a servant there at Alepo and in many other countries, for the which my selfe and likewise the whole lande are much bound unto.⁸⁷

It was while walking with Master Lete that Gerard saw a double Crowfoote for the first time “in the fielde next unto the Theater by London.”⁸⁸

But the garden was also a place where Gerard could meet men of much higher status and show off the exotic plants he had received from his patron and other diplomatic contacts. The garden in effect provided Gerard a social platform, While I do not know if Gerard ever read Castiglione’s *Courtier*, it seems certain that he was aware of its influence as a guide to those like him who would smooth their rough country manners for the London court life.⁸⁹ These well-connected men then took Gerard under their wing and gave him protection, work, and plant material. The avid aristocratic herbarist, Lord Edward Zouche, was an especially notable connection. Gerard received, for example, the seeds of “Candie Mustarde” from Zouche, who had collected them during his European travels; the plant, Gerard boasted, grew very well in his garden.⁹⁰ (See Appendix 2, Figure 13)

In the *Herball* (1597), Gerard recorded plants and recipes he had learned from other contemporaries, including women and, as in the case of Clounes Alheale mentioned earlier, even peasants. Gerard set down a recipe for relieving ague made from Docke roots decocted in “the water of Carduus Benedictus” with honey: “this

⁸⁵ Gerard, 1597, 187. Chap. 7, *Of Horse Radish*. St. Bredwell contributed a preface to the *Herball* (b 4 vo).

⁸⁶ Gerard, 1597, 251-2. Chap. 38, *Of Beetes*, Chap. 36, *Of Colewoorts*

⁸⁷ Gerard, 1597, 246. Chap. 36, *Of Colewoorts*.

⁸⁸ Gerard, 1597, 804. Chap. 351, *Of Crowfootes*.

⁸⁹ Wayne Rebhorn, *Courtly Performances: Masking and Festivity in Castiglione’s Book of the Courtier* (Detroit, Michigan: Wayne State University Press, 1978), 11.

⁹⁰ Gerard, 1597, 207. Chap. 20, *Of Candie Mustard*. Zouche had been a ward of the state under William Cecil's care. In 1591 Zouche traveled to Vienna and Verona; he returned to England by 1593. Albert Frederick Pollard, "Zouche, Edward la," *Dictionary of National Biography, 1885-1900, Volume 63* ([http://en.wikisource.org/wiki/Zouche,_Edward_la_\(DNB00\)](http://en.wikisource.org/wiki/Zouche,_Edward_la_(DNB00))).

experiment was practised by a worshipfull gentlewoman called mistresse *Anne Wylbraham*, upon divers of hir poore neighbours with good successe.”⁹¹ There was a well-off Wilbraham family who lived at Woodhey Hall very near Gerard’s birth-place in Cheshire and owned more land than almost any other family in the county.⁹² Roger Wilbraham, also from Cheshire, organized the planting of elm trees and a hedge for Gray’s Inn garden with Francis Bacon, not far from Holborn.⁹³

Gerard knew several market gardeners and nurserymen around London. He commented that the “small Turnep groweth by a village neere London (called Hackeney) in a sandie ground, and brought to the Crosse in Cheap-side by the women of that village to be solde, and are the best that ever I tasted.”⁹⁴ Gerard was acquainted with some early tree nurserymen who supplied plants for aristocratic gardens and he mentioned three in the *Herball* (1597).⁹⁵ Master Henry Banbury “of Touthill streete neere unto Westminster” offered many quality grafted apple and pear trees.⁹⁶ Master Warnar was a “diligent and most affectionate lover of plants.”⁹⁷ He had a tree nursery in Southwark known for its apple and pear trees. It was located in the area called “Horsey downe” just south of the Tower Bridge.⁹⁸ Master Vincent Pointer of Twicknam was “a most cunning and curious graffer and planter of all manner of rare fruites.”⁹⁹ In his gardens about 13 miles to the south and east of Holborn, he had more than eight

⁹¹ Gerard, 1597, 315. Chap. 78, *Of water Dockes*. *Carduus Benedictus* is another name for Holy Thistle that was used for a panacea.

⁹² Cheshire Landed Gentry, Lancashire Historic Families and Old Families of Manchester, < <http://www.manchester2002-uk.com/history/old-families6a.html> > November 26, 2010. On Anne Wilbraham and the issue of gender in English herbals, see Rebecca Laroche, *Medical Authority and Englishwomen's Herbal Texts, 1550-1650* (Farnham, Surrey, and Burlington, Vermont: Ashgate, 2009), Chapter 1.

⁹³ Dawn MacLeod, *The Gardener’s London: Four Centuries of Gardening, Gardeners and Garden Usage* (London: Duckworth, 1972), 106. Robert Pearce, *A History of the Inns of Court and Chancery* (London: Richard Bentley, 1848), 45.

⁹⁴ Gerard, 1597, 178. Bk. II, The first Chapter, *Of Turneps*. Hackney was the same village to the north and east of London where Lord Edward Zouche had his great garden.

⁹⁵ Harvey, 41.

⁹⁶ Gerard, 1597, 1269. Chap. 93, *Of the Peare tree*.

⁹⁷ Gerard, 1597, 1269. Chap. 93, *Of the Peare tree*.

⁹⁸ Gerard, 1597, 1269. Chap. 93, *Of the Peare tree*.

⁹⁹ Gerard, 1597, 1269. Chap. 93, *Of the Peare tree*.

types of pear trees as well as many apples and plums. Harvey notes that Pointer (who went by the name Corbet) was both a gentleman and nurseryman whose son Richard went on to become the Bishop of Oxford and then Norwich.¹⁰⁰

Although Gerard rarely mentioned dates, it is clear that he must have collected plants for decades before the *Herball's* publication. To document and share the massive collection, he twice listed the plants in his garden in privately printed catalogues in 1596 and in 1599. Though brief, these small folio pamphlets were the textual culmination of a great deal of mental and physical work. Just as portraits were often commissioned on attaining a valuable new position or title, these catalogues established Gerard's herbarising credentials and sought to advance his social and political goals.

Gerard's garden lists: *Catalogus* (1596 and 1599)

Gerard's first publication, *Catalogus arborum [fructicum ac plantarum, tam indigenarum quam exoticarum, in horto Johannis Gerardi nascentium]* (1596), that is, "Catalogue of trees, fruit, and plants, both indigenous and exotic, growing in the garden of John Gerard," is thought to be the first printed catalogue of a single garden.¹⁰¹ It is a brief work of twelve leaves or twenty-four pages. The later catalogue was slightly longer--fourteen leaves--and its title, *Catalogus arborum, fructicum ac plantarum tam indigenarum, quam exoticarum, in horto, Johannis Gerardi Civis & Chirurgi Londinensis nascentium* (1599), emphasized Gerard's standing by adding the phrase, "Citizen and Surgeon of London," that had previously appeared on the title page and portrait of the *Herball* (1597). Both catalogues are now very rare: Benjamin D. Jackson knew only one copy of the earlier list, in the British Museum, and just a handful of examples of the later one.¹⁰²

The 1596 catalogue began with a simple title page, giving the title, the London printer, Robert Robinson, and the date.¹⁰³ Gerard then honored his patron, William Cecil, Lord Burghley, with Burghley's coat of arms and

¹⁰⁰ Harvey, 42.

¹⁰¹ Agnes Arber, *Herbals; Their Origin and Evolution: A Chapter in the History of Botany, 1470-1670*, (Cambridge: Cambridge University Press, 1988), 3rd edition, 126. Benjamin D. Jackson, *A Catalogue of Plants Cultivated in the Garden of John Gerard, In the Years 1596-1599*, (London: Privately printed, 1876).

¹⁰² Jackson, vi-vii.

¹⁰³ Robinson's shop was in "Fewter Lane," near Gerard's garden, says Jackson, v. Robinson's career was not without controversy. This same year, Robert Robinson printed *The Landgraue of Hessen his princelie receiuing of her Maiesties embassador* (1596) by Sir Edward Monings and three editions of *The Discovery of Guiana; with a relation of the Golden City of Manoa, which the Spaniards call El Dorado* (1596) by Sir Walter Raleigh. See also C. B. Judge, *Elizabethan Book Pirates* (Cambridge, Massachusetts: Harvard University Press, 1934): 79-80. Cetera, Anna, "History on the Margins: Shakespeare's Forgery in *The Landgrave of Hessa...* (1596) by Edward Monings in the Early Printed Books Collection of the Warsaw University Library," *Anglia – Zeitschrift für englische*

motto *Cor Unum, Via Una* (One Heart, One Way), on the verso of the first leaf. The second leaf, recto and verso, bore Gerard's Latin dedication to Burghley, asking him to accept this prelude (*praeludium*) to the larger work, that is, the *Herball* then nearing publication. Gerard then briefly addressed his readers:¹⁰⁴

Perbonis & studiosis stirpium indagatoribus. Io: Gerardus.
Omnes hoc iucundissimo studio captos, rogatos velim,
vt si quas praeter has plantas reperiant;
easdem nobis liberal iter communicent & nostros conatus iuent,
sibique persuadeant tanto & reciprocomunere impertiri.

To the excellent and hard-working investigators of plants. John Gerard (declares).
All those who are captivated by this most pleasant pursuit, I would ask that,
if they happen to find some plants beyond these;
they should be so kind as to let us know about them and to help in our efforts
and to rest assured that I will bestow on them a like mutual service.¹⁰⁵

That is, Gerard claimed that he was describing his own collection of plants in order to encourage the sharing of information, materials, and the joy of studying plants, with other enthusiasts. There can be no doubt that his feelings were genuine. However, the catalogue was equally a way to publicize his accomplishments as a gardener and to advertise the forthcoming herbal.

The 1599 catalogue was printed by Arnold Hatfield, at the expense of John Norton, the publisher of the *Herball* (1597). Burghley had died the previous summer, so Gerard had to seek another powerful patron. The single-page dedication to Sir Walter Raleigh modestly likened Gerard's plant-collecting "wanderings and

Philologie, Vol. 125, Issue 2, p. 246. Peter W. M. Blayney, *The Texts of King Lear and Their Origins: Nicholas Okes and the First Quarto* (New Cambridge Shakespeare Texts and Studies) (Cambridge: Cambridge University Press, 2007) Vol. 1, 15. Cetera says that Robinson was "frequently accused of illegal printing as well as errors in composition and print." Robinson was actively printing between 1585 and his death late in 1597. In the mid 1580's, he was involved in challenges to the patent system used by the crown with members of the Company of Stationers to administer patronage through the right to print profitable material. Francis Flower brought charges against Robinson and two others for infringing on his patent to print the *Grammar* and *Accidence*. This charge ignored the fact that printers who enjoyed such patents often shared the right to publish the money-making books with their less fortunate colleagues. Judge wrote that the patent given to Flower "had been a source of discontent to the poorer printers ever since it was granted, for Flower had no connection at all with the printing trade; he was merely a gentleman who farmed out his patent for £ 100 a year, and who took no interest in the well-being of the company."

¹⁰⁴ John Gerard, *Catalogus* (London: Robinson, 1596).

¹⁰⁵ Gerard, *Catalogus*, 1596, Preface. My thanks go to Karen Reeds and Laura Gibbs for help with translations of material in the catalogues.

expeditions" (*peregrinationibus expeditionibusque*) around England to Raleigh's great voyages to the most remote world of the Indies.¹⁰⁶

The slightly enlarged 1599 preface claimed that "not a few" (*non paucos*) people had often urged Gerard to make a list of the plants that grew in his garden. The catalogues' Latin dedications, prefaces, and lists of Latin plant names all indicate that Gerard intended to align himself with a well-educated audience. Unfortunately, nothing is known about the print runs or methods of distribution, but it seems likely that the catalogues were sent to influential gentlemen gardeners whom Gerard wanted to impress or given to friends and visitors to his garden. The preface to the 1599 catalogue explicitly saluted the serious "students of botany" and, in Greek, φιλοβοτανοι, "men who loved plants."¹⁰⁷ On its final page, one of those botanical experts, his traveling companion, Matthias de L'Obel, attested that, on the Calends of July, 1599, that he had himself seen "almost all of the many herbs, plants, shrubs, and little trees recorded in this Catalogue in the London garden of John Gerard, surgeon and very best of botanists."¹⁰⁸

These catalogues provide a fascinating look into Gerard's garden. Each named over 1,000 plants growing in the Holborn garden.¹⁰⁹ The plants in both catalogues were arranged in alphabetical order by their Latin names. The 1599 catalogue provided English names in a column running to the right of the Latin names.

The alphabetic arrangement of plants was a convenience to the catalogue's readers, who might want to order plants from Gerard or look the herbs up in books on gardening, plants, or medicine. However, it means the catalogues do not tell us anything about the actual layout of the plants in the garden or about Gerard's notions of plant classification. The list's alphabetic organization, in which the Latin noun is always followed by descriptive

¹⁰⁶ *Atque adeo, quicquid ego a plurimis iam reo annis stirpium siue exoticarum, siue indigenarum alo (alo autem viriusque generis & plurimas & rarissimas) siquidem praesentius mihi hoc tempore non occurrit studij mei & deuotissimi obsequij testandi pignus, tui facio juris, vt Honoris tui arbitrio dominum mutent: vel eo nomine gratae, vt spero, futurae, quod cum eas cominus in horto tuo quotidie contemplant, Indicarum nauigationum tuarum, rerumque orbe remotissimo gestarum dulcissimam memoriam refricabunt.* Gerard, *Catalogus* (1599), A2^R.

¹⁰⁷ *Rei herbariae studiosis salutem...Quod si quid viri φιλοβοτανοι, vel fortuna bona repertum, vel labore improbo comparatum in hoc genere habetis, rogatos volo ut communicetis, mutuum liberalitatem nostram experturi.* Gerard, *Catalogus* (1599), A2^V.

¹⁰⁸ *Herbas, stirpes, frutices, subfrutices, & arbusculas hoc Catalogo recensitas, quamplurimas ac fere omnes me vidisse Londini in horto IOHANNIS GERARDI Chirurgi & botanici per-optimi, (non enim omnes eodem sed varijs temporibus anni pullulascent, enascuntur aut florent) attestor. Matthias de Lobel. Ipsis Calendis Iulij. M. D. XCIX.* For L'Obel's later repudiation of his praise of Gerard, in manuscript annotations to a copy of the 1599 *Catalogus*, seen by Jackson in the British Museum, see Jackson, vii, xiii.

¹⁰⁹ Jackson's edition correlates the entries in the 1596 *Catalogus* with the corresponding plants in the 1597 *Herball* and often with Thomas Johnson's comments in the 1633 edition. However, I do not know of any attempt to find out whether the *Herball* (1597) records any plants in Gerard's garden that are not named in the *Catalogus*.

modifiers (a forerunner of Linnaeus's binomial nomenclature), made it easy to see that Gerard strove to grow as many varieties as possible of many different kinds of plants: eighteen kinds of Iacynth (*Hyacinthus*), sixteen rose varieties, a dozen different lilies, seven poppies, five kinds of pea, "ten sorts of Peaches."¹¹⁰ (An early owner of the copy of the 1596 *Catalogus* now in the British Library--perhaps Sir Hans Sloane--took the trouble of bracketing off these groupings.)¹¹¹

The catalogues' titles emphasized that Gerard's garden held both native and foreign plants. The familiar and strange were mixed together indiscriminately by the alphabetical organization. The most exotic plants in the 1599 catalogue included tobacco, yucca, white potato, and two cacti: *Opuntia vulgaris* (prickly pear) and a *Cereus*.¹¹² Two rarities, the West Indian yucca (*Iucca, Indiae occidentalis*) and a nightshade from Constantinople, courtesy of Lord Zouche (*Solani somniferi similis fruticosa ignota planta, semine Constantinopolitano oriunda*), were the only plants to be given several lines of description, in Latin, in both catalogues. Their English accounts in the 1599 catalogue are very brief.¹¹³

English plants were of course well represented in Gerard's garden, both for their beauty and their utility. Gerard's two garden catalogues and the *Herball* (1597) testify to his eagerness to identify useful English plants. Finding and propagating such indigenous plants would benefit the entire English nation by promoting self-sufficiency: a priority of his patron, the Lord Treasurer Burghley. Even the humble clover could be "an excellent foode for cattell, both to fatten them, and causethem to giue greate store of milke."¹¹⁴

As Gerard traveled around England "of purpose to discover some strange plants, not hitherto written of," he kept careful notes to enable himself and other herbarists to locate the new plants again. On such a trip, for example, his fellow herbarist, L'Obel, spotted the Bastard Wilde Poppie as they passed by "corne fieldes in

¹¹⁰ Gerard, *Catalogus* (1599), [3], *Mali persici decem varietates*.

¹¹¹ Jackson, vi; see facsimile of microfilm, Early English Books Online. The same annotator marked the authors whose names Gerard cited in various plant names and made occasional corrections.

¹¹² Rix, Martyn, *The Art of the Plant World: The Great Botanical Illustrators and their Work*, (Woodstock, NY: Overlook Press, 1980). Jackson's edition provides citations to these plants in Gerard's *Herball* (1597).

¹¹³ Gerard, *Catalogus* (1599), quoted from Jackson, 9, 16, 38, 51. For *Iucca*, no English name is given, just the explanation of its economic use: "the roote whereof the bread Cassaua or Cazaua is made"; for the *Solanum*, "Shrubbe Nightshade."

¹¹⁴ Gerard, 1597, 1018. Bk. II, Chap. 477, *Of three-leaved grasse, or Medow Trefoile*. Gerard notes that one kind of clover was deliberately sown for this purpose in the Low Lands, Italy, and other countries.

Somersetshire, and by the hedges and high waies, as yee travell from London to Bathe”; more precisely, the Poppie grew “in the next field unto a village in Kent called Southfleete.”¹¹⁵ It appeared in the 1596 catalogue under the Latin name of *Argemone Tabernaemotani*[sic], and in the 1599 catalogue as *Argemone Tabernaemontani*, Bastard Poppie.¹¹⁶ In the *Herball* (1597), Gerard listed a number of uses of the poppy that would be of special interest to him as a surgeon, for bruises, blackened eyes, wounds, fistulas, ulcers, and warts.

Gerard was especially eager to bring indigenous medicinal herbs to the attention of apothecaries and physicians. He had seen the enormous price brought by the imported dried herb Golden Rod at “Bucklersburie” in London.¹¹⁷ Once it was located nearby at “Hampsteed” wood, however, the price dropped dramatically. Gerard wrote that this proved the human

inconstancie and sudden mutabilitie, esteeming no longer of anything (how pretious soever it be) than whilest it is strange and rare. This verifieth our English proverbe, Far fetcht and deere bought, is best for Ladies. Yet it may be more truly said of fantasticall Phisitions, who when they have found an approved medicine, & perfect remedy neer home against any disease; yet not contented with that, they will seeke for a new farther off, and by that meanes many times hurt more than they helpe. Thus much I have spoken, to bring these new fangled fellowes backe againe to esteeme better of this admirable plant than they have done; which no doubt hath the same vertue now that then it had, although it do growe so neere our own homes in never so great quantitie.¹¹⁸

Conclusion

In Gerard's day, plant knowledge was very much in flux. The newly discovered plants did not fit neatly into traditional categories and challenged the validity of those categories. This ambiguous and transitional state of botany and horticulture gave Elizabethan gardeners new opportunities. By choosing to collect wild indigenous plants and to grow native and foreign plants, these men in effect chose to be a part of a group for whom roles and rules were looser than in more established parts of English culture. This meant that there was room to explore new opportunities and to expand the scope of their activities. Jennifer Munroe explains it nicely when she writes

¹¹⁵ Gerard, 1597, 301. Bk. I, Chap. 70, *Of bastarde wilde Poppie*.

¹¹⁶ As given by Jackson, 2, 25. Gerard, *Catalogus* (1599), 3. The annotator of the 1596 copy (see note 137 above) crossed out almost all of *Tabernae-motani* and made a brief illegible correction.

¹¹⁷ Ebenezer Cobham Brewer, “Bucklersbury (London),” *Dictionary of Phrase and Fable* (Philadelphia: Henry Altemus, 1898), 184. This lane was filled with apothecaries and herbarists. It was mentioned by Falstaff in *Merry Wives of Windsor*, iii. 3.

¹¹⁸ Gerard, 1597, 349. Chap. 98, *Of Golden Rod*.

“gardens signaled moments of rupture and functioned as highly manipulable indicators of social status for a range of men.”¹¹⁹

For Gerard, gardening knowledge resonated with his life in a special way because of his surgical connection with plants and because of the metaphor of transformation that was so important to him. He was aware of his rough country background, but in a nation hungry for indigenous resources and knowledge he also understood that he could literally grow his own authority. As a master of these horticultural secrets, Gerard transformed and added value to himself, to the plants he gathered, and to the master he served.

¹¹⁹ Munroe, 4.

Chapter Three, John Gerard: Client of a Powerful Patron

Sometime in the mid-1580s, a precious plant arrived in John Gerard's garden. The Red Lily of Constantinople was a tangible sign of the relationship he enjoyed with his patron, Sir William Cecil, Queen Elizabeth's most trusted counselor. In the *Herball* (1597) Gerard traced the path that the rare bulb had traveled before taking root in his garden:

this plant groweth wilde in the fieldes and mountaines, many daies journeis beyonde Constantinopole, whither it is brought by the poore pesants to be solde, for the decking up of gardens. From thence it was sent among many other bulbs of rare & daintie flowers, by master *Harbran* ambassador there, unto my honorable good Lord and master, the Lord Treasurer of England, who bestowed them upon me for my garden.¹

From the far-distant mountains of the Ottoman Empire to the suburbs of London, the bulb had been passed from the hands of poor peasants to the flower markets of Constantinople, acquired by England's ambassador, William Harborne, shipped off to the most powerful man in the realm, the Lord Treasurer of England, and finally bestowed upon his gardener, John Gerard.² (See Appendix 2, Figure 14) To exchanges and relationships like those exemplified by the Red Lily, Gerard owed much of his success and prosperity. The transfer of a valued gift for services was common practice among Elizabethan English courtiers. For establishing one's social standing, the possession and display of exotic objects were as good as gold. Or, for Gerard, even better than gold. A rare plant that could be grown, displayed, divided, the side bulbs given away, and its living image portrayed, displayed and circulated in print would reward the gentleman gardener many times over.

Gerard's relationship as client to his patron Cecil was by far the most important connection in his life. Gerard's dedication to Cecil in *The Herball* (1597) implies that the patronage relationship began as early as 1577: "vnder your Lordship I haue served...now by the space of twenty yeeres." It lasted until Cecil died in 1598.³ After Cecil's death, Gerard worked to create similar relationships with other members of Queen Elizabeth's court but none were as long-lived or as bountiful. In this chapter, I discuss the patronage system and examine Gerard's affiliation with Cecil. I argue that their relationship was mutually beneficial. Through his association with Cecil, Gerard

¹ John Gerard, *The Herball* (London, 1597), 151. Chap. 94, *The red Lilly of Constantinople*. Thomas Johnson's second edition of *The Herball* (1633), 198-199, Lib.I, Chap. 105, *Of the Red Lillie of Constantinople*, kept Gerard's figure and description but omitted this passage entirely.

² William Harborne, a merchant, served as England's representative in Constantinople, 1583-1588: For the ambassador's career, see Susan Skilliter, *William Harborne and the Trade with Turkey, 1578-1582* (London: British Academy, 1977). Skilliter does not allude to Gerard or the Red Lily.

³ Gerard, 1597, Letter of Dedication.

gained access to land, people, and plants. On Cecil's side, Gerard's knowledge of useful plants benefitted England and by extension enhanced Cecil's own authority. At Cecil's stately homes, Theobalds and Cecil House, Cecil and Gerard, patron and client, worked together to insure that the gardens supported both Cecil's need for a private space of respite from royal service and for a safe and beautiful place to entertain his own patron, the queen herself.

Patronage and plants in England

Many studies of early modern science have examined patronage as a key underpinning to the investigation of the natural world. As Richard Westfall observes, when “the study of nature lacked all, or virtually all, of that demand in the market place” that we have today patrons provided vital sources of economic support for natural investigations.⁴ Inquiries into nature took time and money for supplies and travel. For men with these interests, patrons' gifts of money or salaried court positions were often essential.⁵ The court patronage system was not an official system, but a “set of dyadic relations...each unique...(and) with no guarantees” about the outcome.⁶ Even without guarantees, however, patron-client relationships were greatly desired for their support in the present and their potential for future opportunities. Paul McLean puts it neatly: “clients self-consciously sought opportunities for building careers and obtaining prestige through their connections to powerful patrons, transforming themselves in the process.”⁷ Galileo Galilei famously cultivated relationships with the nobility throughout his life to take advantage of their power and connections on his behalf.⁸ Gerard's patron, William Cecil, understood the system well: he had survived his first patron's fall from power and went on to establish relations with even greater patrons.⁹

⁴ Richard Westfall, “Charting the Scientific Community,” in *Trends in the Historiography of Science* Kostas, ed. Gavroglu, et al. (Boston: Kluwer Academic, 1994), 1.

⁵ Joel Hurstfield, *Freedom, Corruption and Government in Elizabethan England* (Cambridge, Massachusetts: Harvard University Press, 1973). Joseph S. Block, “Political Corruption in Henrician England,” in *States, Sovereigns, and Society in Early Modern England: Essays in Honour of A. J. Slavin*, ed. Charles Carlton (Stroud, Gloucestershire: Palgrave Macmillan, 1998), 45-58.

⁶ Richard Westfall, “Science and Patronage: Galileo and the Telescope,” *Isis* 76 (1985): 29.

⁷ Paul D. McLean, *The Art of the Network: Strategic Interaction and Patronage in Renaissance Florence* (Durham, North Carolina: Duke University Press, 2007), 5.

⁸ Westfall, 1985, 11-30.

⁹ Stephen Alford, *Burghley: William Cecil at the Court of Elizabeth I* (New Haven, Conn.: Yale University Press, 2008), 38-41. Cecil's first powerful patron was Edward Seymour, the first Duke of Somerset. When Somerset was removed from his position as Lord Protector of Edward VI, Cecil was sent to the Tower of London. Within several months he was released and in the service of John Dudley, the first Duke of Northumberland and the Earl of Warwick. Within Dudley's service, Cecil made the acquaintance of the princess Elizabeth and earned her trust.

The language of clients in the context of these patronage relationships often initially strikes the modern reader as self-effacing to the point of being disingenuous. However, to interpret their words as fawning self-interest would be to misunderstand the courtly milieu. The tone was cultivated gentility, not obsequiousness, and this language and manner disguised tremendous power and influence. Such mannered language was an integral part of court culture and created legitimacy for those who commanded its ways.¹⁰ For the investigator of nature, the polite relationships between patrons and clients were “instrumental friendships” that were necessary for pursuing an “economically unproductive occupation.”¹¹

As with courtly manners, the relationships between clients and patrons were taken for granted in early modern society. In Italy, Mario Biagioli explains in his work on Galileo, patronage bridged the gap between the university and court. Aristocratic patrons had interests and connections in both arenas and saw a benefit to themselves in the support of science. These two sources of power and authority were so closely interconnected that Italian courts supported much of natural philosophy.¹²

In the German princely courts described by Bruce Moran, the German prince-practitioners provided support for both technology and science and brought together scholars with artisans who linked “practice and theory.”¹³ Court patronage of investigations into the natural world validated and provided an intellectual and practical forum outside of the university and guild structures.¹⁴

In sixteenth-century England, noble patrons were pursued by men with all types and levels of training. However, in supporting inquiries into the natural world, patrons expected their would-be clients to follow the rules of courtly behavior—codified in Castiglione’s *The Book of the Courtier* (1528). So university-trained men and guild

¹⁰ Mario Biagioli, *Galileo Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: University of Chicago Press, 1993).

¹¹ Westfall, 1985, 14. In this work, Westfall calls for a move away from the Great Man of Genius view of science and toward the social context model.

¹² Biagioli, 1993.

¹³ Bruce Moran, “German Prince-Practitioners: Aspects in the Development of Courtly Science, Technology, and Procedures in the Renaissance,” *Technology and Culture* 22 (1981): 253-274.

¹⁴ Robert Westman, “The Astronomer’s Role in the Sixteenth Century: A Preliminary Study,” *History of Science* 18 (1980): 105-147.

members who had honed their manners had an edge as candidates for patronage.¹⁵ For guild members who, like Gerard, came from gentry families, training in courtly manners would have been an accepted part of their upbringing.

Between patron and client there was mutual influence and benefit. Both the work of clients and the interests of the patrons were subject to political trends and attitudes. In return for a patron's political support and protection, clients often dedicated their investigation to their patron's interests and the resulting publications, like Gerard's, were often literally dedicated to their patron.

At some level, while these gentle-mannered patrons and clients were engaged in looking out for their own interests, they were also promoting the country's economy and political goals. Their service and loyalty were valuable in the years when Elizabeth and her advisors were deeply worried about England's future. The economy was slow, and the treasury was depleted. From both inside England and the Continent, there was political pressure for Elizabeth to marry, a move that would have subordinated the interests of England to that of her husband's country. In response to these stresses, the Crown instituted economic protectionist policies to control trade and keep money within the country. Royal charters brought English craftsmen together in guilds and gave patents to favored craftsmen. The queen's economic and political advisors were also clients of her patronage. Whether these men were members of nobility or newly risen products of patronage opportunities, they supported homegrown innovation to bolster the English economy by dispensing whatever opportunities they themselves controlled within their own smaller courts. In this way, patronage flowed down and outward from Elizabeth in return for work that aided the English economy and its people.

Because Elizabeth's England was suffering from years of crop failures, epidemics, and depleted natural resources, supporting investigations of the plant world seemed especially likely to yield real benefits to nation and patron alike. No one understood this better than William Cecil.

William Cecil, an intellectual English patron

Bruce Moran's analysis of science in Renaissance German courts draws attention to the importance of the patron-prince who took a serious intellectual interest in his client's investigations even if he could be only

¹⁵ Mauro Ambrosoli, *Wild and the Sown: Botany and Agriculture in Western Europe, 1350-1850* (Cambridge: Cambridge University Press, 1997), 300.

peripherally involved in the projects themselves.¹⁶ William Cecil—scholar, aristocrat, and Elizabeth's chief advisor—fits this mold of intellectual patron.

Recent scholarship on Cecil's patronage practices takes note of the convergence of his personal and political interests in his encouragement of plant investigations.¹⁷ Inasmuch as his own interests were wholly tied to the interests of the nation, Cecil supported men who investigated indigenous sources of food, fodder, fiber, and medicines. On his own behalf, Cecil happily used his patronage to sustain and enhance his beloved gardens.

As a client of the Queen, Cecil had almost as much patronage to dispense as she did.¹⁸ In 1561, Elizabeth expressed her favor toward Cecil by making him the Master of the Court of Wards. The position made him responsible for finding homes and marriages for “the orphans of men who owed obligations of service to the crown” and consequently made him an even more “powerful figure in a society where marriage and property determined social standing.”¹⁹ In essence, every transaction to do with the wards brought Cecil more wealth, prestige, and patronage opportunities.²⁰

¹⁶ Bruce Moran, “Patronage and Institutions: Courts, Universities, and Academies in Germany: an Overview: 1550-1750,” in *Patronage and Institutions: Science, Technology, and Medicine at the European Court 1550-1750*, Bruce Moran, ed. (Rochester, New York: Boydell Press, 1991), 169-183.

¹⁷ B. W. Beckingsale, *Burghley: Tudor Statesman, 1520-1598* (New York: Macmillan, 1967), 245-269. Pauline Croft, ed., *Patronage, Culture and Power: The Early Cecils, 1558-1612*, (New Haven, Connecticut: Yale University Press, 2002). The papers in this volume focus on “The Cecils as Builders,” “The Cecils as Patrons of the Arts,” “The Cecils as Economic Patrons,” and “The Cecil Household and Family.”

¹⁸ For views of Cecil by his contemporaries, see: Evelyn Plummer Read and Conyers Read, eds., *Elizabeth of England: Certain Observations concerning the Life and Reign of Queen Elizabeth by John Clapham* (Philadelphia: University of Pennsylvania Press, 1951); A. G. R. Smith, ed., *The ‘Anonymous Life’ of William Cecil, Lord Burghley* (Lewiston, New York: E. Mellen Press, 1990); and A. G. R. Smith, “Lord Burghley and His Household Biographers: John Clapham and Sir Michael Hicckes,” in *Patronage, Culture and Power, The Early Cecils*, Pauline Croft ed. (New Haven, Connecticut: Yale University Press, 2002), 249-264. For an overview of Cecil's historiography, see Stephen Alford, “The Political Creed of William Cecil,” in *The monarchical republic of early modern England: Essays in Response to Patrick Collinson*, John F. McDiarmid, ed. (Burlington, Vermont: Ashgate, 2007), 75-90. Alford's own biography brings much up to date about the life of Cecil: Stephen Alford, *Burghley: William Cecil at the Court of Elizabeth I* (New Haven, Conn.: Yale University Press, 2008).

¹⁹ Alford, 2008, 112.

²⁰ Joel Hurstfield, “Lord Burghley as Master of the Court of Wards, 1561-98,” *Transactions of the Royal Historical Society Fourth Series*, Vol. 31, (1949): 95-114. Stable URL: <http://www.jstor.org/stable/3678636>

Nonetheless, Cecil took his duties to the wards seriously. The most noble of these wards of the queen lived in Cecil's London household on the Strand, where they were educated in courtly ways and university-level studies. The assembly of tutors, scholars, and noble youths at his home made it a well-known place of learning.²¹

Jan Van Dorsten suggests that Cecil followed the model of Sir Thomas More's household which had been virtually a salon for the spread of humanist ideas and learning.²² Cecil famously took Cicero's *On Duties* (written to advise Cicero's son Marcus) as his guide to gentlemanly deportment and politics. "To his dying day," Cecil "would alwaies carry it about him, either in his bosome or pocket, [it] being sufficient...to make both a Scholler and an honest man."²³ In this essay, Cicero counseled his son on the many facets of life as an educated gentleman. He wrote that

conversation...should be easy and not in the least dogmatic; it should have the spice of wit. And the one who engages in conversation should not debar others from participating in it, as if he were entering upon a private monopoly: but, as in other things, so in a general conversation he should think it not unfair for each to have his turn.²⁴

Cecil took these suggestions to heart, and he was known for his conversation and wit. It was said of him that "his ordinary Speeches weare commonly cherefull, merry & familiar; but witty, sharpe & pithy: Without Dulnes or Sowrnes."²⁵ Despite Cecil's pressing official duties, "he was delighted to talke, & be merrie with his Friends, (but) onlie at Meals. For he had no more Leasure."²⁶ Roger Ascham opened his *Scholemaster* (1570), by describing Cecil's gentle habit of stimulating dinner conversation. It was Cecil's

accustomed maner, though his head be never so full of most weightie affaires of the Realme, yet, at dinner time he doth seeme to lay them alwaies aside: and findeth ever fitte occasion to taulke pleasantlie of other matters, but most gladlie of some matter of learning: wherein,

²¹ Beckingsale, 248. A.G.R. Smith, *William Cecil, Lord Burghley: Minister of Elizabeth I* (Bangor, Gwynedd, Wales: Headstart History, 1991), 20-26. On Burghley's household, see R. Barnett, *Place, Profit, and Power: A Study of the Servants of William Cecil, Elizabethan Statesman* (Chapel Hill, North Carolina: University of North Carolina Press, 1969), and A.G.R. Smith, *Servant of the Cecils: the Life of Sir Michael Hicke, 1543-1612* (Totowa, New Jersey: Rowman and Littlefield, 1977). On Burghley's library, see Eddi Jolly, "'Shakespeare' and Burghley's Library: Bibliotheca Illustris: Sive Catalogus Variorum Librorum," *The Oxfordian* 3 (2000): 1-18.

²² Jan Van Dorsten, "Mr. Secretary Cecil, Patron of Letters," *English Studies* 50 (1969): 1-9.

²³ Henry Peacham, *The compleat gentleman* (London: Francis Constable, 1622), 45, (H1^R).

²⁴ M.T. Cicero, *Cicero in Twenty-Eight Volumes: XXI, De Officiis with an English Translation by Walter Miller* (Cambridge, Massachusetts: Harvard University Press, 1990), Book I: 134.

²⁵ Francis Peck, *Desiderata Curiosa*, 2 vols. (London, 1732), I, 50.

²⁶ Peck, I, 50.

he will curteslie hear the minde of the meanest at this Table.²⁷

Indeed, Ascham's treatise on pedagogy was inspired by Cecil's remarks on education and the love of learning at one such dinner-table conversation in 1563. Cecil deplored teachers who relied on harsh words and whippings to beat Latin into the heads of schoolchildren: "Many young wits be driven to hate learning before they know what learning is."²⁸

At home among his family and wards Cecil strove to carry himself with a gentle pleasant demeanor conducive to learning and, by his actions, served as a model of the educated man. For his own pleasure, Cecil had an ample library and "retained scholars in his household to work" on manuscripts for it.²⁹

his Recreation was, chiefly, in his Booke. Where [with,] if he had Tyme, he was more delighted, then others with Plaie at Cards. Or, if he cold gett a lerned Man to talk withal, he was [as] much pleased.³⁰

It appears that Cecil also supported learning for aristocratic girls in his household. Certainly, Queen Elizabeth's upbringing as a well-educated and capable woman was emulated by many families of means when grooming their female children for their roles in society. For his second wife, Cecil chose to marry a well-connected and very well-educated woman: Mildred Cooke was a Greek scholar in her own right.³¹ The fact that several books were dedicated to her suggests that Mildred may have dispensed patronage herself.³² Mildred's family was well

²⁷ Roger Ascham, *The scholemaster or plaine and perfite way of teachyng children, to vnderstand, write, and speake, the Latin tong : but specially purposed for the priuate brynging vp of youth in ientlemen and noble mens houses, and commodious also for all such, as haue forgot the Latin tonge* (London, 1570), B1^R. Roger Ascham's widow Margaret wrote the dedication to William Cecil and saw the volume printed after her husband's death. Ascham and Cecil had been schoolmates at Cambridge University. Ascham was language tutor to Elizabeth. "Ascham, Roger," in *Oxford Dictionary of National Biography*, ed., H. C. G. Matthew and Brian Harrison (Oxford: Oxford University Press, 2004).

²⁸ Ascham, Preface to the Reader, B1^V.

²⁹ Jill Hesselby and Paula Henderson, "Location, Location, Location!: Cecil House in the Strand," *Architectural History*, 4 (2002): 182.

³⁰ Peck, I, 50.

³¹ "Cecil, Mildred," in *Oxford Dictionary of National Biography*, ed., H. C. G. Matthew and Brian Harrison (Oxford: OUP, 2004). Cecil's first wife, Mary Cheke, died in 1543.

³² Jan Van Dorsten, "Literary Patrons in Elizabethan England," in *Patronage in the Renaissance*, eds. Guy Fitch Lytle and Stephen Orgel (Princeton, New Jersey: Princeton University Press, 1981), 195, 198. On the importance of Mildred Cecil, see Pauline Croft, "Mildred, Lady Burghley: The Matriarch," in *Patronage, Culture and Power: The Early Cecils*, ed. Pauline Croft (New Haven: Yale University Press, 2002), 283-300 and Helen Payne, "The Cecil Women at Court," in *Patronage, Culture and Power: The Early Cecils*, ed. Pauline Croft (New Haven: Yale University Press, 2002), 265-282. For treatises dedicated to Lady Burghley or in her library, see: Caroline Bowden, "The Library of Mildred Cooke Cecil, Lady Burghley," *The Library* 6 (2005): 3-29.

known for educating their daughters with university-educated tutors. Mildred's sister Elizabeth Cooke married Sir Thomas Hoby, who translated Castiglione's *Book of the Courtier* into English in 1561.³³

With all these interests, concerns, and work, Cecil was enormously busy. He directed and supported his family and servants, managed the court of wards, and listened to petitioners asking for aid or patronage, sometimes as many as one hundred a day.³⁴ The press of suitors was so great that he needed his own secretary.³⁵ Moreover, as the Queen's personal secretary for more than a decade and a half, Cecil also had to act as her gatekeeper and patronage broker.³⁶

Cecil understood the unpredictable nature of patronage as well as its necessity. A short work usually attributed to Cecil as a Ciceronian guide for his son Robert (his second son who was later the Earl of Salisbury), *Certain Precepts for the Well Ordering of a Man's Life*, gave pragmatic advice about managing a patronage relationship from the client's side:

Be sure ever to keep some great man thy friend, but trouble him not for trifles, compliment him often, present [him] with many yet small gifts and of little charge, and if thou have cause to bestow any great gratuity let it then be some such thing as may be daily in sight, for otherwise in this ambitious age thou mayest remain like a hop without a pole, live in obscurity, and be made a football for every insulting companion to spurn at.³⁷

Taking Cicero's advice to his son Marcus, as his model, Cecil advised Robert from his own political understanding and experience.

Cecil was already a highly trusted gentleman at court when Elizabeth made him a baron in 1571. Cecil chose the name Burghley from the house he had inherited from his father.³⁸ He was made Lord Treasurer the next

³³ Craig Ashley Hanson, *The English Virtuoso: Art Medicine, and Antiquarianism in the Age of Empiricism* (Chicago: University of Chicago Press, 2009), 3. *The courtyer of Count Baldessar Castilio diuided into foure bookes. Very necessary and profitatable [sic] for yonge gentilmen and gentilwomen abiding in court, palaice or place, / done into Englyshe by Thomas Hoby* (London: Wyllyam Seres, 1561).

³⁴ Peck, I, 19.

³⁵ See also Michael A.R. Graves, *Burghley: William Cecil, Lord Burghley* (New York: Longman, 1998) and Smith, 1990, 66-68.

³⁶ A.G.R. Smith, *William Cecil, Lord Burghley: Minister of Elizabeth I* (Fremantle, Western Australia: Plantagenet Press, 1991).

³⁷ Louis B. Wright, ed., *Advice to a Son, Precepts of Lord Burghley, Sir Walter Raleigh, and Francis Osborne* (Ithaca, New York: Cornell University Press, 1962), 12. Alford, *Burghley*, 340, notes that Burghley's authorship of the *Precepts* (perhaps written in the 1580s, published anonymously in 1611) is uncertain; the spirit of the advice and the pithy language accord well with authorship by Burghley.

year. The new position was in addition to his work as Elizabeth's secretary, although this double duty continued only until Walsingham became Elizabeth's secretary in 1573.³⁹ Burghley was Elizabeth's closest advisor for almost her entire time as monarch, and his influence was great.⁴⁰

Deborah Harkness's recent work, *The Jewel House*, notes that Burghley's remarkable network of foreign and domestic intelligence gatherers gleaned the political and technical information that he used ruthlessly to protect his queen and the interests of England.⁴¹ Perhaps because his mind was so preoccupied with economic and political affairs and because he had such fierce and focused political skills, most Burghley biographers have placed him intellectually outside the natural investigations he supported. Yet there is growing scholarship to the contrary. Because he "had to weigh their utility to the commonwealth," Burghley "knew what went on in the workshops, the laboratories of the period, and he read the learned treatises."⁴² His library included classical and modern works in many languages concerned with geography, agronomy, medicine, and pharmacy. Burghley was aware of the deficiencies of English technology and knowledge in many areas including botany and horticulture. He responded in many ways. He continued to collect books, read widely, and enrich his home with intellectual discussion. Internationally, Burghley supported communication between the Continent and England and encouraged emigration of skilled labor into England.⁴³ He took as his clients those Englishmen who had the connections, interests, and skills that Burghley wished to promote in England.

³⁸ I will now use the name Burghley instead of Cecil. The patent that made Cecil a Baron can be seen in a photograph with an explication in Felix Pryor, *Elizabeth I: Her Life in Letters* (Berkeley, California: University of California Press, 2003), 58-59.

³⁹ Michael A.R. Graves, *Burghley: William Cecil, Lord Burghley* (New York: Longman, 1998), 106.

⁴⁰ Peck, I, 58.

⁴¹ Deborah Harkness, *The Jewel House: Elizabethan London and the Scientific Revolution* (New Haven, Conn.: Yale University Press, 2007.), especially Chapter 4, " 'Big Science ' in Elizabethan London." See also the online Letters of William Herle Project for the confidential reports from the opportunistic cloth-merchant William Herle: <http://www.livesandletters.ac.uk/herle/index.html>. In HRL/002/HTML/046. See also Robyn Adams, "The Service I am Here for": William Herle in the Marshalsea Prison, 1571," *Huntington Library Quarterly*, Vol. 72, No. 2 (June 2009): 217-238.

For imports of paper and trees and plants being used to hide seditious Catholic books, see: [William Herle to Lord Burghley, 23 November 1583] "John Gyllpin tolld me ij yeres synce & more, that when he was sent after his masters son into franwce, he mett att Roane with Hawll the preest, who amongst Trees & plants, & under Reames of white paper that he browght over hither, there were sedycyows bookes packed together very conynglye," (BL MS Cotton Caligula C VIII f. 204r - 206v. Transcript ID HRL/002/HTML/046).

⁴² Beckingsale, 257. See, e.g. Harkness, 2007, Chapter 4.

⁴³ Ambrosoli, 254.

Burghley did not need to have hands-on experience of technological and natural investigations to think of the world in mechanistic terms. “The world,” he said, “is a shop of instruments, whereof the wise man is master: and a kingdome but a frame of engines, whereunto he is the wheel.”⁴⁴ As the kingdom's wise master, Burghley was always on the lookout for capable men to be his “instruments” and England's “engines.” John Gerard fit the bill.

John Gerard, client of Burghley

Less than a decade after joining the Company of Surgeons in 1569, Gerard had begun to serve Burghley as the superintendent of his extraordinary gardens at Theobalds and Cecil House on the Strand. The path Gerard took to become Burghley's client can only be a matter of speculation.

Gerard could have attracted the Lord Treasurer's attention through the guild connection, at one of the great ceremonial feasts held at the Barber-Surgeons hall. These dinners “were usually held on Election and Audit days, on Lord Mayor’s day, and after all public dissections.”⁴⁵ Upon these occasions, and especially at the dinner held to celebrate the new election of guild officials, there were entertainments and herbs and flowers were strewn upon the floor. Annually, one man prepared the flowers and herbs for these celebrations, and a member’s servants and apprentices set them up on the individual tables.⁴⁶ Another big celebration was the annual Lord Mayor’s Feast, held at the end of November upon the swearing in of the mayor. This was a city-wide affair with pageant wagons created by the guilds for the lavish processions that followed the mayor as he made his way to Westminster and back to the Guildhall.⁴⁷ According to John Stow’s *A Survey of London* (1603), the Mayor’s feast was attended by the wardens from each guild and several men besides, and the monarch and her councilors often came to the banquet.⁴⁸ It was a time in which many gifts were exchanged.⁴⁹ There were, therefore, ample opportunities for a skilled and ambitious apprentice or journeyman to set himself above the others in the eyes of guests with an unusual floral arrangement.

⁴⁴ David Lloyd, *State Worthies* (London, 1766), 369.

⁴⁵ Sidney Young, *Annals of the Barber-Surgeons of London* (London: Blades, East & Blades, 1890), 449.

⁴⁶ Young, 447-8.

⁴⁷ Frederick William Fairholt, *Lord Mayors’ Pageants* (London: Percy Society, 1843).

⁴⁸ Robert Chambers, *The book of days: a miscellany of popular antiquities*, vol 2 (Philadelphia: J. B. Lippincott, 1869), 564.

⁴⁹ Lawrence Manley, *Literature and culture in early modern London* (Cambridge: Cambridge University Press, 1995), 260-6.

Gerard's travels in the Baltic (probably soon after qualifying as a barber-surgeon in 1569) offered another opportunity for him to come to Burghley's notice. For decades, as a matter of controlling foreign relations and trade (and keeping an eye on his own investment), Burghley watched every move of the Muscovy Company and solicited firsthand information from men who went on its voyages to the northern lands.⁵⁰ He would have valued Gerard's assessments of the wild Pine and Fir trees, whose pitch and tar were vitally necessary to England's ships.⁵¹ It is conceivable that Gerard applied to Burghley at a public event and offered him an appropriate gift representative of the young surgeon's abilities and experiences in "those colde countries."⁵² (Burghley had received a "Tartarie" from the English envoy to the Czar in 1566.⁵³) That strategy had apparently worked for William Bourne who had introduced himself to Burghley and presented him with a handwritten treatise on the buoyancy of water and a study on ocean-going ships.⁵⁴

Gerard's personal connections among London's medical practitioners offered another possible avenue to Burghley through his personal secretary, Michael Hicke.⁵⁵ Gerard's master, Alexander Mason, could have brought Gerard's talents to the attention to the queen's surgeons, and they in turn to Burghley.⁵⁶ In 1577, the earliest year Gerard records he was in Burghley's service, the Sergeant-Surgeon to Elizabeth was Robert Balthrop (or Balthorpe) who, like Mason, served as Warden and Master of the Company several times in the 1560s and 1570s, just when

⁵⁰ J. Hamel, *England and Russia; Comprising the Voyages of John Tradescant the Elder, Sir Hugh Willoughby, Richard Chancellor, Nelson, and Others, to the White Sea, etc.*, trans. John Studdy Leigh (London: Richard Bentley, 1854), 110, 113, 127, 153, 170, 177, 179, 199, 202-5, 212, especially 221. Alford, *Burghley*, 72.

⁵¹ Gerard, 1597, 1177, 1181. Book I, Chap. 39, *Of the wilde Pine tree* and Chap. 40, *Of the Firre or Deale tree*. J. W. Veluwenkamp, "The Murman coast and the northern Dvina delta as English and Dutch commercial destinations in the 16th and 17th centuries", *Arctic* 48 (Sept. 1995): 257. Hamel, 159, 163, 198.

⁵² Gerard, 1597, 1223, Book III, chap. 64: 1223. *On Baie, or Laurell Tree*.

⁵³ Hamel, 170.

⁵⁴ E.R.G. Taylor, *Mathematical Practitioners of Tudor and Stuart England* (Cambridge: Cambridge University Press, 1954), 176. The handwritten paper was *The Nature and Quality of Water: as touching the Swimming and Sinking of Things* (1565). Bourne (fl. 1565-1588), went on to print several books, one actually commissioned by Burghley.

⁵⁵ Alan G. R. Smith, *Servant of the Cecils: The Life of Sir Michael Hicke, 1543-1612* (Totowa, New Jersey: Rowman and Littlefield, 1977).

⁵⁶ Sidney Young, *The Annals of the Barber-Surgeons of London, Compiled from Their Records and Other Sources* (London: Blades, East, & Blades, 1890), 4.

Gerard would have been seeking a patron.⁵⁷ Balthrop seems a likely mediator for a meeting and introduction with Burghley. The technique of using an intermediary to meet others was standard practice within the patronage system and the class-conscious society.

Whatever the circumstances, Gerard's connection to Burghley unquestionably did not happen by accident. Because of Burghley's power and the press of suitors, Burghley had to be pursued. Getting a position with a master courtier like Burghley required knowledge, reputation, connections, and gentlemanly ways. Bringing these skills, and the necessary flattery, together in a meeting with Burghley was a "strategic choice, ...not just some physical someone, but some cognitive someone" must have made that choice.⁵⁸ Paul McLean points out that once a man entered willingly into a relationship as a client to a patron, paradoxically, he had greater autonomy.⁵⁹ Simply by working on a project for Burghley, his client would gain power by proximity. Although the client would be bound to perform tasks for the patron, he would enjoy greater self-determination in other aspects of his life. Such a man could then be an intermediary for others, a patronage broker in his own right.⁶⁰ This advantageous position was one of the rewards of having a powerful patron.

Once the client-patron relationship was established between Gerard and Burghley, it had very tangible benefits for Gerard. Not only was he appointed to a position of considerable responsibility in Burghley's household, he also gained the tenancy of his own garden and home in Holborn.⁶¹

Burghley's gardens at Theobalds and Cecil House and Gerard's in Holborn literally bore the fruit of Cecil's

⁵⁷ Young, *Annals of the Barber-Surgeons of London*, 5-6. Mason was a Warden in 1556 and 1561, Master in 1567, 1569, and 1572 (and died in office). Balthrop was a Warden in 1560 and 1564, Master in 1565 and 1573. Henry R. Thompson, "Sergeant Surgeons to their Majesties, Thomas Vicary Lecture delivered at the Royal College of Surgeons of England on 29th October 1959," *Annals of the Royal College of Surgeons of England*, (January 26, 1960): 1-23. Andrew Griffin, "Balthrop, Robert (1522-1591)," *Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004). According to his will in the *Annals*, Balthorpe served as sergeant-surgeon from 1562 until his death in 1591.

⁵⁸ Paul D. McLean, *The Art of the Network: Strategic Interaction and Patronage in Renaissance Florence* (Durham, North Carolina: Duke University Press, 2007), 207. While McLean is referring to Italy, the same situation must have been true for England.

⁵⁹ McLean, 207.

⁶⁰ Felicity Heal and Clive Holmes, "The Economic Patronage of William Cecil," in *Patronage, Culture and Power, The Early Cecils*, Pauline Croft, ed., (New Haven, Connecticut: Yale University Press, 2002), 208.

⁶¹ Elijah Williams, *Early Holborn and The Legal Quarter of London: A Topographical Survey of the Beginnings of the District Known as Holborn and of the Inns of Court and of Chancery* (London: Sweet & Maxwell, Limited, 1927), vol. 1, 356-7: Gerard's garden land was "held of Lord Burghley by Sir Henry Willoughby, who let it to Gerrard."

networks, whether at home in London or in the far parts of the world. In 1579, one of Burghley's favorite envoys, Sir William Waad, sent his master:

fifty sorts of sundry seeds, by the best means I could, to come in time to sow. If they come too late I have bespoken others of this year for the next, if they be of such sort as do like your lordship. They are the rarest and most excellent that are to be found in all Italy.⁶²

In 1589, Waad became a Clerk of the Privy Council and continued to provide plant material to Burghley. Gerard was dazzled, for instance, by the stalks of dried Golden Moth-wort, or Cudweed, “of a yellow colour glittering like gold,” which “my selfe did see in the hands of Master *Wade*, one of the Clerks of her Maiesties Counsell, which were sent him among other things from Padua in Italy.”⁶³ Herbarizing near Wade's house in Hampstead, Gerard found an unusual Betony with white flowers, “from whence I brought plants for my garden, where they flourish as in their naturall place of growing.”⁶⁴ The Queen's confidence in Burghley guaranteed Gerard access to the rare Nettle tree in the garden of Hugh Morgan, the Queen's apothecary, and the exotic melons under the watch of “Master. Fovvle,” the keeper of the “Queene's house at St. Iames.”⁶⁵ (See Appendix 2, Figure 15)

Burghley's diplomatic agents in Constantinople forwarded not only the Red Lily, but also the “double white Daffodill of Constantinople”, which was “sent into England vnto the right honorable Lord Treasurer, among other bulbed flowers” and found its way into “our London gardens.”⁶⁶

⁶² Historical Manuscripts Commission, *Calendar of the Manuscripts of the Most Hon. The Marquis of Salisbury, K. G., &c.&c.&c. Preserved at Hatfield House, Hertfordshire. Part I* (London: Her Majesty's Stationery Office, 1883), 252, No. 729. William Waade to Lord Burghley. 1579, May 7. On Waad (variously spelled), see Albert Frederick Pollard, "Waad, Sir William," *Dictionary of National Biography*, 1885-1900, Volume 58. See also Harkness, 158-159, on the close connections between William Cecil and William Waad's father, Sir Armagil Waad (d. 1568).

⁶³ Gerard, 1597, Book II, Chap. 196: 519-520, *Of Golden Moth-wort, or Cudweed*. Gerard noted the usefulness of the dried plant both as a decoration and as a moth-repellent when laid among clothes. See also Book III, Chap. 42: 1186, *Of the Cypress tree*, for a cypress tree growing "at Hampstead in the garden of Master Waide."

⁶⁴ Gerard, 1597, Book II, Chap. 232: 577. *Of Betonie*.

⁶⁵ Gerard, *Herball* (1597), Book III, Chap. 117: 1308, *Of the Lote or Nettletree*; Book II, Chap. 329: 772, *Of Muske-Melon, or Million*.

⁶⁶ Gerard, 1597, 111, 151. Book I, Chap. 75, : 111, *Of Daffodils*; Book I, Chap. 94, :151, *The red Lilly of Constantinople*. In this case, Gerard's reference to "our London gardens," seems to mean the gardens he supervised at Burghley's Cecil House and Theobalds, rather London gardens generically. For other plants sent from Turkey, although not necessarily to Burghley, see, for example, Gerard, 1597, Book I, Chap.: *Of Woolly Bulbus*; Book I, Chap. *Of the White Lillie of Constantinople*; Book I, Chap., *Of Hyacinthus*; Book I, Chap. I, *Of Muscari or Musked Grape-flour*; Book I, Chap., *Of Squils or Sea Onions*; Book II, Chap., *Of Bawme*; Book II, Chap., *Of Turkie or Asian Crow-feet*.

Burghley seems to have infected at least one of his wards with his enthusiasm for rare herbs: Lord Edward Zouche, became an avid plant collector whose European travels in the 1580's yielded plants from Austria and Italy for Gerard's garden—Lyons Turnep, Candie Mustarde, Flower Gentle, Thorne Apples, and Honiewoort.⁶⁷ It is possible that it was through the Burghley-Zouche connection that Gerard first encountered the younger nobleman's own botanical client, the French physician-botanist, Matthias de L'Obel, and L'Obel's Flemish neighbor, the Lime Street apothecary, James Garret.⁶⁸

Burghley kept a sharp eye on all the activities of England's explorers and merchant adventurers and had a strong friendship with Sir Walter Raleigh. So it is not surprising that Gerard had special access to plants from Raleigh's voyages and ventures. Gerard obtained first-hand descriptions and images of the Indian Swallow Woort (that is, milkweed from Virginia) and the rough Binde-weed (sarsaparilla) from John White, “an excellent painter,” and the governor of the ill-fated Roanoke colony also known as Norembega, sponsored by Raleigh.⁶⁹ Gerard proudly grew white “Potatoes of Virginia” in his garden. However, the name he gave them and his statement that “It groweth naturally in America where it was first discovered...I haue received rootes hereof from Virginia, otherwise called Norembega which growe and prosper in my garden,” have misled generations of gardeners, grocers, and food historians into thinking that Virginia was the white potato's “natiue country.”⁷⁰

Gerard may have leveraged these contacts, gardens, and plants to become a patron of sorts himself. In the secondary literature, Elizabethan patrons are commonly understood to be aristocratic gentlemen of some means who were not employed in business or craft. In London, however, the wealth or standing of lower or landless gentry and

⁶⁷ Gerard, 1597, Book II, Chap. 4: 182, *Of Lyons Turnep, or Lyons lease*; Book II, Chap. 20: 207, *Of Candie Mustard*; Book II, Chap. 40: 255, *Of flower Gentle*; Book II, Chap. 57: 277, *Of Thorne apple*; Book II, Chap. 149: 432, *Of Honiewoort*.

⁶⁸ On the relationships among between Gerard, L'Obel, and Garret, see Harkness, 15-18, and 262n2.

⁶⁹ Gerard, 1597, Book II, Chap. 320: 752, *Of Indian Swallowwort*. Book II, Chap. 302: 710, *Of rough Bindweed*, “one master *White* an excellent painter who carried very many people into Virginia (or after some Norembega) there to inhabite, at which time he did see thereof [i.e. Gerard's Figure 1, page 709, *Smilax Peruuiana, Salsa parilla*. Rough Bindweed of Peru] of great plentie, as himselfe reported vnto me, with this bare description: It is saith he, the roote of a small shrubbie tree, or hedge tree, such as are those of our countrey called Hawthornes, hauing leaues resembling those of Iuie: but the flowers or fruite he remembreth not.” See also Karen Reeds, “Don’t Eat, Don’t Touch: Roanoke Colonists, Natural Knowledge, and Dangerous Plants of North America,” in *European Visions: American Voices*, ed. Kim Sloan, (London: British Museum Research Publication 172, 2009), 51-57.

⁷⁰ Gerard, 1597, Book II, Chap. 334: 780, *Of Potatoes*; Book II, Chap. 335, 781, *Of Potatoes of Virginia*. is also vague about the native home of the “common” (i.e. sweet, orange-fleshed potato) whose roots he had “bought at the exchange in London” and which was already a familiar food on English tables.

prosperous citizen craftsmen allowed a wider range of patrons to exist, albeit on a much smaller scale. Some of Gerard's customers at his Holborn garden might have felt beholden to him for plant rarities that they could use as the “many small gifts” to maintain, as Burghley's *Precepts* advised, the friendship of some “great man.”⁷¹ The two garden catalogs and the *Herball* (1597), in effect, advertised Gerard's ability to bestow botanical patronage on other herbarists in return for information and plant materials.

Plants, patronage, and economic policy

Gerard gained many advantages from being Burghley's client, but it was mutually understood that Burghley required great returns on his investment in the patronage relationship. Their shared delight in beautiful plants and gardens, by itself, would not have sustained their relationship for two decades. Burghley's ambitions for England and for himself were inextricably bound together. Gerard's skills could help him achieve both.

For the nation, Gerard's knowledge of plants and horticulture could assist England's economy by increasing the use of English natural resources. In 1585 and 1586, wet cold weather ruined the harvests. Prices of olive oil and other imported oils (used in the processing of textiles and making soap) rose when imports were interrupted by political problems on the Continent.⁷² Burghley warned that England had been “lulled into an unjustified sense of security about its food supplies.”⁷³ He was justified in his trepidation: another, even longer harvest failure occurred in the next decade, from 1594 through 1597. This four-year period brought starvation to many in England.⁷⁴ The Privy Council ordered food from areas with less extreme conditions brought into cities: wagons of cabbages and turnips were sent to London, for example. Foods that had once been considered fit only for animals, such as root vegetables and acorns, were eaten by very hungry people.⁷⁵ As a result, Burghley encouraged investigation into identifying survival foods and adding root crops and herbs to the list of traditional agricultural and industrial crops that should be produced at home.

⁷¹ See Burghley's *Precepts*, note 43 above; Wright, 1962, 12.

⁷² Thirsk, 1997, 73.

⁷³ Thirsk, 1997, 24.

⁷⁴ Joan Thirsk, *Food in Early Modern England: Phases, Fads, Fashions 1500-1760*, (London: Hambledon Continuum, 2007), 34.

⁷⁵ Malcolm Thick, *The Neat House Gardens: Early Market Gardening Around London* (Allaleigh House, Totnes, Devon: Prospect Books, 1998), 19.

These concerns were reflected in such works as Hugh Plat's *Sundrie New and Artificiall Remedies against Famine* (1596). Plat suggested ways to process root vegetables, beans, chestnuts, and vetch, and recommended extending bread or cake recipes with flour made from parsnip roots. Plat explained that the cook should "slice great and sweete parsnep rootes...into thin slices, and having washed & scraped them cleane, dry them, and beat them into powder" that could then be added to the recipe.⁷⁶ (Gerard acknowledged Plat as his friend, but reserved judgment about the parsnip bread: "There is a good and pleasant foode or bread made of the rootes of Parsnepes as my friend master *Plat* hath set foorth in his book of experimenes, which I haue made no triall of, nor meane to do."⁷⁷)

The *Herball* (1597) can thus be seen as part of Burghley's wide-ranging program for England's economic revival, a way to share Gerard's research with an audience of aristocrats and middling sort who might be able to invest in the production of economically useful plants. In the letter to the reader, Gerard explained his role in Burghley's plan:

Although my paines have not been spent (courteous Reader) in the gracious discoverie of golden mynes, nor in the tracing after silver vaines, whereby my native cuntry might be enriched, with such marchandize as it hath most in request and admiration: yet hath my labour (I trust) bene otherwise profitably employed, in descrying of such a harmlesse treasure of herbes, trees, and plants, as the earth frankly without violence offereth unto our most necessarie uses.⁷⁸

So the scope of the *Herball* (1597) extended beyond medicinal herbs to encompass dyes, oils, cattle-feed, household and artisanal materials, and both aristocratic delicacies and famine foods.

Madder roots, for example, were valuable commodities in England because they were used as a red dye and in apothecary recipes. As a surgeon, Gerard would have used madder to treat people who were "brused, wounded, and that have fallen from high places. It stancheth bleeding, mitigateth inflammations, and helpeth those parts that be hurt and brused."⁷⁹ Yet, even though madder was a native dye plant, the roots were imported from the Continent. From the time of Henry VIII, there had been a vague government-sponsored program to encourage the home

⁷⁶ Hugh Platt, *Sundrie New and Artificiall Remedies against Famine* (London: P.S. dwelling on Breadstreet hill, at the sign of the Starre, 1596), B4^L-C1^R.

⁷⁷ Gerard, 1597, Book II, Chap. 389: 871, *Of Parsnepes*. See also Harkness, 226.

⁷⁸ Gerard, 1597, Letter to the reader.

⁷⁹ Gerard, 1597, Book II, Chap. 448: 965. *Of Ladies Bedstraw*.

production of “madder, woad, flax, and hemp.”⁸⁰ When an English patent for the collection of the root was given to a Dutchman in 1568, English interest in its commercial possibilities increased.⁸¹ Gerard grew Red, Water, and Wild Madder in his Holborn garden.⁸²

Another important economic need was the production of oil from plant seeds for food, soap, and textile production. Burghley was well aware of these needs as William Herle, one of his “industrial informants on new projects in general,” held an English patent to produce oil from seed.⁸³ Herle reported that growing rapeseed would be very important and profitable once the soap and textile industries became accustomed to its use instead of imported oils. Gerard wrote that the Wild Turneps and Navewes (that came from degenerate Turnep seed) produced fine oil and were grown in many places in England.⁸⁴ (See Appendix 2, Figure 11) He later added another type of plant profitable because of its seed.

The wilde Colewoort hath long broad leaves not unlike to the tame Colewoort, but lesser, as is all the rest of the plant, and is of his owne nature wilde, and therefore not sought after as a meate; but is sowed and husbanded upon ditch bankes and such like places for the seede sake, by which oftentimes great gaine is gotten.⁸⁵

Some grasses, reeds, and grains, both indigenous and introduced, were useful and grew in England. Gerard identified them by their many names, characteristics, and habitats. The Common Reede was good for angler’s poles.⁸⁶ Sharpe Rushes were best for strewing upon the floor as they would not turn to dust as quickly as other floor rushes.⁸⁷ Mat Weede was used for beds and floor rushes in the winter.⁸⁸ Gerard warned that some plants were not good forage: Cyperus grass, for example, was not good for animals.⁸⁹ Darnell was not a reed or a grass but a

⁸⁰ Joan Thirsk, *Alternative Agriculture, A History* (Oxford: Oxford University Press, 1997), 28.

⁸¹ Thirsk, 1997, 105.

⁸² John Gerard, *Catalogus* (London, 1599), C3^V.

⁸³ Thirsk, 1997, 74. See, e.g., Letters of William Herle Project, Herle to Burghley, 18 October 1576, Hatfield, *Cecil Papers* 9.f. 42r-43v, Transcript ID: HRL/002/HTML/149.

⁸⁴ Gerard, 1597, Book II, Chap. 3: 180-1. *Of Navewes*.

⁸⁵ Gerard, 1597, Book II, Chap. 36: 249. *Of Colewoorts*.

⁸⁶ Gerard, 1597, Book I, Chap. 24: 34. *Of Reedes*.

⁸⁷ Gerard, 1597, Book I, Chap. 23: 31. *Of Sea Rush grasse*.

⁸⁸ Gerard, 1597, Book I, Chap. 28: 39. *Of Mat Weede*.

⁸⁹ Gerard, 1597, Book I, Chap. 9: 12. *Of Cyperus grasse*.

corruption of grain seed left in wet soil; neither it nor Wilde Otes nor Bearded Otes were good for cattle.⁹⁰ Darnell caused “leannes in them, thirst, and consumption, cutteth their toong, straiteneth the gullet or throte, and draweth downe blood into the stomache or mawe.”⁹¹ Turkie Corne and Turkie Millet, however, were good food for livestock and edible by humans as well.⁹²

Gerard discussed many plants that blurred the divide between food and medicine. Although commoners might be starving, aristocrats had begun to acquire a taste for imported fresh fruits and vegetables, stimulated in part by Catherine of Aragon’s demand for them.⁹³ The Dutch and French Protestants, who arrived in England during the sixteenth century whether to escape religious persecution or to share their trade knowledge, brought with them new horticultural techniques and a palate for fresh vegetables, fruits, and homegrown simple medicines.⁹⁴ Some of the produce newly popular with the upper and middle classes included “melons, pumpkins, gourds, cucumbers, radishes, skirret, parsnips, carrots, cabbages, turnips and all kinds of salad herbs.”⁹⁵ Growing these foods at home, rather than importing them, increased their quality and decreased their cost.⁹⁶

As the taste for fresh produce spread through English society, plants that made both good food and good medicine became of special interest. Hops, for example, had not been frequently grown in England but they could have been.⁹⁷ Because they were often used to flavor beer, their physical properties affected most English people. Gerard wrote “the manifold vertues in Hops do manifestly argue the holsomnesse of Beere above Ale; for the Hops rather make it a phisicall drinke to keepe the body in health, then an ordinarie drinke for the quenching of our thirst.” For all who consumed them in beer, hops “openeth the stoppings of the liver, the spleene, and kidneies, and purgeth

⁹⁰ Gerard, 1597, Book I, Chap. 50: 70. *Of Bearded Otes*.

⁹¹ Gerard, 1597, Book I, Chap. 5: 6. *Of Darnell grasse*.

⁹² Gerard, 1597, Book I, Chap. 54 and 55: 77-8. *Of Turkie corne* and *Of Turkie Millet*. These are our modern maize (introduced from the New World to Spain by Columbus) and sorghum.

⁹³ Thirsk, 1997, 31. Catherine of Aragon was the first wife of Henry VIII.

⁹⁴ Thirsk, 1997, 33-36.

⁹⁵ Thirsk, 2007, 41.

⁹⁶ Thirsk, 2007, 286.

⁹⁷ Thirsk, 1997, 96-99.

the bloud from all corrupt humours, causing the same to come fourth with the urine. The juice of Hops openeth the belly, and driveth fourth yellow cholericke humours, and purgeth the bloud from all filthines.”⁹⁸

Gerard remarked on some common weeds that deserved to be exploited as both food and physic. The ubiquitous Sowthistle grew “wilde in pastures, medowes, woods, and marshes neere the sea, and among pot herbes.”⁹⁹ This herb, when eaten young, was good as a salad green “but whether they be eaten or outwardly applied in maner of a pultus they evidently coole: therefore they be good for all inflammations or hot swellings if they be laide thereon.”¹⁰⁰ Sowthistle was also good for nursing mothers and caused “their children whom they nurse to have a good colour.”¹⁰¹ Goates beard's root, claimed Gerard, tasted better than parsnips or carrots when boiled. Moreover, the root was good for the health: it “procureth appetite, warmeth the stomacke, prevaieth greatly in consumptions, and strengthneth those that have beene sicke of a long lingring disease.”¹⁰² Gerard drew attention to other salad plants that had medical virtues. Borage flowers were eaten in salads and in many other foods and drinks “for the comfort of the hart, for the driving away of sorrowe, and increasing the joie of the minde.”¹⁰³ Capers were hot in temperament and, whether eaten green or pickled, provided “very little nourishment” when “boiled, (the salt first washed off) with oile and vineger, as other sallads be, and sometimes are boiled with meate.” Gerard suggested that they were “rather a sauce [flavoring] and medicine, then a meate [food]” because they stimulated the appetite, cleansed “flegme” from the body, and opened the liver and spleen.¹⁰⁴ Capers were imported from Spain and Italy, but Gerard felt sure that they could be grown in England. Just as the *Herball* (1597) had gone to press, he had sown capers “in the bricke walls of my garden, which as yet doe spring and growe greene, the successe I expect.”¹⁰⁵ Artichokes were a delicacy among the aristocracy and were thought to increase virility.¹⁰⁶ Gerard thought the leaves

⁹⁸ Gerard, 1597, Book II, Chap. 310: 738. *Of Hops*.

⁹⁹ Gerard, 1597, Book II, Chap. 31: 232. *Of Sowthistle*.

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

¹⁰² Gerard, 1597, Book II, Chap. 241: 596. *Of Goates beard, or Go to bed at noone*.

¹⁰³ Gerard, 1597, Book II, Chap. 269: 654. *Of Borage*.

¹⁰⁴ Gerard, 1597, Book II, Chap. 317: 749. *Of Capers*.

¹⁰⁵ Gerard, 1597, Book II, Chap. 317: 749. *Of Capers*: “my selfe at the impression hereof, planted some seeds...”

¹⁰⁶ Thirsk, 1997, 32.

and tops were full of “ill” and “melancholike juice.”¹⁰⁷ The roots, however, were the best part of the plant as they were

good against the rank smel of the arme holes, if when the pith is taken away, the same roote be boiled in wine and drunke: for it sendeth forth plentie of stinking urine, whereby the ranke and rammish savour of the whole body is much amended.¹⁰⁸

As English gentlemen began to see the wide range of foods that could be grown at home, their gaze turned to the medicines that might also be found there. Indigenous medicines would be less expensive than imported ones, and more accessible to the impoverished. Thus, the physician Timothie Bright asked in his *Treatise: Wherein is Declared the Sufficiencie of English Medicines, for Care of all Diseases, Cured with Medicines* (1580): “For what can be more pleasant unto thee, then of the injoying of medicines for cure of thine infirmities out of they native soyle, and countrie, thy Fielde, thy Orchard, thy Garden?”¹⁰⁹

There was no reason to import balsam or the great Galenic antidote, theriac (also known as treacle or mithridate), Gerard implied, when so many of its ingredients grew, or could be grown, in England, for example, the Sea Onion of Valentia, Poley, Germander, Acorus root, and Gentian.¹¹⁰ The Garlic that grew wild all over England was more therapeutic than the tame or garden Garlic usually mixed into theriac.¹¹¹ “Turnep seed,” a great counterpoison in theriac, could also be found all over England.¹¹² The commonplace “churlish” plants, Candie Mustard and Treacle Mustard, grew “vpon hills and mountains in corne fields, in stonie, barraine and gravely grounds,” but their purgative properties made them valuable elements of theriac.¹¹³ Similar local theriacs were

¹⁰⁷ Gerard, 1597, Book II, Chap. 463: 993. *Of the Artichoke*

¹⁰⁸ Ibid.

¹⁰⁹ Timothie Bright, *A Treatise: Wherein is Declared the Sufficiencie of English Medicines, for Care of all Diseases, Cured with Medicines* (London, 1580), 7.

¹¹⁰ Gerard, 1597, 137, 529, 532, 352, 57. Book I, Chap. 85: 137, *Of Sea Onion*; Book II, Chap. 201: 529, *Of Poley, or Pellamontaine* (Gerard obtained one kind "by gift of L'Obelius"; Book II, Chap 203: 532, *Of Tree Germander* ("I haue receiued of Master Garret Apothecarie, one plant for my garden"; Book II, Chap. 1000: 352, *Of Felwoort, or Baldmoney*; Book I, Chap. 39: 57, *Of Aromaticall Reedes*.

¹¹¹ Gerard, 1597, Book I, Chap. 88: 140. *Of Garlick*.

¹¹² Gerard, 1597, Book II, Chap. 1: 178. *Of Turneps*.

¹¹³ Gerard, 1597, Book II, Chap. 21: 208, 210. *Of Treacle Mustarde*.

being created across Europe in the face of concerns about expense, counterfeit ingredients, and the different European poisons that required local antidotes.¹¹⁴

Balsam was an expensive and imported plant, much prized for its wound-healing properties. Elly Truitt notes that both Pliny and Dioscorides “calculated that the produce of an entire garden of balsam plants would fill only a small shell each day.”¹¹⁵ Because of the great demand for balsam, it was usually mixed with other materials of similar property but lower efficacy.¹¹⁶ Gerard offered several indigenous plants that rivaled the healing power of Balsam, including Moneywort, Selfeheale, Twayblade, Moonewoort, and Golden Rod.¹¹⁷ He provided his own proven recipe for the oil of St. Johns Woort made from its roots, leaves, and seeds because, he wrote,

I knowe in the world there is not a better, no not naturall Balsam itselfe; for I dare undertake to cure any such wound, as absolutely in each respect, if not sooner and better, as any man whatsoever shall or may with naturall Balsam.¹¹⁸

Another excellent indigenous wound remedy was Golden Rod. When it was imported, the dried plant was expensive and highly sought after. The price dropped considerably when the plant was found growing natively. While this was a mark of man’s “inconstancie and sudden mutabilitie, esteeming no longer of anything (how pretious soever it be) than whilest it is strange and rare,”¹¹⁹

Gerard sought to change the minds of Physicians who preferred the imported plant medicines. Gerard continued, writing

This verifieth our English proverbe, Far fetcht and deere bought, is best for Ladies. Yet it may be more truly said of fantastical Phisitions, who when they have found an approved medicine, & perfect remedy neer home against any disease; yet not contented with that, they will seeke for a new farther off, and by that meanes many times hurt

¹¹⁴ Carla Nappi, “Bolatu’s Pharmacy, Theriac in Early Modern China,” *Early Science and Medicine* 14 (2009): 750-1.

¹¹⁵ Elly R. Truitt, “The Virtues of Balm in Late Medieval Literature,” *Early Science and Medicine* 14 (2009): 718-719.

¹¹⁶ *Ibid.*

¹¹⁷ Gerard, 1597, Book II, Chap. 189: 505, *Of herbe Two pence*; Book II, Chap. 191:508, *Of Selfe heale*; Book II, Chap. 83: 326, *Of Twayblade, or herbe Bifoile*; Book II, Chap. 85: 329, *Of one Berrie, or herbe Truelove, and Moonewoort*. For imported and native Golden Rod (Gerard, 1597, 349. Chap. 98, *Of Golden Rod*), see the discussion above, Chapter 2,

¹¹⁸ Gerard, 1597, Book II, Chap. 150: 433. *Of Saint Johns woort*. See discussion of L'Obel's book on balsam in the next chapter. For the earlier history of balsam (balm), see E. R. Truitt, "The Virtues of Balm in Late Medieval Literature," *Early Science and Medicine*, XIV:6 (2009)

¹¹⁹ Gerard, 1597, Book II, Chap. 98: 349. *Of Golden Rod*.

more than they helpe. Thus much I have spoken, to bring these new fangled fellowes backe againe to esteeme better of this admirable plant than they have done; which no doubt hath the same vertue now that then it had, although it do growe so neere our own homes in never so great quantities.¹²⁰

Houses and Gardens

Burghley's household was probably the most immediate beneficiary of Gerard's expert knowledge of kitchen plants. Holborn was so close to the Strand that Gerard's garden could have conveniently provided fresh vegetables, fruit, and herbs to Cecil House. It was not uncommon for tenants to give a tithe to their masters in fresh fruits and vegetables.¹²¹

Burghley's position meant that he was constantly entertaining important guests with large retinues. Even though he himself kept to "a spare and temperate diet," he had to set an impressive table.¹²²

Gerard's second garden catalogue listed plants that might well have appeared on Burghley's table including: Parsneps, Ramsens, Barley, Beetes, many types of Cabbages, Capers, Peppers, Chestnut, many types of Cherries, Figs, Apples, Mulberries, Artichokes, Carrots, Rocket, Cresse, Beans, Fenell, Strawberries, Peas, Lentils, Peaches, Oranges, Apricots, Pomegranate, Plums, Walnuts, Potatoes, Radishes, Blackberries, Raspberries, Skirrets, and Gooseberries. For flavorings, Gerard's garden might have supplied a variety of herbs and spices: Anniseede, Garlic, Caraway, Coriander, Cumin, Tarragon, Horehound, Chervil, Basil, Parsley, Horse Radish, Rosemary, Sage, and Thyme.¹²³

Burghley's chronic pain from gout meant that concerns about health and illness were never far from his mind.¹²⁴ Eating right was medically necessary to him, and doubtless, as in other noble Renaissance households, mealtime conversations often turned to the medicinal properties of the dishes.¹²⁵

¹²⁰ Gerard, 1597, Book II, Chap. 98: 349. *Of Golden Rod*.

¹²¹ Thirsk, 1997, 36.

¹²² Conyers Read, "Lord Burghley's Household Accounts" *The Economic History Review*, New Series, Vol. 9, No. 2 (1956), pp. 343-348, quoting (page 348) Burghley's anonymous biographer.

¹²³ Gerard, *Catalogus* (London: Norton, 1599).

¹²⁴ Burghley's anonymous biographer (Read, 1956, 348) implies that Burghley also suffered from digestive problems: "He would, many times, forbear suppers if he found his stomach offended." The Health of the Cecils Project, underway at Royal Holloway University, Department of History (Pauline Croft, Peregrine Horden, and Caroline Bowden) is transcribing and analyzing the Cecil family papers for references to health and medicine: <http://www.rhul.ac.uk/History/Research/cecils/> (last updated 11-Jan-2008)

While there is no evidence that Burghley was ever under Gerard's care as a patient, Gerard's surgical knowledge made him an especially knowledgeable supplier of the physic herbs prescribed by Burghley's physicians. The second garden catalogue also listed ingredients for theriac still others for the excellent treatment of wounds (Golden Rod and Saracens Consoude), and the invasive but helpful specific for gout, Goutwoort or Herbe Gerard.¹²⁶

Gerard's special contribution to his patron's political and personal agendas was overseeing Burghley's elegant gardens at Cecil House and Theobalds. These large grounds served many functions for Burghley. They were simultaneously the site of private relaxation, education of his wards, entertaining, politicking, and secret meetings. Gerard was, thanks to his family background, knowledge, and training, able to cross the divide between guild and gentry. Gerard could have directed the gardeners to arrange the plants and care for the tropical trees such as lemons that Burghley so loved.

In many ways, Burghley's interests were the interests of England. His life revolved around the work he did for the queen. However, Burghley's personal interests and the interests of the country coincided in his creation of several homes with lavish gardens. Their design followed Cicero's maxims about the "sort of house a man of rank and station should... have. Its prime object is serviceableness. To this the plan of the building should be adapted; and yet careful attention should be paid to its convenience and distinction."¹²⁷ Such an estate enabled its noble owner to wield "a powerful political influence by honourable means."¹²⁸ It brought him and his family "a very great advantage," making them "able through their social relations with their guests to enjoy popularity and to exert influence abroad."¹²⁹

In striving to make their stately homes stand out, Renaissance noblemen increasingly found that natural history collections, like fine art, were a distinctive asset. Their cabinets of curiosities, filled with fossils, bones, skins, feathers, insects, stuffed animals, and lapidary creations became sources of wonder, prestige and power.

¹²⁵ See Ken Albala, *Eating Right in the Renaissance* (Berkeley: University of California Press, 2002), Chapter 8, "Medicine and Cuisine."

¹²⁶ Gerard, *Catalogus* (London: Norton, 1599). Gerard, 1597, Book II, Chap. 372: 849. *Of Masterwoorts and herbe Gerarde*.

¹²⁷ Cicero, *On Duties*, Book I: 138.

¹²⁸ Cicero, Book II: 64.

¹²⁹ Cicero, Book II: 64.

Outdoors, living plants, augmented with mechanical marvels like fountains and automata, were considered a more ephemeral, but equally important, part of these collections.¹³⁰

These objects of curiosity could be considered “weapons in the game of social and political power.”¹³¹ Strange plants, brought from distant lands —especially from the other side of the world, were exotic currency within patronage gift networks and so had political value in addition to their potential medical and economic value. At the same time, making and studying collections of living plants, especially those that included specimens from the New World and Asia, could be understood as acts of devotion and piety because these Gardens of Eden in miniature reflected the variety and extent of divine creation.¹³² So the dedication to Burghley in Thomas Hill's *Gardeners Labyrinth* wished him “the fruition of the Heauenly Paradise,” and prayed that “the Omnipotent and prouident God, the guider of that gorgeous Garden, ... woulde vouchsafe to graunte vnto you, the sweete sauour of his chiefe fragrante floures.”¹³³

Burghley had extensive gardens built for his three homes: Cecil House, his town house on the north side of the Strand in Westminster; Theobalds fourteen miles away in Hertfordshire; and Burghley House near Stamford in Northamptonshire.¹³⁴ These gardens were a living display of Burghley's reach and influence and became meaning-laden locations for negotiation and intrigue. The gardens were established as equal partners to the formidable houses, “deliberately constructed to create a mood” that influenced what did and what could “go on between people.”¹³⁵

While Burghley did use his gardens for political entertaining and private strategy, he also enjoyed them personally. Burghley's pleasure in plants was clear long before he began to improve his three large homes and

¹³⁰ Oliver R. Impey, *The Origins of Museums: the cabinet of curiosities in sixteenth- and seventeenth-century Europe* (Oxford: Clarendon Press, 1985).

¹³¹ Cunningham, Andrew, “The culture of gardens,” in *Cultures of Natural History*, ed. Nicholas Jardine (Cambridge: Cambridge University Press, 1996), 43.

¹³² Cunningham, 49-56.

¹³³ Thomas Hill, *The Gardeners Labyrinth* (London: Henry Bynneman, 1577), Dedication (by Henry Dethicke).

¹³⁴ Beckingsale, 245-269. Today, of these three, only Burghley House remains standing. He did buy other properties over the English countryside and had a house at Wimbledon as well.

¹³⁵ Cunningham, 53.

needed a retreat from affairs of state.¹³⁶ In May or June of 1555, when traveling on the continent after a diplomatic mission, he passed through towns in the Low Countries “like Louvain, Antwerp, Ypres, Bruges and Lille. He enjoyed himself. At Menin, in Flanders, he wrote an account of how to plant elm, oak and walnut trees: already he was a keen gardener.”¹³⁷ Later, in letters dated August 27 and September 10, 1561 to his son Thomas and Mr. Windebank (who accompanied Thomas in France), Burghley requested plants for the grounds of his building projects.¹³⁸ The second letter shows that Cecil was always on the lookout for “an apt man” to serve him: “I pray you, Windebank, if ye think that ye can pleasure me with sending me in the season of the year things meet for my orchard or garden, help me; and if also ye can procure for me an apt man for mine orchard or garden.”¹³⁹ On March 25th of 1562, Burghley asked, in a letter to Windebank, to have sent “over a lemon, a pomegranite, and a myrtle tree, with directions for their culture, which may be brought to London with Mr. Carew’s trees.”¹⁴⁰ On April 8, 1562, one lemon and two myrtle trees arrived with instructions for their care.¹⁴¹ Other correspondence in these early years of Cecil’s career show him receiving grafts of apples and pears as a gift from a tenant and diplomatic gifts of seeds, bulbs, and trees.¹⁴²

The gardens were a place for Burghley to rest his mind and body especially as he got older. Between his disabling gout and his work, he could not take part in most outdoor recreations, but he enjoyed “riding in his Garden & Walks, upon his little Muile” alone.¹⁴³ He took particular satisfaction in his citrus trees. If he could “lye a Daie or twoe at his little Lodge at Theobalds, retyred from Buysines or to[o] much Companie, he thought it his greatest Greatnes & only Happines.”¹⁴⁴ He did retreat to his office in Cecil House that overlooked a private garden and to

¹³⁶ Husselby and Henderson, 176.

¹³⁷ Alford, 2008, 73. Alford cites Lansdowne MSS. Burghley also bought “canvas, books and hats” for his children at home.

¹³⁸ Robert Lemon, (ed.), *Calendar of state papers, Domestic series, of the reigns of Edward VI, Mary, Elizabeth, 1547–1580* (London: Longman, Brown, Green, etc., 1856), Vol. I, 184-185. On October 3rd, Burghley asked for prices on certain books, bibles, and charts.

¹³⁹ Alford, 2008, 116.

¹⁴⁰ Lemon, 197.

¹⁴¹ Lemon, 198.

¹⁴² Lemon, 97,

¹⁴³ Peck, I, 50..

¹⁴⁴ Peck, I, 49.

Theobalds with its Great Garden, seeking the revivifying pleasures of the garden described eloquently in *A*

Gardener's Labyrinth (1577):

delight and comfort to his wearied mind, which he may by himselfe, or fellowship of his friendes conceive, in the delectable sightes, and fragrant smelles of the flowers, by walking up and downe, and about the Garden in them, which for the pleasant sightes and refreshing of the dull spirites, with the sharpning of memorie, many shadowed over with vawting or Archherbers, having windowes properly made towards the Garden, whereby they might the more fully view, and have delight of the whole beautie of the Garden.¹⁴⁵

Burghley probably needed no encouragement to take a very active role overseeing in his gardens and grounds, but he found additional motivation in his beloved Cicero:

Need I mention the starting, planting, and growth of vines? I can never have too much of this pleasure – to let you into the secret of what gives my old age repose and amusement. For I say nothing here of the natural force which all things propagated from the earth possess – the earth which from that tiny grain in a fig, or the grapestone in a grape, or the most minute seeds of the other cereals and plants, produces such huge trunks and boughs. Mallet-shoots, slips, cuttings, quicksets, layers – are they not enough to fill any one with delight and astonishment?...It is not its utility only, as I said before, that charms me, but the method of its cultivation and the natural process of its growth...¹⁴⁶

If Cicero approved of retiring in later years to the enjoyment of orchards and gardens, Burghley would gladly follow the advice.

Who designed these homes and gardens for Burghley and his family? John Summerson cautions that even the most lavish and famous Elizabethan buildings and grounds were the creations of several men and, therefore, any single attribution is folly.¹⁴⁷ Jill Husselby argues, however, that Burghley was deeply involved in the planning of these buildings and of improvements to existing structures.¹⁴⁸ One of Burghley's servants recalled that “he greatlie delighted in making Gardens, Fountains, & Walks: which at Theobalds were perfected most costly, bewtifully, & pleasauntly.”¹⁴⁹ In the dedication to the *Herball* (1597) Gerard too saluted Burghley’s active interest in the gardens:

¹⁴⁵ Thomas Hill, *The Gardener's Labyrinth* (London, 1577): 24. The OED defines vaward as the forefront or swelling out. Archherbers are arched trellises. Vawting may be the place where there is a swelling out.

¹⁴⁶ M.T. Cicero, *On Old Age*, E. S. Shuckburgh (trans.), Vol 9, Part 2, The Harvard Classics (New York: P.F. Collier & Son, 1909-1914): paragraph 34. A mallet-shoot is a cutting taken for vegetative reproduction in which the branch that will form the new trunk has as its base a mallet shaped piece of the older parent plant.

¹⁴⁷ Summerson, John, *Architecture in Britain: 1530-1830* (New Haven, Connecticut: Yale University Press, 1993), 55.

¹⁴⁸ Jill Husselby, “The Politics of Pleasure: William Cecil and Burghley House,” in *Patronage, Culture and Power, The Early Cecils*, ed. Pauline Croft (New Haven, Connecticut: Yale University Press, 2002), 25.

¹⁴⁹ Peck, I, 34.

Burghley was a man who studied herbs for “the furnishing of (his) gardens; and the furtherance of (his) knowledge.”¹⁵⁰ Consequently, Burghley’s gardens displayed a “flourishing shew of sommer beauties in the midst of winters force, and a goodly spring of flowers, when abroad a leafe is not to be seene.”¹⁵¹ So, no matter whoever drew up the designs and carried out the construction, there is strong evidence that Burghley was aware of the changing plans; while there may have been several surveyors “in the course of construction...their ideas were all controlled from... their patron” Burghley.¹⁵²

A closer look at each of Burghley's stately gardens as deliberately created settings for his political dealings and personal recreation illuminates the responsibility he placed on their superintendent, John Gerard.

Burghley House—Recent research brings to light some of Burghley’s goals for his homes and gardens and his role in planning them. Burghley House, in Hertfordshire, was an inheritance from Burghley’s father and later passed on to Burghley’s first son Thomas.¹⁵³ It was from this estate that Cecil chose his noble title. In the early 1560's Burghley remodeled the house to incorporate balconies, roof walks, a loggia, and gardens. “From a gallery or promenade,” recorded a visitor in 1599, “you get, a most beautiful view.”¹⁵⁴ Husselby notes that these provided liminal spaces for the queen that were out-of-doors yet still somewhat sheltered.¹⁵⁵ Such protected outdoor spaces were a recurring theme in Burghley’s other homes.

Burghley was rarely able to visit Burghley House, but he insisted on frequent detailed reports from his steward, Peter Kemp, about the rebuilding the house and gardens. In 1561, for example, Kemp wrote that difficulties with boggy ground hampered the planting of hedges against retaining walls: holly by itself would not make a strong enough hedge, but adding one row of thorn to two rows of holly “will do fayre enough.”¹⁵⁶ Other

¹⁵⁰ Gerard, 1597, Letter of Dedication.

¹⁵¹ Gerard, 1597, Letter of Dedication.

¹⁵² John Harris, Stephen Orgel, and Roy Strong, *The King's Arcadia: Inigo Jones and the Stuart Court* (London: Arts Council of England, 1973), 25.

¹⁵³ Alford, 2008, 228. Also spelled Burleigh.

¹⁵⁴ Elisabeth Woodhouse, " Spirit of the Elizabethan Garden," *Garden History*, Vol. 27, No. 1, Tudor Gardens (Summer, 1999): 10-31.

¹⁵⁵ Husselby, 2002, 22, 40.

¹⁵⁶ E. C. Till, "The Development of the Park and Gardens at Burghley," *Garden History*, Vol. 19, No. 2 (Autumn, 1991), pp. 128-145, especially 130. Lemon, 188, 212, 219, 243.

drainage had stopped the planting of orchard trees; the “prest [i.e. a former priest now employed as a gardener] saith the holes wyll stand full of water, do what he can.”¹⁵⁷

Cecil House—At the same time that Burghley House was being remodeled, Burghley was building himself a London house, in the suburb of Westminster on the Strand.¹⁵⁸ The location was conveniently close to the queen’s residence of Whitehall Palace and to the houses of other aristocrats, government members, and diplomats in Westminster and London.¹⁵⁹ Initially called Cecil House, the south side of the home that faced the Strand had the feeling of a fortification. The north side was lower and more open. Gardens sat between the house and an archway and gate that opened onto Convent Gardens.¹⁶⁰ The house was organized around two central courtyards and was likely three stories tall in the front. There were offices and meeting rooms in the house that allowed Cecil to work from home. Within Cecil House, Burghley had access to all aspects of his life: family, learning, politics, and pleasure.

A newly discovered map of Cecil House in the Strand (Burghley MS M358) was created sometime between 1562 and 1567.¹⁶¹ Jill Hesselby and Paula Henderson suggest that this map might have been one of those in Burghley’s chorographical hall displays.¹⁶² Close examination of the map reveals Burghley’s handwriting in two places confirming his personal involvement in creating the plan. It is the “most complete image” of any of Burghley’s gardens and the “earliest representation of any identifiable English garden.”¹⁶³ Some areas of the plan are delineated by color. Gardens, for example, are marked on the map in green with gray paths and are “almost as important as the house itself.”¹⁶⁴ A loggia on the north side of the house allowed entrance into the gardens. Unfortunately, there are no details of the plantings on the map beyond the standard pattern of staggered rows of trees in the orchard. Gerard, however, noted in the *Herball* (1597), that “the male Linden tree groweth in my Lord

¹⁵⁷ Till, 129.

¹⁵⁸ John Stowe, *Survey of London*, (London: John Wolfe, 1598), 370.

¹⁵⁹ Hesselby and Henderson, 2002, 159-193.

¹⁶⁰ Alford, 2008, 139-140.

¹⁶¹ Hesselby and Henderson, 2002, 167. The map was found in 1999 at Burghley House in Northamptonshire.

¹⁶² Hesselby and Henderson, 2002, 168.

¹⁶³ Hesselby and Henderson, 2002, 176, 164.

¹⁶⁴ Hesselby and Henderson, 2002, 173.

Treasurers garden at the Strand.”¹⁶⁵ It appears that there were areas for fruit trees, a kitchen garden, a sunken garden with a spiral snail mount, and garden buildings.¹⁶⁶ These different gardens were separated into compartments with hedges and walls. In this way, these gardens included spaces that were outside in the open air but felt like rooms with protective walls.

Theobalds—Cecil House was barely finished when, in 1564, Burghley bought the manor house Theobalds that was to be his country retreat. As it was approximately fourteen miles from Cecil House on the Strand, it was not too far away from Whitehall Palace if he was needed by the queen. At the time of purchase, the house had a moat and was in disrepair. Over several years, Burghley altered the house to suit himself and his needs. The house welcomed Queen Elizabeth many times and Burghley intended it to be the inheritance of his son Robert Cecil. At Theobalds, “everything about the house and its garden was consciously contrived to affect the guest, whether on a casual visit or on progress with Elizabeth’s court.”¹⁶⁷ The extensive construction was not finished until the 1580’s.¹⁶⁸

Alford describes the organization of the house:

There were three great central courts at Theobalds. The oldest, Conduit Court, was in the west and the newest, Dial Court, was to the east. Any visitor came first to Dial Court from a long driveway lined with elm and ash trees. Dial Court was really an outer court, with the bake-house, brew-house and laundry on one side of it, and the stables on the other. Straight ahead were the other main courts of the house; to the right, beyond the stables, were the service departments; to the left; though not yet visible, the Great Garden.¹⁶⁹

Contemporary descriptions of the building told of an ornate hall with a tall multi-colored stone fountain “that falls into a large circular bowl or basin, supported by two savages.”¹⁷⁰ According to John Strype, this was probably the gift from Edward Kelly, alchemist and angelic amanuensis to John Dee, described in Burghley's acknowledgment to Kelly: a “mountain or rock....from Stoden: which I will place in my house, where I do bestow other rare things of

¹⁶⁵ Gerard, 1597, Book III, Chap. 111: 1299. *Of the Line or Linden tree*.

¹⁶⁶ Husselby and Henderson, 2002, 159-193.

¹⁶⁷ Alford, 2008, 143.

¹⁶⁸ Alford, 2008, 209.

¹⁶⁹ Alford, 2008, 209.

¹⁷⁰ William Brenchley Rye, *England As Seen By Foreigners in the days of Elizabeth and James the First* (London, 1865), 42. Rye translates Jacob Rathgeb's account of his visit with Frederick, Duke of Wurttemberg.

workmanship.”¹⁷¹ Beckingsale suggests that this was a miniature mountain of multi-colored ores depicting a mining scene, called in German a *Handsteine*.¹⁷²

Clearly, Burghley had at least one cabinet of curiosities to go along with his large garden. In fact, the two collections intersected in many areas of this home. Along the walls of the central hall he had faux fruit trees that were so lifelike that birds flew in the open windows and perched in their branches.¹⁷³ The ceiling of the hall displayed the motions of the heavens, through an extraordinary mechanical sun that traversed the zodiac and celestial sphere of constellations and fixed stars. Thomas Digges, mathematician, astronomer, and client of Burghley, presented him with an accompanying text to explain the moving celestial ceiling. Digges called the device a ‘fframe astronomicall.’ For the garden, he gave Burghley a polyhedral sundial. This mathematical and astronomical instrument was a polyhedron on a pedestal with a sundial upon almost each face each of which read the exact same time at any point of the day.¹⁷⁴

Other halls recreated a chorography of Europe and of England on the walls. The display gave Burghley and his guests a visual reminder of all the political relationships and situations he was dealing with. John Dee noted that this use of maps was common among the English nobility:

¹⁷¹ John Strype, *Annals of the Reformation and Establishment of Religion and other various...*, Vol. 4 (Oxford: Clarendon Press, 1824), 6.

¹⁷² Beckingsale, 261.

¹⁷³ Rye, 42.

¹⁷⁴ British Library, Lansdowne MS 19/30, printed in James Orchard Halliwell, ed., *A Collection of Letters Illustrative of the Progress of Science in England* (London, 1841), 6-7. The exact manner of the celestial device in the ceiling is not known but it does seem to have been Ptolemaic with its mobile sun. Digges's manuscript gift to Burghley is lost. The letter reads: “As in your Lordshippes fframe astronomicall, for ornament the ffigures of the most notable constellations in this our visible hemisphere are pourtrayd, adourned with ther due number of heavenly lights; so, in the tables adjoyninge, are impressed sutche numbers as deliver by methode not vulgare the situations and habite which our moovable horizon and meridian, together with ther manifold configurations, with the two cheefe lights. Whereupon sundry conclusions, both pleasant for varietye of knowledge and necessary ffor common use, are grounded. Whereof I have in 50 conclusions digested the greater part, with ther historyes poetically, and judgements astronomicalle; the which, into a little treatize reduced, I am bould to offer unto your Lordship, hopinge, ere it bee longe, to ffinishe a colume sustayninge a regular body platonicall, garnished with solar dialls, sutche as I thinke hitherto in this land hath not beene seene, to bee placed in soome of your Lordshippes gardeyns, as aptly serving for uses diurnall as that other frame for conclusions doon by night; whose archetype was longe sithens in mind conceyved, and have now at the last also attayned the hand of an able woorkman to exsequite the same in ffoorme materiall. In the meane, I shall humbly desire your Lordshipp in good part to accept this triflinge testimony of a careful mind desirous soom waye to signifye the reverent affection I have and shall duringe life beare toward you, no less for private than publike respectes; Always, as becometh mee, restinge, At your Lordshippes commandment, T. Digges.” For more information about the polyhedral sundial and astronomical frame, see Stephen Johnson, "Making mathematical practice: gentlemen, practitioners and artisans in Elizabethan England" (Ph.D. dissertation, Cambridge University, 1994), 62.

While, some to beautifie their Halls, Parlors, Chambers, Galleries, Studies or Libraries with: other some, for things past, as battles fought, earthquakes, heavenly fyrings, & such occurrentes in histories mentioned: thereby lively, as it were to vewe the place, the region adjoyning, the distance from us: and such other circumstances. Some other, presently to vewe the large dominion of the Turke: the wide Empire of the Moschovite... Some, either for their owne journeyes directing into farre landes: or to understand of other mens travailes. To conclude, some, for one purpose: and some, for another, liketh, loveth, getteth, and useth, Mappes, Chartes, & Geographicall Globes.¹⁷⁵

When Burghley prepared these halls and gardens, he assumed that his queen would be visiting and always kept in mind Elizabeth's enjoyment. During her progresses around the country with her court, the Queen visited Theobalds twelve times, to Burghley's great personal expense. Elizabeth enjoyed an active life. She loved to ride and hunt but Pope Pius V's bull of excommunication and threats against the queen's life greatly limited her freedom of movement. Theobalds offered her safe, expansive grounds that were in the open air but protected by beautifully ornamented walls.¹⁷⁶ Burghley even enlarged and redecorated a room for the Queen after she complained her chamber was too small. In a letter dated August 14, 1585, Burghley wrote:

My House as Theobalds was begun by me with a mean mesure but encreast by occasions of her Majesty's often coming, whom to please, I never would omit to strain myself to more charges than building it. And yet not without some speciall direction of her Majesty. Upon fault found with the smal mesure of her chamber (which was in good mesure for me), I was forced to enlarge a room for a larger chamber; which need not be envied of any for riches in it, more than the shew of old oaks, and such trees with painted leaves and fruit.¹⁷⁷

The walls were painted with images representing the kingdom, including oaks and fruit trees around the coats-of-arms of Elizabeth's religious and state officers.¹⁷⁸

When Elizabeth came to Theobalds, Burghley carefully planned extravagant entertainments for her "with rich Shows, pleasant Devices, & all Manner of Sports, [that] cold be devised."¹⁷⁹ Elizabeth took great pleasure in Theobalds and sometimes stayed for weeks at a time. She favored the apartments that overlooked the Great Gardens. These gardens were so large that "one might walk twoe Myle[s] in the Walks, before he came to their

¹⁷⁵ John Dee, *Preface to Euclid's 'Elements of Geometrie'* (London: John Daye, 1570), a4^R.

¹⁷⁶ Trea Martyn, *Elizabeth in the Garden: A story of love, rivalry, and spectacular design* (London: Faber and Faber, 2008), 211.

¹⁷⁷ Rye, 213.

¹⁷⁸ Rye 213.

¹⁷⁹ Peck, I, 33.

End.”¹⁸⁰ Within the garden compartments, there were the statues of twelve Roman emperors and a fountain.

Historians know that it was “planted with sycamore, lime and elm as well as fruit trees. The garden was, quite simply, magnificent, and it became a model for the gardens of other important Elizabethan courtiers.”¹⁸¹

The impact of these gardens comes to us through a few contemporary accounts.¹⁸² Jacob Rathgeb recorded the 1592 visit to England of Frederick, Duke of Wurttemberg. When at Theobalds, he mentioned that the summer-house in the large garden contained a great black “touchstone” table.¹⁸³ Paul Hentzner toured the grounds on August 4, 1598, the day of Burghley’s death. Hentzner described them as

encompassed with a ditch full of water, large enough for one to have the pleasure of going in a boat, and rowing between the shrubs; here are great variety of trees and plants; labyrinths made with a great deal of labour; a jet d’eau, with its basin of white marble; and columns and pyramids of wood and other materials up and down the garden: After seeing these, we were led by the gardiner into the summer-house, in the lower part of which, built semicircularly, are the twelve Roman emperors in white marble, and a table of touchstone; the upper part of it is set round with cisterns of lead, into which the water is conveyed through pipes, so that fish may be kept in them, and in summer time they are very convenient for bathing; in another room for entertainment very near this, and joined to it by a little bridge, was an oval table of red marble.¹⁸⁴

Another account comes from Norden, who wrote of Hertfordshire in 1598. Norden wrote that Theobalds had “curious buildinges, delightfull walkes and pleasant conceites within and without.”¹⁸⁵

William Harrison’s *Descriptions of England* (incorporated into "Holinshed's Chronicles" of 1577) compared several of London's grand gardens in comparison with his own small yet thriving garden:

¹⁸⁰ Peck, I, 34.

¹⁸¹ Alford, 2008, 211. Hesselby and Henderson mention that there are plant lists for Theobalds in the Hatfield House Archives in the manuscript collection. Perhaps these could be used to reconstruct the plants Burghley chose to grow in his large gardens.

¹⁸² Martyn, 182.

¹⁸³ The German work by Jacob Rathgeb is *Kurtze und Warhafftige Beschreibung der Badenfahrt* (Tubingen, 1602), ff. 32v-33r. It was translated in William Brenchley Rye, *England As Seen By Foreigners in the days of Elizabeth and James the First* (London, 1865), 42-45. The OED describes a touchstone as a black stone such as basalt or marble that was often used to assay metals, especially soft ones such as gold and silver that would leave a streak on the fine surface. While it is unclear if the stone was for assaying or not, it is provocative as Burghley was interested in alchemical practitioners and the potential to help England economically with their work.

¹⁸⁴ Paul Hentzner, Paul Hentzner’s *Travels in England During the Reign of Queen Elizabeth, Translated by Horace, Later Earl of Orford* (London: Edward Jeffery, 1797), 54-55. While it is tempting to think that *The Herball* (1597) is a catalogue of Burghley’s garden, this is unreasonable. There is no known complete catalogue of Burghley’s garden from this period.

¹⁸⁵ Rye, 213.

for mine owne part, good reader, let me boast a litle of my garden, which is but small, and the whole area thereof little above 300 foot of ground, and yet, such hath beene my good lucke in purchase of the varietie of simples that notwithstanding my small abilitie, there are verie neere three hundred of one sort and other conteined therein, no one of them being common or usualie to bee had. If therefore my little plot, void of all cost in keeping be so well furnished, what shall we think of those of Hampton Court, Nonesuch, Tibaults (Theobalds), Cobham Garden, and sundrie other appertaining to diverse citizens of London whom I could particularlie name.¹⁸⁶

Conclusion

The grand scale and lavish decoration of Burghley's homes and gardens were deliberately designed to serve his goals as a statesman, but they also clearly reflect his personal interest in his gardens. Creating and using them increased both his political power and personal tranquility. It was John Gerard's good fortune that, in Burghley, he found a patron who fully appreciated his expert knowledge, but it was Gerard's own skill at negotiating the role of client that made the connection possible in the first place. It is our good fortune that Gerard's *Herball* (1597) became the tangible and enduring representation of their relationship.

¹⁸⁶ Rye, 204-5.

Chapter 4, John Gerard: Author

John Gerard opened his *Herball* (1597) by profusely acknowledging the debt he owed his “singvlar good Lord and Master, Sir William Cecill Knight, Baron of Burghley, Master of the Court of wards, Chancellor of the Vniuersitie of Cambridge, Knight of the most noble order of the Garter, one of the Lords of hir Maiesties most honorable priuie Counsell, and Lord High Treasurer of England”:

Againe, considering my dutie and your Honors merits, to whome I owe my selfe, and all that I am able in any service or devotion to performe? Therefore under hope of your Honorable and accustomed fauour, I present this Herball to your Lordships protection; not as an exquisite work (for I know my meannesse) but as the greatest gift and chiefest argument of dutie that my labour and service can afford: whereof if there be no further fruit, yet this is of use, that I have ministred matter for riper wits, and men of deeper judgement to polish; and to adde to my large additions where any thing is defective, that in time the worke may be perfect.¹

With these words in his “Epistle Dedicatorie,” Gerard revealed his understanding of the role of a book within a patronage relationship and of his own role in the creation of the *Herball* (1597).

Up to this point, in explaining how Gerard went about building his career as surgeon and gardener, I have tapped the *Herball* (1597) primarily for its personal sidelights onto Gerard's movements, associates, opinions, and activities. In this chapter, I look at the book itself and at Gerard's unexpected role as author.

Ever since the early seventeenth-century, the central issue of almost all discussion of Gerard's work on the book has been the charge of plagiarism that his one-time colleague, Matthias de L'Obel, made not long after Gerard's death in 1612. Beginning with Thomas Johnson's prefatory "To the Reader" in the second edition of the *Herball* (1633), most historians of pre-Linnaean botany have concurred: Gerard had unscrupulously claimed authorship of a work that was fundamentally a translation by a London physician, Dr. Robert Priest, of a Latin herbal published by the Flemish physician Rembert Dodoens in 1583.² We know what L'Obel thought, but what about Gerard and his publisher? Recent scholarship on Renaissance book history and patronage offers new ways to approach the question.

Elizabeth Eisenstein's book, *The Printing Press as an Agent of Change*, drew attention to the intellectual, political, and religious consequences of the flood of texts that, thanks to the invention of printing, became available to European readers in the late fifteenth and the sixteenth centuries. While printed books unquestionably reached

¹ John Gerard, *Herball* (London: Norton, 1597), A2^V-A3^R.

² Johnson outlines the series of events in his introduction, “To the Reader,” Gerard, *Herball* (1633), ¶¶¶ 1^{R-V}.

and affected many more people than manuscripts ever had, these texts were not, however, monoliths of meaning, transmitting their authors' information and ideas unaltered into the minds of early modern readers. As Adrian Johns counters, the reception of printed books was more complex and less certain than many at first assume; for the history of early modern science, it was important to realize that the existence of a book with new scientific data or ideas was no guarantee that anyone would pay attention.³ Contemporary readers had their own reactions to the material they read, shaped by the social, political, religious, and economic contexts in which they moved. Staking out the middle ground between these two poles of emphasis on the intellectual content and the cultural response, Nick Jardine calls for a focus on

cases in which authorship is manifestly constrained, dependent and dispersed. Thus instead of heading at once for the production of meanings by the Newtons, Darwins and Freuds, we should in the first instance look at the workaday shufflings and shiftings of meaning brought about by typesetting, translating, proof-correcting, editing, annotating, commentating, reviewing, anthologising, popularising, compiling, encyclopaedias, composing textbooks, etc. – precisely those activities apt to be dismissed as mechanical, derivative, second-rate or inauthentic according to Cartesian and Romantic conceptions of authorship.⁴

Booksellers, typesetters, commentators, and compilers engaged with making books created meaning through their work. If the *Herball* (1597) is not understood in this light and understood as having meaning for Gerard's career—and his publisher's—then we are missing something important about the herbal.

The complicated situation surrounding the book's inception and production exemplifies Jardine's point: the *Herball* (1597) did not have one single-minded author who conceived and produced the whole work from start to finish.

The impetus for the project came from John Norton, a politically active Protestant bookseller who belonged to a London publishing family. The herbal itself is an amalgam of many sources, virtually all of them reworked by other hands. Dodoens had assembled material from classical and recent authors on plants, just as those authors had done before him, and added material from his own experience. Gerard seems to have come into the picture quite late in the game, recruited by Norton to finish the work left incomplete by Dr. Priest. Gerard reshaped and

³ Elizabeth Eisenstein, *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe*. 2 vols. (Cambridge: Cambridge University Press, 1979). Adrian Johns, *The Nature of the Book: Print and Knowledge in the Making* (Chicago: University of Chicago Press, 1998), 4, 10-11.

⁴ Nick Jardine, "Book, texts and the making of knowledge," in *Books and the Sciences in History*, Marina Frasca-Spada and Nick Jardine, eds., (Cambridge: Cambridge University Press, 2000): 400, 393-407. By "Cartesian and Romantic conceptions of authorship," Jardine refers to the beliefs that, on the one hand, new ideas arise from pure intellect or, on the other, the author-genius generates them as a consequence of his isolation from the common herd.

augmented the text he was given; and his text was, in turn, corrected up to a point by L'Obel before publication (and then again by Thomas Johnson in the second edition).

To understand the way patronage and publishing issues shaped the goals and assumptions that John Gerard and John Norton brought to the project, the part of the *Herball* (1597) that needs to be examined most closely is not the botanical, medical, and horticultural content of the text proper, but the *front-matter* that frames the work. That is the focus of this chapter.

The *Herball* (1597) as a patronage object

Gerard's dedication to Burghley in the *Herball* (1597) was typical for his period in its hyperbolic rhetoric, formulaic wording, and overt maneuvering for the patron's favor. "Read [these dedicatory letters] in context and one sees institutionalization approaching ritualization."⁵ To Gerard's contemporaries, his intentions would have been clear, the style familiar, and the necessity of flattery in English court culture obvious.⁶

Dedications were written to honor a specific patron. Often the book itself was "written to suit a particular occasion and a known taste."⁷ Burghley's well-known personal and political interests in plants would have made him a suitable patron for any herbal of indigenous and exotic plants. Pragmatically, given the long pre-existing relationship between Gerard and his patron, dedicating the work to Burghley was inevitable. Gerard offered the herbal to Burghley as a lasting return on his patron's investment in "my self" and sought Burghley's protection for the volume. Burghley had provided the opportunities for Gerard to become the man he was, and Gerard expressed his gratitude for these gifts. In return for Burghley's support, Gerard linked him to a prestigious, informative, and beautiful volume.

Through the dedication, Gerard made the *Herball* (1597) into a type of currency within his patronage relationship with Burghley. The two men were "cemented" together "on the printed page" for the world to see.⁸

⁵ Paul D. McLean, *The Art of the Network: Strategic Interaction and Patronage in Renaissance Florence* (Durham, North Carolina: Duke University Press, 2007), 225.

⁶ McLean, 169, 226. Interestingly, McLean points out that, while today we are apt to see dissembling in these dedications and letters, the early modern courtier was much less concerned with "masking" his intent than is the modern person.

⁷ Jan Van Dorsten, "Literary Patrons in Elizabethan England," in *Patronage in the Renaissance*, Guy Fitch Lytle and Stephen Orgel, eds., (Princeton, New Jersey: Princeton University Press, 1981), 192.

⁸ Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley: University of California Press, 1994), 362.

Whether a dedication was offered to a powerful nobleman to initiate a patronage relationship or as a gift within an existing relationship, the potential impact of the bond created by such a volume meant that choosing the right patron for a book was very important. In a horticultural metaphor that would have appealed to both Gerard and Burghley, John Ferne's *Blazon of Gentry* (1586) likened the closeness of that bond to root-stock and scion, which determined the quality of the fruit the graft would bear: the husbandman who

in remouing of his grafte, from her natural stocke, shall by the neglecting of the better, transplant the same into a worse, [then] when Autumne commeth on, it is likelie that in liewe of Apples, and fruictes of pleasant taste, he shall gather but leaues, (or at the best) verrie crabs and sour wyldings.⁹

The author/client was, in effect, giving voice to the patron's ideas and values, and in some situations, commissioned by the patron to write the book.¹⁰ In return for the creation of the volume, the patron would give the client more attention and support and introduce the book to aristocratic peers. Through this mutual support, the working relationship between author and patron could bear fruits of importance to them both.¹¹

In England, as elsewhere, the act of printing had political and religious implications. Texts were censored, approved, or banned based on how well their ideas meshed or clashed with the policies of the monarch and other powerful institutions of Elizabethan society. Every author, printer, bookseller, and patron had good reason to fear upsetting the authorities, and the request for a patron's protection was not just a mere formula. Burghley preferred to "have [had] a sight of books that were to be dedicated to him before they were printed."¹² Even the Lord High Treasurer could not risk his name and reputation being attached to a book that espoused unorthodox views. However, when Burghley's name (accompanied, as etiquette demanded, by the long list of his titles and honorifics)

⁹ John Ferne, *Blazon of Gentry* (London: John Windet for Andrew Maunsell, 1586), A2^R. Ferne also compared the wrong choice of patron to putting a precious jewel in a setting of base metal.

¹⁰ Binns, 162-3.

¹¹ Findlen, 348. Bruce T. Moran, Patronage and Institutions: Courts, Universities, and Academies in Germany; an Overview: 1550-1750," in *Patronage and institutions: Science, technology, and medicine at the European court, 1500-1750*, Bruce T. Moran, ed., pp.169-183. (Rochester, NY: Boydell Press, 1991), 169. Mario Biagioli, *Galileo Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: University of Chicago Press, 1993), 5.

¹² James W. Binns, *Intellectual culture in Elizabethan and Jacobean England: the Latin writings of the age* (Melksham, Wiltshire, Great Britain: Redwood Press Ltd., 1990), 161. A patron's strong interest and promises did not necessarily translate into real financial support for a book project, as the county mapmaker John Norden discovered with Burghley; see Frank Kitchen, "John Norden (c. 1547-1625): Estate Surveyor, Topographer, County Mapmaker and Devotional Writer," *Imago Mundi*, vol. 49 (1997): 43-61; Richard Helgerson, "The Land Speaks: Cartography, Chorography, and Subversion in Renaissance England," *Representations*, No. 16 (Autumn, 1986), pp. 50-85.

did appear in a dedication, it was taken as a guarantee of the book's trustworthiness. That was very important when so many slanderous and pirated texts circulated alongside other books.

Taken simply as a material object, The *Herball* (1597) was worthy of Burghley: a volume of imposing proportions, blazoned with his coat of arms on the title page verso, overflowing with attractive illustrations, and packed with valuable information. For the aristocrat who loved books and plants, the herbal was a particularly appropriate gift: a permanent garden that preserved the ephemeral flowers and herbs many of which Gerard had grown for him for so many years.

Of the two names on the *Herball's* title page, the link between Gerard and Burghley was easy for readers to see. Gerard's dedication proclaimed his long relationship as Burghley's client and superintendent of gardens. John Norton, bookseller, was, however, also part of the patronage equation. He was a man with strong political motivations and sufficient capital to purchase the paper for the job. According to Thomas Johnson's introduction to the second edition (which Norton also published), it was Norton who set the herbal project in motion. To understand his role, we must first look at the politics of printing in Elizabethan England and more closely at the *Herball* (1597) itself.

Printing as a political act

In early modern England, books were powerful vectors of political ideas and religious doctrine. Recognizing the importance and potential threat of the printed word, the crown put policies and practices in place to focus the power of printing to the advantage of the nation.

A century and a half prior to the printing of the *Herball* (1597), that is, a generation after Gutenberg, England began to encourage continental printers to bring their expertise to England. During the reign of Richard III, for example, the Act of 1484 specifically promoted immigration of workers with book trade skills.¹³ These foreign book workers competed with English printers who had a monopoly over the trade within the confines of London. This geographical restriction encouraged the foreign-born book workers to congregate outside the walls of the City of London. Many opened shops in Holborn, the Strand, and around St. Paul's Church. In response to these thriving enclaves of foreign printers' shops, native London stationers opened new stalls outside the city wall to compete with

¹³ E. Gordon Duff, *The Printers, Stationers and Bookbinders of Westminster and London from 1476 to 1535*, (Cambridge: Cambridge University Press, 1906).

the [foreigners on their own ground](#).¹⁴ The foreign book workers were thought to have made up over 60% of those in [England's](#) book trade between the years of 1476 and 1535.¹⁵

With Henry VIII's break with the Catholic Church and the [establishment](#) of the Church of England, new policies were put in place to control the importation [and publication](#) of books critical of the monarch and ruling classes.¹⁶ Rather than dealing with [the authors or compilers of texts](#), the monarchy [placed legal controls](#) over the printers and booksellers. In 1553 and 1554, during [Mary Tudor's](#) reign, printing required a license and it became illegal to speak against the king and queen in print.¹⁷ This last decree was made necessary by the extreme opposition to the queen's marriage to Phillip of Spain. Many Protestants fled England during this time to cities such as Strasbourg and Zurich.¹⁸ [\(One such refugee was Gerard's much-respected forerunner, Dr. William Turner, who had the second and third parts of his *New Herball* printed in Cologne.\)](#)¹⁹

One [major](#) control [mandated](#) the organization of printers and booksellers into The Royal Company of Stationers. The Stationer's Company drew up a charter in 1556 [and](#) received the Royal Privy seal in 1557, granting the guild incorporation [as](#) the Worshipful Company of Stationers.²⁰ [Under](#) this charter, the Company drew up its own [regulations](#) for the trade and listed the Masters of the Company. [Only the Masters](#) could legally print within England. The Company created a Register in which were recorded the names of the Masters, apprentices, court of assistants, and the titles of all books produced by members of the Company along with the printer's name and date

¹⁴ E. Gordon Duff, *A Century of the English Book Trade*, (London: Bibliographical Society, 1948), xvii-xviii.

¹⁵ Peter W.M. Blayney, *The Bookshops in Paul's Cross Churchyard* (London: The Bibliographical Society, 1990). Occasional Papers of the Bibliographical Society, No. 5.

¹⁶ Duff, 1906, 273.

¹⁷ Greg, 63-81. C. R. Rivington, *A Short Account of the Worshipful Company of Stationers* (London: Stationers' Company, 1903), 4.

¹⁸ Worshipful Company of Stationers, *A Short Account of the Worshipful Company of Stationers: 1403-1903* (London: Worshipful Company of Stationers, 1903).

¹⁹ [See the introductions and notes to the facsimile reprints of William Turner, *A New Herball, Part I*, ed. George T. L. Chapman and Marilyn N. Tweddle, \(Cambridge Cambridge University Press, 1989\) and *A New Herball, Parts II and III*, ed. George T. L. Chapman, Frank McCombie, and Anne U. Wesenraft \(Cambridge Cambridge University Press, 1995\); Whitney R. D. Jones, *William Turner: Tudor Naturalist, Physician and Divine* \(London: Routledge, 1988\).](#)

²⁰ Cyprian Blagden, *The Stationers' Company: A History, 1403-1959*, (Cambridge, Massachusetts, Harvard University Press, 1960). [The Company was incorporated](#) during the reign of Mary and Philip.

of registration.²¹ Through this codification of the craft, the crown empowered established printers to protect their livelihood by regulating what could be printed and who could print what type of text.²²

Permission to print a certain group of texts, such as Latin grammars, almanacs, or New Testaments, was called a patent. Printing patents were usually granted by the Company of Stationers to printers for the course of their working life. While patents could be purchased or given away, they were often kept in families and inherited from person to person. Foreign printers were refused patents and no longer encouraged to seek work in England. Any printing press or text not recorded in the royal charter and register was illegal and subject to confiscation.²³

For several reasons, these were sensible actions for the state to take and for established printers to acquiesce to. As in the case of the *Herball* (1597), the very impetus to print often came from a bookseller or printer who would find someone to write a manuscript on a specific subject. The bookseller was then required to record his intention to print by registering the text with the Stationers Company. This discouraged other printers from coming out with a competing edition and enabled the crown to watch out for seditious books. While the bookseller might make the author a small payment, the author had no accompanying rights to the book when it came out. Marjorie Swann explains that the bookseller could print a book at will as many times and in whatever form as he wanted.²⁴

Thus, the right to print a book in Elizabethan England was linked more closely to a printer and bookseller than to an author.

Said in another way, Elizabethan England's idea of copyright and intellectual property was very different from ours.²⁵ “In sixteenth- and seventeenth-century England, by contrast, it was understood that a writer owned the *manuscript* he produced, rather than a text existing independently of the manuscript.”²⁶ If an author wished to have

²¹ Henry R. Plomer, *A Short History of English Printing, 1476-1898*, (London: Kegan Paul, Trench, Truebner & Co., 1927), 82. Duff, 1948, 83.

²² P.M. Handover, *Printing in London from 1476 to Modern Times; Competitive Practice and Technical Invention In the Trade of Book and Bible Printing Periodical Production Jobbing &c.* (Cambridge, MA: Harvard University Press, 1960).

²³ W.W. Greg, *Some Aspects and Problems of London Publishing Between 1550 and 1650: The Lyell Lectures, Oxford, Trinity Term, 1955* (Oxford: Clarendon Press, 1956), 63-81.

²⁴ Marjorie Swann, *Curiosities and Texts: The Culture of Collecting in Early Modern England* (Philadelphia: University of Pennsylvania Press, 2001), 151.

²⁵ Johns, 10-11.

²⁶ Swann, 151.

his manuscript printed and sold, “it was this physical object, termed a ‘copy,’ which a writer could offer for sale to a bookseller.”²⁷ For textbooks, anthologies and encyclopedic books, where information was compiled from many different sources, classical and contemporary, if anyone could claim to own the work, it was the bookseller who commissioned the manuscript. These points need to be kept in mind when assigning responsibility for the *Herball* (1597).

Despite the creation of the Company of Stationers, England continued to see texts circulate that threatened the interests of the crown. Some of these books came from rogue presses in England, others were imported illegally from the Continent, and still others were the result of patent infringement. When problems continued to occur, the solution was to inspect the manuscripts before they were allowed to go to print. Inspections were carried out first by the governing wardens of the Stationers Company and then by members of the Queen’s Privy Council.

When Elizabeth succeeded Mary, she dealt with these types of problems by creating the Special Commission of Ecclesiastical Authorities to read and review all manuscripts prior to printing. In 1586, the “Newe Decrees of the Starre Chamber for orders in Printing” arbitrarily restricted text production to London, Oxford, and Cambridge.²⁸ Furthermore, the Bishop of London and the Archbishop of Canterbury decided how many printing presses were to be allowed at each print shop. Printers had to purchase a license to print from the Stationers Company and the Company’s Wardens could and did inspect all areas within their purview for secret extra presses and illegal printing activities.²⁹

In addition to illegal printing, texts were reprinted under different titles and with *noms des plume*. Such book piracy meant trouble for everyone involved. Johns persuasively suggests that it threatened book patrons by creating an atmosphere of uncertainty around the validity of printed texts.³⁰ Because of the legal problems that could befall a printer and bookseller if a volume was misrepresented or misunderstood, letters of dedication, commendatory verses, and an attractive title page were used to enhance the trustworthiness of the volume. In the

²⁷ Swann, 151.

²⁸ *A Transcript of the Registers of the Company of Stationers of London 1554-1660*, ed. E Arber (Birmingham: [privately printed]1875-94), II, 807-13. Burghley was a member of the Star Chamber. See also R. Deazley, ‘Commentary on Star Chamber Decree 1586’, on the website, Primary Sources on Copyright (1450-1900), 2008, ed. L. Bently & M. Kretschmer, www.copyrighthistory.org.

²⁹ Gregg, 120-121. R. Deazley, R. (2008), www.copyrighthistory.org.

³⁰ Johns, 10-11.

case of the *Herball* (1597), Gerard and John Norton (1556/7–1612) included all these sections to help ensure its acceptance into the book market.

Title Page

Title pages were printed as single sheets and were often used by booksellers to advertise a book.³¹ Because the title page represented the volume, it carried the responsibility of establishing the authority of the author, printer, and backers and of encapsulating the volume's purpose. In a sense, title pages acted as emblematic reviews of the book.

The carefully constructed title page of the *Herball* (1597) immediately caught the eye. (See Appendix 2, Figure 16) Its wording and multitude of impressive and novel images referred to Queen Elizabeth, to Norton, to Gerard's patron Burghley, to the City of London, to Gerard's skill as a gardener and collector, to ancient figures of botanical authority, to New World plants, to plants from the Ottoman Empire, and to England's own flora. (See Appendix 2, Figure 17 for suggested plant identifications.) Every detail would have required its artist-engraver, William Rogers, to consult with Gerard and Norton.

Burghley came into the picture in two ways. The coat of arms and motto of the Order of the Garter in the left-hand border of the title page paid respect to Burghley's knighthood.³² At the bottom of the page an oval cartouche surrounded a bird's eye view of the house and grounds of Burghley's Theobalds. (See Appendix 2, Figure 18) In the foreground of the tableau, an elaborately dressed man and a woman promenade in the formal garden of the moated house.³³ Workers carry tubs of plants into the sun while others dig the soil with shovels or tend the fruit trees. A citrus tree grows in a circular bed in the center of the garden; in the background are fertile fields and an orchard. Two celestial watering cans hover over the scene of orderly abundance. The frame for the cartouche carried the artist-engraver's signature: "Willms Rogers / Inven. et Sculp."

³¹ Margaret Smith, *The Title Page: Its Early Development, 1460-1510* (London: The British Library, 2000), 12.

³² The coat of arms of the City of London symmetrically opposite on the righthand border denotes Gerard's status as a citizen of London.

³³ Theobalds had a moat or "watery canals" through which one could paddle a boat. Elizabeth Woodhouse, "Spirit of the Elizabethan Garden," *Garden History* 27 (1999): 16.

William Rogers, the earliest acclaimed English engraver, created the entire title page for the *Herball* (1597).³⁴ In the late sixteenth-century [England](#), an engraved title page was rare. [The title page of Gerard's *Herball* \(1597\) was one of only twenty made by the year 1600, with this copperplate technique.](#)³⁵ Rogers' work was much sought after because of his precise technique.³⁶ He was known [for his use of dots and carefully placed lines to effect precise detail and the appearance of relief in engraved portraits.](#)³⁷ [Rogers had already produced striking portraits of Burghley and Elizabeth I; the eglantine roses at the bottom of the *Herball's* title page invoke his "Rosa Electa" portrait of the Queen \(ca. 1593-5\).](#)³⁸

It is thought that Rogers [modeled the details of the title page cartouche on](#) contemporary calendar images. Margery Corbett [points out](#) that the most likely source for Rogers's image [was](#) Adriaen Collaert's [set of](#) engravings for the months of April, May, and September, created for Hans [Bol](#), *The Monthes* (1580). (See Appendix 2, Figure 19) She suggests that [these images were](#) chosen because they [matched the setting of](#) Burghley's life and home [so well](#). [The image for May, for example,](#) shows a man riding a mule, as Burghley was known to do, while September shows a man up a tree, [standing on a ladder, much like the one in the cartouche](#). The tree growing in the middle ground in the April [calendar image](#) [became](#) a fruit tree, probably citrus, in the cartouche of the *Herball* (1597).

³⁴ Arthur M. Hind, *A History of Engraving & Etching from the 15th Century to the Year 1914* (Boston: Houghton Mifflin Company, 1927), 136. The height of his career was between 1589 and 1604.

³⁵ Hind, 1927, 136. [Engraved titlepages or illustrations were an extra expense because, unlike woodblocks, they had to be printed on a separate kind of press from the text. For the very different engraved title page for an earlier herbal, see Margery Corbett, "The emblematic title-page to *Stirpium Adversaria nova* by Petro \[sic\] Pena and Mathias de L'Obel \(1570\)," *Archives of Natural History* \(1981\) 10 \(1\): 111-117.](#)

³⁶ For more information about Rogers and images of his engravings of Elizabeth I, see Kevin Sharpe, *Selling the Tudor Monarchy: Authority and Image in Sixteenth-Century England* (New Haven, Connecticut: Yale University Press, 2009), 389-399. [Arthur M. Hind, *Engravings in England in the Sixteenth and Seventeenth Centuries: A Descriptive Catalogue with Introduction, Part I. The Tudor period*, \(Cambridge: Cambridge University Press, 1952-64\), 258, suggests that Rogers may have learned his technique by being trained as a goldsmith.](#)

³⁷ Edward F. Strange, "British Engraving at the Victoria and Albert Museum," *The Burlington Magazine for Connoisseurs* 2 (July, 1903): 194.

³⁸ [Hind, *A History of Engraving & Etching*, 136. Hind, *Engravings in England in the Sixteenth and Seventeenth Centuries: A Descriptive Catalogue*, xx, 138, 262, 264. Maria Hayward, "The 'Empresse of Flowers': The Significance of Floral Imagery in Two Portraits of Elizabeth I at Jesus College, Oxford," *Costume* 44 \(2010\): 25. Roy Strong, *The cult of Elizabeth: Elizabethan portraiture and pageantry* \(Berkeley: University of California Press, 1977\), 70-2, 217, who notes that eglantine is also associated with Elizabeth in the anonymous frontispiece to Henry Lyte, *Light of Britaine* \(1588\).](#)

Burghley's love of trees was well known; he had orchards at [Burghley House and Theobalds](#) and grew lemon trees as well.³⁹

The four figures holding plants in the borders of the title page were intended to call to mind ancient masters of *materia medica* and horticulture, but precisely which ones are unclear. Corbett suggests that they represent the four great classical authors singled out in L'Obel's letter of commendation: Theophrastus as the young man in breeches with a shovel (top left); Dioscorides as the roughly clothed older man holding a closed book (top right); Galen as the man wearing a cloak and vaguely Eastern-styled conical hat (bottom left); and Pliny as the Roman soldier with laurel wreath (bottom right).

However, it seems equally plausible that the youth with the spade was a pious reference to Adam, who was, as Gerard says in his letter to the reader, "set to be the Herbarist" in the Garden of Eden and who, on being cast out of that Paradise, was given a spade by God to till the earth.⁴⁰ The Roman soldier at bottom right could be Dioscorides—who referred to his soldier's life in the preface to *De materia medica*—or one of the ancient herb-loving princes depicted on the title page borders of Henry Lyte's translation of Dodoens. Or even the poet Virgil whose *Georgics* and *Bucolics* celebrated the art of husbandry.⁴¹ The identity of the man at the lower left is also unclear since costume, age, and beard are all we have to go on; his garb is quite similar to the two foreign surgeons in traveling cloaks, hats, and belts figured in a generic woodcut on the title page of an anonymous English surgical work, *The practyse of Cyrurgyons of Mowntpyller: and of other that never came there* ([London]: Richard Banckes, [1540]).⁴²

³⁹ Margery Corbett, "The engraved title-page to John Gerarde's *Herball or Generall Historie of Plantes*, 1597," *Journal of the Society of the Bibliography of Natural History* 8 (1977): 226. Hans Bol was also known by the names Jean and Jan. B. W. Beckingsale, *Burghley, Tudor statesman, 1520-1598* (New York: St. Martin's Press, 1967), 263. For more information: "Bol, Jean" In *Biographie Nationale De Belgique*, Tome Deuxième (Bruxelles: H. Thiry – Van Buggenhoudt, 1866): 626-629. [Gerard's chapter on citrus trees is lengthy, but does not mention having the fruit growing in his garden or Burghley's; *Herball* \(1597\), Book III, Chap. 97: 1278, *Of the Citron, Limon, Orange, and Assyrian Apple trees*. See Chapter 3, above, for Burghley's orders to his son's tutor to purchase lemon and pomegranate trees in Europe for him.](#)

⁴⁰ [Gerard, 1597, b6^R](#). Kathleen Crowther-Heyck, [personal communication](#).

⁴¹ [Reeds, personal communication](#). Rembert Dodoens, *A nievve herball, or historie of plantes*, trans. Henry Lyte (London: Gerard Dewes, 1578), title page (especially Gentius at upper left, and Lysimachus at lower right).

⁴² Corbett, 226.

Mary E. Hazard points out that the very style of depiction of the title page would have had deep meaning to Elizabethan viewers.⁴³ Emblematic images were familiar to them in a way they no longer are.⁴⁴ The Elizabethan audience would also have been comfortable with the combination of styles on the title page: detailed naturalistic renderings of the plants and architectural elements, but more generic and stylized images of insects—almost as if they were taken from the backgrounds of tapestries or the borders of books of hours. This contrast between naturalistic and stylized image created a sense of juxtaposition between the ephemeral and permanent that was very appealing to the Elizabethans and typical of William Rogers's engravings.⁴⁵

Letters of Commendation

Further protection for the *Herball* (1597) came from the letters and poems of commendation contributed by Gerard's circle of colleagues. Binns explains that such prefatory verses and letters often open a door onto “a complex of literary, political and social webs linking writer to writer and book to book.”⁴⁶ To see who else belonged to such a circle and actively promoted a field (even if they wrote no books of their own), the historian must examine the other writings of the authors of the prefatory pieces and then look at the equivalent celebratory material in those works, following this pattern until one begins to come back to the same people.⁴⁷

The *Herball* (1597) had eleven laudatory letters and verses sandwiched between Gerard's "Epistle Dedicatory" and his letter "To the courteous and well-willing Readers." The first seven (two letters and five poems)

⁴³ Mary E. Hazard, *Elizabethan Silent Language* (Lincoln, Nebraska: University of Nebraska Press: 2000), 35.

⁴⁴ William B. Ashworth, Jr. “Natural History and the Emblematic World View,” in *Reappraisals of the Scientific Revolution*, David C. Lindberg, David C. and Robert S. Westman, eds. (Cambridge: Cambridge University Press, 1990), 303-332. Hazard, 35.

⁴⁵ Hazard, 35. The insects include spiders, butterflies, snails, caterpillars, bees, and a grasshopper. The insects may refer to the engraved, but unpublished title page that Thomas Moffett (or Moffet, Muffet, Mouffet) had commissioned from William Rogers in 1590 in the naturalist's unsuccessful quest for patrons and publishers for the *Theatrum insectorum*. The manuscript incorporated work by Thomas Penny and Edward Wotton (now British Library, Sloane MS 4014). I do not know of any direct references to Moffett in the *Herball*, but Gerard and Moffett had a number of naturalist colleagues in common, including Thomas Penny and John White. See Deborah Harkness, *The Jewel House: Elizabethan London and the Scientific Revolution* (New Haven, Conn.: Yale University Press, 2007), 36-40; Harkness, "Elizabethan London's Naturalists and the Work of John White," in *European Visions: American Voices*, ed. Kim Sloan (London: British Museum Research Publication 72, 2009), 44-50; and Raven, *English Naturalists*, 180.

⁴⁶ Binns, 169.

⁴⁷ Binns, 169. On page 171, Binns explains that the very language and format of dedication poems were “concentrated manneristic” displays of the skill of their authors, full of images and plays on words appropriate to the book and author.

were written in Latin. These were followed by two poems and two letters in English. The split between the languages matched the division of professions fairly closely. Five physicians, a medical student (who worked in some Greek as well), and two clerics, wrote in Latin. The two surgeons, another cleric, and another physician chose the vernacular.

Of the eight medical practitioners, two advertised their court credentials: Lancelot Browne, M.D., the Queen's physician, wrote "from the Queen's court in Westminster"; George Baker was "one of hir Maiesties chiefe Chirurgions in ordinarie."⁴⁸ A third, the Flemish physician-botanist, Matthias de L'Obel, was, as we have noted before, in the service of Burghley's former ward, Lord Edward Zouche and was the author of several major botanical works. Guilelmus Launaeus (Guillaume de Laune) was a Huguenot physician practicing in London, the father of an up-and-coming London apothecary, Gideon de Laune, and very likely related to the learned physician, Isaac de Laune, who sent gentians from Burgundy for Gerard's garden.⁴⁹ At least two were young men: Anthony Hunton styled himself a physician-candidate, i.e. a medical student, and Francis Hering had just completed his MD at Cambridge in 1597. The Scottish university graduate, Master Jacobus Johnstonius, identified himself as the part-holder of a benefice (*portionarius*), and was thus a cleric as well. He could be the "Jacobus Jhonstoun, *minister verbi*," listed among Edinburgh graduates in the summer of 1598; another tempting identification is the Scottish physician, Jacobus Johnstonus, who, in a 1627 biographical dictionary, is credited with a book on Scottish plants.⁵⁰ His *Epigramma* remarked that Gerard's garden held plants from the ancient and the new world and declared that the garden's fame would be as eternal as a marble sculpture even though it was made of ephemeral plants.

The last of the seven letters in Latin was written by Thomas Newton, the rector of Ilford, Cheshire. Significantly for establishing the trustworthiness of the volume, Newton had translated Levinus Lemnius's *An*

⁴⁸ Gerard, 1597, b4^v.

⁴⁹ Gerard, 1597, Book II, Chap. 100: 352, *Of Felwoort, or Baldmoney*.

⁵⁰ Gerard, 1597, b1^v: "In historiam plantarum Io. Gerardi ciuis & Chirurgi Londinensis, M. Iacobi Iohnstonij Scoti Ballincrisae Regij pagi portionarij *Epigramma*." University of Edinburgh, *A catalogue of the graduates in the faculties of arts, divinity, and law, of the University of Edinburgh, since its foundation* (Edinburgh: McNeill and Company, 1858), 15, Register of Laureations (i.e. Masters of Arts). Thomas Dempster, *Historia ecclesiastica gentis Scotorum: sive de scriptoribus Scotis*, 2nd ed. (Edinburgh: Andrew Balfour, 1839[first ed. 1627]) II, entry 737: "Jacobus Johnstonus, vir doctus, domique clarus, magna medicinae clinicae fama, scripsit De Plantis Scotiis lib. I. Vivit adhuc in patria."

herbal for the Bible (1587) into English and contributed a commendatory verse to Henry Lyte's widely-read translation of Dodoens's *Nievue Herbal, or Historie of Plantes* (1578).⁵¹

The four English dedicatory pieces were written by two of Gerard's colleagues, the master surgeons Thomas Thorney and George Baker; a rector and chaplain W. Westerman; and a physician Stephen Bredwell, who had been admitted to the College of Physicians as a Licentiate in 1594.⁵²

All four emphasized the Englishness of the enterprise. In Thorney's poem, the herbal and Gerard's deep knowledge of plants together created a "*Microcosmos*" of England:

Of simples here we do behold
 Within our English soyle,
More store than ere afore we did
 Through this thy learned toyle.⁵³

William Westerman, rector of Sandridge, Hertfordshire and later the archbishop of Canterbury's chaplain, wove Gerard and the floral symbols of the Queen into an everlasting garland of England:

O let the red Rose and the Eglantine
Vouchsafe their presence in his garland twine;
 Let those faire flowers of our English field,
 Vnwitherde [sic] long their fragrant odours yeeld.⁵⁴

George Baker recounted how he had seen Gerard outmatch France's best herbarist, "one of the best strangers that euer came into England...accounted in Paris the only man...recommended by that famous man [Ambrose Paré]." ⁵⁵ Bredwell's letter contrasted the *Herball*'s "sweet garden of flourishing simples" with the "pernitious impostures" of the Paracelsians and praised Gerard for accommodating the Dodoens work to "our

⁵¹ Raven, *English Naturalists*, 208. Henry Lyte, *A Nievue Herbal, or Historie of Plantes* ([colophon] Imrinted [sic] at Antwerpe, by me Henry Loë bookeprinter, and are to be solde at London in Povvels Churchyarde, by Gerard Devves [1578]), sig * iiiij^{R-V}. The piece is essentially a catalogue of herbal authors in Latin verse.

⁵² The Westerman and Thorney pieces are omitted in the 1633 *Herball*. For Bredwell's manuscript case book, see Harkness, "*Nosce Teipsum*," 189; for his career, see the Royal College of Physicians website, RCP Heritage: Munk's Roll: <http://munksroll.rcplondon.ac.uk/Biography/Details/528>

⁵³ Gerard, 1597, ^{R-V}. See Knight, 74-75, on Thorney's tropes.

⁵⁴ Gerard, 1597, b3^R. For Westerman, see William Urwick, *Nonconformity in Herts: being lectures upon the nonconforming worthies of St. Albans, and memorials of Puritanism and Nonconformity in all the parishes of the County of Hertford* (London: Hazell, Watson, and Viney, 1884), 55, 127, 329-330.

⁵⁵ Gerard, 1597, b4^V-5^R. The French visitor was Gerard's "louing friend," Jean Robin. "the French Kings herbarist" (Book II, Chap. 13: 196, *Of Indian Cresses*; Book II, Chap. 123: 389, *Of Barrenwoort*).

English nation” by writing in English and searching out English plants in “our English fields.”⁵⁶ His words about Dr. Priest served as a kind of epitaph, while implying that Priest’s translation was not finished at his death: “D. Priest, for his translation of so much as Dodonaeus, hath thereby left a tombe for his honorable sepulture.”

The *Herball*’s front matter concluded with Gerard introducing himself in words and picture “to the courteous and well-wishing Readers.”⁵⁷ His letter opened by contrasting his search for the “harmless treasure of herbes...whereby my natiue countrie might be inriched” to the more admired, more destructive quest for the “worldly drosse of “golden mines” and “silver vaines.” Apologizing for his unpolished language and his “poor store” of learning, he argued for the importance and delights of the “Art of Simpling.” Despite the lowly connotations of the English word, it had been practiced by a host of ancient kings, queens, gods, and heroes, and Adam himself. He praised his English predecessors, William Turner and Henry Lyte. He gave his own version of the events that brought the book into being:

...since that Doctor *Priest*, one of our London Colledge, hath (as I heard) translated the last edition of *Dodonaeus*, which meant to publish the same; but being prevented by death, his translation likewise perished; lastly my selfe one of the least among many, haue presumed to set foorth vnto the view of the world, the first fruits of these mine owne labours.⁵⁸

Finally, he forestalled objections from the ill-willed “slanderer or enuious” (no doubt alluding to L’Obel) by acknowledging the inevitability of mistakes and lapses in so great a work.⁵⁹

Gerard’s Portrait

Like the title page, Gerard’s half-page portrait was [a copperplate engraving](#) by William Rogers. (See Appendix 2, Figure 2) [It bears the date of 1598, that is, at least a month after the December 1, 1597 date of Gerard’s letter to the reader. That suggests it was the very last element in the *Herball*’s production; but there is no sign of haste in the elegant composition.](#)⁶⁰

⁵⁶ Gerard, 1597, b3^V-b4^R.

⁵⁷ Gerard, 1597,

⁵⁸ Gerard, 1597, b4^{R-V}.

⁵⁹ Gerard, 1597, b4^{R-V}.

⁶⁰ Hind, 1952, 268. The portrait is a part of the original volume and not added in later.

Because the way a man dressed, spoke, and carried himself in early modern English society expressed his nature, portraiture was a way of establishing the essence of his character.⁶¹ In other words, this image expressed Gerard's identity through its rendering of his clothing, expression, and pose. In Chapter One, I discussed the aspects of the portrait that identified Gerard as a successful member of the Company of Barber-Surgeons, but the portrait has still more to tell us about the impression Gerard hoped to convey to the world through the *Herball* (1597).

In Castiglione's handbook to courtly behavior, courtiers were reminded "all the behaviours, gestures and maners, be sides words and deedes, are a judgement of the inclination of him in whom they are seene."⁶² The composition of the portrait drew attention to Gerard's head (the organ of governing and abstract thought) and to his hands. The Greek origins of the word "chirurgion" meant "hand-worker," and the portrait placed Gerard's particular surgical tools in his hands: his right hand rested over a small volume, the other grasped a sprig of flowers and leaves. In this way, Gerard's hands emphasized not only his own special skill as a surgeon, but also the dualities of governance and craft, intellect and labor, theory and practice.

The flower that Gerard holds in his left hand is a particularly important detail. It can be read emblematically, as a symbol of his craft as gardener and the importance of plants in his life. But this is no generic flower. It is a plant that very few of his readers in 1598 would have seen growing, and none could have seen in a book. It is the first time a potato plant was pictured in print.⁶³

Gerard was justly proud of his success in bringing this rarity to bloom, and he described the flower of the "Virginia Potato" in vivid detail.⁶⁴ (See Appendix 2, Figure 20) On the "footstalks," he said:

⁶¹ Isabelle Paresys, "The dressed body: the moulding of identities in sixteenth-century France," in *Cultural Exchange in Early Modern Europe, vol. IV: Forging European Identities, 1400-1700*, Herman Roodenburg, ed., (Cambridge: Cambridge University Press, 2006), 234.

⁶² Baldassare Castiglione, *The Book of The Courtier, from the Italian of Count Baldassare Castiglione: Done into English by Sir Thomas Hoby, Anno 1561, With an Introduction by Walter Raleigh* (London: David Nutt, 1900), Book 2: 135-6.

⁶³ Redcliffe Nathan Salaman, *The history and social influence of the potato* (Cambridge: Cambridge University Press, 1949, rpt 1985), 77-78.

⁶⁴ Gerard, 1597, Book II, Chap. 335: 781. *Of Potatoes of Virginia*. Gerard had also published the first printed mention of the potato in his 1596 garden catalogue, where it is called *Papus orbiculatus*. For the very complex history of Europeans' early encounters with the white potato and the sweet potato, see Salaman, especially 71-137 and fig. 63, Carolus Clusius's watercolor of the potato, dated 1588. By naming the potato for what he thought was its geographical source—"I haue receiued rootes hereof from Virginia, otherwise called Norembega"—Gerard created endless confusion for his contemporaries and later gardeners, grocers, botanists, and historians. The confusion was compounded by Gerard's preceding chapter, Book II, Chap. 335: 780, *Of Potatoes*, which describes the sweet potato.

do growe very faire and pleasant flowers, made of one entire whole leafe, which is folded or plaited in such strange sort, that seemeth to be a flower made of sixe sundrie small leaues, which cannot easily be perceiued, except the same be pulled open the colour whereof it is hard to expresse. The whole flower is of a light purple color, stripped down the middle of every folde or welt, with a light shew of yellowness, as though purple and yellow were mixed together: in the middle of the flower thrusteth forth a thicke fat pointell, yellow as golde, with a small sharpe greene pricke or point in the midst thereof.⁶⁵

The flower in the portrait served as a tantalizing invitation to his readers to discover this novelty for themselves in the book open before them.

The structure of the Herball

Readers of the Herball (1597) encountered a very large quarto volume more than 1450 pages long, weighing about ten pounds. Following the title page, letters of dedication and commendation, the letter to the reader, and the portrait, the text itself was made up of 784 chapters, “as for each herbe a bed”⁶⁶ each devoted to one plant and its close relatives.

To enable readers to find information by plant names and uses, the Herball (1597) ended with a series of useful alphabetical indexes to: classical Latin names; “shop-Latin” names used in pharmacies or by medieval authors; recommended synonyms; English names; vernacular names “gathered out of ancient written and printed Copies, and from the mouthes of plaine and simple Countrie people”; and “the Nature, Vertue and Dangers” of the plants.

The content and arrangement of each chapter would have been familiar to users of other herbals.⁶⁷ Each chapter was the equivalent of an encyclopedia entry headed by the general English name of a plant. The chapter discussed first the “kinds” of the plant and its close relatives “as they were then understood.”⁶⁸ Then came a

Gerard had “bought these at the exchange in London” and planted them in his garden; sweet potatoes, he tells us, were already being imported for use as conserves and sweetmeats.

⁶⁵ Gerard, 1597, Book II, Chap. 335: 781. *Of Potatoes of Virginia*. Salaman, 84, notes that the 1597 Herball Gerard’s description and the images (both the engraved flower and the commissioned woodblock by an unknown artist/blockcutter) are inconsistent about whether the flower’s corolla and anthers were divided into five or into six lobes.

⁶⁶ Gerard, 1597, 1 “Proeme.”

⁶⁷ Blanche Henry, *British Botanical and Horticultural Works before 1800*, 3 vol. (Oxford: Oxford University Press, 1975), 5.

⁶⁸ Gerard, 1597, 1 “Proeme.” W.E. Court, “John Gerard and his Herbal,” *Pharmaceutical historian: newsletter of the British Society for the History of Pharmacy* 22, (August 1992): 3.

“description” of each kind; the “place” where the plant could be found and the environments in which it thrived; its “time” of sprouting, flowering, fruiting, and harvest; its “names” from classic and contemporary sources, including vernacular names; the “temperature” of plant and its parts in terms of the Galenic qualities of hot and cold, dry and moist; and finally the “virtues” or uses and preparations of the plant as a simple and in compound medicines for particular conditions.

Gerard’s “Proeme” outlined the *Herball*’s division into three “books” of very unequal length:

The first booke hath Grasses, Rushes, Corne, Flags, Bulbose, or Onion-rooted Plants [176 pages]. The second, all sorts of herbes for meate, medicine, or sweet smelling use [900 pages]. The third hath trees, shrubs, bushes, fruit-bearing plants, Rosins, Gums, Roses, Heath, Mosses, Mushroms, Corall, and their seuerall kindes [and, Book III’s actual heading noted, “some Indian plants, and other rare plants not remembered in the Proeme to the first booke”]; [a total of 314 pages].⁶⁹

Gerard deliberately spared his English readers a “tedious...curious discourse vpon the general division of plants...more in Latine than our vulgar toong can well express.”⁷⁰ In any case he could not have justified his organization on theoretical grounds: as the “Proeme” showed, each of the three books used a different method of grouping plants. Gerard’s Book III, primarily on trees and shrubs, followed the oldest of classical botanical authors, Theophrastus, by grouping plants by size and woodiness.⁷¹

Book II of the *Herball* (1597) recognized that the most readers sought information about the plants they could use for medicines, foods, or the household. Here the *Herball* (1597) came closest in structure to its origin, the herbal that Doctor Priest had translated from the Latin for John Norton. The six parts of Rembert Dodoens’s *Stirpium historiae pemptades sex* (Antwerp: Christopher Plantin, 1583) were each organized around a particular use of plants. Within those uses, however, Dodoens sometimes brought together series of plants that were clearly related to each other morphologically.⁷²

The first part of the *Herball* (1597), Book I, was the most unusual in its use of similarities in leaf and flower forms to organize grass and onion-like plants and in starting off with the lowliest of plants, the grasses. As

⁶⁹ Gerard, 1597, 1, “Proeme”; 177, 1077.

⁷⁰ Gerard, 1597, 1, “Proeme.”

⁷¹ Gerard, 1597, 1077.

⁷² Edward Lee Greene, *Landmarks of Botanical History*, ed. Frank N. Egerton, 2 vol. (Stanford: Stanford University Press, 1983), II, 846-876. See also the Dutch website (initiated January 2008), Project Rembert Dodoens/Rembertus Dodonaeus, for editions, digital facsimiles, bibliography, and related resources: <http://www.plantaardigheden.nl/dodoens/default.htm>

Matthias de L'Obel approvingly noted in his commendatory letter, this "new method and order" was the innovation that he himself had introduced organizing the plants in *Stirpium Adversaria Nova* (London: Thomas Purfoot, 1570).⁷³

Images

As had become customary in Renaissance herbals, almost every chapter in the *Herball* (1597) contained at least one woodblock illustration of a plant, and most had several, up to four on a page, picturing each of the kinds individually and labeled with their Latin and English names.

John Norton arranged to rent or borrow previously used woodblocks from a bookseller in Frankfurt-am-Main named Nicolaus Bassaeus.⁷⁴ Bassaeus, with the financial support of Count Palatine Frederick III, had commissioned the blocks for Tabernaemontanus's work *Eicones plantarum seu stirpium* (1590).⁷⁵ Thomas Johnson observed in his introduction to the second edition that the blocks often did not match the plants they purported to illustrate and blamed Gerard's "no great judgement" in understanding pictures.⁷⁶ Johnson noted too that some woodcuts came from works by Clusius and L'Obel (i.e. from the Plantin press in Antwerp). For Potato of Virginia and other newly discovered plants, new woodcuts had to be made; the Swallowwort woodcut was clearly based on John White's watercolor of the plants he had seen in the Roanoke colony.⁷⁷

In some surviving copies of the *Herball* (1597), the woodcuts are hand-colored. The painting techniques in sixteenth-century herbals vary from daubed smears to exquisite precision; and it is hard to gauge how common

⁷³ Gerard, 1597, A3^R. "Matthias L'Obel Ioanni Gerardo felicitatem...nostramque nouam methodum & ordinem, a Gramine & notioribus ad Triticea, generatim & speciatim." For L'Obel's botanical skills, taxonomic methods, his co-authorship with Pierre Pena, and the complicated publishing and remaindering history of *Stirpium Adversaria Nova* and later works, see Greene, II: 877-937, Brian W. Ogilvie, *The Science of Describing: Natural History in Renaissance Europe* (Chicago: University of Chicago Press, 2006), 44-46; and Raven, *English Naturalists*, 205-208, 235-241, 267-68.

⁷⁴ Marcus Woodward, *Gerard's Herball: The Essence thereof distilled by Marcus Woodward from the Edition of Th. Johnson, 1636*, (Boston: Houghton Mifflin Company, 1928), 12. Court, 2-6. Arber Agnes, *Herbals; Their Origin and Evolution: A Chapter in the History of Botany, 1470-1670, 3rd edition*, (Cambridge: Cambridge University Press, 1988), 106, 109.

⁷⁵ Arber, 68. Bert S. Hall, "The Didactic and the Elegant: Some Thoughts on Scientific and Technological Illustrations in the Middle Ages and Renaissance," in *Picturing Knowledge: Historical and Philosophical Problems Concerning the Use of Art in Science*, Brian S. Baigrie, ed., (Toronto: University of Toronto Press, 1996), 19.

⁷⁶ Gerard, 1633, "To the Reader," ¶¶¶¶1^V.

⁷⁷ Karen Reeds, "Don't Eat, Don't Touch: Roanoke Colonists, Natural Knowledge, and Dangerous Plants of North America." in *European Visions: American Voices*, ed. Kim Sloan, (London: British Museum Research Publication 172, 2009), 51-57, figs. 1, 7.

colored images were, who produced them for what audiences, and what purposes the coloring served.⁷⁸ Corbett noted that the colored pages in the *Herball (1597)* owned by the Bodleian Library of Oxford University depicted some plants not colored as they are in nature because part of the goal was to make a “decorative” image.⁷⁹ The *Herball (1597)* held by the University of Oklahoma, History of Science Collections was carefully colored throughout and lined in red ink prior to binding for what was most likely the initial owner. These red rules “were a mark of distinction added, especially to a fine paper copy, from the 16th century onwards.”⁸⁰ Accompanying documentation states that it was colored contemporarily. Many of the illustrations are colored according to nature.⁸¹

The Groundwork to the *Herball* (1597)

According to apothecary Thomas Johnson, the editor of the second edition of the *Herball* (1633), it was the publisher John Norton’s idea to have a London physician translate Rembert Dodoens’s *Stirpium historiae pemptades sex* (1583) from Latin into English. Norton chose Dr. Robert Priest, a member of the College of Physicians, who was also working in committee on the creation of the official pharmacopoeia. Priest died before the work could go to Norton’s printer; Johnson, writing a generation later from the testimony of someone who knew both Priest and Gerard (conceivably L’Obel), implied that the Dodoens translation was essentially finished. Norton handed this “ground-worke” to John Gerard to finish.⁸² The result was the *Herball* (1597).

⁷⁸ Ogilvie, *Science of Describing*, 202-203. Arber, 207, 215, 217 and Appendix V, 315-318, “The Colouring of Sixteenth-century Herbals.”

⁷⁹ Margery Corbett, “The engraved title-page to John Gerarde’s *Herball or Generall Historie of Plantes*, 1597,” *Journal of the Society of the Bibliography of Natural History* 8 (1977): 226. The copy of the *Herball* (1597) owned by the Bodleian Library, Oxford University (L.1.5.Med.) was thought to have been given to Thomas Bodley by John Norton. It contained a colored title page and colored portrait until these pages were stolen in 1980’s. John Barnard, “Politics, Profits and Idealism: John Norton, the Stationers’ Company and Sir Thomas Bodley,” *Bodleian Library Record* 17 (2002): 340. The title page is reproduced as the frontispiece to Henrey, Vol. I; the shelfmark is visible in Mavis Batey and David Lambert, *The English Garden Tour* (London: John Murray, 1990), plate 17, and online at: <http://www.scribd.com/doc/36290854/The-English-Garden-Tour>.

⁸⁰ John Carter and Nicolas Barker, *ABC for Book Collectors, Eighth Edition* (New Castle, Delaware: Oak Knoll Press, 2004), 187. My thanks go to Fred Schreiber of E.K. Schreiber Rare Books for pointing to this source.

⁸¹ From a close examination of the copy held by the University of Oklahoma Libraries History of Science Collection, the red ink lines were put in place first, after printing, but before the pages were bound and the images colored. The binding was dated by professional binder Sean Richards of Byzantium Bindery to the late sixteenth or early seventeenth century. Karen Reeds (personal communication) notes a copy with quite similar rules and coloring in the library of the Linnean Society of London, donated by one of the founding members in the late eighteenth century; see Gina L. Douglas, “History of Science and Technology Resources at the Linnean Society of London,” *British Journal for the History of Science*, Vol. 21, No. 4, Dec., 1988, 489-493 (p. 489).

⁸² Gerard, 1633, ¶¶¶¶^v.

The naturalist and theologian, Charles Raven, after summarizing Johnson's account, famously referred to the first edition as “an illustration of successful piracy” and Gerard himself as a “rogue” who covered his deception and plagiarism with convincingly “naïve” statements about his humble background and lack of learning.⁸³ Gerard, Raven said, had committed “almost all of the sins of which a man of letters or of science can be guilty.”⁸⁴ Raven explains his meaning in a similar condemnation of Gerard's contemporary, the clergyman and naturalist Edward Topsell. Topsell had based his *History of Four-footed Beasts and Serpents* (London: E. Cotes for G. Sawbridge, T. Williams and T. Johnson, 1658), on Thomas Moffett's manuscripts, which in turn used Conrad Gesner's texts.

Raven wrote

The actual text of Gesner is treated with freedom, paraphrased, re-arranged, condensed, expanded in a way only possible in an age when plagiarism was universal and copyright unknown.⁸⁵

Although this has been the prevailing story about the *Herball* (1597), not every historian of botany agrees. Blanche Henrey counters that there was little need for Gerard to copy Dodoens as his *Pemptades* arose from previously printed texts.⁸⁶ W. T. Stearn thinks the scenario suggested by R. H. Jeffers is more probable: “Gerard, with the help of L’Obel, was engaged in compiling a book about plants before Priest began his translation of Dodoens; that Gerard’s book had not reached a state fit for publication when Priest relinquished his task; and that Norton then requested Gerard to produce a work of like character.”⁸⁷ It is possible to believe that he only knew the circumstances of Priest’s work by hearsay (“as I heard”).

Juanita Burnby has discovered new documents that lend weight to Jeffers and Stearn’s view: Robert Priest’s widow’s request for “letters of administration...in June 1596” implies that the physician had recently died without a will.⁸⁸ It seems unlikely that, between June 1596 and the publication date of December 1597, Gerard

⁸³ Charles E. Raven, *English Naturalists from Neckam to Ray: A Study of the Making of the Modern World* (Cambridge: Cambridge University Press, 2010), 205. Agnes Arber, *Herbals*, 129,

⁸⁴ Raven, 204.

⁸⁵ Raven, 221.

⁸⁶ Blanche Henrey, *British Botanical and Horticultural Literature before 1800*, 3 vol. (Oxford: Oxford University Press, 1975), I, 36-54.

⁸⁷ Stearn, Appendix IV, in Arber, 310-311; quoting W. T. Stearn, “Gerard, John,” in C. C. Gillispie, ed., *Dictionary of Scientific Biography* (New York: Scribner, 1970-1980) 5:361-363.

⁸⁸ Juanita Burnby, “John Gerarde and his Contemporaries,” *Pharmaceutical Historian: newsletter of the British Society for the History of Pharmacy* 29 (1999): 21.

could have taken the manuscript from Priest's widow, rearranged it by L'Obel's method, added all his other information and experiences, inserted the woodblocks, and prepared his own manuscript for a text more than fourteen-hundred printed pages long—all the while carrying out his responsibilities to Burghley and his own family. Mere plagiarism would have been much easier.

I argue that Gerard was neither a “rogue” nor pretending to be “naïve.” Instead, I suggest, Gerard saw the project of the *Herball* (1597) in a different light from his contemporary critics. It was an unlooked for opportunity to create a client's great gift to a powerful patron. The emerging group of men exchanging naturalia, of which L'Obel was a member, had its favors, exchanges, and gifts but also a stronger sense of self-regard, so proper acknowledgments of sources and claims of originality and priority became more important—their gifts and rewards were among men of a similar footing, not between clients and patrons.⁸⁹

Gerard had brought together information from many sources. In the text, Gerard referred several times to an un-named author as “my Author.”⁹⁰ This was most likely Priest's manuscript translation of Dodoens. The Dodoens text included much information from Galen, Dioscorides, and other classical sources. Gerard would have encountered these texts, in English epitomes if not in Latin, in his surgical apprenticeship and practice. His own contributions he described as “large additions.”⁹¹ While this phrase could be regarded as typical of the self-effacing style of dedications, its reference to the process of creating the volume must not be overlooked.

In retrospect, the easy thing would have been for Norton to take Priest's translation (if indeed it was complete) and just print it. At this point we can only speculate about why that did not happen. It is easy to imagine Norton seeing Gerard's garden catalogue in 1596, noting its dedication, and seizing an unusual chance for potential access to Burghley. It must be said again. Gerard went far beyond merely checking and putting his name on a translation of Dodoens. He obviously took his work of compiling and glossing the herbal information seriously.

In hundreds of chapters, Gerard incorporated his own surgical and gardening experiences and knowledge. He included personal recipes, notes, stories from plant-gathering treks, and childhood reminiscences. He named many acquaintances of import in England and overseas. He offered horticultural advice for growing exotic plants,

⁸⁹ Florike Egmond, “Correspondence and natural history in the sixteenth century,” in Francisco Bethencourt and Florike Egmond, eds., *Cultural Exchange in Early Modern Europe, Vol. III: Correspondence and Cultural Exchange in Europe, 1400-1700* (Cambridge: Cambridge University Press, 2007), 129-131.

⁹⁰ Gerard, 1597, Book II, Chap. 66: 293. *Of Ginnie or Indian Pepper*.

⁹¹ Gerard, 1597, A2^V-A3^R.

English [plants to substitute for costly ingredients](#), and [concrete support for](#) Burghley's indigenous plant agenda.

While Gerard could not be very assertive about formal authorship, he does make his presence and his patron's [wishes](#) known very clearly. Eleanour Rohde expressed this well when she wrote that "the bones, so to speak, of Gerard's work are, it is true, taken from Dodoens's splendid Latin herbal, but it is Gerard's own additions which have given the book its hold on our affections."⁹²

[Gerard's](#) additions to the herbal are what make it so interesting now, [but, I believe](#), that would [also](#) have been true for his [first generation of Elizabethan readers. For them, the herbal was a](#) reference book with [practical information and recipes](#) [livened by personal anecdotes, all resting on the groundwork of Dodoens. More than that, the *Herball* contained real news.](#) Gerard [reported from first-hand knowledge on the activities of interesting, important men doing remarkable things. He got pictures and descriptions of American medicinal plants from men who had seen them in their native places: the account of Rough Bindweed of Peru, or Sarsa Parilla, for example, came from John White, Governor of Roanoke,](#) "as [he] himself reported unto me."⁹³

Gerard [presented](#) both theoretical and practical plant knowledge from his work in gardens and in surgery. [Thus](#), Gerard could say [from hands-on](#) personal experience that the Mandrake was neither deadly nor shaped like men's and women's bodies. He wrote:

For I my selfe and my servaunts also have digged up, planted, and replanted verie many: & never could either perceive shape of man or woman, but sometime one straight roote, sometimes two, and often sixe or seaven braunches coming from the maine great roote; even as nature list to bestowe upon it as to other plants.⁹⁴

[From an examination of Gerard's additions to the *Herball* \(1597\) it is clear that he had a great deal of very specific knowledge at his fingertips, and he was purposefully accumulating more in the form of apothecary recipes, case histories, new varieties of plants, taxonomic features, localities of indigenous plants, and horticultural techniques—some of which worked and some of which did not. In light of recent research on the use of commonplace books in this period, we have to wonder](#) if Gerard kept a commonplace book or notebooks of

⁹² Eleanour Sinclair Rohde, *Old English Herbals*, (New York: Longmans, Green and Co., 1922), 100.

⁹³ Gerard, 1597, Book II, Chap. 302: 710. *Of rough Bindweed*.

⁹⁴ Gerard, 1597, Book II, Chap. 60: 281. *Of Mandrake*.

quotations, notes, and specimens for his own reference. Other naturalists certainly did: the word *Adversaria* at the heart of Pena and L'Obel's title, *Stirpium Adversaria Nova*, means notebooks.⁹⁵

Erasmus' *De Copia Verborum* (1513) had recommended the use of commonplace books as part of humanist education. Such books, usually organized conceptually by subject categories, were “the principal technology for retaining, organising, and epitomising a large body of information.”⁹⁶ If Gerard did not learn to use commonplace books in school, he would have seen the practice in his apprenticeship among the barber-surgeons and among the London physicians, and the humanist-educated Dutch scholars and merchants who lived on Lime Street. These notebooks would have been the sites for recording information about experiences and quotations from reading for the purpose of later reflection and use in later more formal writing.⁹⁷ Adam Smyth explains that the recording of other texts verbatim into commonplace books was not viewed as plagiarism; the emphasis was on how the information could be used for “improvement... rather than a concern with authors and origins.”⁹⁸ The creation of more formal texts from these notebooks often involved “more than one compiler; the piecing together of texts that might accumulate over many years” and even over lifetimes.⁹⁹ Erasmus explained that, although the text might be from many sources, it should appear to be from the mind of the compiler.¹⁰⁰ Because of the nature of commonplace books—pieceworks of copied extracts, not original musings—many historians have been suspicious about using them to understand the life of historical individuals. The same methodological issue holds true for encyclopedic and derivative works; any Renaissance work on *materia medica* would warrant that definition.

Smyth suggests that a compiled book is best understood “on its own terms.”¹⁰¹ Leah Knight makes the point even more strongly in her long discussion of the practices of anthologizing—that is, gathering metaphorical flowers from the gardens of other books—in relation to the *Herball* (1597): “it is thus odd that Gerard is condemned for plagiarizing when he could be praised for compiling, a respectable enough habit in his day and particularly in his

⁹⁵ Ogilvie, *Science of Describing*, 174-181.

⁹⁶ Adam Smyth, *Autobiography in Early Modern England* (Cambridge: Cambridge University Press, 2010), 125.

⁹⁷ Smyth, 126-7.

⁹⁸ Smyth, 129.

⁹⁹ Smyth, 129.

¹⁰⁰ Ann Moss, *Printed Commonplace-Books and the Structuring of Renaissance Thought* (Oxford: Clarendon Press, 1996).

¹⁰¹ Smyth, 130.

field.”¹⁰² Even granting Gerard did not have a university humanist education, claims about Gerard’s plagiarism of another man’s material need to take into account these contemporary commonplace practices.

The assembly of information and images took Gerard a great deal of time. Robert Jeffers suggests that Gerard began compiling information for the *Herball* (1597) in the early 1590’s.¹⁰³ From my analysis, the length of time is less certain, but there are clues. The latest date in the *Herball* is on the engraved portrait of Gerard: 1598. The title page, letters of dedication, and the colophon all read 1597 as the year of their printing. Most of the letters of dedication were specifically dated at the start of December of 1597. Extant copies with contemporary binding have the 1598 portrait page printed on the verso of Gerard’s letter to the reader and bound with the other gatherings.

Several times Gerard mentions being in a hurry because the book is long or in press. When he wrote about the Pompions (pumpkins), he said

...it shall be therefore sufficient to describe some one or two of them, and referre the rest unto the viewe of their figures, which most lively do expresse their differences; especially bicause this volume waxeth great, the description of no moment, and I hasten to an end.¹⁰⁴

Gerard wrote of planting Mallowe seeds in his garden at the time he wrote the same chapter or sent it to the printer: “at the impression hereof, I have sowne some seedes of them in my garden, expecting the successe.”¹⁰⁵ The flowers opened in July, according to the information in the Mallows chapter; this implies that the seeds must have been planted and the chapter organized and printed in April or May but of what year?

This sense of haste may also be the reason why his long, careful instructions for preparing beds of “hot and new horse dung” in April–vital for successfully sowing “cold seeds” of melons and such-like and plants from the Indies–were consolidated in the chapter on Cucumbers “according to my promise heretofore made.”¹⁰⁶ So his accounts of the American sunflower and the Briony of Peru–coming before and after the Cucumber chapter in Book

¹⁰² Leah Knight, *Of Books and Botany in Early Modern England: Sixteenth-Century Plants and Print Culture* (Farnham, Surrey: Ashgate, 2009), 69-83, especially 82.

¹⁰³ Robert Jeffers, *The Friends of John Gerard (1545-1612), Surgeon and Botanist* (Falls Village, Connecticut: Herb Grower Press, 1969).

¹⁰⁴ Gerard, 1597, Book II, Chap. 330: 772. *Of Melons, or Pompions.*

¹⁰⁵ Gerard, 1597, Book II, Chap. 338: 789. *Of Marshe Mallowe.*

¹⁰⁶ Gerard, 1597, Book II, Chap. 326: 765-765: *Of Cucumbers.* 613

II-referred readers there.¹⁰⁷ Gerard spoke from painful experience when he stressed the necessity of these warm manure seedbeds with southern exposure. His Bryonie of Peru had perished before bearing fruit

by occasion of the great rain and intemperate weather that happened in Anno 1596. but I am in good hope to see it in his perfection, then we shall easily judge whether it be that right *Mechoacan* that hath been brought from Mexico, and other places of the West Indies or no?¹⁰⁸

Again this analysis is necessarily tentative, but it suggests that Gerard was still gathering and writing at least some of the material in Book II early in the summer of 1597 when parts of the work were already at the printers.

The preface by Thomas Johnson to the second edition of the *Herball* seemed to say that Gerard used the complete Priest translation of Dodoens without acknowledging Priest's work. At the same time it denigrated Gerard's knowledge of Latin and plants. The question arises: Why did Thomas Johnson not direct his criticism instead toward the publisher John Norton, who did have enough Latin and who, as Johnson knew, had set the project in train and had passed up the opportunity to correct the problems before publication? The likely answer is discretion: he had been hired by Adam Islip, Joice Norton, and Richard Whittaker for the revision. It would have been bad policy and bad form to criticize the late husband of his own publisher.¹⁰⁹

Johnson only tangentially alluded to L'Obel's personal complaint against Gerard. On the face of it, the English surgeon and the Flemish physician should have been colleagues, not rivals. Gerard had known L'Obel and his naturalist neighbors on Lime Street and sought to become part of their European seed exchange network.¹¹⁰ Although their training and experience of the world was markedly different, Gerard and L'Obel had in common a gentle background, experience at serving plant-loving nobility, and a passion for plants and herbal knowledge.¹¹¹

¹⁰⁷ Gerard, 1597, Book II, Chap. 246: 613: *Of French Marigold, or African Marigold*: "the root is white, compact of many strings, which perish at the first approach of winter, and must be set in most perfect dunged ground: the manner how, shall be shewed when upon the like occasion I shall speake of Cucumbers and Melons." Book II, Chap. 332: 778, *Of Gourdes*: "They are planted in a bed of horse dung in Aprill, euen as we haue taught in the planting of Cucumbers."

¹⁰⁸ Gerard, 1597, Book II, Chap. 308: 723. *Of Bryonie of Mexico*.

¹⁰⁹ For John Norton's will and large bequests to his wife, Joyce, and other members of the Norton family, see Robert Plomer, *Abstracts from the Wills of English printers and stationers, from 1492 to 1630* (London: The Bibliographical Society, 1903), 45-47.

¹¹⁰ Deborah Harkness, *The Jewel House: Elizabethan London and the Scientific Revolution* (New Haven, Conn.: Yale University Press, 2007), 48-9.

¹¹¹ L'Obel dedicated his *Balsami* (1597) to Baron Hunsdon. This dedication was to the second son John who had just gained the title after his father's death and then received the office of Lord Chamberlain. A. L. Rowse, "Lord Chamberlain Hunsdon," in *Eminent Elizabethans* (Athens: University of Georgia Press, 1983), 189.

The Herball (1597) recorded their exchanges of rarities and at least one botanical trek together near London, and it showed respect for L'Obel by adopting his taxonomic method in Book I. However, in the course of the Herball's preparation, the relationship between Gerard and L'Obel broke down.

Deborah Harkness has reconstructed the events from L'Obel's side.¹¹²

When the Flemish apothecary, James Garret, Gerard's colleague and L'Obel's Lime Street neighbor, looked at proofs of the Herball at John Norton's press, he saw many troubling mistakes and notified both L'Obel and Norton. To protect his investment in the project, Norton asked L'Obel to fix the problems, apparently without telling Gerard. After L'Obel submitted about a thousand corrections, Gerard heard about his colleague's new role. Rather than acceding to the physician's changes, Gerard challenged L'Obel's knowledge of English. Norton and Gerard went ahead without L'Obel (Harkness suggests that L'Obel's laudatory letter in the 1597 Herball's frontmatter was forged).¹¹³

L'Obel got the last word, however. In 1605, L'Obel condemned Gerard for theft and stupidity in a book printed in the Netherlands (despite the London imprint), well away from any remaining supporters of Burghley or Gerard.¹¹⁴ L'Obel also wrote in his personal copy of Gerard's second garden catalogue that all the information in it was false.¹¹⁵ It seems likely that this was the result of jealousy. Both men competed for the same kinds of patrons and the same kinds of readers. Even though Norton printed L'Obel's 1598 pamphlet on the healing powers of imported balsam, the Herball had the bigger print run and readership. Even more galling to L'Obel, perhaps, Gerard's chapter on balsam publicized the competition: indigenous English remedies that rivaled the efficacy of the exotic simple, and at a lower price.¹¹⁶

¹¹² Deborah Harkness, *The Jewel House*, 15-19, 48-9, 262n2 (note, p. 18, that Gerard's Book I, rather than Book III, treats of grasses.)

¹¹³ Harkness, *Jewel House*, 54.

¹¹⁴ Matthias de L'Obel, *In G. Rondelletii...methodicam pharmaceuticam officinam animaduersiones* (London: Thomas Purfoot, 1605), 59. L'Obel's fullest statement about the affair in a manuscript that was only published in 1655: Matthias de L'Obel, *Stirpium illustrationes*, ed. William How (London: Thomas Warren, for Jos. Kirton, 1655), a2^V-a3^R.

¹¹⁵ B. D. Jackson, *A Catalogue of Plants Cultivated in the Garden of John Gerard*,... (London: Privately Printed, 1876), 55. Joseph R. Green, *A history of botany in the United Kingdom from the earliest times to the end...* (New York: F. P. Dutton & Co., 1914), 41.

¹¹⁶ Matthias L'Obel, *Balsami, opobalsami, carpobalsami, & xylobalsami, cum suo cortice explanatio* (London: Arnold Hatfield for John Norton, 1598). L'Obel's dedication to his patron, Lord Hunsdon, was signaled on the title page. It seems that Norton used brokers to gain access to the international market: Balsami was listed in the

The words and actions of L'Obel and Johnson turned John Norton's project into a long-lasting historical controversy. John Norton's successors, Adam Islip, Joice Norton, and William Whitaker, recognized that, despite the problems pointed out by L'Obel before publication, the herbal was still a viable and valuable resource and worth reprinting. Ironically, by recounting the affair in the second edition and correcting Gerard's many mistakes, Thomas Johnson gave Gerard and his *Herball* a lasting readership. It is now time to turn back to the man who had the idea for the *Herball* in the first place: John Norton.

John Norton, publisher, and his aims for the *Herball* (1597)

John Norton was a member of a prosperous English bookselling family. He finished his apprenticeship in 1586 with William Norton, his uncle and one of the founding members of the Company of Stationers.¹¹⁷ Upon gaining his freedom, John Norton went to Edinburgh, Scotland and began importing books from the Continent, an avenue not available to him in London where that patent was in the possession of two foreign families, the Birckmanns and de Renailmes. The ledgers of the Plantin Press of Antwerp show that, indeed, John Norton and Andro Hart had evaded the control of London regulations and were buying and selling books in the late 1580's.¹¹⁸

Norton's career was marked by the pursuit of aristocratic patrons and printing political volumes. In Edinburgh, Norton printed and sold an anti-Catholic work: *A discoverie of the unnatural and traitorous conspiracie of Scottish papists, against God, his church, their native countrie, the Kings Majesties person and estate...First printed and published in Scotland, at the special commandement of the Kings Majestie* (1593). In 1594 Norton returned to London and went into business with his cousin, Bonham Norton. H.S. Bennett suggests that the Norton cousins worked with a Protestant-leaning group of printers at Elliot's Court in the "Little Old Bailey."¹¹⁹ John Norton's first London imprint was John Napier's (1550-1617) *A plaine discoverie of the whole Revelation of Saint*

catalogue of German bookseller Georg Willer. Graham Rees and Maria Wakely, *Publishing, Politics, and Culture: The King's Printers in the Reign of James I and VI* (Oxford: Oxford University Press, 2009), 220-221.

¹¹⁷ William Norton's shop The Queen's Arms was in St. Paul's Churchyard. Blayney, 36.

¹¹⁸ John Barnard, "Politics, Profits and Idealism: John Norton, the Stationers' Company and Sir Thomas Bodley," *Bodleian Library Record* 17, (2002): 331-332.

¹¹⁹ H.S. Bennett, *English Books and Readers, 1475- 1557*, 2nd edition (Cambridge: Cambridge University Press, 1989), 280.

John set down in two treatises (1594). This work, originally printed and sold in Scotland, expressed a strong anti-Catholic sentiment.¹²⁰

Norton next printed a French historical work, *The historie of Philip de Commines Knight, Lord of Argenton* (1596). The book was dedicated to Burghley by its translator, Thomas Danett (1543-1601), whose father had been Burghley's cousin and friend. Philip de Commines dealt with matters of grave concern to Burghley and all of England: court politics, the death of princes, and succession to the throne.¹²¹

Then, in a short time frame, Norton used several printers to complete a number of works on widely differing subjects: Gerard's *Herball* (1597), *The riddles of Heraclitus and Democritus* (1598), the second edition of *The ende of Nero and beginning of Galba Fower books of the Histories of Cornelius Tacitus* (1598), *L'Obel's Balsami* (1598), and the pamphlet-sized *Catalogus arborum, fruticum ac plantarum tam indigenarum, quam exoticarum in horto Johannis Gerardi* (1599).

Before going into more detail about the publication of the *Herball* (1597), it is important to consider these other texts printed around the same time. While the riddles may have appealed to the erudite interests of educated Elizabethans, the work of Tacitus had a strong political dimension to it. By printing this volume, John Norton gave support to the anti-Cecil faction of Robert Devereux, the Earl of Essex.

Like Commines' history, Tacitus's work was germane to the times and the problem of establishing Elizabeth's successor. The book described the fall of one Roman dynasty and the terrible wars that erupted afterwards. Tacitus's criticisms of corruption, the agenda of ministers, and the undeserving base-born who seized power resonated with those Elizabethans who were anxious about their own court intrigues and specifically resentful of the power held by William Cecil, Sir Walter Raleigh, and their circle. Interest in this work of Tacitus had begun

¹²⁰ Napier had dedicated the text to James VI of Scotland and urged him to purge his house, court, and country of all "papists, and Atheists or Newtrals... Til at last, your M.(ajesty's) whol country stand reformed in the feare of God ready waiting for that great day, in the which it shall please God to call your M.[ajesty] or yours after you, among other reformed Princes, to that great and universall reformation, and destruction of that Antichristian seat and citie Rome, according to the wordes prophecied, Apoc. 17..." John Napier, *A plaine discoverie of the whole Revelation of Saint John set down in two treatises* (London: Norton, 1594), A3^R-A4^L.

¹²¹ Christina DeCoursey, "Danett, Thomas (1543–1601?)," *Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004). Lord Argenton had served as the advisor to King Louis XI of France, that is, a position analogous to Burghley's. On the death of a prince and the issue of succession, he wrote: "Notwithstanding that I know it to be a matter of course that after the death of great and mightie princes, great alterations ensue to the losse of some, and gain of other: for riches and honors follow not alwaies their expectation that hunt after them" (preface to chapter 1). This pragmatic stance was one that advised many ambitious men of the time. Philip de Commines, *The historie of Philip de Commines Knight, Lord of Argenton* (London: Norton, 1596), B1^{R-V}.

at the University of Oxford in the 1580s and was taken up particularly by Robert Devereux, the Earl of Essex, and his supporters.¹²² The first and second editions of the work, both dedicated to Elizabeth, included a letter to the reader by “A. B.,” later attributed to the Earl of Essex himself, that warned of the deleterious effect of flawed advisors upon a benevolent monarch:

in these fovver books of the storie thou shalt see all the miseries of a torne and declining state: the Empire usurped; the Princes murdered; the people vvavering; the souldiers tumultuous; nothing unlavvfull to him that hath power, and nothing so unsafe as to be securely innocent. In Galba thou maiest learne, that a good Prince gouerned by euill ministers is dangerous as if he vvere euill himselfe.¹²³

Malcolm Smuts suggests that attitudes in this work toward virtue and nobility, or lack thereof, “came to colour the ways in which Essex and his followers perceived rival groups at court,” that is, William Cecil, his son [and successor](#) Robert Cecil, and Sir Walter Raleigh.¹²⁴

In the course of his service, Burghley had been accused of constructing, from very little evidence, a noble family tree that would make [him look](#) worthy of advising the queen. Following the death of Burghley, his son Robert Cecil came to be associated [even more closely](#) with men [who were](#) manipulating their way into high political places while, Alastair Bellany explains, Essex “embodied true honour, defined in terms of birth, virtue and martial valour.”¹²⁵ In a period when physical appearance was thought to reveal internal character, Robert Cecil’s small stature and hunched shoulders and back added a physiognomic support to the attacks on him.¹²⁶ He was derided in “scurrilous ballads and libels” as Crookback.¹²⁷ This critique of Elizabeth’s advisors was a normal part of court

¹²² Malcolm Smuts, “Court-Centred Politics,” in *Culture and Politics in Early Stuart England*, Kevin Sharpe and Peter Lake, eds., (Stanford, California: Stanford University Press, 1993), 25. (21-44)

¹²³ Cornelius Tacitus, *The ende of Nero and beginning of Galba Fower books of the Histories of Cornelius Tacitus, Second Edition* (London: By Edm. Bollifant, for Bonham and John Norton, 1598), T3^{R+V}.

¹²⁴ Smuts, 29.

¹²⁵ Alastair Bellany, *The Politics of Court Scandal in Early Modern England* (Cambridge: Cambridge University Press, 2002), 140.

¹²⁶ Pauline Croft, “The Reputation of Robert Cecil: Libels, Political Opinion and Popular Awareness in the Early Seventeenth Century,” *Transactions of the Toyal Historical Society Sixth Series* 1 (1991): 57.

¹²⁷ Blair Worden, “Ben Jonson among the historians,” in *Culture and Politics in Early Stuart England*, Kevin Sharpe and Peter Lake, eds., (Stanford, California: Stanford University Press, 1993), 77. For Robert Cecil’s humpback, other Cecil family medical problems, and the varieties of medical practitioners who treated them, see Brian Nance, “The Arena and the Study: Medical Practice in Turquet de Mayerne’s Treatment of Robert Cecil’s Final Illness,” in Florence Eliza Glaze and Brian K. Nance, eds., *Between the Text and the Patient: The Medical Enterprise in Medieval & Modern Europe* (Florence: Sismel, 2011; Micrologus’ Library, 39). 419-440, especially 423-427. I am indebted to Prof. Nance and Prof. Glaze for a [copy](#). See also [Deborah Harkness, “Nosce teipsum : curiosity, the](#)

politics, but such attacks on “court corruption as a consequence of the defeat of true honour lingered into the Jacobean age and beyond.”¹²⁸

John Norton turned to Gerard to complete the herbal project in a transaction that brought benefits to both these ambitious men. In times as politically tense as England in the 1590’s, it was difficult to take any political stance without alienating other factions. Given the dangers of publishing the Tacitus so closely, perhaps, in the course of publishing works associated with Essex, Norton thought it prudent to use Gerard as a way of strengthening the link with Burghley (begun in 1596 with *The historie of Philip de Commines*).

The *Herball* (1597) was one of the largest volumes John Norton printed and sold in his publishing career. His outlay of money for the paper alone must have been enormous even when he split the burden with his cousin Bonham and even if he was cautious about the print run. In assessing the financial risks and potential readership, Norton could draw on his family’s success with related works. William and Bonham Norton had reprinted Thomas Cogan’s Haven of Health four times in the previous decade (1584, 1588, 1589, 1596) and at least three editions (1577, 1580, 1596) of Joyfull newes out of the newfound world, John Frampton’s English translation of Nicolás Monardes’s enthusiastic report on medicinal plants from the New World.¹²⁹ Norton may originally have expected that, in the midst of the College of Physicians’ debates over an official pharmacopoeia, Dr. Priest’s association with the book would help ensure sales both among medical practitioners and their patients. By engaging Burghley’s client to complete the project, Norton could imagine a still larger and a much more influential audience for the volume.

Norton’s decision to make the Dodoens herbal available in English may be may have reflected not only his publisher’s marketing sense but also a broader agenda. Publishing the herbal in the vernacular could be seen as a challenge to the medical elite’s hold over the Latin and Greek medical literature, an issue Gerard understood as a barber-surgeon without university training. Gerard’s own religious beliefs are not known beyond the eloquent but conventional pious references to Adam and the Garden of Eden in this letter to the reader. But his publisher and his

humoural body and the culture of therapeutics in late sixteenth- and early seventeenth-century England,” in R.J.W. Evans and Alexander Marr, ed., *Curiosity and wonder from the Renaissance to the Enlightenment* (Aldershot: Ashgate, 2006), 171-192.

¹²⁸ Bellany, 140.

¹²⁹ Norton’s print run is not known. WorldCat’s list of one hundred or so copies of the 1597 *Herball* unquestionably undercounts the number of surviving volumes in rare book libraries—the University of Oklahoma and Linnean Society of London’s copies are not represented, for example—and ignores copies in private hands.

patron were fiercely committed to the Protestant cause in England. They may well have regarded the vernacular *Herball* as fostering its readers' ability to read the Creator's Book of Nature and understand the virtues of native plants as signs of Divine Providence's work in the realm.¹³⁰

Sustaining the whole enterprise was the expectation of patronage favor. For both Norton and Gerard, the *Herball* (1597) was a patronage gift to Burghley. Norton, however, got much more mileage out of the project. He presented a beautifully colored copy to Thomas Bodley's librarian and, over the course of a decade, initiated the procedure by which a copy of every book printed had to be sent to Bodley's library. After the accession of James I to the throne, Norton gave a copy of the *Herball* to James I in 1603. In return, Norton gained the title of King's printer of Greek, Latin, and Hebrew texts, and it appears that Gerard became herbarist to the new King and Queen.¹³¹

Gerard won an audience among his own kind, notably reaching gentlewomen who practiced herbalism in their households and for charity.¹³² The book established his authority within his profession and social circle and publicized his connections among the rich and powerful.

Conclusion

The *Herball* (1597) is our single best source for what we know of Gerard as a person, but we must remember that the process of the book's creation was complex and equally linked to John Norton. For both Gerard and Norton, it was a book written and printed with a career and patron in mind. Gerard does tell us a great deal about what was actually happening in his travels and in his garden, but that was not his primary aim: like Norton and many other contemporaries, he used publication to further his own ambitions.

¹³⁰ On the connections between natural history studies and Protestant religious beliefs, see Peter Harrison, *The Fall of Man and the Foundations of Science* (Cambridge: Cambridge University Press, 2001). Harrison is particularly helpful in offering the theme of careful observation of the natural world common to both elite and popular naturalists; Harold J. Cook, "The Cutting Edge of a Revolution? Medicine and Natural History Near the Shores of the North Sea," in *Renaissance and Revolution: Humanists, Scholars, Craftsmen, and Natural Philosophers in Early Modern Europe*, ed. J.V. Field and Frank A. J. L. James (Cambridge: Cambridge University Press, 1993): 45-61; Peter Barker, "The Role of Religion in the Lutheran Response to Copernicus," in *Rethinking the Scientific Revolution*, ed. Margaret J. Osler (Cambridge: Cambridge University Press, 2000); Sachiko Kusakawa, *The Transformation of Natural Philosophy: The Case of Philip Melancthon* (Cambridge: Cambridge University Press, 1995); Kathleen Crowther-Heyck, "Wonderful Secrets of Nature: Natural Knowledge and Religious Piety in Reformation Germany," *Isis* 94 (June 2003): 253-273.

¹³¹ John Barnard, "Politics, Profits and Idealism: John Norton, the Stationers' Company and Sir Thomas Bodley," *Bodleian Library Record* 17, (2002).

¹³² Wear, 50.

With this book, Gerard strengthened ties to his patron Burghley. He established his work and his importance in England through the printed word. The book became a self-fashioning tool, and nowhere more audaciously than in the portrait: with the sprig of Virginia potato flower in his hand, Gerard made himself into an emblem of England and her future. With the new authority created by the herbal, Gerard could now break into a cohort of international writer-scholars-naturalists to which he had little previous access.

Chapter Five, Conclusion, John Gerard: Herbarist

Over the course of his life, John Gerard nurtured the various roles he played in several overlapping communities in sixteenth-century London. The pattern of behavior and relationships he adopted in his apprenticeship years with the Company of Barber Surgeons continued throughout his life. Like so many Elizabethans who strove to make a place for themselves in a competitive world, Gerard deliberately sought out powerful men and developed relationships with them that enriched his own life and opened opportunities to him. To say that Gerard took advantage of other men's ambitions to express his own would be true. To judge this as a fault or sign of unethical character, however, would be a mistake. Gerard saw himself as a typical member of the lower landless gentry who happened to have the skills to use medicine and horticulture as avenues to success. He was an ambitious man, and most of Gerard's contemporaries saw him as a successful London citizen active in the guild communities of surgery, gardening, and apothecary. In the previous chapters, I have examined Gerard's activities and expectations against the backdrop of Elizabethan London.

As a barber surgeon, Gerard began with a savvy and powerful master who groomed him for success in the Company of Surgeons and helped him to develop the skills needed to make his way in London's competitive market for medical practitioners. At the same time that the Company of Barber Surgeons was establishing boundaries for the types of work its members could perform, their apprentices were being taught a combination of medical theory and practical application that lent itself to pushing against these same limits.

For Gerard a particularly important aspect of this was the influx of hitherto unknown plants from around the world. The plants raised tempting possibilities of untapped resources for medicine. Could these exotics replace depleted or expensive *materia medica*? At the same time, these plants represented a destabilizing influence on the medical organization and power structures in London. How did these plants fit into the classical categories of medicine and pharmacy? Who was best equipped to study, prepare, and prescribe them? Some surgeons pushed into the areas of medical practice that had been legally reserved for physicians and apothecaries. These men used their knowledge to prescribe herbal medicines and provide the simple and compound preparations to patients. The apothecaries and physicians chafed at the infringement of the barber surgeons upon their work. The increase in work translated into increased profits for the surgeons and the demand for an official pharmacopoeia by the physicians.

In many ways, the argument over what training and knowledge enabled a man to practice physic or surgery grew out of an economic and class struggle that Gerard himself epitomized. As a surgeon, Gerard used his skilled hands every day for his craft. By birth, though, he was a member of the lower gentry and so regarded himself as able and ready to govern others. Through his trade, Gerard was the equal of any man in a guild. Through his family connections, he was the social equal of many physicians. Such liminality was common and very visible to Londoners; and it became the impetus for strengthening standards for medical education and limits of practice. Gerard responded to the medical and social controversy by becoming personally active in the arena of plants. He not only collected and grew them, he also tried to understand the theory underlying the plant phenomena he saw every day.

The movement of one kind of craftsman into the practical aspect of another guild's work—in this case, a surgeon encroaching on the apothecaries of the Grocer's Guild—was common for the time. Gerard, however, did much more than become a gardener of medicinal plants. He collected, grew, identified and exchanged medicinal, indigenous, and imported plants. These actions took him far beyond the plants he knew as a boy in Cheshire and those he had learned about as a surgeon's apprentice. These activities allowed him to move into a realm more associated with his gentle background, that of gentleman gardener, a governor of plants.

Through gardening, Gerard learned an aspect of plant life that had little to do directly with their uses in surgery. He knew, for example, that plants changed when brought from the wild into the garden. Plants grown in garden soil were said to have been tamed, gentled, or cultured to the new environment and they usually became milder and more refined. Gardening, too, gave him ways to see and think about what was actually going on when a plant "changed" in a new habitat. Unlike the many Elizabethans who saw these changes as magical, Gerard knew from his own experience in his garden that nature could be manipulated by human art and technique—just as his own life could be changed by hard work and circumstances.

The crisis in pharmacy instigated by the introduction of new plants into England provided Gerard with new opportunities. Through his garden contacts, Gerard collected and grew many of these introductions, and he examined others closely. From his experience, Gerard had strong opinions about the issues surrounding *materia medica*. He knew that many herbs were used erroneously by the apothecaries and misunderstood even by

physicians.¹ Spurred by the economic and political interests of his patron, William Cecil, Gerard delved into the study of indigenous or naturalized plants that could replace foreign vegetable oils and dyes. His knowledge of native plants, gained from herbarising wherever he went, allowed him to suggest English substitutes for expensive imported ingredients in *materia medica* as well. As he learned new ways to classify the nature and virtues of plants, he tested native plants and tried to place them into the correct categories. His work on the *Herball* (1597) gave him the chance to expound his positions on these issues to a much wider audience.

Gardens were themselves important places in Elizabethan England. A man could make his reputation with a successful garden of exotic and expensive plants. As he gentled the wild plants to their new home in his Holborn garden, Gerard attracted and developed a cadre of colleagues who shared his fascination with plants. These men were both English and foreign, doctors, apothecaries, surgeons, mercers, mapmakers, and gentlemen. Gardens were the meeting places for these men and allowed them to begin to see themselves as part of a community. Deborah Harkness has identified an enclave on London's Lime Street of apothecaries and physicians from the Low Lands who befriended and were befriended by Gerard.² Unlike England, the Continent boasted many universities with physic gardens for the purpose of teaching physicians and other medical practitioners. Gerard was obviously influenced by this standard of medical education when he urged that physic gardens be founded and put under his supervision at the University of Cambridge, the College of Physicians in London, and at the Company of Barber Surgeons.³ For the health of the realm it was critical, Gerard felt, that training in medicine and surgery incorporate the direct experience with medicinal plants that was so important in his own career.

Gerard gained a position within Burghley's household as much because of his reputation as a surgeon with strong London guild connections as because of his experience with his own garden. In his two decades as superintendent of Burghley's gardens Gerard oversaw the implementation of Burghley's garden plans at Theobalds and Burghley House on the Strand. The work for Burghley permitted Gerard to expand his knowledge of horticulture and increased the variety of and number of plants he grew in his own garden in Holborn.

¹ These controversies continued throughout his lifetime and were not resolved for many years. The pharmacopoeia long called for by the College of Physicians was not completed until well into the seventeenth-century, when its recommendations were challenged anew by the newly founded Society of Apothecaries.

² Deborah Harkness, *The Jewel House* (New Haven, Connecticut: Yale University Press, 2007).

³ *Annals of the Royal College of Physicians*, July 12, 1587 and October 6, 1587. For details about the garden of the Barber-Surgeons, see S. Young, *Annals of the Barber-Surgeons* (London: Blades, East & Blades, 1890): 542-3.

As he worked for Burghley, grew his plants, enlarged his cadre of colleagues, and expanded his knowledge of plants, Gerard fashioned for himself a new and more influential identity. Gerard was deeply engaged by the prospect of transplanting rustic plants to his garden and there transform them for economic and social purposes. Like so many of these plants, he too was born in the country, but unlike them, he enjoyed the benefits of a gentle lineage. Whether or not Gerard “transformed” plants to our modern satisfaction is irrelevant. Gerard’s language reflected, at the very least, a metaphorical equation in his mind between the transformation in the garden and in his own life; but the circumstances of Gerard’s life make it more than just a metaphor. The plants in his garden grew with variable success, but the garden itself proved to be a fundamental tool for Gerard’s political, social, and horticultural success.

It was this transformed identity that drew the notice of politically active bookseller John Norton when Norton needed help completing a new herbal. Gerard would not have been asked to participate in the endeavor if he had not already ventured far outside the Company of Barber-surgeons to become a gardener with connections to medical men, gentlemen gardeners, and aristocratic patrons. Both Norton and Gerard were ambitious men. Norton gained a valuable link to Burghley through Gerard’s book dedication. Gerard turned the *Herball* (1597) into an unexpected opportunity to show off his own expertise while making a magnificent gift to his patron Burghley.

The creation of the *Herball* (1597) was much more complex than the way it is usually described. The process of making the volume involved many men. The printer and translator were both essential to the creation of the book but their contributions were rarely acknowledged (in part because the translator died and his translation is not extant). Behind Norton’s choice of subjects and formats for his publications were his strong political and religious goals and the never-ending quest for patronage.

Matthias de L’Obel’s accusations of plagiarism against Gerard give us a window into a world of rapidly changing assumptions and practices about the meaning of authorship, originality, and intellectual property. To a project initiated by the bookseller rather than creators of its content, Gerard added his reputation, the names of his important friends, his ideas about plants, and his experiences as a surgeon, gardener, and herbarist. In an examination of the complex creation of this book, all these aspects become valuable contributions.

For modern historians, the personal information Gerard included in the *Herball* (1597) allows us to see his ideas and ambitions more clearly. When regarded as the “author” of the herbal, he has been dismissed as, at best, a mere compiler and, at worst, as a plagiarizer. I argue that any assessment of Gerard must take into account both

what he thought he was doing and what most of his contemporaries thought he was doing. Compilation, commonplacing, and commentary were respected modes of Elizabethan learning and communication, and Gerard took it for granted that he was glossing Dodoens through Priest's translation.

Tellingly, the title page of the *Herball* (1597) said that this was a general history of plants “gathered by John Gerarde.” Gerard gathered plants every day in his garden; his work on the herbal was another way of gathering and sharing his best flowers. He expressly recognized his limitations of learning and time and expected that a later edition would correct his errors. He was grateful for the chance to express his knowledge of plants and to acknowledge the contributions of his fellow collectors. Above all, the project let him give his patron Burghley an appropriately great gift for twenty years of support and a place in the noble household of a man who valued his talents.

If we want to see Gerard as an original writer, we must look at his two garden catalogues of 1597 and 1599. They represent pieces of his own work in ways the herbal does not. Although the two catalogues were printed only three years apart, a close look reveals many differences between them in the format and names of plants. The first catalogue gave only Latin names, the second built on the experience of the *Herball* and broadened the audience by giving both English and Latin names. The mere fact that the catalogues offered two different ways of providing information about his garden shows that Gerard had a deep intellectual understanding of what gardens were all about and had expanded his target audience. The second catalogue revealed changes in the garden itself: Gerard had gained about forty-four new plants and lost about seven others in his garden by the time of the second catalogue. And he had a new sense of how names could help or hinder identification: where some plants had been labeled originally by the name of the author or collector or gardener, now Gerard used a descriptive term to distinguish them from similar plants. For example, *Cardus Gerardi* became *Cardus Chrysanthemus* and *Centaureum Lobelii* became *Centaureum luteum*. (See Appendices 3 for details of these changes).

Gerard, Herbarist

The consequence of looking at Gerard through these different roles— surgeon, gentleman gardener, client, author— is to see him as a different type of Elizabethan man than he is usually understood to have been. His changes from the first to the second catalogue and his additions to the herbal attest to Gerard's active participation in a community of men who collected, grew, and exchanged plants, and shared what they knew.

On the Continent, such men already were being called by terms that we would now render as “naturalist”: *studiosus rei botanicae, rei herbariae, or rerum naturae*.⁴ In England, however, there was no such label, let alone an established job or position for a man with this kind of specialized “natural knowledge.”⁵ Instead, there was the title of herbarist, more knowledgeable than a gardener but not yet associated with a theoretical understanding of plants, their categorization, and their growth. Thomas Elyot’s sixteenth-century dictionary defined the Latin equivalent, *herbarius*, as a man who “knoweth the properties of herbes, and maketh medycynes of them.”⁶ Gerard elevated the title to a higher, more intellectual status that was achieved in his own case through his surgical education, herbarizing trips, experience with exotic plants, and the *Herball* (1597). He was, in his own mind, at least, a scholarly herbarist.

Gerard had English models for all of his roles but this one. He knew Matthias de L’Obel, his sometime collaborator and rival, and L’Obel’s neighbors in Lime Street, the Garrets and Coles, and he knew about their friend, the important continental naturalist, Carolus Clusius (Charles L’Ecluse); but they were all foreigners. There was no such thing as a London herbarists’ guild or a degree program at the university. All Gerard had to guide him was the sense of a growing community of men specifically interested in this area of natural history.⁷ Gerard had to feel his way into this role over the course of his life.

Clusius was the role-setter for European herbarists at the time. Although he was a contemporary of Gerard and did come to England to visit several of Gerard’s friends briefly, it is unlikely that Gerard met the older man; it would have been an occasion worth recording in the *Herball* at one of its many respectful references to the older botanist.

⁴ For discussions of the terms used around 1600 to describe a botanist or naturalist, see Brian W. Ogilvie, *The Science of Describing* (Chicago, University of Chicago Press, 2006), 45, 54.

⁵ Stephen Bredwell used the phrase in his laudatory letter in Gerard, *Herball* 1597, b4^R. For its use as a generic term by historians of early modern science in recent years, see, for example, the Introduction to *The Cambridge History of Science: Early Modern Science*, Roy Porter, Katharine Park, and Lorraine Daston, eds. Cambridge: Cambridge University Press, 2006), 11, and Part IV, “The Cultural Meanings of Natural Knowledge.”

⁶ Thomas Elyot, *The dictionary of syr Thomas Eliot knight* (London: Thomas Berthelet, 1538), unpaginated.

⁷ Florike Egmond, “Correspondence and natural history in the sixteenth century: cultures of exchange in the circle of Carolus Clusius,” in Francisco Bethencourt and Florike Egmond, eds., *Cultural Exchange in Early Modern Europe, Vol. III: Correspondence and Cultural Exchange in Europe, 1400-1700* (Cambridge: Cambridge University Press, 2006), 111-112. Egmond refers to Clusius as a naturalist.

In discussing the life of Carolus Clusius, Florike Egmond explains that the trajectory of a career as an herbarist (she writes naturalist) typically began with medical training and then extended into natural history through self-education.⁸ But because the interest in plant exotica and *materia medica* was often driven primarily by hopes of profiting from these curiosities, some members of the naturalist community shifted back and forth between their mercantile and scholarly interest in plants.

Brian Ogilvie suggests that there were rules of behavior among the naturalists that were determined informally by the members of the community. Knowledge of Latin was necessary for the exchange of letters and plant materials across Europe. Profit was not the goal, rather the exchange and gain of natural knowledge motivated this group. This focus, he argues, placed those with local knowledge and many plant merchants at the edges of the naturalist community; they were seen as sources of information and natural objects rather than as full participants. He continues:

Naturalists did not simply ignore social distinctions for politeness' sake; as we will see, they imagined their community in opposition to both the hierarchical society of the court and the increasingly commercial society of the town and marketplace. Natural history, as its practitioners insisted, was a liberal art: within the bounds of their community, naturalists were free and equal, unsullied by either servitude or filthy lucre.⁹

Whether or not this was the case on the Continent, this was not Gerard's experience.

In London, I argue, there was a unique intersection between men of different social strata in gardens. Wealthy noblemen, notably Burghley and Zouche, grew exotic plants in their own lavish gardens but also supported investigations into indigenous plants of national economic importance. Patronage was essential for English plant investigation in the sixteenth century. The shared mercantile concern about self-sufficiency drove much of the support for local investigations. This focus on the local environment and indigenous plants in England stimulated further inquiry and involvement into the larger group of naturalists on the continent.

Holinshed's Chronicles (1587) explained to English readers what herbarists did and how important they were to the realm. It was the herbarists who were active finding native simples and taming exotic and imported

⁸ Egmond, 111-112. Brian Ogilvie, *The Science of Describing* (Chicago: University of Chicago Press, 2006), 54.

⁹ Ogilvie, 58.

plants to the soil of England so they would become useful for English medicines and other commodities.¹⁰ The first and best of these was

Carolus Clusius, the noble herbarist, whose industrie hath wonderfullie stirred them up unto this good act. For albeit that Matthiolus, Rembert [Dodoens], Lobell, and others have travelled verie farre in this behalfe, yet none hath come neere to Clusius, much lesse gone further in the finding and true descriptions of such herbes as of late are brought to light. I doubt not but if this man were in England but one seven yeeres, he would reveale a number of herbes growing with us, where of neither our physicians nor apothecaries as yet have anie knowledge.¹¹

From this list of men considered herbarists, it seems that the role of naturalist was conflated with herbarist in London. Because of the economic and political situation in England, this herbarist community also had a strong pragmatic cast to it that was specific to London.

Gerard provided several examples of this conflation in the *Herball* (1597). He called Carolus Clusius “that excellent and learned father of Herbarists” and explained in his letter to the reader that the very first herbarist was Adam, the first man who worked the soil with his spade and named all things created by God.¹² Gerard found William Turner to have been a “woorthie Herbarist and learned physition” as well.¹³ Among his own contemporaries, this group interested in natural history included men of both commercial and philosophical ventures with quite different levels of education and standards of behavior. Egmond explains that there were some, as physician Hugh Morgan and apothecary James Garret Jr., whose pursuits went

far beyond mere professional (medicinal) requirements and manifested ... in ways that came close to scholarly or elite forms and practises of knowledge.¹⁴

Latin was not the only language used by these herbarists; many preferred the vernacular. Egmond explains that “botany” was more “socially fluid” and “less closed off by scientific disciplinary boundaries” and so attracted a wide range of expertise.¹⁵ This helps explain how Gerard could consider himself a part of the group that included Clusius and L’Obel. Those learned herbarists regarded Gerard as their equal, as a letter from L’Obel made plain.

¹⁰ Raphael Holinshed, *Holinshed’s Chronicles*, Book I, Chapter 19, (London, 1587), 210.

¹¹ Raphael Holinshed, *Holinshed’s Chronicles*, Book I, Chapter 19, (London, 1587), 210.

¹² Gerard, 1597, Book I, Chap. 35, 50. *Of Flower de-luce of Florence*.

¹³ Gerard, 1597, Book II, Chap. 172, 473. *Of Clove Gilloflowers*.

¹⁴ Egmond, 113.

¹⁵ Egmond, 121.

Not surprisingly, in the *Herball*, Gerard quoted L'obel's salute to him as "expert herbarist, and master of happie successe in Surgerie."¹⁶

What did herbarists do?

Throughout the *Herball* (1597), Gerard drew attention to the special skills of herbarists and the ways herbarists used their knowledge. High on the list was determining which plants were best for certain ailments. Gerard explained that "Wilde Valerian is thought of the later Herbarists to be good for them that are bursten, for such as be troubled with the crampe and other convulsions, and for all those that are brused with falles."¹⁷

With this knowledge of medicinal efficacy, herbarists could group plants according to their natures, virtues, and morphology. Gerard knew how difficult it was to identify plants based on the descriptions or images sent by friends. The best information came from them "who have deepliest waded in this sea of simples."¹⁸ One plant that was surrounded by confusion was the Cockle. It was known in Italian as

Githone, whereupon most Herbarist being mooved with the likeness of the word, have thought it to be the true Gith or Melanthium; but how far they are deceived, it is better knowne then needfull to be confuted: for it doth not onlely differ in leaves from the true Gith, but also in other properties, and yet it is called Gith or *Melanthium*, and that is of the blacknes of the seede; yet not properly, but with a certaine addition that is may differ from the true *Melanthium*.¹⁹

Elsewhere, Gerard wrote of his difficulty in placing the New World plant sarsaparilla or Rough Bindweed into Old World categories.²⁰

Herbarists, Gerard made clear, took pains to visit other men who were interested in the natural world and shared information and plants with them. Many plants were traded in baskets across great distances. They were valuable enough to be stolen.²¹ In the *Herball* (1597), the Carrot of Crete

being the true *Daucus* of Dioscorides, doth not grow in Candie only, but is found

¹⁶ Gerard, 1597, Book I, Chap. 38, 55. *Of Ginger*. <http://129.15.14.63/galleries/16thCentury/Gerard/1597/Gerard-1597-0055-image/10in/>

¹⁷ Gerard, 1597, Book II, Chap. 424, 919. *Of Valerian, or Setwall*.

¹⁸ Gerard, 1597, Book I, Chap. 38, 55. *Of Ginger*.

¹⁹ Gerard, 1597, Book II, Chap. 428, 927. *Of Cockle*.

²⁰ Gerard, 1597, Book II, Chap. 302: 709-712. *Of rough Bindweed*.

²¹ Egmond, 123.

upon the mountains of Germanie, and upon the hills and rocks of Jura about Geneva, from whence it hath been sent & conceived by one friendly Herbarist unto another, into sundrie regions...²²

Gerard, for example, received an image of Ginger from L'Obel who had got it from apothecary William Dries when Dries was in Antwerp "to satisfie my [L'Obel's] desire."²³ Gerard met with Joachim Camerarius the Younger when the German visited London and received a "Germaine Flower-de-luce" from him.²⁴ Gerard developed a rapport with Jean Robin, "curious and painfull [i.e. painstaking] herbarist"²⁵ to the French king Henry IV. Jean Robin had a garden in Paris as early as 1580 and printed an alphabetical list of the plants in this garden in 1601.²⁶ Even though the garden was small and devoted to meeting the needs of the royal family, it was rich in rarities and Robin shared many plants with Gerard: the Wilde Cranes bill, Starrie Iacinth, Double Yellow Daffodill, Turkie or Ginnie-hen flower, Wilde Saffron, Garden Cresses, Indian Cresses, Gumme Succorie, Thorne Apples, Indian Figge Woort, and Barren woort.²⁷ Gerard was also acquainted with a French physician, Isaac de Laune, who sent to him the seeds of the Gentian.²⁸ Gerard received plants from Lord Edward Zouche, an avid plant collector and L'Obel's botanical patron who had traveled through much of Europe. Zouche gave Gerard seeds for the Candie Mustarde, Flower Gentle, Thorne Apples, and Honiewoort.²⁹ Gerard and James Garret, the Flemish apothecary who lived on London's

²² Gerard, 1597, Book II, Chap. 392, 874. *Of Candie Carrots*.

²³ Gerard, 1597, Book I, Chap. 38, 55. *Of Ginger*.

²⁴ Gerard, 1597, Book I, Chap. 35, 50. *Of Flower de-luce of Florence*.

²⁵ Gerard, 1597, Book I, Chap. 79, 122. *Of Turkie or Ginnie-hen flower*.

²⁶ Ambrosoli, 204.

²⁷ Gerard, 1597, 801, 98, 115, 122, 126, 194, 196, 227, 278, 580, 389. / 801, Book I, Chap. 70, *Of Hyacinthes and there kinds*; Book I, Chap. 76, *Of the bastard Daffodils*; Book I, Chap. 79, *Of Turkie of Ginnie-hen flower*; Book I, Chap. 81, *Of wilde Saffron*; Book II, Chap. 12, *Of Garden Cresses*; Book II, Chap. 13, *Of Indian Cresses*; Book II, Chap. 29, *Of Gumme Succorie*; Book II, Chap. 57, *Of Thorne apples*; Book II, Chap. 234, *Of great Figgewoort, or Kernellwoort*; and Book II, Chap. 123, *Of Barren woort*.

²⁸ Gerard, 1597, Book II, Chap. 100: 352. *Of Felwoort, or Baldmoney*.

²⁹ Gerard, 1597, 207, 255, 277, 432. Book II, Chap. 20, *Of Candie Mustard*; Book II, Chap. 40, *Of flower Gentle*; Book II, Chap. 57, *Of Thorne apples*; Book II, Chap. 149, *Of Honiewoort*.

Lime Street, were friends.³⁰ Garret gave to Gerard seeds and bulbs for the Lady's Slipper, Germander, Yellow-bulbed Flower de-luce, and Mountaine Lillies.³¹

An herbarist, if he was diligent and careful, grew many plants that others could not grow. Herbarists knew the art of horticulture. Gerard boasted that the Candie Cranes bill were "strangers in England, except in the gardens of some Herbarists: the which do growe in my garden very plentifully."³² The same was true for the Mugwoort Wormwood.³³ The Variable Flowers-de-luce grew "in the gardens of London, amongst Herbarists and lovers of plants. The Turkie Flower de-luce came from Constantinople, and doth prosper well in my garden, being not planted in over wet ground."³⁴

Herbarists traveled to collect and observe plants. As a young surgeon, Gerard had voyaged through the Baltic lands and noted the types of trees that grew in Russia. Gerard named Pena, L'Obel's co-author for *Stirpium Adversaria Nova* (1570), a "painfull" herbarist because it was he who found the rare Dropwort "growing naturally in Narbone in Fraunce..." when few contemporaries could.³⁵ Francis Penny, physician and herbarist, had located Rush Sea Grass on "the coast of the Mediterrane sea, in the way as he travelled to Piscaire," when it had "not as yet been found in England."³⁶

Finally, herbarists made their work public, and corrected their mistakes in public. In a remarkable passage, Gerard translated and quoted at length, with L'Obel's apparent wholehearted approval, L'Obel's chagrined discovery that what he thought was a drawing of Ginger plants newly drawn from life (the one supplied by the apothecary Dries) was really only a copy from a figure in an old herbal.³⁷ Gerard's additions to the *Herball* (1597)

³⁰ For Garret's connections with European naturalists, see Harkness, 14, and Chapter 1, "Living on Lime Street."

³¹ Gerard, 1597, 359, 533, 92, 151. Book II, Chap. 107, *Of our Ladies Slipper*; Book II, Chap. 203, *Of Tree Germander*; Book I, Chap. 67, *Of Bulbed Flower deluce*; Book II, Chap. 93, *Of mountaine Lillies*.

³² Gerard, 1597, Book II, Chap. 346, 798. *Of Candie Cranes bill*.

³³ Gerard, 1597, Book II, Chap. 436, 944. *Of forrein and bastard Wormwoods*.

³⁴ Gerard, 1597, Book I, Chap. 36, 51. *Of variable Flower de-luce*.

³⁵ Gerard, 1597, Book II, Chap. 412, 900. *Of Dropwoort, or Filipendula*.

³⁶ Gerard, 1597, Book I, Chap. 23, 31. *Of Sea Rush grasse*.

³⁷ Gerard, 1597, Book I, Chap. 38, 55. *Of Ginger*.

and his decision to revise and update his garden catalogue need to be recognized not only as advertisements for himself but also as his gifts to the communal body of herbarist knowledge.

After the *Herball* (1597)

Burghley died in 1598. It was a political and economic tragedy for Gerard, but also for the nation and the queen. Although Gerard would not have been in attendance at his patron's last moments, it seems likely that Gerard would have recognized the signs of Burghley's impending death. Both Norton and Gerard would have understood only too well the urgency of publishing the *Herball* while its dedicatee was still able to acknowledge it. The need to find a new patron was acute. The dedication of Gerard's second garden catalogue shows that he turned to Burghley's close friend and political ally, Walter Raleigh, rather than to Burghley's son, Robert Cecil. Nothing is known about the success or failure of this new patronage relationship, but Raleigh fell from royal favor right after Elizabeth's death in 1603.

John Norton meanwhile had successfully navigated the political intrigues surrounding the succession to the throne. In 1601, John Norton carried a letter to James VI of Scotland from the Earl of Essex and returned to London with a reply. The letter dealt with one of Norton's favorite causes, the Protestant succession to the English throne. While Norton was not condemned for carrying the letter, Essex was imprisoned, tried by Robert Cecil, and beheaded for treason following an armed attempt to take over London.

Upon James VI of Scotland becoming James I of Great Britain at the end of March 1603, Norton and several others recorded their intention to print copies of James's book *Basilikon Doron*. There was an edition printed and sold in Edinburgh and then three or more editions printed in London by the Nortons. The turnaround was surprisingly quick: "a copy" was "recorded as being available a mere two days after registration" with the Company of Stationers.³⁸ When James I arrived in London, Norton presented to him a copy of the new edition of *Basilikon Doron* and, perhaps, a copy of the *Herball* (1597).³⁹ James I rewarded John Norton with the position of King's printer of texts in Latin, Greek, and Hebrew. Relatively soon after, Gerard received the post of King's herbarist.

³⁸ Barnard, 333.

³⁹ Barnard, 331-332.

Gerard achieved this official title of herbarist but only for a short time. Documents name Gerard as herbarist to King James I in November of 1603, when Anne of Denmark granted him the lease for a small parcel of land adjacent to Somerset House in Westminster. The lease read:

Know Yee that for and in consideracon of the some of ffive Shillings of lawfull money of England in the name of a ffyne to us before hand payd by John Gerrard of London Surgeon and Herbarist to the Kings ma^{tie} (whereof and wherewth we acknowledge our self satisfied) as also for divers and sundry other causes and consideracons but especially of his singular and approved art skill and industrie in planting nursing and preserving plants hearbes flowers and fruits of all kindes. We are pleased to graunt unto the said John Gerrard one garden plot or piece of ground belonging and adjoining on the east part to o^f mansion house called Somersett howse... Yeelding also and annswearing yearlie to and for our owne use onely at the due and proper seasons of the yeare a convenient proportion and quantitie of herbes flowers or fruite renewing or growing w^hin the said Garden plot or piece of grounde by the arte and industrie of the said John Gerrard if they be lawfully required and demanded.⁴⁰

After Anne of Denmark leased the garden to Gerard, several weeks later she made Robert Cecil the Keeper of Somerset House. Gerard gave up his lease on the land to Cecil in 1605 after having enough time for just a few crops. Perhaps L'Obel's return from Middlebourg in 1603 (where his wife had recuperated from the poor London weather) began the end of Gerard's court career. Despite accusations of theft of roots from his patron's garden in Hackney and a manipulative wife who had forced him away from England, L'Obel enjoyed the king's favor and continued patronage from Lord Zouche.⁴¹ In 1607, Matthias de L'Obel received the post of botanographer to the king.⁴² The king coveted Burghley's creation, Theobalds, and in 1607, Robert Cecil, Lord Salisbury, was forced to trade Theobalds for the King's Hatfield Palace. Gerard was not given a chance to continue supervising the gardens at Theobalds nor to direct Hatfield House's new gardens. John Tradescant Sr. supervised the Hatfield House gardens, with Mountain Jennings given the post of the head gardener.⁴³

⁴⁰ Marcus Woodward, *Gerard's Herball: The Essence thereof distilled by Marcus Woodward from the Edition of Th. Johnson, 1636* (Boston: Houghton Mifflin Company, 1928), xiii.

⁴¹ A. Louis, *Mathieu De L'Obel, 1538-1616: Episode de l'Histoire de la Botanique* (Ghent-Louvain: Story-Scientia, 1980), 202, 490. Interestingly, it was the herbarist Clusius that had introduced L'Obel to Zouche. Florike Egmond, *The World of Carolus Clusius: Natural History in the Making, 1550-1610* (London: Pickering & Chatto, 2010), 183.

⁴² D. E. Allen, 'L'Obel, Mathias de (1538–1616)', *Oxford Dictionary of National Biography* (Oxford University Press, 2004), online edn, May 2010. [<http://www.oxforddnb.com/view/article/66084>, accessed 17 April 2011]

⁴³ Prudence Leith-Ross, *The John Tradescants: Gardeners to the Rose and Lily Queen* (London: Peter Owen, 2006), 28-29. Mountain Jennings was Salisbury's head gardener at Theobalds "as early as August 1607." Jennifer Potter, *Strange Blooms: The Curious Lives and Adventures of the John Tradescants* (London: Atlantic, 2006), 19.

The *Herball* (1597) dominated the market for decades. John Parkinson had planned a similarly encyclopedic work, but had to postpone it when the revised *Herball* was issued in 1633. L'Obel never recovered from his “publishing disaster of the 1570s.” He and Pierre Pena had apparently self-published *Stirpium adversaria nova* (London, 1571). Although L'Obel released several other botanical volumes, such as the *Observationes* (1576) in Antwerp, they were in fact the same *Adversaria* text with new title pages, different dedications, and some added material.⁴⁴ Ogilvie writes that in 1603 L'Obel still had “2,050 unsold copies in his possession” from an initial print run of 3,000, an enormous print run for a scholarly work in the period.⁴⁵

By 1609, Gerard was enough out of the picture that, when gardens were laid out for Somerset House, his fellow surgeon William Goodrowse did the work. Today the area of Gerard's garden by Somerset House is “covered by the east wing of the present Somerset House and the adjoining King's College.”⁴⁶

On December 11, 1611, suffering from “great and dangerous sycknesses,” Gerard, “Citizen and barbar Chyrurgion of London,” wrote out his will.⁴⁷ It gives us virtually our only glimpse into his family: his wife and “carefull nurse,” Agnes; his daughter Elizabeth and her surgeon husband, Richard Houldon, and their three daughters, Agnes, Margaret, and Katherine. His lifelong identity as a surgeon is emphasized through his bequests of books on physic and surgery to Houldon and his box of plasters and silver instruments to Agnes for a future surgeon husband. The gold ring with an agate left to his daughter may be one on his hand in the *Herball* portrait. And in Gerard's final specific bequest, we learn that the man who had been drawn with a Virginia potato flower in his hand, who had first described Roanoke's flowers, and who counted England's two great backers of American exploration

⁴⁴ Edward Lee Green, *Landmarks of Botanical History*, Part II (Stanford, California: Stanford University Press, 1983). Green writes “All the several copies of the earlier work which I have seen, whether bound separately and with the dedication to Queen Elizabeth, or whether bound with the later and illustrative tome, with the new dedication to the Faculty or the University of Montpellier, they differ by the dedication only. The paper, the pages, errors, and little omissions are absolutely the same in both. I believe no expert in printing could doubt that they all came from one press, and from one and the same setting of type; and both title and colophon attest this.” (882-3)

⁴⁵ Brian Ogilvie, *The Science of Describing* (Chicago: University of Chicago Press, 2006), 45. University presses today would regard a press run of 500 for such a scholarly work as risky (Karen Reeds, personal communication).

⁴⁶ L. M. Bates, *Somerset House: Four Hundred Years of History* (London: Frederick Miller, 1967), 31.

⁴⁷ Wayne H. Phelps, “John Gerard, the Herbalist,” *The Library, Sixth Series* (1980): 76-79.

as his patrons had himself invested in the New World: “unto Margaret and Katherine... all my adventure of xxv li to Virginia, and the profittes that may ryse thereof.”⁴⁸

⁴⁸ Phelps, 79.

Bibliography

Primary Documents

Annals of the Royal College of Physicians, July 12, 1587 and October 6, 1587.

Ascham, Roger. *The scholemaster or plaine and perfite way of teachyng children, to vnderstand, write, and speake, the Latin tong: but specially purposed for the priuate brynging vp of youth in ientlemen and noble mens houses, and commodious also for all such, as haue forgot the Latin tonge* (London: John Day, 1570).

Barrough, Phillip, *Method of Phisicke*. London: Thomas Vautroullier dwelling in the Blacke-friars by Lud-gate, 1590.

Bolton, Edmund. *The Cities Advocate*. London: Miles Flesher for William Lee, 1629.

Bright, Timothie. *A Treatise: Wherein is Declared the Sufficiencie of English Medicines, for Care of all Diseases, Cured with Medicines*. London: Henrie Middleton for Thomas Man, 1580.

Castiglione, Baldassare, conte. *The courtyer of Count Baldessar Castilio diuided into foure bookes. Very necessary and profitatable [sic] for yonge gentilmen and gentilwomen abiding in court, palaice or place, / done into Englyshe by Thomas Hoby*. London : Wyllyam Seres, 1561.

Castiglione, Baldassare, conte. *The courtier of Count Baldessar Castilio deuided into foure bookes. Verie necessarie and profitable for young gentlemen and gentlewomen abiding in court, pallace, or place done into English by Thomas Hobby*. London: John Wolfe, 1588.

Clusius *Rariorum aliquot stirpium: per Pannoniam, Austriam, & vicinas quasdam provincias observatarum historia* (Antwerp: Ex officina Christophori Plantini, 1583), 257-261.

Commines, [Philip de](#). *The historie of Philip de Commines Knight, Lord of Argenton*. London: Norton, 1596.

De Chauliac, Guy. *Guidos questions newly corrected. Whereunto is added the thirde and fourth booke of Galen, with a treatise for the helps of all the outward parts of mans body....De compositione medicamentorum per genera. Book 3*. London: Thomas East, 1579.

Dee, John. *Preface to Euclid's 'Elements of Geometrie.'* London: John Daye, 1570.

Dempster, [Thomas](#). *Historia ecclesiastica gentis Scotorum: sive de scriptoribus Scotis*, 2nd ed. [Edinburgh: Andrew Balfour, 1839](#)[first ed. 1627].

Dioscorides of Anazarbus, Pedanius. Lily Y. Beck, trans., *De materia medica*. New York: Olms – Weidmann, 2005.

Dodoens, Rembert. [A nievve herball, or historie of plantes](#), trans. [Henry Lyte](#). [London: Gerard Dewes, 1578](#).

Dolman, Richard (trans.) of *The third volume of La Primaudaye's (P. de) French academie englished 1601*. London: Printed by [John Legat] for Thomas Adams, 1618.

Elyot, Thomas. *The Castel of Helth*. London: Thomas Berthelet, 1541.

Elyot, Thomas. *The dictionary of syr Thomas Eliot knight*. London: Thomas Berthelet, 1538.

Ferne, John. *Blazon of Gentry*. London: John Windet for Andrew Maunsell, 1586.

Gale, Thomas. *Certaine Workes of Chirurgerie*. London: Rouland Hall, 1563.

Gerard, John. *Catalogus*. London: Robinson, 1596.

Gerard, John. *Catalogus*. London: John Norton, 1599.

Gerard, John. *The Herball*. London: John Norton, 1597.

Gouge, William, *Of domesticall duties, Eight Treatises*. John Haviland for William Bladen: London, 1622.

Hatfield, *Cecil Papers*.

Hentzner, Paul. Paul Hentzner's *Travels in England During the Reign of Queen Elizabeth, Translated by Horace, Later Earl of Orford*. London: Edward Jeffery, 1797.

Herle, William. Online Letters of William Herle Project: <http://www.livesandletters.ac.uk/herle/index.html>. In HRL/002/HTML/046.

Hill, Thomas. *The Gardeners Labyrinth*. London: Henry Bynneman, 1577.

Historical Manuscripts Commission, *Calendar of the Manuscripts of the Most Hon. The Marquis of Salisbury, K. G., &c. &c. &c. Preserved at Hatfield House, Hertfordshire. Part I* (London: Her Majesty's Stationery Office, 1883), 252, No. 729.

Holinshed, Raphael *Holinshed's Chronicles*, Book I, Chapter 19. London, 1587.

Peacham, Henry. *The compleat gentleman*. London: Francis Constable, 1622.

Lloyd, David. *State Worthies*. London, 1766.

L'Obel, Matthias. *Balsami, opobalsami, carpobalsami, & xylobalsami, cum suo cortice explanatio*. London: Arnold Hatfield for John Norton, 1598.

———. *In G. Rondelletii...methodicam pharmaceuticam officinam animaduersiones*. London: Thomas Purfoot, 1605.

———. *Stirpium illustrationes*, edited by William How. London: Thomas Warren, for Jos. Kirton, 1655.

Napier, John. *John Napier, A plaine discoverie of the whole Revelation of Saint John set down in two treatises* (London: Norton, 1594).

Peck, Francis. *Desiderata Curiosa*, 2 vols. London, 1732.

Platt, Hugh, *Floraes Paradise*. London: Printed by H. L[ownes] for William Leake, 1608.

Platt, Hugh. *Sundrie New and Artificiall Remedies against Famine*. London: P.S. dwelling on Breadstreet hill, at the sign of the Starre, 1596.

Porta, Giambattista della. *Natural Magick*. London: Printed for Thomas Yound and Samuel Speed, 1658.

Securis, John. *A Detection and Querimonie of the Daily Enormities and Abuses Com[m]itted in Physik*. London: Thomas Marsh, 1566.

Stowe, John. *Survey of London*. London: John Wolfe, 1598.

———. *The Abridgement of the English Chronicle, first collected by M. John Stow, and after him augmented with very many memorable antiquities, and continued with matters forreine and domesticall, vnto the beginning of the yeare, 1618. by E.H. Gentleman*. London: [By Edward Alde and Nicholas Okes] for the Company of Stationers, 1618.

Tacitus, Cornelius. *The ende of Nero and beginning of Galba Fower books of the Histories of Cornelius Tacitus, Second Edition*. London: By Edm. Bollifant, for Bonham and John Norton, 1598.

Westminster Session Rolls of April 11 and 12, 1616.

Secondary Documents

———. “Bol, Jean.” In *Biographie Nationale De Belgique*, Tome Deuxième, 626-629. Bruxelles: H. Thiry – Van Buggenhoudt, 1866.

———. Cheshire Landed Gentry, Lancashire Historic Families and Old Families of Manchester, < <http://www.manchester2002-uk.com/history/old-families6a.html> > November 26, 2010.

———. ‘MARSHALL, William’, *Physicians and Irregular Medical Practitioners in London 1550-1640*: Database (2004). URL: <http://www.british-history.ac.uk/report.aspx?compid=17641>.

———. Pharmaceutical Society of Great Britain, *Pharmaceutical Journal* 56 (April 11, 1896): 295.

———. [Project Rembert Dodoens/ Rembertus Dodonaeus, for editions, digital facsimiles, bibliography, and related resources: http://www.plantaardigheden.nl/dodoens/default.htm](http://www.plantaardigheden.nl/dodoens/default.htm)

Adams, Robyn. "The Service I am Here for": William Herle in the Marshalsea Prison, 1571." *Huntington Library Quarterly* 72, no. 2 (2009): 217-238.

Albala, Ken. *Eating Right in the Renaissance*. Berkeley: University of California Press, 2002.

Alford, Stephen. “The Political Creed of William Cecil.” In *The monarchical republic of early modern England: Essays in Response to Patrick Collinson*, edited by John F. McDiarmid, 75-90. Burlington, Vermont: Ashgate, 2007.

———. *William Cecil at the Court of Elizabeth I*. New Haven, Conn.: Yale University Press, 2008.

Allen, D. E. “L'Obel, Mathias de (1538–1616).” *Oxford Dictionary of National Biography*. Oxford: Oxford University Press, 2004.

Ambrosoli, Mauro. *Wild and the Sown: Botany and Agriculture in Western Europe, 1350-1850*. Cambridge: Cambridge University Press, 1997.

Arber, Agnes. *Herbals, their origins and evolution*. Cambridge: Cambridge University Press, 1912.

Arber, E. ed. [A Transcript of the Registers of the Company of Stationers of London 1554-1660. Birmingham: \[privately printed\], 1875-94.](#)

Ashelford, Jane. *Dress in the Age of Elizabeth I*. New York: Holmes & Meier, 1988.

Ashworth, Jr., William B. “Natural History and the Emblematic World View.” In *Reappraisals of the Scientific Revolution* edited by David C. Lindberg, David C. and Robert S. Westman, 303-332. Cambridge: Cambridge University Press, 1990.

Barnard, John. “Politics, Profits and Idealism: John Norton, the Stationers’ Company and Sir Thomas Bodley.” *Bodleian Library Record* 17 (2002): 384-408.

Barnett, R. *Place, Profit, and Power: A Study of the Servants of William Cecil, Elizabethan Statesman*. Chapel Hill, North Carolina: University of North Carolina Press, 1969.

Barker, Peter. “The Role of Religion in the Lutheran Response to Copernicus.” In *Rethinking the Scientific Revolution*, edited by Margaret J. Osler, 59-88. Cambridge: Cambridge University Press, 2000.

Bates, L. M. *Somerset House: Four Hundred Years of History*. London: Frederick Miller, 1967.

Batey, Mavis and David Lambert. *The English Garden Tour*. London: John Murray, 1990.

Beckingsale, B. W. *Burghley: Tudor Statesman, 1520-1598*. New York: Macmillan, 1967.

Bellany, Alastair. *The Politics of Court Scandal in Early Modern England*. Cambridge: Cambridge University Press, 2002.

Bennett, H.S. *English Books and Readers, 1475- 1557*, 2nd edition. Cambridge: Cambridge University Press, 1989.

Betham, William. *The baronetage of England: or The History of the English baronets*, Vol. 1. London: Burrell and Bramby, 1801.

Biagioli, Mario. *Galileo Courtier: The Practice of Science in the Culture of Absolutism*. Chicago: University of Chicago Press, 1993.

Birken, William. "The social problem of the English physician in the early seventeenth century." *Medical History* 31 (1987): 201-216.

Binns, James W. *Intellectual culture in Elizabethan and Jacobean England: the Latin writings of the age. Melksham, Wiltshire, Great Britain: Redwood Press Ltd., 1990.*

Blagden, Cyprian. *The Stationers' Company: A History, 1403-1959*. Cambridge, Massachusetts, Harvard University Press, 1960.

Blayney, Peter W. M. *The Bookshops in Paul's Cross Churchyard*. London: The Bibliographical Society, 1990. [Occasional Papers of the Bibliographical Society, No. 5.]

———. *The Texts of King Lear and Their Origins: Nicholas Okes and the First Quarto*, New Cambridge Shakespeare Texts and Studies, vol. 1. Cambridge: Cambridge University Press, 2007.

Block, Joseph S. "Political Corruption in Henrician England." In *States, Sovereigns, and Society in Early Modern England: Essays in Honour of A. J. Slavin*, edited by Charles Carlton, 45-58. Stroud, Gloucestershire: Palgrave Macmillan, 1998.

Bowden, Caroline M. K. "Cecil, Mildred." In *Dictionary of National Biography*, edited by H. C. G. Matthew and Brian Harrison. Oxford: Oxford University Press, 2004.

———. "The Library of Mildred Cooke Cecil, Lady Burghley." *The Library* 6 (2005): 3-29.

Brewer, Ebenezer Cobham. "Bucklersbury (London)." *Dictionary of Phrase and Fable*. Philadelphia: Henry Altemus, 1898.

Brooks, C. W. *Pettyfoggers and Vipers of the Commonwealth: The 'Lower Branch' of the Legal Profession in Early Modern England*. Cambridge: Cambridge University Press, 2004.

———. "Apprenticeship, Social Mobility and the Middling Sort, 1550-1800." In *The Middling Sort of People: Culture, Society and Politics in England, 1550-1800*, edited by Jonathan Barry and Christopher Brooks, 52-83. New York: St. Martin's Press, 1994.

Buckland-Wright, J. C. "Readers of anatomy at the Barber-Surgeons' Company in the Tudor Period." *Journal of the Royal Society of Medicine* 78 (October 1985): 802-811.

Bushnell, Rebecca W. *A Culture of Teaching: Early Modern Humanism in Theory and Practice*. Ithaca: Cornell University Press, 1996.

———. *Green Desire: Imagining Early Modern English Gardens*. Ithaca: Cornell University Press, 2003.

Burke, John. *A genealogical and heraldic history of the commoners of Great Britain and Ireland, Vol. 1*. London: Henry Colburn, 1836.

Burnby, Juanita “John Gerarde and his Contemporaries.” *Pharmaceutical Historian: newsletter of the British Society for the History of Pharmacy* 29/2 (1999): 19-23.

Carter, John and Nicolas Barker, *ABC for Book Collectors, Eighth Edition*. New Castle, Delaware: Oak Knoll Press, 2004.

Castiglione, Baldassare conte. *The Book of The Courtier, from the Italian of Count Baldassare Castiglione: Done into English by Sir Thomas Hoby, Anno 1561, With an Introduction by Walter Raleigh*. London: David Nutt, 1900.

Cetera, Anna. “History on the Margins: Shakespeare’s Forgery in *The Landgrave of Hessen...* (1596) by Edward Monings in the Early Printed Books Collection of the Warsaw University Library,” *Anglia – Zeitschrift für englische Philologie* 125 (2007): 239-265.

Chamberland, Celeste. “Honor, Brotherhood, and the Corporate Ethos of London’s Barber-Surgeons Company, 1570-1640.” *Journal of the History of Medicine and Allied Sciences* 64 (2009): 300-332

Chambers, Robert. *The book of days: a miscellany of popular antiquities*, vol. 2. Philadelphia: J. B. Lippincott, 1869.

Cicero, M.T. *Cicero in Twenty-Eight Volumes: XXI, De Officiis with an English Translation by Walter Miller*. Cambridge, Massachusetts: Harvard University Press, 1990.

———. *On Old Age*, translated by E. S. Shuckburgh, Vol 9, Part 2, The Harvard Classics. New York: P.F. Collier & Son, 1909-1914.

Clark, George N., *A History of the Royal College of physicians of London*. Oxford: Clarendon Press, 1964-72.

Cockburn, J.S., H.P.F. King, and K.G.T. McDonnell, eds. "Religious Houses: Hospitals." In *A History of the County of Middlesex: Volume 1: Physique, Archaeology, Domesday, Ecclesiastical Organization, The Jews, Religious Houses, Education of Working Classes to 1870, Private Education from Sixteenth Century* (1969): 204-212.

Cook, Harold J. “The Cutting Edge of a Revolution? Medicine and Natural History Near the Shores of the North Sea.” In *Renaissance and Revolution: Humanists, Scholars, Craftsmen, and Natural Philosophers in Early Modern Europe*, edited by J.V. Field and Frank A. J. L. James, 45-61. Cambridge: Cambridge University Press, 1993.

———. *The Decline of the Old Medical Regime in Stuart London*. Ithaca, New York: Cornell University Press, 1986.

Corbett, Margery. ["The emblematic title-page to *Stirpium Adversaria nova* by Petro \[sic\] Pena and Mathias de L'Obel \(1570\)."](#) *Archives of Natural History* 10 (1981): 111-117.

———. “The engraved title-page to John Gerarde’s *Herball or Generall Historie of Plantes*, 1597. *Journal of the Society of the Bibliography of Natural History* 8 (1977): 223-230.

Court, W.E. [“John Gerard and his Herbal.”](#) *Pharmaceutical historian: newsletter of the British Society for the History of Pharmacy* 22, (August 1992): 2-6.

Croft, Pauline. “Mildred, Lady Burghley: The Matriarch.” In *Patronage, Culture and Power: The Early Cecils*, edited by Pauline Croft, 283-300. New Haven, Connecticut: Yale University Press, 2002.

———. “The Reputation of Robert Cecil: Libels, Political Opinion and Popular Awareness in the Early Seventeenth Century.” *Transactions of the Royal Historical Society Sixth Series* 1 (1991): 43-69.

Crowther-Heyck, Kathleen. “Wonderful Secrets of Nature: Natural Knowledge and Religious Piety in Reformation Germany.” *Isis* 94 (June 2003): 253-273.

Cunningham, Andrew. “The culture of gardens.” In *Cultures of Natural History*, edited by Nicholas Jardine, 38-56. Cambridge: Cambridge University Press, 1996.

Deazley, R. ‘Commentary on Star Chamber Decree 1586’, on the website, [Primary Sources on Copyright \(1450-1900\), 2008, ed. L. Bently & M. Kretschmer, www.copyrighthistory.org](http://Primary Sources on Copyright (1450-1900), 2008, ed. L. Bently & M. Kretschmer, www.copyrighthistory.org).

DeCoursey, Christina. “Danett, Thomas (1543–1601?).” *Oxford Dictionary of National Biography*. Oxford: Oxford University Press, 2004.

Douglas, Gina L. “History of Science and Technology Resources at the Linnean Society of London.” *British Journal for the History of Science* 21 (1988): 489-493.

Duff, E. Gordon. *A Century of the English Book Trade*. London: Bibliographical Society, 1948.

Duff, E. Gordon. *The Printers, Stationers and Bookbinders of Westminster and London from 1476 to 1535*. Cambridge: Cambridge University Press, 1906.

Duncan, Thomas P. “Thomas Vicary and the *Anatomie of Mans Body*.” *Medical History* 50 (2006): 235-246.

Eamon, William. *Science and the Secrets of Nature*. Princeton, NJ: Princeton University Press, 1996.

Earle, Peter. “The Middling Sort in London.” In *The Middling sort of People: Culture, Society and Politics in England, 1550-1800*, edited by Jonathan Barry and Christopher Brooks. New York: St. Martin’s Press, 1994.

Eddi Jolly. “‘Shakespeare’ and Burghley’s Library: Bibliotheca Illustris: Sive Catalogus Variorum Librorum.” *The Oxfordian* 3 (2000): 1-18.

Egmond, Florike. “Correspondence and natural history in the sixteenth century.” In *Cultural Exchange in Early Modern Europe, Vol. III: Correspondence and Cultural Exchange in Europe, 1400-1700* edited by Francisco Bethencourt and Florike Egmond. Cambridge: Cambridge University Press, 2007.

Egmond, Florike. *The World of Carolus Clusius: Natural History in the Making, 1550-1610*. London: Pickering & Chatto, 2010.

Eisenstein, Elizabeth. *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe*. 2 vols. Cambridge: Cambridge University Press, 1979.

Fairholt, Frederick William. *Lord Mayors’ Pageants*. London: Percy Society, 1843.

Findlen, Paula. *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy*. Berkeley: University of California Press, 1994.

Foster, Joseph. *The register of admission to Gray’s inn, 1521-1889*. London: Hansard Publishing Union, Limited, 1889.

Furdell, Elizabeth Lane. *Publishing and Medicine in Early Modern England*. Rochester, NY: University of Rochester Press, 2002.

Grassby, Richard. *The business community of seventeenth-century England*. Cambridge: Cambridge University Press, 1995.

Graves, Michael A.R. *Burghley: William Cecil, Lord Burghley*. New York: Longman, 1998.

Green, Edward Lee. *Landmarks of Botanical History*, Part II edited by [Frank N. Egerton](#). Stanford, California: Stanford University Press, 1983.

Green, Joseph R. *A history of botany in the United Kingdom from the earliest times to the end...* New York: F. P. Dutton & Co., 1914.

Greenblatt, Stephen. *Renaissance Self-Fashioning*. Chicago: University of Chicago Press, 1980/2005.

Greg, W.W. *Some Aspects and Problems of London Publishing Between 1550 and 1650: The Lyell Lectures*, Oxford, Trinity Term, 1955. Oxford: Clarendon Press, 1956.

Griffin, Andrew. "Balthrop, Robert (1522–1591)." *Oxford Dictionary of National Biography*. Oxford: Oxford University Press, 2004.

Hall, Bert S. "The Didactic and the Elegant: Some Thoughts on Scientific and Technological Illustrations in the Middle Ages and Renaissance." In *Picturing Knowledge: Historical and Philosophical Problems Concerning the Use of Art in Science*, edited by Brian S. Baigrie, 3-39. Toronto: University of Toronto Press, 1996.

Halliwell, James Orchard, ed., *A Collection of Letters Illustrative of the Progress of Science in England*. London, 1841.

Hamel, J. *England and Russia; Comprising the Voyages of John Tradescant the Elder, Sir Hugh Willoughby, Richard Chancellor, Nelson, and Others, to the White Sea, etc.*, translated by John Studdy Leigh. London: Richard Bentley, 1854.

Handover, P.M. *Printing in London from 1476 to Modern Times; Competitive Practice and Technical Invention In the Trade of Book and Bible Printing Periodical Production Jobbing &c*. Cambridge, Massachusetts: Harvard University Press, 1960.

Hanson, Craig Ashley. *The English Virtuoso: Art Medicine, and Antiquarianism in the Age of Empiricism*. Chicago: University of Chicago Press, 2009.

[Harkness, Deborah E. "Elizabethan London's Naturalists and the Work of John White." In *European Visions: American Voices*, edited by \[Kim Sloan\]\(#\), 44-50. London: British Museum Research Publication 72, 2009.](#)

———. *The Jewel House: Elizabethan London and the Scientific Revolution*. New Haven, Conn.: Yale University Press, 2007.

———. "Managing an Experimental Household: The Dees of Mortlake and the Practice of Natural Philosophy," *Isis* 88 (1997): 247-262.

———. "[Nosce teipsum: curiosity, the humoral body and the culture of therapeutics in late sixteenth- and early seventeenth-century England.](#)" In *Curiosity and wonder from the Renaissance to the Enlightenment* edited by [R.J.W. Evans and Alexander Marr](#), 171-192. Aldershot: Ashgate, 2006.

Harris, John, Stephen Orgel, and Roy Strong. *The King's Arcadia: Inigo Jones and the Stuart Court*. London: Arts Council of England, 1973.

Harrison, Peter. *The Fall of Man and the Foundations of Science*. Cambridge: Cambridge University Press, 2001.

Harvey, John H. *A Service Index of Latin Binomials to Gerard's Herball as revised by Thomas Johnson 1633* (London: Linnean Society of London, 1981).

———. *Early Nurserymen*. London: Phillimore & Co. Ltd., 1974.

———. "The First English Garden Book: Mayster Jon Gardener's Treatise and Its Background." *Garden History* 13, no. 2 (1985): 83-101.

Hayward, Maria. "The 'Empresse of Flowers': The Significance of Floral Imagery in Two Portraits of Elizabeth I at Jesus College, Oxford." *Costume* 44 (2010).

Hazard, Mary E. *Elizabethan Silent Language*. Lincoln, Nebraska: University of Nebraska Press: 2000.

Heal, Felicity Heal and Clive Holmes. "The Economic Patronage of William Cecil." In *Patronage, Culture and Power, The Early Cecils*, edited by Pauline Croft, 199-230. New Haven, Connecticut: Yale University Press, 2002.

Helgerson, Richard. "[The Land Speaks: Cartography, Chorography, and Subversion in Renaissance England.](#)" *Representations* 16 (Autumn, 1986): 50-85.

Henderson, Paula. "A Shared Passion: The Cecils and their Gardens." In *Patronage, Culture and Power: The Early Cecils*, edited by Pauline Croft, 99-104. New Haven: Yale University Press, 2002.

Henrey, Blanche. [British Botanical and Horticultural Literature before 1800, 3 vols.](#) Oxford: Oxford University Press, 1975.

Hill, Christopher. *The Intellectual Origins of the English Revolution*, Revisited. New York: Oxford University Press, 1997.

Hind, Arthur M. *A History of Engraving & Etching from the 15th Century to the Year 1914*. Boston: Houghton Mifflin Company, 1927.

Hind, Arthur M. [Engravings in England in the Sixteenth and Seventeenth Centuries: A Descriptive Catalogue with Introduction, Part I. The Tudor period.](#) Cambridge: Cambridge University Press, 1952-64.

Hippocrates, *The aphorisms of Hippocrates from the Latin version of Verhoef, with a literal translation on the opposite page and explanatory notes by Elias Marks*. New York: Collins & Co., 1818.

Hurstfield, Joel. *Freedom, Corruption and Government in Elizabethan England*. Cambridge, Massachusetts: Harvard University Press, 1973.

Hurstfield, Joel. "Lord Burghley as Master of the Court of Wards, 1561-98." *Transactions of the Royal Historical Society, Fourth Series* 31 (1949): 95-114.

Husselby, Jill. "The Politics of Pleasure: William Cecil and Burghley House." In *Patronage, Culture and Power, The Early Cecils*, edited by Pauline Croft. New Haven, Connecticut: Yale University Press, 2002.

Husselby, Jill and Paula Henderson. "Location, Location, Location!: Cecil House in the Strand." *Architectural History* 4 (2002): 159-193.

Impey, Oliver R. *The Origins of Museums: the cabinet of curiosities in sixteenth- and seventeenth-century Europe*. Oxford: Clarendon Press, 1985.

Jackson, Benjamin Daydon. *Catalogue of plants cultivated in the garden of John Gerard, in the years...* London: Privately printed, 1876.

Jardine, Nick. "Book, texts and the making of knowledge." In *Books and the Sciences in History*, edited by Marina Frasca-Spada and Nick Jardine, 393-407. Cambridge: Cambridge University Press, 2000.

- Jeffers, Robert. *The Friends of John Gerard (1545-1612), Surgeon and Botanist*. Falls Village, Connecticut: Herb Grover Press, 1969.
- Johns, Adrian, *The Nature of the Book: Print and Knowledge in the Making*. Chicago: University of Chicago Press, 1998.
- Johnson, Francis R. "Thomas Hill: An Elizabethan Huxley." *The Huntington Library Quarterly* 4 (1944): 329-351.
- Johnson, Stephen. "Making mathematical practice: gentlemen, practitioners and artisans in Elizabethan England." Ph.D. dissertation, Cambridge University, 1994.
- Jones [Whitney R. D. *William Turner: Tudor Naturalist, Physician and Divine*. London: Routledge, 1988.](#)
- Judge, C. B. *Elizabethan Book Pirates*. Cambridge, Massachusetts: Harvard University Press, 1934.
- Kitchen, [Frank. "John Norden \(c. 1547-1625\): Estate Surveyor, Topographer, County Mapmaker and Devotional Writer." *Imago Mundi* 49 \(1997\): 43-61.](#)
- Knafla, Louis A. "Zouche, Edward Ia." *Oxford Dictionary of National Biography*. Oxford: Oxford University Press, 2004.
- Knight, [Leah. *Of Books and Botany in Early Modern England: Sixteenth-Century Plants and Print Culture*. Farnham, Surrey: Ashgate, 2009.](#)
- Kunz, George F. *Rings for the Finger*. Philadelphia: J.B. Lippincott Company, 1917.
- Kuzukawa, Sachiko. *The Transformation of Natural Philosophy: The Case of Philip Melancthon*. Cambridge: Cambridge University Press, 1995.
- Lane, Joan. *Apprenticeship in England, 1600-1914*. Boulder, Colorado: Westview Press, 1996.
- Laroche, Rebecca. *Medical Authority and Englishwomen's Herbal Texts, 1550-1650*. Burlington, Vermont: Ashgate, 2009.
- Leith-Ross, Prudence. *The John Tradescants: Gardeners to the Rose and Lily Queen*. London: Peter Owen, 2006.
- Lemon, Robert. ed. *Calendar of state papers, Domestic series, of the reigns of Edward VI, Mary, Elizabeth, 1547-1580* vol. 1. London: Longman, Brown, Green, etc., 1856.
- Loades, David. *The Cecils: Privilege and Power behind the Throne*. Kew: The National Archives, 2007.
- Louis, A. *Mathieu De L'Obel, 1538-1616: Episode de l'Histoire de la Botanique*. Ghent-Louvain: Story-Scientia, 1980.
- MacDonald, G. G. "General medical practice in the time of Thomas Vicary. Thomas Vicary lecture delivered at the Royal College of Surgeons of England on 27th October 1966." *Annals of the Royal College of Surgeons of England* 40 (1967): 1-20.
- MacLeod, Dawn. *The Gardener's London: Four Centuries of Gardening, Gardeners and Garden Usage*. London: Duckworth, 1972.
- Manley, Lawrence. *Literature and culture in early modern London*. Cambridge: Cambridge University Press, 1995.
- Martyn, Trea. *Elizabeth in the Garden: A story of love, rivalry, and spectacular design*. London: Faber and Faber, 2008.

McLean, Paul D. *The Art of the Network: Strategic Interaction and Patronage in Renaissance Florence*. Durham, North Carolina: Duke University Press, 2007.

Minter, Sue. *The Apothecaries' Garden: A New History of the Chelsea Physic Garden*. Thrupp, Stroud, Gloucester: Sutton, 2000.

Moran, Bruce. "German Prince-Practitioners: Aspects in the Development of Courtly Science, Technology, and Procedures in the Renaissance." *Technology and Culture* 22 (1981): 253-274.

———. "Patronage and Institutions: Courts, Universities, and Academies in Germany: an Overview: 1550-1750." In *Patronage and Institutions: Science, Technology, and Medicine at the European Court 1550-1750*, edited by Bruce Moran, 169-183. Rochester, New York: Boydell Press, 1991.

Moss, Ann. *Printed Commonplace-Books and the Structuring of Renaissance Thought*. Oxford: Clarendon Press, 1996.

Munroe, Jennifer. *Gender and the Garden in Early Modern English Literature*. Burlington, Vermont: Ashgate, 2008.

Nance, Brian. "The Arena and the Study: Medical Practice in Turquet de Mayerne's Treatment of Robert Cecil's Final Illness." In *Between the Text and the Patient: The Medical Enterprise in Medieval & Modern Europe*, edited by Florence Eliza Glaze and Brian K. Nance, 419-440. Florence: Sismel, 2011; Micrologus' Library, 39.

Nappi, Carla. "Bolatu's Pharmacy, Theriac in Early Modern China." *Early Science and Medicine* 14 (2009): 750-1.

Nutton, Vivian. "Linacre, Thomas (c. 1460–1524)." *Oxford Dictionary of National Biography*. Oxford: Oxford University Press, Sept 2004.

O'Day, Rosemary. "Ascham, Roger." In *Dictionary of National Biography*, edited by H. C. G. Matthew and Brian Harrison. Oxford: Oxford University Press, 2004.

Ogilvie, Brian W. *The Science of Describing: Natural History in Renaissance Europe*. Chicago: University of Chicago Press, 2006.

Paresys, Isabelle. "The dressed body: the moulding of identities in sixteenth-century France. In *Cultural Exchange in Early Modern Europe, vol. IV: Forging European Identities, 1400-1700*, edited by Herman Roodenburg. Cambridge: Cambridge University Press, 2006.

Park, Katharine and Lorraine Daston. "Introduction: The Age of the New." In *The Cambridge History of Science: Early Modern Science*, edited by Roy Porter, Katharine Park, and Lorraine Daston, 1-20. Cambridge: Cambridge University Press, 2006.

Parkinson, Anna. *Nature's Alchemist: John Parkinson, Herbalist to Charles I*. London: Frances Lincoln, 2007.

Payne, Helen. "The Cecil Women at Court." In *Patronage, Culture and Power: The Early Cecils*, edited by Pauline Croft, 265-282. New Haven: Yale University Press, 2002.

Pearce, Robert. *A History of the Inns of Court and Chancery*. London: Richard Bentley, 1848.

Pelling, Margaret. *The Common Lot: Sickness, Medical Occupations and the Urban Poor in Early Modern England*. London: Longman Publishing Group, 1998.

Pelling, Margaret. "Medicine, Apprenticeship, and the Process of Exclusion in Early Modern England." (paper presented at the Ways of Making and Knowing Conference, London, July 2005).

Pelling, Margaret and Charles Webster. "Medical practitioners." In *Health, Medicine and Mortality in the Sixteenth Century*, edited by Charles Webster. Cambridge: Cambridge University Press, 1979.

Pelling, Margaret and Frances White, eds., *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640*. Oxford: Clarendon Press, 2003.

Phelps, Wayne H. "John Gerard, the Herbalist." *The Library, Sixth Series* (1980): 76-85.

Picard, Liza. *Elizabeth's London: Everyday Life in Elizabethan London*. New York: St. Martin's Griffin, 2004.

Plomer, Henry R. *A Short History of English Printing, 1476-1898*. London: Kegan Paul, Trench, Truebner & Co., 1927.

Plomer, Robert. *Abstracts from the Wills of English printers and stationers, from 1492 to 1630*. London: The Bibliographical Society, 1903.

Pollard, Albert Frederick. "Waad, Sir William." *Dictionary of National Biography, 1885-1900*.

Porter, Roy and G. S. Rousseau, *Gout: The Patrician Malady*. New Haven, Connecticut: Yale University Press, 1998.

Potter, Jennifer. *Strange Blooms: The Curious Lives and Adventures of the John Tradescants*. London: Atlantic, 2006.

Prockter, Adrian and Robert Taylor. *The A to Z of Elizabethan London*. London: London Topographical Society, 1979.

Pryor, Felix. *Elizabeth I: Her Life in Letters*. Berkeley, California: University of California Press, 2003.

Rappaport, Steve. *Worlds within Worlds: Structures of Life in Sixteenth-Century London*. New York: Cambridge University Press, 1989.

Raven, Charles E. *English Naturalists from Neckam to Ray: A Study of the Making of the Modern World*. Cambridge: Cambridge University Press, 1947.

Read, Conyers. "Lord Burghley's Household Accounts." *The Economic History Review, New Series* 9, no. 2 (1956): 343-348.

Read, Evelyn Plummer and Conyers Read, eds., *Elizabeth of England: Certain Observations concerning the Life and Reign of Queen Elizabeth by John Clapham*. Philadelphia: University of Pennsylvania Press, 1951.

Reader, John. *Potato: A History of the Propitious Esculent*. New Haven, Connecticut: Yale University Press, 2008.

Rebhorn, Wayne. *Courtly Performances: Masking and Festivity in Castiglione's Book of the Courtier*. Detroit, Michigan: Wayne State University Press, 1978.

Reeds, Karen Meier. *Botany in Medieval and Renaissance Universities*. New York: Garland Publishing, 1991.

Reeds, Karen. "Don't Eat, Don't Touch: Roanoke Colonists, Natural Knowledge, and Dangerous Plants of North America." In *European Visions: American Voices*, edited by Kim Sloan, 51-57. London: British Museum Research Publication 172, 2009.

Rees, Graham and Maria Wakely, *Publishing, Politics, and Culture: The King's Printers in the Reign of James I and VI*. Oxford: Oxford University Press, 2009.

Rivington, C. R. *A Short Account of the Worshipful Company of Stationers: 1403-1903*. London: Stationers' Company, 1903.

Rix, Martyn. *The Art of the Plant World: The Great Botanical Illustrators and their Work*. Woodstock, NY: Overlook Press, 1980.

Rohde, Eleanor. *Old English Herbals*. New York: Longmans Green, 1922.

Rotha, Mary Clay. *The Mediaeval Hospitals of England*. London: Methuen & Co., 1909.

Rowse, [A. L. *Eminent Elizabethans*. Athens: University of Georgia Press, 1983.](#)

Rydén, Mats. "The English Plant Names in Gerard's *Herball* (1597)." *Studies in English Philology, Linguistics and Literature; presented to Alarik Rynell 7 March 1978*, edited by Mats Rydén and Lennart A. Byrk (Stockholm, Sweden: Almqvist & Wiksell Int., 1978): 142-150.

Rye, William Brenchley. *England As Seen By Foreigners in the days of Elizabeth and James the First*. London, 1865.

Salaman, [Redcliffe Nathan. *The history and social influence of the potato*. Cambridge: Cambridge University Press, 1949, rpt 1985.](#)

Singer, Peter N. "The Best Doctor is also a Philosopher." In *Galen, Selected Works*, translated by Peter N. Singer, 30-34. New York: Oxford University Press, 2002.

Skilliter, Susan. *William Harborne and the Trade with Turkey, 1578-1582*. London: British Academy, 1977.

Smith, A. G. R., ed., *The 'Anonymous Life' of William Cecil, Lord Burghley*. Lewiston, New York: E. Mellen Press, 1990.

Smith, A. G. R., "Lord Burghley and His Household Biographers: John Clapham and Sir Michael Hicckes." In *Patronage, Culture and Power, The Early Cecils*, edited by Pauline Croft, 249-264. New Haven, Connecticut: Yale University Press, 2002.

Sharpe, Kevin. *Selling the Tudor Monarchy: Authority and Image in Sixteenth-Century England*. New Haven, Connecticut: Yale University Press, 2009.

Smith, A.G.R. *Servant of the Cecils: the Life of Sir Michael Hicckes, 1543-1612*. Totowa, New Jersey: Rowman and Littlefield, 1977.

———. *William Cecil, Lord Burghley: Minister of Elizabeth I*. Bangor, Gwynedd, Wales: Headstart History, 1991.

Smith, Margaret. *The Title Page: Its Early Development, 1460-1510*. London: The British Library, 2000.

Smuts, Malcolm. "Court-Centred Politics." In *Culture and Politics in Early Stuart England* edited by Kevin Sharpe and Peter Lake, 21-44. Stanford, California: Stanford University Press, 1993.

Smyth, Adam. *Autobiography in Early Modern England*. Cambridge: Cambridge University Press, 2010.

Strange, Edward F. "British Engraving at the Victoria and Albert Museum." *The Burlington Magazine for Connoisseurs* 2 (1903): 194-5, 197, 201, 203.

Stearn, [W. T. "Gerard, John." In C. C. Gillispie, ed., *Dictionary of Scientific Biography*, vol. 5. New York: Scribner, 1970-1980.](#)

Stratton, J. M. *Agricultural Records A.D. 220-1968*, edited by R. Whitlock. London: J. Baker, 1969.

Strong, [Roy. *The cult of Elizabeth: Elizabethan portraiture and pageantry*. Berkeley: University of California Press, 1977.](#)

Strong, Roy. "Holbein's Cartoon for the Barber-Surgeons Group Rediscovered – A Preliminary Report" *The Burlington Magazine* 105 (1963): 4-14.

Strype, John. *Annals of the Reformation and Establishment of Religion and other various... Vol. 4*. Oxford: Clarendon Press, 1824.

Summerson, John. *Architecture in Britain: 1530-1830*. New Haven, Connecticut: Yale University Press, 1993.

Sutton, James M. "The Retiring Patron: William Cecil and the Cultivation of Retirement, 1590-1598." In *Patronage, Culture and Power: The Early Cecils*, edited by Pauline Croft, 159-180. New Haven: Yale University Press, 2002.

Swann, Marjorie. *Curiosities and Texts: The Culture of Collecting in Early Modern England*. Philadelphia: University of Pennsylvania Press, 2001

Taylor, E.R.G. *Mathematical Practitioners of Tudor and Stuart England*. Cambridge: Cambridge University Press, 1954.

Thick, Malcolm. *The Neat House gardens: early market gardening around London*. Allaleigh House, Totnes, Devon: Prospect Books, 1998.

Thirsk, Joan. *Food in Early Modern England: Phases, Fads, Fashions 1500-1760*. London: Hambledon Continuum, 2007.

———. *Alternative Agriculture, A History*. Oxford: Oxford University Press, 1997.

Thompson, Henry R. "Sergeant Surgeons to their Majesties, Thomas Vicary Lecture delivered at the Royal College of Surgeons of England on 29th October 1959." *Annals of the Royal College of Surgeons of England* (January 26, 1960): 1-23.

Threlfall-Holmes, Miranda. *Monks and markets: Durham Cathedral Priory, 1460-1520*. Oxford: Oxford University Press, 2005.

Timbs, John. *Curiosities of London, New Edition, Corrected and Enlarged* (London: J.S. Virtue & Co., 1867).

Till, E. C. "The Development of the Park and Gardens at Burghley." *Garden History* 19 (1991): 128-145.

Truitt, Elly R. "The Virtues of Balm in Late Medieval Literature." *Early Science and Medicine* 14 (2009): 718-719.

Turner, William. *A New Herball, Part I*. ed. George T. L. Chapman and Marilyn N. Tweddle. Cambridge: Cambridge University Press, 1989.

Turner, William. *A New Herball, Parts II and III*, edited by George T. L. Chapman, Frank McCombie, and Anne U. Wesenraft. Cambridge: Cambridge University Press, 1995.

University of Edinburgh, A catalogue of the graduates in the faculties of arts, divinity, and law, of the University of Edinburgh, since its foundation. Edinburgh: McNeill and Company, 1858. [Register of Laureations (i.e. Masters of Arts)].

Urwik William. *Nonconformity in Herts: being lectures upon the nonconforming worthies of St. Albans, and memorials of Puritanism and Nonconformity in all the parishes of the County of Hertford*. London: Hazell, Watson, and Viney, 1884.

Van Dorsten, Jan. "Literary Patrons in Elizabethan England." In *Patronage in the Renaissance*, edited by Guy Fitch Lytle and Stephen Orgel, 191-206. Princeton, New Jersey: Princeton University Press, 1981.

Van Dorsten, Jan. "Mr. Secretary Cecil, Patron of Letters." *English Studies* 50 (1969): 1-9.

- Veluwenkamp, J. W. "The Murman coast and the northern Dvina delta as English and Dutch commercial destinations in the 16th and 17th centuries." *Arctic* 48 (1995): 257-266.
- Wear, Andrew. "The Early Modern Debate about Foreign Drugs: Localism versus Universalism in Medicine." *Lancet* 354 (1999): 149-151.
- Wear, Andrew. *Knowledge and Practice in English Medicine, 1550-1680*. Cambridge: Cambridge University Press, 2000.
- Westfall, Richard. "Charting the Scientific Community." In *Trends in the Historiography of Science*, edited by Kostas Gavroglu, et al. Boston: Kluwer Academic, 1994.
- Westfall, Richard. "Science and Patronage: Galileo and the Telescope." *Isis* 76 (1985): 11-30.
- Westman, Robert S. "The Astronomer's Role in the Sixteenth Century: A Preliminary Study." *History of Science* 18 (1980): 105-147.
- Westman, Robert S. and David C. Lindberg. "Introduction." In *Reappraisals of the Scientific Revolution*, edited by David C. Lindberg and Robert S Westman. Xvii- . New York: Cambridge University Press, 1990.
- Williams, Elijah. *Early Holborn and The Legal Quarter of London: A Topographical Survey of the Beginnings of the District Known as Holborn and of the Inns of Court and of Chancery*, vol. 1. London: Sweet & Maxwell, Limited, 1927.
- Woodhouse, Elisabeth. "Spirit of the Elizabethan Garden." *Garden History* 27, (1999): 10-31.
- Woodward, Marcus. *Gerard's Herball: The Essence thereof distilled by Marcus Woodward from the Edition of Th. Johnson, 1636*. Boston: Houghton Mifflin Company, 1928.
- Worden, Blair. "Ben Jonson among the historians." In *Culture and Politics in Early Stuart England*, edited by Kevin Sharpe and Peter Lake. Stanford, California: Stanford University Press, 1993: 67-90.
- Wright, Louis B., ed., *Advice to a Son, Precepts of Lord Burghley, Sir Walter Raleigh, and Francis Osborne*. Ithaca, New York: Cornell University Press, 1962.
- Wrightson, Keith. "Estates, degrees, and sorts." In *Language, History, and Class*, edited by Penelope J. Corfield. Oxford: Basil Blackwell, 1991.
- Wyman, A.L. "The Surgeoness: The Female Practitioner of Surgery 1400-1800." *Medical History* 28 (1984): 22-41.
- Young, Sidney. *Annals of the Barber-Surgeons of London*. London: Blades, East & Blades, 1890.

Appendix 1, Time line

| | <i>John Gerard</i> | <i>Monarch</i> | <i>Cecils</i> | <i>England</i> | <i>John Norton</i> |
|------|-------------------------|--------------------------------------|--|----------------|--------------------|
| | | | | | |
| 1545 | Gerard born in Cheshire | | | | |
| 1546 | | | | | |
| 1547 | | Henry VIII dies, Edward IV enthroned | William Served Somerset | | |
| 1548 | | | | | |
| 1549 | | | | | |
| 1550 | | | William becomes Secretary to Warwick | | |
| 1551 | | | | | |
| 1552 | | | | | |
| 1553 | | Edward IV dies, Accession of Mary | William leaves most public service | | |
| 1554 | | | | | |
| 1555 | | | | | |
| 1556 | | | | | Birth |
| 1557 | | | | | |
| 1558 | | Mary dies, Accession of Elizabeth | William becomes Secretary to Elizabeth | | |
| 1559 | | | | | |
| 1560 | | | | | |

| | <i>John Gerard</i> | <i>Monarch</i> | <i>Cecils</i> | <i>England</i> | <i>John Norton</i> |
|------|---|--------------------------|--------------------------------|--|--------------------|
| 1561 | | | | Thomas Hoby translated Castiglione's <i>Il Cortigiano</i> | |
| 1562 | John begins apprenticeship with Alexander Mason | | William Became Master of Wards | | |
| 1563 | | | Robert Cecil born | Terrible outbreak of plague | |
| 1564 | | | | | |
| 1565 | | | | | |
| 1566 | | | | War between Spain and The Netherlands begins | |
| 1567 | | | | Hawkins and Drake sail to the West Indies and Mexico, war in New World | |
| 1568 | | | | —"— | |
| 1569 | Became a member of the Company of Barber-Surgeons | | | —"— | |
| 1570 | | Elizabeth excommunicated | | | |
| 1571 | | | William became Baron Burghley | | |
| 1572 | | | | | |
| 1573 | | | | | |
| 1574 | | | | | |

| | <i>John Gerard</i> | <i>Monarch</i> | <i>Cecils</i> | <i>England</i> | <i>John Norton</i> |
|------|---|----------------|---------------|--|--------------------|
| 1575 | | | | | |
| 1576 | | | | Frobisher sails to find Northwest Passage | |
| 1577 | John becomes garden Superintendent for Burghley | | | Drake sails to circumnavigate the globe | |
| 1578 | | | | Gilbert gets patent to investigate New World | |
| 1579 | | | | | |
| 1580 | | | | Gilbert sails to New England and back / Drake returns | |
| 1581 | | | | | |
| 1582 | | | | Richard Hakluyt - <i>Divers voyages touching the discoverie of America</i> | |
| 1583 | | | | Gilbert takes Newfoundland | |

| | <i>John Gerard</i> | <i>Monarch</i> | <i>Cecils</i> | <i>England</i> | <i>John Norton</i> |
|------|--------------------|------------------------------|---|--|--------------------|
| 1584 | | | | Hakluyt writes <i>Discourse of Western Planting</i> at the request of Raleigh to support colonization / Raleigh gets patent for colonization from Gilbert / John White and Thomas Harriot in Roanoke | |
| 1585 | | | | Walter Raleigh knighted and names Virginia after the Queen | |
| 1586 | | Mary Queen of Scots beheaded | | Walter Raleigh becomes captain of the guard | |
| 1587 | | | | | |
| 1588 | | | | Spanish Armada / Harriot's <i>A brief and true report of the new found land of Virginia</i> | |
| 1589 | | | Robert Cecil began Secretary work for Elizabeth | | |
| 1590 | | | | John White finds Roanoke colony deserted | |
| 1591 | | | | | |
| 1592 | | | | | |

| | <i>John Gerard</i> | <i>Monarch</i> | <i>Cecils</i> | <i>England</i> | <i>John Norton</i> |
|------|--|--|---|---|-------------------------|
| 1593 | | | | | |
| 1594 | | | | | |
| 1595 | | | | | |
| 1596 | <i>Catalogus</i> printed | | | | Returns to London |
| 1597 | <i>Herball</i> printed / Warden of Company | | | | Prints <i>Herball</i> |
| 1598 | | | William's death / Robert becomes official Secretary and Baron Cecil | | |
| 1599 | <i>Catalogus</i> , 2nd ed. Printed | | | John Stowe <i>Survey of London</i> | Prints <i>Catalogus</i> |
| 1600 | | | | | |
| 1601 | | | | Essex rebels, is tried, and is executed | |
| 1602 | | | | | |
| 1603 | Herbarist to the King / tithe acreage to Anne of Denmark | Elizabeth I dies, Accession of James I | | Raleigh arrested | Becomes King's Printer |
| 1604 | | | | War with Spain ends | |
| 1605 | Loses lease of tithe acreage | | | | |
| 1606 | | | | | |

| | <i>John Gerard</i> | <i>Monarch</i> | <i>Cecils</i> | <i>England</i> | <i>John Norton</i> |
|------|----------------------------------|----------------|--|------------------------------------|--------------------|
| 1607 | | | Robert became Earl of Salisbury and traded Theobalds for Hatfield Palace | | |
| 1608 | Master of Barber-Surgeon Company | | | | |
| 1609 | | | | | |
| 1610 | | | | | |
| 1611 | | | | | |
| 1612 | Death | | Robert's death | | Death |
| 1613 | | | | | |
| 1614 | | | | | |
| 1615 | | | | | |
| 1616 | | | | Raleigh released to sail to Guiana | |
| 1617 | | | | | |
| 1618 | | | | | |
| 1619 | | | | | |
| 1620 | Anne Gerard dies | | | | |
| | | | | | |

Appendix 2, Images

Of Aromaticall Reedes. Chap. 39.

1 *Calamus Aromaticus.*
Aromaticall Reede.



2 *Acorus officinis falso Calamus.*
Bastard or false Calamus.



* The description.

1 This sweete smelling Reede is of a datke dun colour, full of ioints and knees easie to be broken into small splinters, hollow and full of a certaine white pith, cobweb wife, somewhat gummie in eating, and hanging in the teeth, and of a sharpe bitter taste. It is of the thickness of the little finger, as *L'Obelius* affirmeth of some which he had seene in Venice.

2 Bastard Calamus hath flaggie leaues like vnto the water Flower de-luce or flag, but narrower, three foote long: the longest and eldest of which leaues are within a foote of the top, as it were curled or pleated confusedly. The rest of the leafe is smooth and euen, among which commeth vp a staile like the common reede, which yeeldeth out of the middle a certaine long aglet or bunch, such as the Aller tree bringeth forth. I haue not as yet seene it beare his tuft in my garden, and haue read that it is barren, and by prooffe haue seene it so: yet for all that I beleuee *Cladius*, who saith he hath seene it beare his flower in that place where it doth growe naturally, although in England it is altogether barren. The roote is sweete in smell, and bitter in taste, and like vnto the common Flag.

* The place.

The true *Calamus aromaticus* groweth in Arabia, and likewise in Siria, especially in the moorish grounds at the foote of *Libanus*, nere vnto the towne of *Tripolis*, where there is great resort of English marchants, as of other nations out of most parts of the world. At which place there is a lake called *Antilibanus*, situated in a valley neer adjoining, the which lake in the heat of sommer is drie, in respect of the store of water that it doth abound withall in winter. It groweth likewise in the west and east Indies, in the like soile as aforesaid.

Bastard

Figure 1
Of Aromaticall Reedes
Acorus and Calamus



Figure 2
Portrait of John Gerard

Of variable Flower de-luce. Chap. 36.

1 *Iris lutea variegata.*
Variable Flower de-luce.



2 *Iris Chalcidontea.*
Turkie Flower de-luce.



* The description.

1 That which is called the Flower de-luce of many colours, loseth his leaves in winter, and in the spring time recouereth them a newe. I am not able to expresse the sundry colours and the mixtures, contained in this flower. It is mixed with purple, yellowe, blacke, white, and a fringe or thrum downe the middle of the lower leaues, of a whitish yellow tipped or frized, and as it were a little raised vp: of a deepe purple colour neere the ground.

2 The second kind hath long and narrow leaues of a blackish Greene, like the stinking Gladdon, among which rise vp stalkes two foote long, bearing at the top of euery stalk one flower, compact of fixe great leaues. The three that stande vpright are confusedly and very strangely striped, mixed with white and a duskish blacke colour. The three leaues that hang downward are like a gaping hood, and are mixed in like manner; but the white is nothing so bright as of the other, and are as it were shadowed ouer with a darke purple colour, somewhat shining: so that according to my judgement, the whole flower is of the colour of a Ginnie hen: a rare and beautiful flower to behold.

* The description.

3 The French Flower de-luce (whereof also there is another of the same kinde, altogether lesse,) haue their rootes without any fauour. In shew they differ little from the garden Flower de-luce, but that these latter are altogether slenderer, and vnpleasant in taste, growing plentifully in the rough crags of the rocks vnder the Alpes, and neere vnto the sea. The which *Pena* found in the grassie granuelly grounds of the sea coastes neere to Montpellier. The learned doctor *Affatius* a long time supposed it to be *Medum Dioscorides*: *Matthiolus* deceived himselfe and others, in that he said, that the roote of this plant hath the sent of the peach: but my selfe haue proued it to be without fauour at all. It yeeldeth his flowers in Iune, which are of all the rest most like vnto the grassie Flower de-luce. The taste of his roote is hot, bitter, and with much tenuitie of parts, as hath bene found by phisicall prooffe.

Figure 3
Variable Flower de-Luce
Iris

1 *Colchicum Anglicum Purpureum.*
Purple English meadow Saffron.



2 *Colchicum Anglicum album.*
White English meadow Saffron.



3 *Colchicum Pannonicum.*
Hungarie meade Saffron.



Colchicum Pannonicum florens.
Hungarie meade Saffron flowering.



Figure 4
Meadow Saffron
Colchicum

Of Sowbready. Chap. 296.

* The kinds.

There be diuers sorts or kinds of Sowbready, differing very notably as well in forme or figure, as in their time of flowering, flourishing, fading, and appropriate vertues.

1 *Cyclamen orbiculato folio.*
Round Sowbready.



2 *Cyclamen folio Hederae.*
Iuicy Sowbready.



Figure 5
Sowbready
Cyclamen

Panax Coloni.
Clounes Alheale.



* *The place.*

It groweth in moist meadows by the sides of ditches, and likewise in fertill fields that are somewhat moist, almost euerie where, especially in Kent about Southfleet neere to Grauedale, and likewise in the meadows by Lambeth neere London.

* *The time.*

It flowreth in August, and bringeth his seede to perfection in the end of September.

* *The names.*

It shall suffice what hath bene saide in the description as touching the names, as well in Latine as English.

* *The temperature.*

This plant is hot in the seconde degree, and drie in the first.

* *The vertues.*

The leaues heereof stamped with *Assurgis*, or Hogs greafe, and applied vnto green wounds in manner of a pultis, doth heale them in such short time & in such absolute maner, that it is scarce to be belieue: for being in Kent about a Patient, it chanced that a very poore man in morning of Peasodid cut his leg with the Siech, where he made a wound to the bones, & withal very large & wide, & also with great effusion of blood, the poore man crept vnto this herbe which he breasted in his hands, & tied a great quantitie of it

to the wound with a peece of his shirt, which presently stanchd the bleeding and ceased the paine, in such maner that the poore man presently went to his daies worke againe, & so did from daie to daie without resting one day vntill he was perfectly hole, which was accomplished in a lewe day by this herbe stamped with a litle Hogs greafe, and so laid vpon in manner of a pultis, which as it were glewe or soder the lips of the wounde together, and heale it according to the first intention (as we teame it) that is without drawing or bringing the wounde to suppuration or matter, which was fully performed in seauen daies, that would haue required fortie daies with Balsam of felse: I saue the wounde, and offered to heale the same for charitie, which he refused, saying that he could not heale it so well as himselfe; a clownish answer I confesse without thanks for my good will, whereupon I haue named it Clounes Woundwoort as afore saide. Since which time my selfe haue cured many greuous woundes, and some mortall, with the same herbe, one for example done vpon a gentlemā of Graies Inne in Holburne, master *Edmund Carrwright*, who was thrust through the lungs, the wound entering in at the lowermost part of *Thorax* or the breast plate, euen through the cartilaginous substance, called *Mucronata Cartilago*, in such maner that from day to day the frothing and puffing of the lungs did spewe forth of the wound such excrements as it was possessed of besides the gentlemā was most dangerously vexed with a double quotidian feauer, whom by Gods permission I perfectly cured in very short time, and with this Clounes experiment, and founde my foreknowne helpe, which were as followeth.

B First I framed a slight vnquent hereof, thus; I tooke fower handfuls of the herbe stamped, and put them into a pan, wherunto I added fower ounces of Barrowes greafe, halfe a pint of oile of olives, water three ounces, which I boyled vnto the consumption of the iuce (which is knowne when the water doth not bubble at all) then did I straine it, putting it to the fire againe, adding thereto two ounces of Turpentine, the which I suffered to boile a litle, referuing the same for my vse.

Figure 6
Clounes Alheale
Panax Coloni

* *The time.*
They flower from the beginning of March to the end of May.

* *The names.*
The Turkie Flower de-luce is called in the Turkish tooing *Alia Sufani*, with this additament from the Italians, *Fiore Belle pintate*, supposed of *L'Obelius* to be *Medium* of *Diofcorides*: in English French Flower de-luce.

* *The nature and vertues.*
The faculties and temperature of these rare and beautifull flowers, are referred to the other sorts of Flower de-luces, whereunto they do very well accord. There is an excellent oyle made of the Flowers and rootes of Flower de-luce, of ech a like quantitie, called *Oleum Irimon*, made after the same maner that oyle of Roses, Lilies, and such like be made: which oyle profiteth much to strengthen the sinews and ioints, helpeth the crampe, proceeding of repletion, and the disease called in Greeke *Peripneumonia*.

The flowers of French Flower de-luce distilled with *Diatrion sandalon*, and *Cinnamon*, and the water drunke, preuaileth greatly against the dropie, as testifieth *Hollerius* and *Ceserius*.

Of stinking Gladdon. Chap. 37.



Xyris.
Stinking Gladdon.

* *The description.*
Stinking Gladdon hath long narrow leaues like Iris, but smaller, of a darke greene colour; & being rubbed, of a stinking smell, verie lothsome. The stalks are many in number, & round toward the top, out of which do grow flowers like the Flower de-luce, of an ouerworne blewish colour, declining to grayish, or an ash colour. After the flowers be vaded, there commeth great husks or cods, wherein is contained a red berrie or seede, as big as a peafe. The roote is long and thredde.

* *The place.*
Gladdon groweth in many gardens: I haue seene it wilde in many places, as in woods and shadowy places neere the sea.

* *The time.*
The stinking Gladdon flowreth in August: the seede whereof is ripe in September.

* *The names.*
Stinking Gladdon is called in Latine *Spatula fetida*: among the apothecaries; it is called also *Xyris*: in English stinking Gladdon and Spurgewoort.

* *The nature.*
Gladdon is hot and dry in the third degree.

* *The vertues.*
Such is the facultie of the rootes of all the Irides before named, that in pownding them they prouoke sneefing, and purge the head: generally all the

kinds haue an heating, and extenuating quality. They are effectually against the cough: they easily digest, and consume the grosse humors, which are hardly concocted: they purge choler and tough flegme: they procure sleepe, and helpe the gripings within the bellie.

It helpeth the inuoluntarie effusion of naturall feede, as *Plinie* saith. If it be drunke in wine it prouoketh the termes, and being put in bathes for women to sit ouer, it prouoketh the like effect most exquisitely. The roote put in maner of a pessarie, hastneth the birth. They couer with flesh, bones

Figure 7
Stinking Gladdon
Xyris

with small leaues of a deepe greene colour, alwaies three ioined together vpon litle foote stalkes, like the *Cytisus* bush, or the fiede Trefoile, but smaller: the flowers be yellowe, and rounde, diuided into fise or fixe patts, not much vnlike the yellowe Iasmine, which hath caused many to call it yellow Iasmine, euen to this day: when the flowers be vaded, there succede small rounde berries as bigge as a Pease, of a blacke purplish colour when they be ripe, which being broken will die or colour the fingers like Elder berries: within these berries is contained a small flat feede, like vnto Lentils: the roote is long and small, creeping hither and thither vnder the earth, putting forth newe springes or shootes in sundry places, whereby it woonderfully increaseth.

Polemonium sine *Trifolium fruticos.*
Shrubbie Trefoile.



✧ *The place.*

It groweth plentifully in the countrey of Montpellier at Newe Castle vpon the drie hills, and hot bankes of the Oliue fieldes, and in the stonie fieldes and wood of Gramintum: it groweth in my garden, and in other Herbarists gardens in Englande.

✧ *The time.*

It flowereth in sommer: the feede is ripe in Autumne; the shrub it selfe is alwaies greene, and hath a lasting roote.

✧ *The names.*

Most do call it *Cytisus*, but we had rather name it *Trifolium fruticos*: for it doth not agree with *Cytisus* or milke Trefoile, as in the chapter before it is plaine inough by his description, vnlesse it be *Cytisus Marcelli*, or Marcellus his milke Trefoile, with which peradventure it might be thought to haue some likenesse, if the flowers which are yellow were white, or *galbancus*, that is to say blewe.

There be diuers also, that take this Trefoile to be *Polemonium*, forasmuch as the leaues heereof seeme to be somewhat like those of common Rue, but *Polemonium* hath not the leafe of common Rue, otherwise called Herb-grace; but of the other, that is to say, of S. Johns Rue: it is called in English shrubbie Trefoile, or Makebate.

✧ *The temperature.*

Polemonium is of temperature dry in the second degree, with some acrimonie or sharpnes.

✧ *The vertues.*

This shrubbie or fruticall plant, hath so many singular and excellent vertues contained in it, that some haue called it by the name *Chitodynamis*, that is, hauing an hundred properties.

It is very effectuall against the stinging of Scorpions, and (as some write) if a man holde it in his hand, he cannot be hurt with the biting of any venomous beaft.

Being taken in vineger it is very good for those that are spleenetike, and whose spleene or milke is affected with oppilations or stoppings.

If the roote be taken in wine it helpeth against the bloudie fluxe, it prouoketh vrine being drunke with water, scoureth away grauell, and easeth the paine and ache called the Sciatica.

The plant *Papauer spuncum*, called Spatling, Poppie, is called of some *Chitodynamis*: whether *Diocorides* did attribute the hundred vertues thereunto or to this plant (called among the learned in Montpellier) *Polemonium*, is yett disputable.

Dddd 3

Of

Figure 8
Shrubbie Trefoile
Polonium



Figure 9
Tabaco or Henbane of Peru
Hoscyamus Peruvianus

* *The temperature.*
The red winter Cherrie is thought to be colde and drie and of subtil parts.
The leaues differ not from the temperature of the garden Nightshade as *Galen* saith.

* *The vertus.*
The fruite brused and put to infuse or steepe in white wine two or three howers, and after boyled two or three bubblings, straining it and putting to the decoction a little sugar and cinamome, and drunke; preuaileth very mightily against the stopping of vrine, the stone and grauell, the difficultie and sharpenes of making water and such like diseases: if the greete be olde the greater quantitie must be taken, if newe and not great, the lesse: it scoureth away the yellowe iauandise also as some write.

Of the maruaile of the World. Chap. 53.

Mirabilia Peruviana.
The maruaile of Peru.



* *The description.*
This admirable plant called the maruell of Peru, or the maruel of the World, springeth forth of the grounde like vnto Basil in leaues; among which it sendeth out a stalke two cubits and a halfe high, of the thickeesse of a finger, full of iuice, very firme, and of a yellowish Greene colour, knotted or kneed with ioints somewhat bunching forth, of purplish colour, as in the female Balsamina: which stalke diuideth it selfe into sundrie branches or boughes, & those also knottie like the stalke: his branches are bedecked with leaues growing by couples, at the iointes like the leaues of wilde Peascods, Greene, fleshie, and full of iuice, which being rubbed doe yeelde the like vnpleasant smell as wilde Peascods do, and are in taste also verie vnfauorie, yet in the latter end they leaue a taste and sharpe smacke of the Tabaco. The stalkes towards the top are garnished with long hollow single flowers, foulded as if they were into five parts before they be opened, but being fully blowen do resemble the flowers of the Tabaco, not ending into sharpe corners, but subline and rounde as the flowers of Bindweede, and stand larger then the flowers of Tabaco, glittering oftentimes with a fine purple or crimson colour, many times of an horselessh; sometime yellowe, sometime pale; and sometime resembling an old flower, or intercoufing the whole flower with streakes and orderly streames; nowe yellowe, nowe purple, diuided through the whole; hauing sometime great, sometime little spots of a purple colour, sprinkled and scattered in a most variable order, and braue mixture. The grounde or fildes of the whole flower is either pale, red, yellowe, or white, containing in the middle of the hollownesse a pricke or pointell set rounde about with fixe small strings or chiuies. The flowers are verie swete and pleasant, resembling the Narcisse or white Daffodill, and are very sodainly fading; for at night they are flowred wide open, and so continue vntill eight of the clocke the next morning: at which time they begin to close or shut vp (after the maner of the Bindweede) especially if the weather be very hot; but if the aire be more temperate they remaine open the whole day, & are closed onely at night, & so perish, one flower lasting but onely one day, like the true Ephemerum or Hemeroallis.

Figure 10
Maruale of Peru
Mirabilia Peruviana

1 *Bunias*,
Nauw gentle.



2 *Bunias sylvestris L'Obelis*,
Wilde Nauw.



* *The place.*

Nauw gentle requireth a loose & yellow mould euen as doth the Turnep, & prospereth in a fruitful soile: he is sown in Fraunce, Bauaria, & other places in the fields for the seed sake, as is likewise that wild Colewoort called of the old writers *Crambe*: for the plentiful increase of the seeds bringeth no small gaine to the husbandmen of that countrey, because that being pressed they yeelde an oile which is vsed not onely in lampes, but also in the making of sope; for of this oile and a lie made of certaine ashes, is boiled a sope which is vsed in the Lowe countries euery where to scowre and wash linnen clothes. I haue hard it reported that it is at this day sown in England for the same purpose.

The wilde Nauw groweth vpon ditch bankes neere vnto villages and good townes, as also vpon fresh marshie bankes in most places.

* *The time.*

The Nauw is sown, floureth and seedeth at the same time that the Turnep doth.

* *The names.*

The Nauw is called in Latine *Napus*, and also *Bunias*: in Greeke *Bovias*: the Germanes call it *Steckruben*: the Brabanders *Steckrapen*: in Spanish *Naps*: in Italian *Nauo*: the Frenchmen *Naucau*: in English Nauw gentle, or French Naucau.

* *The temperature and vertues.*

The Nauw and the Turnep are all one in temperature and vertues, yet some suppose that the Nauw is a little drier and not so soone concocted, nor passeth downe so easily, and doth withall ingender lesse winde. In the rest it is answerable to the Turnep.

M 3

Of

Figure 11
Nauw gentle and Wilde Nauw
Bunnias

7 *Calendula prolifera.*
Fruitfull Marigold.8 *Calendula maior prolifera.*
Iacke an apes a horfe backe.* *The description.*

7 This fruitfull or much bearing Marigolde, is likewise called of the vulgar sort of women Iacke an apes a horfe backe: it hath leaues, stalkes and rootes like the common sort of Marigolde, differing in the shape of his flowers, for this plant doth bring forth at the top of the stalke one flower like the other Marigoldes, from the which start forth sundrie other small flowers, yellow likewise, and of the same fashion, as the first, which if I be not deceiued commeth to passe *per accidens*, or by chance, as nature oftentimes liketh to plaie with other flowers, or as children are borne with two thumbs on one hand, and such like, which liuing to be men do get children like vnto others, euen so of the feede of this Marigold, which if it be sowen, it bringeth forth not one flower in a thousand, like the plant from whence it was taken.

8 The other fruitfull Marigold, is doubtlesse a degenerate kinde, comming by chance from the feede of the double Marigolde, whereas for the most part the other commeth of the feede of single flowers, wherein consisteth the difference.

9 The Alpish or mountaine Marigolde, which *L'Obelius* setteth downe for *Nardus Celtica*, or *Plantago Alpina*, is also called by *Taber Montanus* *Caltha*, or *Calendula Alpina*; and because I see, it rather resembleth a Marigolde then any other plant, I haue not thought it amisse to insert it in this place, leauing the consideration thereof vnto the friendly Reader, or to a further consideration, because it is a plant that I am not well acquainted withall; yet I do reade that it hath a thicke roote, growing a slope vnder the vpper crust of the earth, of an aromaticall or spicie taste, & somewhat biting, with many thredde strings annexed thereto: from which rise vp broad, thicke, and rough leaues, of an ouerworne greene colour, not vnlike vnto those of Plantaine: among which there riseth vp a rough and tender stalke, set with the like leaues; on the top whereof commeth forth a single yellow flower paled about the edges with small leaues of a light yellow, tending to a strawe colour; the middle of the flower is composed of a bundle of threds, thicke thrust together, such as is in the middle of the fiede Daisie, of a deepe yellow colour.

Figure 12
Fruitfull Marigold
Calendula

* *The temperature.*

The feede of these kindes of treacle Mustards, be hot and drie in the ende of the third degree.

* *The vertues.*

The feede of Thlaspi or treacle Mustarde eaten, purgeth choler both vpward and downward, A prouoketh flowers, and breaketh inward apostemes.
The same vsed in clysters, helpeth the sciatica, and is good vnto those purposes for which Mustard B feede serueth.

* *The danger.*

The feede of these herbes be so extreeme hot and vehement in working, that being taken in too great a quantitie, purgeth and scoureth euen vnto blood, and is hurtfull to women with childe, and therefore great care is to be had in giuing them inwardly.

Of Candie Mustard. Chap. 20.

Thlaspi Candie.
Candie Mustard.



* *The description.*

Candie Mustarde excelleth all the rest, as well for the comely flowers that it bringeth foorth for the decking vp of gardens and houses, as also for that it goeth beyonde the rest in his physicall vertues. It riseth vp with a very brittle stalke of a cubite high, which diuideth it selfe into sundrie bowes or branches, set with leaues like those of the stocke gilliflowers, of a graie or ouerworne greene colour. The flowers growe at the top of the stalkes rounde, thicke clustring together, like those of Scabious or Deuils bit, sometimes blewe, often purple, sometimes carnation or horse-flesh, and seldome white, for any thing that I haue seene, varying according to the soile or climate. The feede is reddish, sharpe, and bytyng the toong, wrapped in little huskes fashioned like a hart.

* *The place.*

This plant groweth naturally in that Pannonia which is nowe called Austria, in vntoiled places, and by high waie sides: in Crete or Candia, in Spaine and Italie, and such like hot regions, from whence I received feede, by the liberalitie of the right Honorable the Lorde Edward Zouche, at his returne into England from those partes, with many other rare feedes, which do flourish in my garden, for which I thinke my selfe much bounde vnto his good Lordship.

* *The time.*

It flowreth from the beginning of Maie vnto the ende of September, at which time you shall haue flowers, and feedes vpon one braunch, some ripe, and some that will not ripen at all.

* *The names.*

This plant is called in Greeke *δελφον*, or *Aeglis*, by a small error in chaunging *s* into *e* in Latine *Arabis* and *Draba*: *Plinie* in his 27. booke 9. chapter, nameth it *Dryopbonon*: it is vsually called *Thlaspi Candie*: in English Candie Thlaspi, or Candie Mustarde.

* *The temperature.*

The feede of Candie Mustarde is hot and drie in the ende of the thirde degree, as is that called *Scorodoliflasi* or treacle Mustarde.

* *The*

Figure 13
Of Candie Mustard
Thlaspi Candiae

or Greece, many daies iourneies beyond Constantinople, from whence they are brought among other bulbus plants for the garnishing of the Turkes gardens, and the curious Bathaoes; from whence they haue beene brought to England, where they flourish as in their native country.

The small fort I haue had many yeeres growing in my garden, but the greater I haue not had till of late, giuen me by my louing friend master James Garret apothecarie in London.

* The time.

These Lillies of the mountaine flower at such time as the common white Lilly doth, and sometimes sooner.

* The names.

The great mountaine Lillie is called of *Taber Montanus*, *Lilium Saracenicum*, received by master Garret aforesaid, from Lile in Flaunders by the name *Maragon Imperiale*: of some *Lilium Saracenicum mas.*

The small mountaine Lillie is called in Latine *Lilium montanum*, and *Lilium syluestre*: of some *Hemerocallis*, of other *Maragon*; but neither truly, for that there is of either, other plants properly called by the same names. In high Dutch it is called *Gottuurtz*; in lowe Dutch *Lilkens van Caluarrien*: in Spanish *Lirio Amarillo*: in French *Lys Sauvage*: in English mountaine Lillie.

* The nature and vertues.

There hath not been any thing left in writing either of the nature or vertues of these plants: notwithstanding we may deeme that God which gaue them such seemely and beautifull shape, hath not left them without their peculiar vertues: the finding out whereof we leaue to the learned and industrious searcher of nature.

The red Lilly of Constantinople. Chap. 94.

9 *Lilium Bizantinum.*

The red Lillie of Constantinople.



* The description.

The red Lillie of Constantinople hath a yellowe scaly or clouded roote like vnto the mountain Lillie, but greater: from the which riseth vp a faire fat stalke a finger thick, of a dark purplish colour toward the top, which sometimes doe turne from his naturall roundnes into a flat forme, like as doth the great mountain Lilly: vpon which stalke do grow sundrie faire and most beautiful flowers, in shape like those of the mountain Lilly, but of greter beauty, seeming as it were framed of red wax, tending to a red leade colour. From the middle of the flower commeth fourth a tender pointell or pestell, and likewise many smal chiues tipped with loofe and tottering pendants hanging thereat. The flower is of a reasonable pleasant fauoure. The leaues are confusedly set about the stalke like those of the white Lillie, but smaller.

* The place.

This plant groweth wilde in the fieldes and mountaines, many daies iourneis beyonde Constantinople, whither it is brought by the poore peasants to be sold, for the decking vp of gardens. From thence it was sent among many other bulbs of rare & daintie flowers, by master *Harbruan* ambassador there, vnto my honorable good Lord and master, the Lord Treasurer of England, who bestowed them vpon me for my garden.

K 4

* The

Figure 14
Red Lilly of Constantinople
Lilium Byzantium

E The iuice of the vppermost leaues with honie is a remedie againt poyfon.
 F The like also hath *Rhafs*. The Beade tree, saith he, is hot and drie: it is good for stoppings of the head, it maketh the haire long, yet is the fruit thereof very offensiu to the stomacke, and oftentimes found to be pernicious and deadly.
 G *Mastiholus* writeth, that the leaues and wood bringeth death euen vnto beasts, and that the poyson thereof is resisted by the same remedies that *Oleander* is.
 H *Ziziphus Cappadocia* preuaileth againt the diseases aforesaid, but the decoction thereof is very good for those whose water scaldeth them with the continuall issuing thereof, as also for such as haue the running of the raines, and the exulcerations of the bladder and priuie parts.
 I A looch or licking medicine made thereof or the sirupe, is excellent good againt spetting of blood proceeding of the distillations of sharpe or salt humors.

Of the Lote or Nettle tree. Chap. 117.

Lotus arbor.

The Nettle tree.



* The description.

The Lote whereof we write, is a tree as big as a Peare tree, or bigger and higher: the body and armes are very thicke; the baake whereof is smoothe, of a gallant greene colour tending to blewelisse: the boughes are long, and spread themselves all about: the leaues be like those of the Nettle, sharpe pointed, and nicked in the edges like a sawe, & dash here and there with stripes like a yellowish white colour: the berries be round, and hang vpon long stalks like Cherries, of a yellowish white colour at the first, and afterwards red, but whē they be ripe, they be somewhat blacke.

* The place.

This is a rare and strange tree in both the Germanies it was brought out of Italy where there is found store thereof, as *Mastiholus* testifieth: I haue a small tree thereof in my garden. There is likewise a tree thereof in the garden vnder London wall, sometime belonging to *M. Gray*, an Apothecary of London, and another great tree in a garden neere Colman streete in London, being the garden of the Queenes Apothecary at the impresson hereof, called *M. Hugh Morgan*, a curious collector of rare simples. The Lote tree doth also grow in Affrike, but it somewhat differeth from the Italian Lote in fruit, as *Plinie* in plaine words doth shew in his 13. booke 17. chapter. That part of Affrike, saith he, that lieth towards vs, bringeth forth the famous Lote tree, which they call *Celtis*, and the same well known in Italie, but altered by the soile: it is as big as the Peare tree, although *Nepos Cornelius* reporteth it to be shorter: the leaues are full of fine cuts, otherwise they be thought to be like those of the Holme tree. There be many differences, but the same are made especially by the fruit: the fruit is as big as a Beane, and of the colour of Saffron, but before it is thorow ripe, it changeth his colour as doth the Grape. It groweth thicke in boughes after the manner of the Myrtle, not as in Italie, after the manner of the Cherrie tree; the fruit of it is there so sweete, as it hath also giuen a name to that countrey and land, *nimis hospitale ad uenarum obliuione patrie*. It is reported that they are troubled with no diseases of the belly that eate it. The better is that which

Figure 15
 Nettle Tree
 Lotus arbor



Figure 16
Title Page

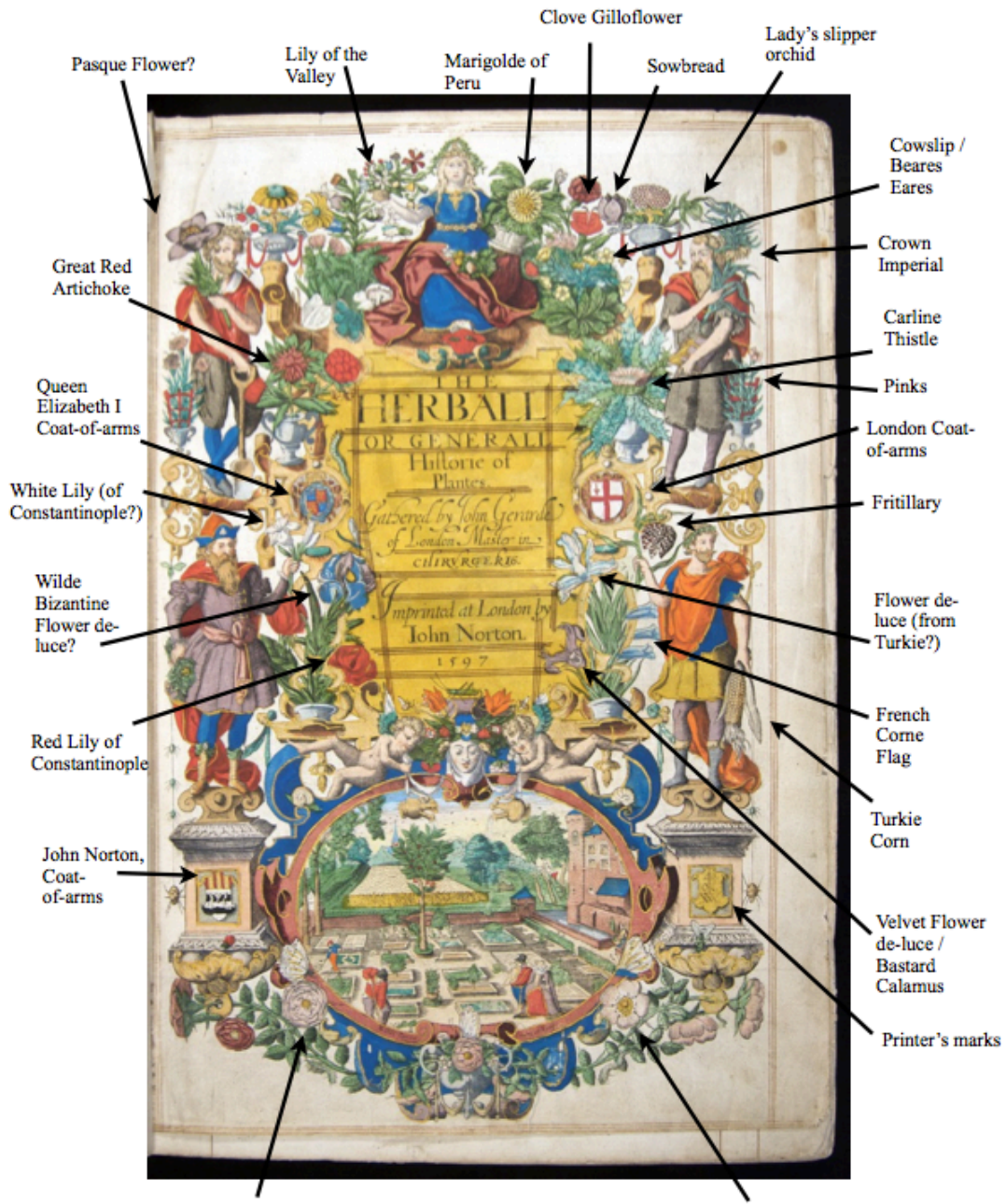


Figure 17
 Title Page with Suggested Plant
 Identifications



Figure 18 Title Page Lozenge

Figure 19 Adriaen Collaert and Hans Bol,
Image of the month of April



They are vsed to be eaten roasted in the ashes; some when they be so roasted, infuse them, and sop them in wine: and others to giue them the greater grace in eating, do boile them with prunes, and so eate them. And likewise others dresse them (being first roasted) with oile, vineger and salt, euery man according to his owne taste and liking: notwithstanding howfoeuer they be dressed, they comfort, nourish, and strengthen the bodie, procure bodily lust, and that with greedinesse.

Of Potatoes of Virginia. Chap. 335.

Battata Virginiana sive *Virginianorum*, & *Pappus*.
Potatoes of Virginia.

* The description.



Virginia Potatoes hath many hollowe flexible branches, trailing vpon the ground, three square, vneuen, knotted or kneed in sundry places at certaine distances; from the which knots commeth forth one great leafe made of diuers leaues, some smaller, & others greater, set together vpon a fat middle rib by couples; of a swart Greene colour tending to rednes. The whole leafe resembling those of the Parsnep, in taste at the first like grass, but afterward sharp & nipping the tooong; from the bosome of which leaues come forth long rounde slender footstalks, whereon do grow very faire and pleasant flowers, made of one entire whole leafe, which is folded or plaited in such strange sort, that it seemeth to be a flower made of sixe sundrie small leaues, which cannot easily be perceiued, except the same be pulled open. The colour whereof it is hard to expresse. The whole flower is of a light purple color, stripped down the middle of euery folde or welt,

with a light shew of yellownes, as though purple and yellow were mixed together: in the middle of the flower thrusteth forth a thicke fat pointell, yellow as golde, with a small sharpe Greene pricke or point in the middest thereof. The fruite succeedeth the flowers, round as a ball, of the bignes of a litle bullesse or wilde Plum, Greene at the first, and blacke when it is ripe; wherein is contained small white feede, lesse than those of Multarde. The roote is thicke, fat, and tuberous; not much differing either in shape, colour or taste from the common Potatoes, saving that the rootes hereof are not so great nor long; some of them round as a ball, some ouall or egge fashion, some longer, and others shorter: which knobbie rootes are fastened vnto the stalks with an infinite number of thredde strings.

* The place.

It groweth naturally in America where it was first discovered, as reporteth *C. Clusius*, since which time I haue receiued rootes hereof from Virginia, otherwise called Norembega, which growe and prosper in my garden, as in their owne native country.

* The

Figure 20
Potatoes of Virginia
Battata Virginiana

**Appendix 3, Comparison of *Catalogus*
(1596) and *Catalogus* (1599)**

| <i>PLANTS NAME IN 1596</i> | <i>PLANTS WITH CHANGED NAMES IN 1599</i> | <i>NEW PLANTS IN 1599</i> | <i>Englished Name in 1599</i> |
|----------------------------------|--|--|---------------------------------------|
| | | Althea olbiae | French Mallow |
| | | Amaracus folijs flauescentibus | Marjerome with yellow leaves |
| Anemone tenuifolia flore albo | Anemone tenuifolia flore albo syluestris | | Small cut white Windflower |
| | | Anemone flore albo multiplex | The double wilde white Windflower |
| Asarum Baccaris | Asarum | | Common Asarabacca |
| | | Beta Romana | Romane Beete |
| | | Brassica tophosa | Swolne Colewoorts |
| | | Campanula elegantissima ex China | Blew Belflower of China |
| Capnos fabacea | Capnos fabacea rad?c | | Small Holewoorts |
| | | Caput Gallinaceum Belgarum | Dutch Cockshead |
| Cardus Gerardi | Cardus Chrysanthemus | Cardus Chrysanthemus | Golden Thistle |
| Centaureum Lobelii | Centaureum luteum | Centaureum luteum | Yellow Centorie |
| | | Centaureum magnum flore luteo | Great Centorie with yellow flowers |
| | | Cerasa avium racemosa | Birds Cherries |

| <i>PLANTS NAME IN 1596</i> | | <i>PLANTS WITH CHANGED NAMES IN 1599</i> | <i>NEW PLANTS IN 1599</i> | <i>Englished Name in 1599</i> |
|--------------------------------|--|--|--------------------------------------|---|
| | | | Cereus Pervanus | Pine Torch |
| Cervicaria Gerardi | | Cervicaria Giganteum | Cervicaria Giganteum | Giants Throate woort |
| | | | Chamaeptytis Austriaca | Lowe Pine of Austrich |
| | | | Chamaeiris tenuifolia | Thinne leafed Dwarfe Flowerdeluce |
| | | | Cineraria | Sea Ragweede |
| | | | Cytisus siliquosus | Codded shrub Trefoile |
| | | | Clematis peregrina flore caeruleo | Blew Ladies Bowre |
| Condrylla flore lueto | | none | none | none |
| | | | Digitalis ferruginea | Iron coloured Foxe gloves |
| Esula major Hispanica | | Esula major Germanica | | Quacksalvers Turbith |
| | | | Fraxinella altera | Great Bastard Dittanie |
| | | | Gallium flore rubro | Red Ladies Bedstraw |
| Gentiana Gerardi Anglica | | Gentiana Anglica | | English Felwoort |
| | | | Gotne Alpina, sive Chamaepsilium | Dwarfe Fleabane |
| Gratiola Gerardi Anglica | | Gratiola Anglica | | English Hedge Hyssope |

| <i>PLANTS NAME IN 1596</i> | | <i>PLANTS WITH CHANGED NAMES IN 1599</i> | <i>NEW PLANTS IN 1599</i> | <i>Englished Name in 1599</i> |
|---|--|--|-----------------------------------|-----------------------------------|
| | | | Hedysarum Glycyrrhizatum | Licorice Hatchet Vetch |
| | | | Helleborus niger ferulaceus | Oxe eie |
| | | | Hyssopus folijs flauescentibus | Yellow leafed Hyssope |
| Knawelsiue Saxifraga altera Anglica Lobelii | | Knawelsiue Saxifraga altera Anglica | | Parsley piert |
| | | | Leucoium marinum creticum | Candie Sea Stocke Gilloflowers |
| | | | Leuisticum verum | True Louage |
| | | | Linaria purpurea | Purple Toade flaxe |
| Lunaria magorum | | none | none | none |
| | | | Malus arantia | The Arange, or Orange tree |
| Marum | | none | none | none |
| Martagun Chymistarum | | none | none | none |
| | | | Medica Camerarij | Germaine Medicke Fodder |
| Melanthium pleno flore altera | | Melanthium pleno flore | | Double Nigella |
| Momordica | | none | none | none |
| | | | Nasturtium crispum | Curled Cresses |

| <i>PLANTS NAME IN 1596</i> | | <i>PLANTS WITH CHANGED NAMES IN 1599</i> | <i>NEW PLANTS IN 1599</i> | <i>Englised Name in 1599</i> |
|----------------------------------|--|--|--|--|
| | | | Orchides variae | Divers sorts of Satyrions, besides these folow |
| | | | Orchis odorata | Sweete stones |
| Osmunda | | | | |
| Panax Gerardi Mentastrifolium | | Panax Mentastrifolium | | Clownes All-heale |
| | | | Papaver corniculatum violaceo flore | Violet horned Poppie |
| | | | Periploca recta | Upright Dogsbane |
| | | | Periploca repens | Climing Dogsbane |
| | | | Phyllirea | Mocke Privet |
| | | | Phyllirea serratifolijs | Jagged Mocke Privet |
| Picea | | none | none | none |
| | | | Pistacia | The Pisticke, or Fisticke nut tree |
| Plantago rosea Gerardi | | Plantago rosea incana | | Hoarie Rose Plantaine |
| | | | Polyspermum, Casanibassi | Spotted Blites |
| | | | Populus alba | White Poplar tree |
| Pseudo-narcissus Hispanicum | | Pseudo-narcissus Hispanicum major | | Yellow Daffodil of Spaine |
| Pseudo-narcissus Hispanicum | | Pseudo-narcissus Hispanicum minor | | Little Spanis Daffodil |

| <i>PLANTS NAME IN 1596</i> | | <i>PLANTS WITH CHANGED NAMES IN 1599</i> | <i>NEW PLANTS IN 1599</i> | <i>Englished Name in 1599</i> |
|--|--|--|---|---|
| | | | Ranunculus auricomus dupliciflore | Gold Thrum Crowfoote double |
| Salix rosea Gerardi | | Salix S(R)osea | | Rose Willow |
| | | | Salvia Indica flore albo | Indian white Sage |
| Microfilm damaged so uncertain | | | Sandilida Cretica | Square codded Pease |
| | | | Satyrium odoratum | Sweete smelling Satyrion |
| | | | Serpillum citratum | Wilde Time smelling like a Pomme citron |
| Stramonium peregrinum Lobelii | | Stramonium peregrinum | | Smooth Thorne Apples |
| | | | Tabaco | Indian Tabacco, or Henbane of Peru |
| | | | Trachelium Giganteum | Giants Throatewoort |
| Violet section is unclear in microfilm | | | | |
| Microfilm damaged so uncertain | | | V?ua crispa varta | Divers sorts of Gooseberries |
| | | | | |