Universiteit Leiden

Engraving *The Herball*:

Frontispieces and the visual understanding of botany in 16th – 17th century England

Kaleigh Hunter

S2052296

Supervisor: Dr. Marika Keblusek

Second Reader: Dr. Stijn Bussels

Master Museums & Collections 2017 / 2018

Contents

Introduction

The introduction of the moveable print in Europe undoubtably had an impact on the sciences, especially botany. The 16th and 17th centuries would see a rise of popular book genre: the printed herbal. An herbal is defined as a treatise on medical plants, an encyclopedic collection of plants displaying their names and descriptions.[1] These herbals, commonly illustrated, have garnered much academic attention from many fields such as art history, history of science, and book history. Agnes Arber created an overview of these books and their development from 1470 – 1670 in *Herbals* (1912). More would follow with Frank J. Anderson's *An Illustrated History of the Herbals* (1977), which gave further insight into herbals as an art historic interest. These books and their illustrations still have much research surrounding them today with scholars such as Claudia Swan, Pamela Smith and Anna Pavord writing on them; to list all works which explore herbals would be too extensive. These printed herbals offer much insight into the development of botany and the visual thinking of the natural world during their times of production. Despite the large amount of research that goes into the herbalists, the text and the illustrations there is still one element of these books that often gets overlooked: the frontispiece. The introduction of print not only impacted the way that ideas were presented and spread, but it also formed a new visual medium for the title-page of books. To give a brief definition: a frontispiece is a full-page illustration on or adjacent to the title-page of a book, usually done through engravings but not exclusively. The frontispiece is sometimes given a more general term of "engraved title-page".[2] Frontispieces were a valuable aspect of the book, with the design of these pages usually being heavily detailed and beautiful, giving them their own attractiveness and desirability aside from the depicted text.[3] These illustrations visually open a text and can be used to convey specific themes or ideas that will presented in the words to come. This is especially true of the frontispiece designs of scientific works which were usually filled with emblematic imagery depending on the presented topic. The frontispiece is often grouped within the general definition of engraving or book illustration, but its role is much more versatile and requires more independent study to fully understand. The purpose of a frontispiece can be difficult to define to a single use. This difficulty comes from the variety of

[1] Elliott 2011, p. 24.
[2] Remmert 2011, pp. 6-7.
[3] Idem, p. 11.

texts that would feature any form of title engraving. Religious, scientific, and fictitious works can all have frontispieces with various visual styles and references. In the few works which focus on the study of frontispieces independently, there is usually an association made with the idea of the paratext, presented by French literary theorist Gerard Genette in *Paratexts: thresholds of interpretation* (1997). The paratext embodies the surrounding detials of a book, such as the title, front-matter, cover, and other elements which create a threshold between the viewers and the text, ultimately effecting its reception. While the original work by Genette does not include frontispieces directly, it makes sense to understand them as a visual threshold, as the frontispiece creates a barrier or invitation between the reader and the text. If these designs embody a visual threshold between the consumer and the information, it could be assumed that much of the text's ideas and value would be placed on the frontispiece, to create an enticing environment. The frontispiece sometimes needs to evoke the themes of a text outside of its usual context. Because of the intricacy of these designs, it was not uncommon to find a frontispiece devoid of any text. The design is required to work in and outside of its original context to convey the ideas of the author or publisher who commissioned the work. The frontispiece thus became a valuable method of communication and can aid in the study of Early Modern visual thinking.

Although few, there are some works which explore the frontispiece on an individual scale. Margery Corbett and Ronald Lightbown gave an introduction to the frontispiece as an emblematic medium in *The Comely Frontispiece* (1979). While this work highlights the intricacy of these designs, there is not much extensive investigation on them, but instead offers more brief overviews of frontispieces from various book genres. At this point, discussions on frontispieces, while still rare, were largely descriptive. More recently, Volker Remmert did a study on frontispieces on more individual scale in *Picturing the Scientific Revolution*, first written in German in 2005 then translated to English in 2011. This work studies the Copernican debate of the 17th century through the lens of title-page engravings, mostly of frontispieces. Remmert gives an emphasis the complexity of these engravings, by emphasizing the multiple uses and audiences. Much of this analysis explores repeated themes and elements among these engravings to illustrate the visual rhetoric of these frontispieces within the context of astronomy and mathematics of the 17th century. The interdisciplinary nature of frontispieces are addressed, as Remmert comments the issues of studying these works within one specific field alone and states that "Ideally, the interpretation of a title engraving begins with an analysis of the collaboration between the author of the book and

the artist…".[4] While the visual thinking of the mathematical sciences differs from that of botany and other life sciences in some respects, the same method of thought can be applied when looking at these frontispieces. This emphasis on the "cooperative relationship" between author and artist is a method which I apply during my research, which is to analysis the text and the image as complimentary elements, not as completely different entities. The visual motifs on herbal frontispieces would, as argued in this paper, reflect the botanical thinking of its period through a reflection of the author's ideas. This research embraces the interdisciplinary nature of these engravings, not only taking perspectives from art history but also of both the history of science and book history.

With printed herbals becoming more popular, they also often came equipped with a frontispiece. During the 16th and 17th centuries, botanical thinking in Europe would undergo much change; something which, gets reflected in the text and illustrations of these herbals.[5] If there is a major shift in thinking during the peak popularity of these publications, it can be assumed that these changes in ideas would be expressed on the new medium of frontispieces. Without much study on these types of frontispieces, there is an open question of what exactly can be understood within these designs. This paper will explore this concept through a specific case study of two frontispieces which come from the London-published book titled *The Herball* by John Gerard (1545 – 1612) in 1597 and expanded by Thomas Johnson (1595-1600 – 1644) in 1633 (**Fig. 1, 2**).[6] *The Herball* has seen individual research, especially with its first publication authored by barber surgeon John Gerard. Leah Knight writes much on this work in her 2009 study *Of Book and Botany in Early Modern England*. Most of the previously mentioned works on herbals also make mention of this work and its expansion. The frontispiece to the 1597 edition of *The Herball* did get individual attention from Margery Corbett in her 1977 article "The engraved title-page to John Gerarde's *The Herball or Generall Historie of Plants*, 1597". This work provides an extensive description of this frontispiece and its details while giving insight into the possible identification of the unnamed figures and the sources used by the draftsman. The article is, however, mostly descriptive and the identification of the figures is not given much justification. Most of Corbett's

[4] Remmert 2011, p. 12.
[5] Many works discuss the development of herbals and their illustrations, such as: Frank Anderson's *An Illustrated History of the Herbals* (1977).
[6] Longer title: *The Herball or Generall Historie of Plants…*

analysis looks at Gerard's life to apply meaning to the design of the frontispiece. While these factors could have an influence on the design, this paper is going to give more focus to the general context of botany at the time and it influenced Gerard and the design. Later in this paper, more detail will be given to Corbett's article and specific points of the design where this analysis differs.

Botany in England developed somewhat differently from the continent during this period. The beginning of the 16th century would see a drastic change in the field of botany. These editions would be published during distinctive stages in England's botanical development, making the two editions of *The Herball* an interesting case study. The differences between these designs raise many questions to be addressed. What was the state of botany at these publication points? Who were these books for? Who were the engravers? What outside factors influenced these designs (paintings, other frontispieces, religion, etc.)? This all leads the main question to be addressed: What can the 1597 and 1633 frontispieces for John Gerard's *The Herball* tell us about the visual understanding of botany in the late 16th and early 17th century England? To answer this question, Chapter 1 is going to give an introduction of the development of herbals to give groundwork for understanding the initial publication. In Chapter 2, the first publication and frontispiece will be analyzed. Chapter 3 will be discussing the transition period between the first and second edition of *The Herball* to understand the changes in botanical thinking in England, while Chapter 4 will analyze the design of the new frontispiece. Finally, Chapter 5 will give brief view of British botany and frontispieces after 1633 to see any continued or new patterns. The aim of this research is to see to what extent these frontispieces reflect the ideas and thoughts towards the study of plants in order to further understand how these images can be used to understand aspects of visual thinking in Early Modern Europe.

Chapter 1 | Leading up to *The Herball*

The study of plants had a long, illustrated history before 1597. Classical texts were translated and copied into manuscripts, many of which would include images.[7] With the introduction of the moveable print, these herbals had a new outlet outside of the hand-copied practice and would create a demand for printed copies. *De Viribus Herbarum*, also reffered to as *Macer's Herbal* after the attributed author Aemilius Macer (? – 16 BCE), is credited as the first of these printed herbals, being published (unillustrated) in 1477.[8] This work was first a medieval manuscript in Latin, containing descriptions of 77 plants and would be published again, this time with illustrations, in 1482.[9] From this point the popularity of printed botanical books would rise. Many popular herbals such as the *Hortus Sanitatis* (1485), possibly compiled by printer-publisher Jacob Meydenbach (active in the 15th century), would see multiple publications. These works were not too unlike their manuscript predecessors, as there was a reliance on classical authors for knowledge on the natural world, with these works mostly consisting of translations or copies of older texts. During this early rise of printed herbals, botany would experience some shifts in thinking. The discovery of the New World and all its *flora* and *fauna* would contradict the classical writings that dominated the understanding of the natural world at the time. As it became more apparent that authors such as Dioscorides and Pliny did not record every aspect of nature as previously believed, the way of studying plants and animals would see a need to change. With the genre of printed herbals already established, these arguments would be widely expressed and spread through print. Although classical authors would not be taken out of these herbals, the works would contain more original observations of plants as opposed to only citing classical texts. The importance of observation would be reflected in the woodblock illustrations which accompanied many herbals.[10] Venetian botanist Pietro Antonio Michiel (1510 – 1576) critiques the illustrations used by Italian naturalist Pietro Mattiolo's (1501 – 1577) *Petri Andreae Matthioli Medici Senensis Commentarii* were "…not drawn from life…" and claims that "What was needed was a labour like his own in raising

[7] For more on the manuscript tradition of herbals, see: Wilfrid Blunt and Sandra Raphael, *The illustrated herbal* (1979) and Minta Collins, *Medieval Herbals: The Illustrative Traditions* (2000)
[8] Anderson 1977, pp. 30-32.
[9] Idem, p. 35.
[10] For further reading on botanical illustration in relation to herbals see Claudia Swan's "The Uses of Botanical Treatises in the Netherlands, c. 1600" (2008).

plants, watching their development … describing the whole in words and illustrations".[11] This new type of botanical illustration would be expressed through works like Leonhart Fuchs' (1501 – 1566) *De historia stripium* (1542), where the illustrations are drawn from life.[12] Although the classical authors would be brought into question, they were still the primary sources for understanding botany until the late 17th century.[13] This shift in thinking was not instant and can observed through the influx of printed herbals in Europe during the early 16th century. Some further examples of influential publications during this time would be Otto Brunfel's (1488 – 1534) *Herbarium vivae eicones* (1530) and Rembert Dodoens' (1517 – 1585) *Cruydeboeck* (1554).

The herbals in England followed this same pattern seen above, however the development of the English-language herbal has its own timeline and development. Botanical works were being translated into English before print became widespread in England, with hand-copies of *Macer's Herbal* being a popular poem to copy in the 14th century.[14] The printed herbal was adapted into the English language in the early 16th century with (unillustrated) *Bancke's Herbal* (1525), named after its publisher. Shortly after, the first illustrated, English-language herbal would be published with the title *The Grete Herball* (1526).[15] Although there were other botanical-themed works in English before this time, these two are the closest to what is considered an "herbal". On the title-page of *Bancke's Herbal* the book is stated as a "newe matter" and there it is also self-given the title of "herball".[16] Both of these works, like others from this time, consisted of repeated information of previous works and lacked original observations. *Bancke's Herbal* was likely comprised of information from earlier manuscripts such as *Macer's Herbal* while *The Grete Herball* was a translation of an earlier French work *Le Grand Herbier* (c.1498). Both of these works would see multiple re-publications, opening the market for English herbals later in the century. While the continent saw a rise in printed herbals in the begging of the century, England wouldn't publish an herbal of this scale until the latter half of the 16th century with physician William Turner's (1509/10? – 1568) three-volume *A new herbal* (1551-1568). Later in 1578 Henry Lyte (1529 – 1607) would compose his book *A niewe Herball*, a translation of well-known Flemish botanist Rembert Dodoens' *Cruydeboeck*. The works of Turner would be especially influential on

[11] Forbes 2016, p. 251.
[12] Pavord 2005, p. 176-7.
[13] Idem 2016, p. 250.
[14] Rohde 1974, p. 42.
[15] Idem, pp. 54-55.
[16] Arber 1912, p. 38.

English botany, as this would be the first significant herbal to be printed in English. Turner's work included a large number of plants native to England that had never been described in an herbal before.[17] Turner was critical of the previous English herbals, addressing their errors and lack of information in his Dedication from his second volume, mentioning that learned men needed "…to have errors they have drunk in, to be pulled out…".[18] It was not only the incorrect naming of herbs that was a problem for Turner, but the amount of superstition that was in these earlier herbals.[19] For Turner, the continental herbals were superior, however limiting due to language. The only way to get a valued education on herbs was to be able to read the works of more modern, continental writers such as the Leonhart Fuchs, which whom Turner corresponded.[20] The importance of being able to read and study for oneself can be seen in a grander aspect to British culture from this time due to Protestant ideals of individual faith becoming more influential, ideals of which Turner was a supporter of.[21] With the Protestant reformation came a new importance on literacy and language. Despite there being previous English works, Turner's herbal would receive controversy over the use of the vernacular in such a text, in fear that now anyone, no matter their previous training, could attempt to be a physician caused upset.[22] While the backlash stated that an herbal in English would cause harm, Turner argues that the lack of herbals in English are what cause real harm, arguing that not all British physicians can read Latin or Greek and therefore cannot access the accounts of Dioscordes on their own or the other herbals from the continent, usually written in Latin.[23]

Botanical books in England would not be limited to herbals or medical treatises. Gardening books were increasingly popular in the 16th and 17th centuries. The earliest printed book of this nature in England was Thomas Hill's *How to dresse, sowe, and set a garden* in 1563.[24] After this publication other books such as John Day's *Treatise on Gardens* (1589) and Henry Peachum's *The Garden of Eloquence* (1577) would expand the genre. Gardening books of this time period had a

[17] Knight 2009, p. 40.
[18] Taken from the 1995 reprint of Turner's *A New Herball: Parts II and III* edited by George T. L. Chapman, Frank McCombie and Anne U. Wesencraft, p. 373.
[19] Arber 1912, p. 103.
[20] Idem, p. 102.
[21] Anderson 1977, p. 149.
[22] Rohde 1974, p. 85.
[23] Knight 2009, p. 54.
[24] Idem, p. 6.

variety of intended audiences, ranging from monarchs to husbandmen and housewives.[25] It could be assumed that herbals would have a different audience than gardening manuals or horticultural books, however the exact readers can be difficult to define. Turner's herbal was clearly intended for a professional audience, as seen when he addresses his audience as "learned men". Lyte's herbal does not directly define its audience as professional or academic, but instead make comments addressing that the reader might not be knowledgeable which creates a more vague image of the audience.[26] Rebecca Bushnell's 2003 study on English gardening books, *Green Desire*, reveals much about the cultural thinking towards plants and gardens as well as their audiences. The consumer of gardening books was not fully defined by the 16th century and pinpointing who exactly purchased and read them is difficult to determine. The English gardening and botanical books of the 16th century were attempting to create this audience, something which can be reflected in the many ways that readers were addressed, such as "husbandmen", "learned men", and "curious readers".[27] A new, popular genre was being produced, something which *The Herball* would eventually benefit from.

All of this leads to the development of *The Herball*, a project led by London-based publisher and bookseller John Norton (1556-7 – 1612) with his apprentice at the time John Bill (1576 – 1630). *The Herball* came about fairly early in Norton's publishing career, as he was freed from his apprenticeship with his uncle, printer-publisher William Norton (1527–1593), in 1586. Most of what Norton is known for happens after the publication of *The Herball*, such as his becoming part of the King's Printing House, overseeing the Latin, Greek, and Hebrew works in 1603 as well as his involvement with continental publishers.[28] The same goes for his then-apprentice Bill, who would later be known for his role in purchasing continental books for Sir Thomas Bodley's collection, now known as the Bodleian Library at the University of Oxford.[29]

The story of *The Herball* is fairly well-written on, so only a brief summary will be given for the purpose of this essay.[30] This book was originally meant to be a translation of Dodoens' *Pemptades* done by Robert Priest (1550? – 1590), member of the London College Physicians.

[25] Bushnell 2003, p. 35.
[26] Lyte 1586, 4v.
[27] Bushnell 2003, p. 41.
[28] For further reading on Norton's career "John Norton, and John Bill: International Trade" by Graham Rees (2009).
[29] For more on this see "Politics, Profits and Idealism: John Norton, the Stationers' Company and Sir Thomas Bodley" by John Barnard (2008).
[30] For more on the publication of *The Herball* see Leah Knight's *Of Books and Botany in Early Modern England.*

Unfortunately, Priest died before completion of this project, to which barber-surgeon John Gerard was brought in to complete the project. Gerard was superintendent of the 1st Baron Burghley and advisor to Queen Elizabeth I, William Cecil's (1520 – 1598) garden. Instead of continuing the translation Gerard claimed to instead create an original work, using the work done by Priest as a source to assist his writing.[31] Flemish physician Matthias de L'Obel (1538 – 1616) was brought in as an editor as he had criticized Gerard of mislabeling plants.[32] Woodblocks from Antwerp printer Christophe Plantin (1520 – 1589) would be borrowed for illustrations.[33] Despite the difficulties throughout the publication (the death of Priest and the mistakes of Gerard) *The Herball* was published in 1597 to fairly well reception, although not fully without criticism which will be discussed further in Chapter 3.

There is a main question to be addressed when talking about the publication of *The Herball*: what exactly was the motivation to create an English version of a continental herbal? Unlike the previous herbal examples, Norton's book would be more publisher-driven.[34] This book was not started by a botanist setting out to create another English herbal on their own accord like William Turner, but was commissioned by the publisher, Norton. An English translation of a well-known continental work had already been done more than once. In this case, Norton would not be breaking new ground by giving the English language a new botanical treatise. Considering Turner and Lyte's herbals are the only major predecessors for this project, their reception could be an indication as to why Norton wanted to replicate it. Overall, both Lyte and Turner's herbals had proven to be successful over time and Norton likely saw a change to add to the genre. Not only did the works of Turner and Lyte open the market for an English herbal, but the demographic of gardening books was still developing at this time. Books about gardening and plants were proving to be a lucrative field and keeping the herbal in English would make it more accessible to a wider audience and as Turner had proven, an English herbal had a high chance of being received well. This project was seen as a guaranteed success for the young publisher, especially considering that a fully engraved frontispiece was commissioned, making the book more costly to produce while also increasing its value. This frontispiece stands out as an investment on the part of Norton on the success of the book. The frontispiece is also the main difference between these early English

[31] Knight 2009, p. 78.
[32] Elliott 2011, p. 35.
[33] Knight 2009, p. 78.
[34] Elliott 2011, p. 34.

herbals. Lytes' herbal was very transparently a translation, as the early publication used the same design as Dodoens (**Fig. 3, 4**). It wouldn't be until a 1595 re-publication that it would get a more neutral, decorative design (**Fig. 5**). Turner's herbal would also be more decorative in style but has more allegorical visuals with unnamed, mythical figures and holds an original design (**Fig. 6**).

Overall, the small number of previous versions could have been motivation enough. Although this project would not be ground-breaking, the English language had few herbals to its name. This work was likely meant to be taken as a direct ancestor to these past works, as the name evokes a sense of progression. Norton's publication would take on the title *The Herball*, unlike the two that came before with the claims of *A New Herball*. An English herbal was not new for the late 16th century, but they were still small in number and in need another. Norton commissioned a project to create an early success in his career and bring another English herbal to the forefront.

Chapter 2 | The First Frontispiece, 1597

English portrait engraver William Rogers (1589 – 1604) was brought in as draftsmen and engraver for *The Herball's* frontispiece. It is rare to get thorough documentation on the logistics of these frontispiece designs. There is always a question on who had the authority over the visual choices: the author or the draftsmen? Rogers gives himself an authority over the design of *The Herball*'s frontispiece through his signature of *Inuen et Sculp*. Because of this signature, previous scholars have attributed authorship of the design to Rogers in both *The Herball* and his other frontispiece for Jan Huyghen van Linschoten's (1563 – 1611) *Discours of Voyages into ye Easte and West Indies* from 1598.[35] References to this frontispiece, such as Corbett's, assume Gerard had a hand in the design.[36] Little is known about not only the production of this frontispiece, but also about William Roger's himself. He does appear to have been a well-renown engraver during his lifetime as he would engrave multiple portraits for Queen Elizabeth I. He is mostly noted for being one of the first English engravers to sign and date his work.[37] Although not much is known about Rogers's personal life it is still possible to have an understanding on where his influences would be drawn from based on the state of English culture and art at the time. Many mainland artists were not only active, but well known and desired in England and Scotland in the 15th and 16th centuries.[38] Rogers would have come across works from German and Dutch craftsmen during his career and this would influence his own designs, which will get more detail later in the section. With such little information on Roger's life, it can be difficult to fully determine why Norton commission him as draftsmen and engraver other than his success career as an English portrait engraver.

At first glance this design can feel overwhelming, with the vast amount of plants widely taking over the design and dwarfing the other elements around it.[39] The goddess Flora sits atop an

[35] Corbett and Lightbown 1979, p. 45.
[36] Corbett 1977, p. 223.
[37] Hind 1952, p. 258.
[38] Murray 1957, p. 843, 849.
[39] Due to Corbett's description being one of the only in-depth analysis of this design, I will be referencing Corbett throughout this section. Although Corbett gives a good overview of the design, her analysis leaves much to discuss, as the focus of the article is to give a detailed description and overview of the design. Because most of this article is dedicated to giving a descriptive analysis, this paper is only going to provide a brief summary of the overall design to avoid repetition.

architectural structure surrounding the title, which is covered by various disproportionate plants. To her left and right are two figures, the upper-left (**Fig.7**) holding a "Pasque Flower" and leaning on a spade, the bottom-left (**Fig.8**) holding a "White Lily". To her other side, the upper-right figure (**Fig.9**) holding a book and "Crown Imperial", the bottom-right (**Fig.10**) dressed as a Roman holding a "Checkered Daffodil" and "Turkie Wheat". At the bottom of the structure is an oval opening which shows a garden at the side of a building. The garden is being cared for as a man and woman walk through it.

This design has many details, but one of the more notable aspects are the unnamed figures. Identifying the figures on this frontispiece can be difficult as there are many people that can be logically featured here. As the botanical frontispiece gained popularity into the 16th and 17th centuries, the figures displayed become more conventional, however by this point in time these frontispieces had not reached a consistency with its tropes. The lack of names overall is a somewhat unusual aspect to botanical frontispieces up to 1597, as most of the preceding frontispieces by this time incorporated names. On the frontispiece for Otto Brunfels' *Herbarum vivae eicones* (**Fig.11**), the figures are all labeled with text, despite being recognizable through the use of attributes. The labels themselves are mixed as some are given in Latin and others in Greek. Although the language of the book already makes it clear the intended audience is scholarly, the use of Greek in the frontispiece design heightens the identification of the audience. If the frontispiece is part of a book's threshold between the viewer and text, the inclusion of a specific language can filter the audience and the nature of the book. The designs of the continental frontispieces leading up to *The Herball* follow the lead of Brunfels, giving literal names to recognizable figures, usually in Latin and/or Greek. The lower section to the frontispiece for Dodoens' *Cruydeboeck* has a similar design to Brunfels', however instead of giving names to the figures, a label is given to the garden of the Hesperides which houses the mythical characters and stories being referenced. The use of names on herbal frontispieces during this time was common, but not completely consistent. An early example would be the frontispiece for *Hortus sanitates* (**Fig.12**), where all the figures are unnamed. The overall design shows an imaginary meeting of scholars. Their status is the only identity required to understand the design. The central figure could have more significance; however, he could possibly be Dioscroides or Theophrastus due to their importance to medieval botany. Turners' 1551 frontispiece also doesn't provide nametags, but the mythical figures are paired with recognizable attributes to aid in identification.

This opens many questions for Roger's design. An important question to address is: are the figures literal or representative? Knowing if these figures are meant to be specific people or a general representation of a profession can aid in understand why they are not named directly. In the case of Turner's frontispiece, the figures are also unnamed, but they are accompanied with clear attributes to make them known. In Roger's design, the figures have specific costumes to identify a general role but are also paired with unnaturally sized plants. This use of plants is, as I will argue, likely meant to be a form of attribute.

In Margery Corbett's description of this frontispiece, she identifies the figures as Theophrastus (top-left), Galen (bottom-left), and Pliny (bottom-right) due to these authors being mentioned by Matthias de l'Obel's Adress to Gerard in *The Herball*.[40] The names are assigned to the figures based on their appearance and dress: Dioscordes as the classical author, Pliny as the Roman, Galen in possible travel ware, and Theophrastus is given the last figure by default.[41] The follow paragraphs are going to argue for a different method of analysis by looking at the figures and their surrounding elements before applying any identity. The new suggestions for the identification of these figures will be (in the same order as Corbett): Adam, Dioscordes, Solomon, and Pliny. These figures will be discussed individually (not in the listed order) to explore the different methods of interpretation that can be taken when looking at these figures. An important detail that is not taken into much consideration by Corbett is the plant-props each figure holds and is surrounded by. With each person holding a disproportionately large flower, it is possible that these are the replacement for clear labels. As mentioned previously, a clear convention as to which figures are shown and how was not fully in place at this time, especially with classical authors. Rogers appears to be taking a more indirect approach through not giving the viewer a name, but instead visual clues.

A clear example for this would be the top-right figure, agreed in both examinations to be Dioscorides. This figure resembles other depictions of Dioscorides and his dress and large, clasped book give an indication that is a classical author, however a consistent way to display this figure had yet to be established by this time. He is also holding "The Crown Imperiall", a flower which Carolus Clusius (1526 – 1609) had labeled as the "Hemerocallide Dioscoridi" in his work *Atrebatis*

[40] Corbett 1977, p. 227.
[41] Ibidem.

Rariorum aliquot stirpium (1583).[42] It can be assumed that perhaps Rogers had seen the work by Clusius before, or at the very least that Gerard may have told him of this connection. However, Gerard does not refer to this lily as being related to Dioscorides in *The Herball*, so if this association was made by Rogers, it was done through the source text of his frontispiece. Although the 1597 *Herball* does not make a reference to Clusius' claim, the 1633 edition does. Johnson remarks on Clusius' claim that this flower is the "Hemerocallide Dioscoridi", stating that this claim was a likely a mistake.[43] Johnson was adding a correction to a claim that Gerard did not reference in his text, but it might have implied in the frontispiece design through Rogers. However, Johnson could have been adding this reference simply due to new knowledge on the "Crown Imperial" or the "Hemerocallide Dioscoridi" or simply to give his opinion on a matter being more discussed by botanists during his time. The flower being held by this figure is not the only indication to their identity and the surrounding plants give more literal clues to his name. The large, potted plant in front of him is more clearly associated with Dioscordes through its label "The Carline Thistle of Dioscorides".[44] To give further evidence that these plants are stand-ins for names, the smaller, potted plant near above the figure resembles a *Teucrium polium*, which Turner labels as the "Polium out of Dioscorides" in the second volume of his herbal in 1562.[45] Dioscorides was one of the only consistently used motifs on frontispieces for printed herbals. His portrayal was still flexible, but the depiction is the most common: classical attire holding a book and plant. His image can be seen in a similar fashion on Otto Brunfels' *Herbarium vivea eicones*.

If plants can be used as a representation of a name, then it is important to understand the relationship between *flora* and language. The naming of plants was a large area of discourse during this period. The lack of a systemic and consistent method of labeling became a noticeable issue during the production of these herbals. As with the other life sciences of the 16th century, the name of a plant or animal was vital to understanding its nature and virtues. Books on plants and animals almost always give not only a detailed description of the plant or animal's physical qualities, but also a list of their terms in multiple languages as seen in works such as Conrad Gessner's (1516 – 1565) *Historia animalium* (1551). The relationship to plants and titles can be complicated, as multiple versions of names or mislabeling would occur between herbals. With the discovery of

[42] Clusius 1583, p. 127.
[43] Gerard and Johnson 1633, p. 203.
[44] Gerard 1597, p. 995.
[45] Turner 1562, p. 96.

new plants and animals, naturalists were tasked with dictating new labels, just as Adam was tasked with the naming of the beasts. William Turner made an attempt to create consistency in the titles of plants, especially in English, through his 1548 work *The Names of Herbs*. Turner held an importance to the physical attributes when giving names to plants. In many cases in English, a plant might have many names based on folklore or local nicknaming, and Turner would often add many of these names, making consistency difficult. Leah Knight states that, for Turner, the name and identity of the plant is more so tied to its physical qualities while Gerard equated names of plants with a sense of ownership or authorship.[46] When looking at Gerard's attitude towards names, plants and people have a strong connection, when a plant is named after a person, that person has become a part of the plants' identity and creation.[47] Dioscorides gave these plants their names and they, in turn, have given the name back to him. However, with the inconsistency in plant names, using plants as literal replacements for names could be considered difficult, both now and at the time of consumption. With the case of Dioscordes the plants can be seen as an exchanging of names with the figure, but for the other men on the design it appears to be more abstract. The plants can be used not only as a name, but also as an attribute, using less direct ways of giving identity through visual indicators.

The bottom left figure, previously labeled as Galen, is holding a lily, specified as being the "White Lily" by Corbett.[48] It is unclear on whether or not this is meant to indicate a white lily specifically, as Corbett also mentions that some colored versions of this frontispiece colors the flower red.[49] Without knowing the color, there are still multiple connotations that lilies held and could be explored. The lily was not named after a specific figure or botanist, so it cannot be seen as a more literal replacement for a name like the example of Dioscordes. Despite the vagueness in the name, the lily held plenty of associations, one of which being referenced by Gerard in the description of the white lily: "…which in beauty and brauerie excelled *Salomon* in his greatest roialti".[50] This is in reference to Luke 12:27, a verse which highlights the beauty of nature, which Gerard also references in his address "To the Reader".[51] Although Gerard mentions this in the description of the white lily, the use of the word "lily" is often vague in the Bible, leaving multiple

[46] Knight 2009, pp. 83-4.
[47] Ibidem.
[48] Gerard 1597, p. 146.
[49] Corbett 1977, p. 225.
[50] Gerard 1597, p. 146.
[51] Idem, "To the Reader".

interpretations as to the exact flowers being referenced. In Dr. William Smith's (1813 – 1893) *Dictionary to the Bible* (1863), red-colored lilies are given credit as being the "lilies of the field" referenced in Matthew 6:28-29, which are stated as being greater than the robes of Solomon.[52] Without knowing a color, it can be easy to apply the lily to a Biblical figure such as King Solomon. For futher reference, the lily is also referred to as a decorative motif for Solomon's temple in 1 Kings 7:19 where the tops of pillars are described as being designed after or shaped like lilies.[53] The biblical figure of King Solomon is something repeated in other frontispieces after *The Herball* such as Clusius' *Rariorum plantarum historia* (1601) (**Fig.13**), a frontispiece design which is re-used in Dodoens' *Stirpium historiae pemptades sex, sive libri XXX* (1616). Solomon would be depicted again with a lily in 1678 on the frontispiece of Jakob Breyn's (1637 – 1697) *Exoticarum aliarumque minus cognitarum plantarum centuria prima* (far left figure) (**Fig.14**). The biblical Solomon was revered as a figure for botanical wisdom, as Turner notes in his "Dedication", stating that "…Solomon was commended for the knowledge of herbs…".[54] Knowing that Solomon was referenced in previous English herbals and that he was seen as sign of status for botanical wisdom, having him on this frontispiece would feel fitting. Justifying the importance of botany through the mentioning of important figures was common in the preface to many of these herbals and this sometimes gets reflected on the frontispiece as can be seen on the *Cruydeboeck* design, where all the figures alongside the publishing information are royal figures who contributed to botany.[55] The "Lilies of Constantinople" located next to the figure also give reference an Eastern origin for the figure.[56] The figure's dress also shows this implication, as Corbett mentions the "conical crown" of the hat as being evident of Eastern origin.[57] The hat itself also has visual similarity to a crown, however other depictions of royalty on frontispieces use different styles of crown, as seen on *Rariorum plantarum historia* and *Cruydeboeck*. This type of crown would be most typical for royal figures on these frontispieces, however, in other prints many different forms of headwear could be used when depicting kings from the Bible. An example of this can be seen in the woodcut of *Kings*

[52] Savage 1923, p. 101; King James Version, full verse: "[28] And why take ye thought for raiment? Consider the lilies of the field, how they grow; they toil not, neither do they spin: [29] And yet I say unto you, That even Solomon in all his glory was not arrayed like one of these."
[53] King James Version, full verse: "And the chapters that were upon the top of the pillars were of lily work in the porch, four cubits."
[54] Quote taken from the 1995 reprint from George T. L. Chapman and Marilyn N. Tweddle, p. 213.
[55] Knight 2009, pp. 44-5.
[56] Gerard 1597, p. 151.
[57] Corbett 1977, p. 227.

David, Solomon and Jeroboam (1518 – 1522) by Dutch artist Lucas van Leyden (1494 – 1533) (**Fig.15**).

Overall, when looking the dress of the figures, a division of roles can be seen on the design. The left side hosts the current two sides of botany at the time: the gardener and the scholar. The division of professions within botany was commonly visualized on frontispieces. This division of labor also gets shown on *Petri Andreae Matthioli Opera quae extant omnia* from 1598 (**Fig.16**) where the different applications of botanical knowledge are shown. If this figure is meant to represent the virtues of botanical wisdom through Solomon, then it is possible the contrasting figure of the gardener could also evoke a biblical reference of gardening. In contrast, the right side holds a representation of the classical sources, as evident by the costumes which embody both Greek and Roman sources. If the right side indicates past knowledge on botany, then the left is evocative of the application of this knowledge through both physical and scholarly means. The physical act of gardening was not always tied to academics, this division would start to be criticized in the 15th century. Italian historian Pandolfo Collenuccio (1444 – 1504) would argue that "…he who is to write about herbs…ought to study not only books but also the face of the earth…".[58] Frontispieces of the 16th century which express a division of different labors might additionally be expressing the unity between them. Botanical knowledge could be represented in multiple forms through physical and academic labors of knowledge. While looking at these two sides of the design as a division or unity, the implication of King Solomon could also indicate a classification of botanical texts as Biblical and classical. If King Solomon is representative of botanical wisdom, another figure from the Bible could indicate botanical labor.

The top left figure is named as Theophrastus by Corbett; however, she gives this figure the least attention and justification in her article, as this name is only given because it was the last to be analyzed. What is clear is his representation of the role as gardener, indicated by the spade. Adam was tasked with taking care of the Garden of Eden, the original garden, as well as naming the creatures within.[59] Adam's depiction on botanical works would happen more often in future botanical works, such as the referenced frontispiece used by Dodoens and Clusuis, however his portrayal would still be fairly new at this time. When looking at the referenced frontispiece, the figures of Adam and Solomon show a visual resemblance to the figures shown on *The Herball*,

[58] Forbes 2016, p. 252.
[59] Knight 2009, p. 58.

which could further reinforce their identities on the Rogers design. Depictions of Adam in other artforms varied, but this figure can show some repeated qualities. Adam was most often shown as a younger man often with curly hair, as in Albrecht Dürer's (1471 – 1528) *Adam and Eve* (**Fig.17**). The flower that he is holding was a sought-after garden flower in England at this time, making the role of gardener more resonant.[60] Two of the flowers in the pot adjacent to him are examples of double-flowers, the "Double Crowfoot" and "Great Double Windflower".[61] These double-flowers are mutations within the natural world that were recorded by classical authors and replicated in gardens during this time. Natural mutations such as these were sources of interest for gardens and collections, making their inclusion evocative of the practice of gardening and collecting of plants. Gardens had strong connections to the culture of collecting in the 16th century, which will get discussed in further detail later in this chapter.

While the role of gardener is clear through the spade and plants, a large issue with identifying this figure as Adam is the use of clothing. Adam's depiction, as seen in the Dürer example, is most prominently in the Garden of Eden, therefore in the nude. Adam would be depicted clothed and with a spade on John Parkinson's frontispiece to *Theatrum Botanicum* (1640) (**Fig.18**). On this frontispiece, which features another King Solomon, biblical figures are used to again represent as another division of botanical knowledge: the physical gardener and the scholar. Although Adam is clothed, it has a primitive and tattered appearance, unlike the fully-dressed figure seen on Roger's design. This version of the "clothed Adam" was often depicted in prints of Adam either engaging in agricultural work or being expelled from Eden. An example of the latter can be seen in another print by Lucas van Leyden, where Adam is depicted exiting Eden while holding a gardening tool (**Fig.19**). There is a motif of a clothed Adam-as-gardener in prints, but the manor of dress on Roger's design is still very different from the tattered clothing on the Leyden example and Parkinson frontispiece. While the clothing keeps the figure's identity difficult to determine as Adam, there is a pattern of using Biblical authorities (specifically Adam and Solomon) as representation of labor and wisdom in botany. The contrast of Adam and Solomon on many of these frontispieces further express the contrast to physical labor and scholarly labor as two methods of achieving botanical knowledge.

[60] Phillips 1829, p. 114.
[61] Gerard 1597, pp. 812, 303.

The bottom-right figure, labeled as Pliny by Corbett, is more difficult to define. The identification of this man as Pliny does not feel out-of-place, as Pliny was a major Roman figure for natural history and botany so the Roman attire would fit the role. Pliny is also present on the *Exoticarum* frontispiece as the figure in the back right. However, when looking at the plants as identifiers, it feels more unclear. Corn, in particular, was a product of the New World which was undergoing debate amongst botanists at this time. The merits as to making bread from this product was often cited, as Gerard himself joins in the conversation by stating that it should not be used for that purpose.[62] Corn was still a new product in England at this time and, as previously mentioned, botanists were still deciding on its value and uses. The addition of corn could likely just be a general reference to the discoveries of the New World. *Flora* at the top also holds plants that are native to Europe and the Americas, showing the abundance and beauty of herbs that can be found in the world. If the figure is indeed Pliny, the addition of corn could be a reference to the shift in botany at this time. A classical author is holding a product which he could not have written about in his own time. This can be a visual "passing of torch" to modern botanists, who have to study these new plants without the direct aid of classical authors such as Pliny. This reference to Old and New World plants is also shared with the other plant-prop shown here: *Fritillaria meleagris*. This flower was found in English gardens and held multiple names such as Snake's Head and Toad Lily, both names attributed to the visual similarities to the pattern on the flower and the animal.[63] Pliny's work was encyclopedic, giving an account of animals, plants, and minerals from multiple areas. This ambition to study all of the natural world is reflected in the combination of new and familiar plants held by this character.

Other botanical frontispieces from this time have clear names for most figures; in many cases where the names are omitted, the figures are usually identifiable through their attributes and in some instances both names and attributes are used. In the case of Roger's design, there is no use of names or established attributes. The likeliness of the figures is left vague enough to assume that the plants would be required for knowing the figures' names. If the plants on this frontispiece are meant to be attributes for unnamed figures, then there must be an assumption that the audience would be inclined to interpret them in such a way. Jack Goody comments on the "emblematic

[62] Gerard 1597, p. 77.
[63] Brandis and Lima 1995, "5. Snakehead Lily".

usage" of flowers in English literature.[64] Goody uses this concept as a way of understanding the sometimes-arbitrary use of specific herbs or flowers in popular English literature or plays, especially in Shakespeare. In *Hamlet*, Ophelia disperses herbs to different characters during a speech. The significance of these herbs would have likely been known to the audience of the time, as Goody states "…an intelligent audience, more accustomed to such 'emblematic usages', would be able to interpret the remaining flowers…".[65] This same idea can be applied to visual mediums such as this, where plants appear to be used as non-verbal signifiers for specific people. The four male figures are not the only ones with emblematic flowers. The bottom of the frontispiece is decorated with two types of roses, which were associated with Queen Elizabeth I at the time and would be a recognizable reference to her. Portraits of Elizabeth would use this floral arrangement, including an engraving by William Rogers titled *Rosa Electa* from 1590-1600 (**Fig.20**). The reference of Queen Elizabeth I and this flora arrangement echoes the literary practice of using flowers to represent women in literature at this time, as can be seen in the works of Shakespeare.[66] The combination of roses gives a visual reference to Queen Elizabeth I without offering a literal portrait. The use of this floral arrangement on the frontispiece indicates that the displayed flowers are being used in an emblematic way. Rogers uses this form of reference on his other frontispiece from *Discours* (1598) (**Fig.21**), where the top of the design displays the same lion and dragon imagery associated with the Queen. For the purpose of *The Herball*'s design, the combination of flowers still applies an emblematic reference which matches the overall theme. This still leaves a question of who exactly would be able to "read" these flowers.

The intended audience of *The Herball* is not directly referred to as academic, although the original project of translating Dodoens' herbal would imply that the suspected readers may be educated. As seen in Turner's herbal, it was made clear his work was intended for physicians and other academic individuals. However, Gerard does not specifically call out learned individuals in his Prologue to the reader which could be due to the fact that he was not academically trained himself. A message of "openness" is even conveyed early in *The Herball* as the address "To the well affected Reader and peruser of this booke" states: "Open is the campe of glorie and honor for

[64] See Jack Goody's *The Culture of Flowers* (1993) and Rebecca Bushnell's *Green Desires* (2003) for more on the "emblematic usage" of flowers.
[65] Goody 1993, p. 180.
[66] Bushnell 2003, pp. 117-8.

all men … not onely men of great birth and dignitie…".[67] Gerard's vague image of his audience may be due to his lack of academic training. The work was not being done by one physician for other physicians as was done by Turner. Gerard's experience with botany was not through scholarly study, but through his direct experience in gardens. As mentioned, Gerard was the keeper of William Cecil's garden and previous to *The Herball* he would release a catalogue of plants from his Holborn garden in 1596, the first catalogue of its kind to be published.[68] On Brunfel's design, names were given in Greek which implied that the intended audience would understand it, or it was used to give an implication that this work is on an academic scale. The lack of names might be used as a way to avoid that possible barrier on the frontispiece. A detail on this design that might bring more insight into the audience for this book is the garden. While botany was mostly associated with medicine in the 16th century, gardens held a more complicated role in the culture of collecting and knowledge this time.

Below the figures is an opening to a garden, which does not appear to be a literal representation of a specific place. Margery Corbett states that Rogers was influenced by the Flemish engraver Adriaen Collaert (1560 – 1618), specifically his engravings of the months. Looking at *April* (**Fig.22**) the similarities in composition are very similar, especially the positions of the figures. The garden on *The Herball* is not a direct copy of *April*, but when going on visuals alone, it is apparent that this engraving was a reference for Rogers. The way that the garden is depicted in *April* and *The Herball* is not unusual for their time, as imagery of people working in a garden was a common motif for the title pages of the early English herbals and gardening books, as can be seen in *The Grete Herball* (**Fig.23**). Corbett makes an associated to Cecil's garden, as the book was dedicated to him and Gerard was the keeper.[69] Associations to literal gardens could be made through the context on John Gerard's life and career and seeing this garden as a reference to the gardens of William Cecil could be possible. However, the resemblance to *April* makes it clear that Rogers was working from printed references, not from life. Another indication of the repeated use in *Petri Andreae Matthioli Opera quae extant omnia* from 1598 (**Fig.24, 25**). Published a year after the first edition of *The Herball*, this frontispiece has similar design elements with Flora atop a number of unnamed figures. The use of repeated elements among frontispieces

[67] Gerard 1597, p. B3r.
[68] Pavord 2005, pp. 331-2.
[69] Corbett 1977, pp. 226-7.

is not unusual, as can already be noted in previous examples. The garden appears to have used a reverse of Roger's design as a reference, as the lemon tree is replacing the central tree in both renditions of the original *April*. The garden displayed could also be understood as a representation of all gardens and therefore could be put into any referential context. It could be associated with the garden of William Cecil or it to one's own garden, if the reader cultivated such a space. The addition of the lemon tree feels more arbitrary as it gets re-used on this other frontispiece shortly after publication. However, the addition of the lemon tree could have more significance, as it appears to be an intentional change from the source image. It could be, like Corbett states, a nod to William Cecil due to an account of him cultivating lemon trees, or it could have other allegorical connotations.[70] The lemon tree holds many meanings, so looking at it from a symbolic perspective can be daunting. It is possible the lemon tree is a reference to the Garden of Hesperides that is depicted on the bottom of both Dodoens' and Brunfels' works. This mythical garden housed trees which grew golden apples, a visual which easily evokes the image of a citrus tree. The inclusion of the tree itself feels somewhat fictitious, as it would have been potted, not grown directly from the ground in a garden. A mythological reference in the center of a real looking garden would create a contrast between imaginary spaces, blending mythological and real botany. Gardens held many connotations in mythology and English culture during the 16th century and could house a number of representations. Overall, the image here is representative of gardens as whole, as these spaces held important roles in the collecting culture of this time.

Collecting in the 16th century held an ambition to create an encyclopedic version of the world. The art advisor to Albrecht V, Samuel Quiccheberg (1529 – 1567), published the first museological treatise, *Inscriptiones*, in 1565.[71] This work constructs an ideal collection in the form of theater which contains all aspects of the world in five structured classes, which get divided further into subcategories.[72] This ideal theater of the world would express the encyclopedic ambition of collections, to possess all of the world through the creation of a microcosmos, which Claudia Swan defines as which she describes as a "…representative selection of the products of nature and mankind sufficient to foster knowledge of world as a whole".[73] The garden was a part of this reconstruction of the world within collections, embodying a living collection in contrast to

[70] Idem, p. 228.
[71] Kuwakino 2013, p. 303.
[72] Idem, p. 304.
[73] Swan 2005, p. 68.

other forms of representation. Gardens in 16th century Europe would contain plants from multiple locations, collecting living objects from multiple spaces into a single, structured arrangement to represent the flora of the world.[74] According to Stephen J. Forbes, because these collections contained living plants, they were in a constant state of "flux" between life and death, allowing a garden to be representative of plants in time and space.[75] These collections encompass multiple stages in life simultaneously while being able to embody the world and its seasons. Understanding the garden within the context of collections during this time gives further insight into the connotations that a an image of a garden would have on this frontispiece. While all of this helps to define what a garden could mean, there is also a specific relationship that gardens had with books.

The book and the garden were not completely separate entities in English thought nor in the collecting culture of the period.[76] An ideal garden was often described as being next to or in view of a library.[77] Leah Knight brings up the similarities and differences between the collecting of plants and the collecting of books. Books about plants and gardens and their physical counterparts were both collectable items. Early books on plants would often give themselves the mantel of gardens, such as *Ortus Sanitatis* (garden of health). Both herbals and gardens were, effectively, a collection of plants. The indirect collecting plants can come in many forms, with both illustrated herbals and pressed plant books. Plant collecting was not limited to visual representations, as not all botanical books had illustrations. Thinking back to relationship between plants, names and identities, the collecting of unillustrated gardening books or herbals can still be viewed as a collection of plants, even if it's in name only. Herbals were not the only form of book to be intertwined with gardens and botany, as floral puns were prevalent in English literature outside of the life sciences such as devotional books taking on the labels such as *A godlie gardeine*.[78]

A final detail to explore on this frontispiece is the general design of the *flora*. The large amount of plants on this frontispiece give the design a full and somewhat cluttered feeling, as plants and insects are displayed in impossible ways (through their size and seasons). This eclectic collection of plants points further to the encyclopedic ambitions of gardens and collections.

[74] Forbes 2016, p. 248.
[75] Idem, p. 252.
[76] Knight 2009, pp. 123-4.
[77] Gerard 1597, p. 128.
[78] Knight 2009, p. 1.

However, there is a question of where did Roger's get his visual references for these plants? Although the importance of drawing nature *ad vivum* was being established in botanical art during this time, it was not fully incorporated, and Rogers would have many references to draw from. A clear source of reference could be the borrowed woodblocks used in *The Herball* itself, but this is not the case for all of the plants displayed. A clear example of this being the Sunflower that accompanies *Flora*, where the likeliness seems to have been taken from Matthias de l'Obel's *Plantarum seu stirpium historia* (**Fig.26, 27, 28**). The use of references versus drawing from life also feels apparent in the proportions of the insects and snails, especially in the garden detail. The insects themselves seem to be drawn from the works of Joris Hoefnagel (1542 – 1601), something which Corbett also mentions.[79] The use of multiple sources for the flowers, instead of simply using the woodblocks in *The Herball*, gives reference to the vast amount of botanical knowledge and illustration preceding this book. The example of the Sunflower shows a stylized illustration of this flower, which is contrasted with the more realistic woodblock that gets used in *The Herball*. This contrast shows the changes that happen in botanical illustrations, as these woodblocks become more lifelike from the 16th century onward.[80]

By 1597, the botanical frontispiece was gaining popularity but was still void of clearly conventional tropes. Although there are some repeated motifs, the designs of these frontispieces were fairly individual at this time. Roger's design shows clear influence from previous frontispieces but is still unique in many ways. This frontispiece represents the book as a garden and the allegorical power of plants. The use of flowers throughout the design with details such as pots, supports, and insects reflect the gardening culture in England. The book "opens" to a garden scene indicating the parallels between herbals and gardens. The figures represent the many roles at play in botany: the gardener, physician, and the classical forefathers. The use of flowers as names/identifiers gives a hint as to the possible audience and makes use of the popularity of botanical puns in England. The design overall focuses on aspects of gardening and botany through the contrast of the wild, unnatural flora to the organized garden space. The combination of unrealistic proportions and stylistic depiction of some flowers show a lack of importance to depicting plants from life.

[79] Corbett 1977, p. 226.
[80] Niekrasz and Swan 2006, pp. 776-7.

Chapter 3 | The Transition

Botany in English would undergo more change throughout the 17th century. Herbalists would become botanists and the study of plants would become more academic and scientific. Many of these changes wouldn't be in full effect until the latter half of the 17th century, such as the first Chair of Botany in Britain being established in Oxford in 1669.[81] The beginnings of these changes can be seen in the first half of the century with the establishment of the Oxford Botanical garden, the first botanical garden in England.[82] The overall scope of botany would increase with the amount of new plants being sent to Europe. While Gerard had access to some New World plants, the bulk of new discoveries would not be accessible in Europe until years after his death.[83] Knowledge on plants was growing as the field flourished with new plants being sent to Europe. More progress had also been made on plant identification.[84] New botanists would rise in the field, such as John Parkinson (1567 – 1650) and Thomas Johnson (1595-1600 – 1644), who would both publish influential botanical works throughout the 17th century. Natural philosophy would change during this century with the works of Francis Bacon (1561 – 1626) entering the field. While there was already a shift away from the classical texts due to missing information, Bacon would suggest an outright denial of classical philosophy as well as myth.[85] In 1620, his *Novum Organum* would be published, advocating for experimentation and personal observation. The new Baconian way of thinking about the natural world likely had an effect on Thomas Johnson. In 1629 Johnson would embark on a plant-hunting trip to Kent, the records of which he would publish in Latin.[86] This excursion was done to observe and record plants native to the area that had not yet been studied or described. This act of going out for oneself to observe and study direct went in line with the ideas being present by Bacon.

No other English herbals came out during this period, keeping *The Herball* without competition for years.[87] However, there were still books about gardens and horticulture being

[81] Bushnell 2003, p. 29.
[82] Ibidem.
[83] Pavord 2005, p. 342.
[84] Idem, p. 344.
[85] Bushnell 2003, pp. 162-3.
[86] Pavord 2005, p. 349.
[87] Arber 1912, p. 134.

published. The genre of gardening books would continue to grow in England and a constant audience was still being established. While the first half of the 17th century sees a similar number of publications to the 16th century, the second half would, according to Martin Hoyles, "increase fivefold".[88] This early part of the century sees the beginnings of this increase through the further importance on plants and gardens. Gardening itself was growing into a more organized field, as part of the academic rise of botany. In 1605 a gardening guild called the Worshipful Company of Gardeners was established in an attempt to oversee the quality of the craft, while a charter in 1616 forbade the art of gardening without a license from the guild, something which was ultimately not successful.[89] Despite the lack of success the Company found in controlling the craft of gardening, there is a clear view of gardening as a higher artform during this century. Gardening would see an academic rise alongside botany, as this practice was also influence by new Baconian ideas. The importance of gardens with the context of collections would continue in this century. The parallel between gardens and knowledge would become a visual trope in other sciences. Gardens as structured knowledge would become a popular motif on the frontispieces of 17th century mathematical treatises, such as Mario Bettinus' (1582 – 1657) *Apiaria Universae Philosophiae Mathematicae* (1645) and Girolamo Vitale's (1624 – 1698) *Lexicon Mathematicum* (1690) (Fig.29, 30).[90] The geometric designs of gardens mirrored controlled, structured knowledge.[91]

While the publication of *The Herball* had an impact on the development of botany in England, not all of its legacy was positive. Gerard as an author saw some controversy within the academic community. The main distaste for Gerard's work comes from the inaccuracy of matching the plants with their correct illustrations.[92] One of the larger claims to haunt him was plagiarism, something which Johnson would shed light on in his revised herbal. Gerard used the translation of Dodoens that Dr. Priest had worked on before his death. However, he only makes a passing mention of this source in his address "To the courteous and well-willing Readers" mentioning that after Priest's death "…his translation has likewised perished…".[93] The work was very similar to Dodoens, leading some to believe that Dr. Priest's translation was a more major source than Gerard

[88] Hoyles 1994, p. 9.; Bushnell 2003, p. 35.
[89] Bushnell 2003, p. 24.
[90] For more on this frontispiece motif see Volker Remmert's *Picturing the Scientific Revolution* (2011), "Chapter 7: Lightheartedly Playing with Pictures".
[91] Kuwakino 2013, p. 303.
[92] Knight 2009, p. 78.
[93] Gerard 1597, "To the courteous and well-willing Readers".

was letting on.[94] If there were mixed reactions within the scholarly community, who ended up being the main audience for *The Herball*? The growing audience for botany-themed books opened the door for this work to be a success outside of the scientific community. Despite the academic controversy, there were many aspects of *The Herball* which were accessible and attractive to the literate gardening community. The frontispiece to the 1597 edition is often in poor quality, which could indicate that this book was used practically, in gardens.[95] The use of the English language Gerard's *Herball* was not the only factor that made it widely accessible, but more importantly, the way that Gerard used it.[96] Gerard's descriptions of plants often had a lyrical feel with the inclusion of poems when describing plants. As Leah Knight states "Gerard seems to set the authority of herbalists and that of the poets on par when showing their words contiguously…".[97] Gerard's work would have a large distribution, likely influenced by Gerard's own network and the increasing number of booksellers in England.[98]

Although there was some controversy surrounding Gerard, *The Herball* found its audience and was a success for the publisher, John Norton, who would go on to have a lucrative career.[99] This leads to the question of why commission a revised version only 36 years later? If the first version was a success, then of course a newer version with even more plants would also be a success, as was probably assumed by the publishers. The book would not only add new plants but would be a full revision by a new author, who had a more modern outlook on botany. The intentions behind this new publication can be seen through its development. Just like the original project, the 1633 *Herball* was more publisher-driven than other botanical works of its time. The new version of *The Herball* was commissioned by Joyce Norton (fl. 1632 – 1638), John Norton's widow, along with publisher-printer Adam Islip (1596 – 1627) and bookseller Richard Whitaker (? – 1647-8), who had taken over Norton's business after his death.[100] This commission was largely reactionary, as it was being rumored that apothecary John Parkinson was working on a new herbal to replace Gerard's work.[101] To prevent Norton's work from going into obscurity, an updated

[94] Knight 2009, pp. 78-9.
[95] Hind 1952, p. 259.
[96] Pavord 2005, p. 338.
[97] Knight 2009, p. 100.
[98] Idem, pp. 341-2.
[99] For further reading on Norton's career see *A Short History of English Printing, 1478-1898* (1900) by Alfred W. Pollard.
[100] Pavord 2005, p. 342.
[101] Elliott 2011, p. 35.

version of *The Herball* was set-out to be better competition for Parkinson's future work. Apothecary Thomas Johnson was brought in as the new author, given the task to update Gerard's work.[102] The original *Herball* did already need updating by the early 17th century. Due to the mislabeling of plants and the amount of misinformation used in the descriptions, Gerard's version of *The Herball* was arguably dated upon its first publication. As mentioned, New World discoveries had been greatly altering the field of botany and Gerard only had access to a small number of new discoveries during his lifetime, such as the potato and maize. By the time Johnson took over, many more discoveries had been made, evident by the fact that he added around 800 new entries.[103] Johnson had a different botanical vision than Gerard as not only were new plants added, but some were taken out completely, notably "The barnacle tree": a tree which produced geese.[104] Johnson seemed to want to distance himself from Gerard, as he only gives him brief reference: "For the Author *Mr. Gerard* can say little...".[105] Quite a lot of Johnson's address to the reader is spent giving context to the previous herbal, specifically through addressing and clearing up the relationship to Dr. Priest and the works of Dodoens while addressing the inaccuracies made by Gerard. Johnson's address to the reader is quite long, taking up around thirteen pages versus Gerard's two. Johnson makes a point to address the controversy set forth by Gerard to make clear that this version of *The Herball* would be different. This long clarification and the extensive revisions was likely an attempt by Johnson to regain the lost academic audience from the first publication. This project was not only aimed to keep Norton and Gerard's *The Herball* relevant, but to completely modernize it and give it more academic credibility. This revision not only happened to the text, but also to the frontispiece.

[102] Pavord 2005, 344.
[103] Ibidem.
[104] Gerard 1597, p. 1391.
[105] Johnson 1633, ¶¶¶r

Chapter 4 | The New Frontispiece, 1633

The new artist for this frontispiece would be the English engraver John Payne (1607 – 1648), who possibly received training by Simon de Passe (1595 – 1647), a Dutch sculptor and engraver.[106] Although it is rarely clear on who exactly has the most control over the design of frontispieces, Payne, unlike Rogers, did not add any design authority in his signature. During the 17th century, the botanical frontispiece became more common, as most prominent herbals would be accompanied with an engraved design, as will be seen later in this chapter. Before going into specific visual influences, it is better to first understand the general design of this new frontispiece.

John Payne was not completely new to botanical art before working on *The Herball*. Payne had previously worked on a project titled *Flora* in 1620, a collection of engravings depicting flowers, fruits, and animals published by Peter Stent (1613 – 1665) without additional text (**Fig.31, 32**).[107] The title-page of this work depicts a garden scene with the goddess Flora seated and dressed in a similar fashion to Roger's design from 1597. This portfolio of natural engravings made Payne an attractive candidate for the new frontispiece design. However, despite Payne's experience with floral engravings, the new design for *The Herball* used much less *flora* than its predecessor; at the very least the *flora* is mostly compressed to edges of the design. In this case, what exactly is the focus on this new design? The new design for *The Herball* has a clear three-teir structure. The uppermost level shows a wild landscape with various trees from different regions, surrounded on the sides by Cerces and Pomona. Above the garden is the Hebrew word for "Yahweh" shining from the sky with Genesis 1:29 draped below in Latin along with an additional Latin phrase under the trees. The second tier shows two classical figures surrounding the title information, with Theophrastus wearing a classical robe while holding a flower on the left and Dioscordes in military-like dress holding a book on the right. The bottom most tier has a rendition of Roger's portrait of John Gerard being flanked on both sides by vases filled with various flowers on windowsills. At first glance, this design feels much more simplistic than Roger's previous rendition due to the clear separation and structure given to the design versus the wilder structure of the 1597 design. The tier-like structure here represents a botanical "time-line". The first tier

[106] Hind 1964, p. 6.
[107] Full title*: Flora: flowers fruicts beastes birds and flies exactly drawne, With their true colours lively described*

makes reference to Eden, the first garden and paradise, highlighted by the verse that is draped above: "Ecce dedi vobis omnes herbas sementantes semen, quae sunt", a partial quote from Genesis 1:29.[108] This highlights the beginning of the natural world through God's creation while the two mythical figures give further reference to the above verse as Cerces is the goddess of agriculture and Pomona is the goddess of fruit trees and gardens, both showing different aspects of abundance from creation. The second tier shows two prominent classical authors. After the creation of the natural world, man would set-out to understand it, starting with the classical theorists. The third tier goes to modern botany where Gerard's portrait sits, which not only gives reference to the previous author but also shows its place within botanical history as a modern author contrasted to the classics. The flower vases on each side imply cultivation and the advancements of gardening. These vases also have flowers from various location, including the New World, which also points to progress and change within botanical thinking. Although this overview makes the design feel easy to understand at a glance, there is still much more to be analyzed through the details to better understand why this new design is so visually different from Roger's.

A detail to be addressed are the figures and how they are presented. After examining the 1597 design there is one aspect that stands out: the names. Each figure is given a clear name-tag, even the mythical ones which would have likely been recognized regardless due to their attributes, much like on Brunfels' frontispiece. This frontispiece appears to have been inspired by the before-mentioned design used by both Clusius' *Rariorum plantarum historia* in 1601 and again Dodoens' *Stirpium historiae pemptades sex, sive libri XXX* in 1616. Although the design is overall very different, the treatment of the figures is similar. They have clear names, something which becomes more normal for future botanical works. The use of names of herbal frontispieces is difficult to fully understand due to the inconstancy. As already seen with Brunfels' frontispiece, names are applied even when a figure is likely to be recognized due to non-textual indicators. An assumption that can made is that the inclusions of names would make the figures recognizable to anyone who might not be educated on mythology or classical authors. However, that would not be the case due to some labels being given in Greek. After 1600, using clear names in the Latin alphabet becomes

[108] Full verse from the King James Version: "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which isthe fruit of a tree yielding seed; to you it shall be for meat."

a more normal practice, but the reason as to why names are used in this way is open for debate and could benefit from more research. The decision to include names on Payne's design was following the lead of the design of continental works, specifically of the given example of Dodoens and Clusius. Johnson appears to have had an intention of making the herbal more modern and credible, especially in comparison to continental works. The addition of small details such as the Hebrew reference to God at the uppermost spot of the frontispiece and the use of names in Latin gives this design a more conventional feel as both of these elements become more common. Although these elements are more common, names are still not consistently used at this time, as sometimes mythical figures are left with their attributes alone. The use of names was becoming more prominent when referring to classical authors, which was perhaps a reaction to the lack of consistency in their depictions on the earlier frontispieces. Not only are labels added, but language is used more in this design, with the edition of a Bible verse and additional phrase in Latin. Although the new addition of *The Herball* would remain in English, the addition of Latin on the frontispiece creates a divide in the intended audience for the text. Johnson appears to have an intention of gaining a more academic audience for the revised work or to appear more scholarly to the potential audience. Other details from Payne's design show an influence from the continental frontispiece, namely Dioscordes in his armor, a reference to the assumption that he was involved in the Roman army.[109] With works of both Dodoens and Clusius donning this design, this was perhaps seen as a more modern way to depict Dioscordes or at least to distinguish him from other classical figures and create further consistency within design elements.

An important aspect of this frontispiece is the depictions of gardens. The garden of Eden at the top of this design gets contrasted by the two vases at the bottom, a juxtaposition which also gets reflected on in John Parkinson's *Paradisi in Sole Paradisus Terrestris* frontispiece from 1629 (**Fig.33**). It has already been established that a garden, to some extent, is a collection of flowers and herbals are another method of collecting flowers. This relationship has been visually mirrored by Rogers' on the earlier design, however the method of depicting a garden differs in this case. If an herbal can fill a representational role of a garden through illustrations or names, then how many other ways can a garden be understood? Claudia Swan writes on the flower still life paintings which arise on the continent as being another representation of the garden, as a constructed

[109] Corbett 1977, p. 227.

collection of plants.[110] Swan states that these paintings can be seen as not only representative of a specific type of collection, but also how it contributes to the constructing of a microcosm.[111] If a flower vase holds plants from multiple seasons and multiple locations around the world, the vase becomes a representation of the world as a whole, holding elements from all points of time and space. These engraved still life works at the bottom of this design are heavily reminiscent of the flower still life paintings being discussed by Swan. The vase on an open windowsill is visually similar to works such as Ambrosius Bosschaert's (1573 – 1621) *Vase of Flowers in a Window* from 1618 (**Fig.34**). The method of possessing a garden can be literal or representative through paintings and print as well as through image and text. The engraved vases of flowers also reflect a more literal visual representation of an herbal, as a printed, microcosmic garden. The types of plants that are displayed mix the old and new of botanical discovery. The bananas in the left vase highlight a New World discovery, which Johnson hung outside his apothecary shop.[112] Just as the garden opening on Roger's design gives a reference to the text as a garden, the same concept is being displayed by Payne, using a more modern visual to convey this relationship. The visual relationship between flower vases and gardens was not only expressed through Eden, as seen by *The Herball* and *Paradisi*, but other works make the connection between bouquet and practical gardens. Examples can be seen in both the frontispiece and a garden scene from French painter Daniel Rabel's (1578 – 1637) *Theatrum florae* (**Fig.35, 36**). Frontispieces were not the only medium to convey this idea of gardens. In Jan Breughel (1568 – 1625) and Peter Paul Rubens' (1577 – 1640) *Sense of Sight* (1617-18), an elaborate collection is displayed (**Fig.37**). In the back there are two open areas: one as an extension of the indoor collection and the other showing a glimpse of an outdoor garden. A large flower vase is displayed in front of the outdoor garden scene, referencing the idea of indoor and outdoor collections. The vase of flowers brings the outdoor garden into the indoor collection, allowing the garden to exist in multiple spaces. In this painting, the separation between indoor and outdoor gardens is made clear, with the doorway was divider of these spaces. As seen on Payne's design and Bosschaert's still life, the depiction of a flower vase often sits on the barrier between indoor and outdoor which in these cases, is a windowsill.

[110] Swan 2005, p. 68.
[111] Ibidem.
[112] Pavord 2005, pp. 344-5.

The use of flower vases became a more modern way of conveying how a collection of flowers can take multiple forms. When understanding the flower still life imagery as another way of visually collecting a garden, this bottom portion displays the relationship between the herbal itself and the concept of the garden in a similar fashion to the 1597 design. While the earlier design "opens-up" to reveal a garden as though it was a window, the new design uses the visual of open areas and windows in a more literal and dynamic way. The open window in this case is not directly opening up to a garden, but instead to landscapes, while the garden – or collection of flowers – is standing between the viewer's space and the open area. With an open landscape in view, there is implication of process, of collecting wild plants and bringing them into one's personal space for observation and study. Johnson underwent the first "plant-hunting" trip to Kent, so the concept of traversing a landscape for direct study of plant-life was known and experienced by the editor. Seeing the open landscape as a representation of the world, the closed-in composition around Theophrastus and Dioscordes shows the further distance being made with the classical sources. The knowledge and view of the classical authors was limited, as they did not have open access the world, which is being visually expressed here. This closed-off view of these authors gives them a more statuesque visual, implying a more historic role in botany rather than an active one.

The proportions of the plants are more realistic in their context compared to the unrealistic depictions of the 1597 design. The depictions of the plants less resemble woodblock illustrations found in herbals and instead shows more links to botanical engravings and paintings as a reference, not unlike the mentioned collection of engravings done by Payne. Botanical art would see a rise in the 17th century and an importance would be placed on drawing from life or *ad vivum*.[113] While this idea was starting during Roger's time, as seen by the ambitions of Fuchs and his illustrations, it was not fully streamlined. The process of visually understanding a plant through use of illustration was not limited to herbals. The practice of creating and viewing images to obtain knowledge can be seen in science as a whole during this period.[114] The distinction between art and science during this period is difficult to determine, this is especially true in botany. Drawings and engravings of plants were a popular artform outside of botanical texts. Drawings of the natural world would lean more towards naturalism when depicting plants and animals, as can be seen

[113] For more on this concept see Claudia Swan's *Art, Science, and Witchcraft in Early Modern Holland* (2005).
[114] To read more on the concept of images as knowledge in Early Modern Europe see Susanna Berger's *The art of philosophy* (2017).

through the works of artists like Dutch painter and engraver Jacob de Gheyn II (1565 – 1629). While herbal illustrations would eventually become more realistic, the desire to imitate nature more closely started with botanical illustrations outside of the herbals. Payne is drawing more reference from these types of works and giving a more grounded aesthetic to this frontispiece. The space appears less imaginary and the use of vases could evoke familiar imagery of one's own collection. While Payne's plants are not done *ad vivum*, there is still an imitation of that style. Payne depicts nature in impossible ways through the groupings of plant types but uses a more realistic style to make the depiction of plants more subtle. The largest aspect of the design are the statuesque classical authors, bringing the focus to the development of botanical knowledge. Plants are used to indicate the relationship between the natural world and the pursuit of knowledge, through showing the original state of botany after God's creation and the modern notion of gardens and collecting. While the role of the plants on this design is still important to the overall theme, they are confined to the edges and used minimally. This design does not show a multitude of plants outright but gives a motivation for observing the natural world for oneself. The subtle use of plants implies less of a reliance on illustrative means of looking at plants, as the plants are being displayed in natural settings – in a landscape or picked in a vase.

The 1633 edition of *The Herball* sees major revisions done to both the text and the frontispiece. The design creates a timeline of botany, leading up to the publication of Gerard's version of *The Herball*, indicated by the placement of his portrait. The final layer of the timeline is implied to be this more current version of *The Herball*, as this frontispiece (and timeline) is the visual opening for the new book. There is a theme of progression displayed on this design, which highlights the changing ideas towards natural history and philosophy taking place in England in the early 17th century. The display of the plants has a more grounded aesthetic, showing them a realistic setting without exaggerating their size. The design is not only of representative of progression but of modernity within the field of botany. The use of flower vases to represent a garden was a newer re-telling of a garden in visual mediums, expanding on the complex ideas of what a garden is and what it means to possess nature. The use of language is added to emphasis the desired audience and vision for the book while reflecting the rise of botany as an academic pursuit.

Chapter 5 | After *The Herball*

Botany in England would continue to grow at the end of the 17th and rise of the 18th century. The move away from classical or superstitious ideas would be sustained through the works such as English physician Thomas Browne's (1605 – 1682) *Pseudodoxia Epidemica* (first edition 1646), which highlights popular curiosities from the natural world, such as the existence of the Phoenix and why coral hardens in the air.[115] With the rise of botany as an academic study starting in the early half of the 17th century, more prominent botanical figures would start to rise from England. Herbals were not produced as often in England after the 1633, with the most prominent botanical books from England being a reprint of Johnson's edition of *The Herball* in 1636 and Parkinson's *Theatrum Botanicum* from 1640. Botanical treatises from England after this period would be more focused on the classification and biology of plant. Naturalist John Ray (1627 – 1705) would be an important author on this subject with his three-volume work *Historia Plantarum* (1686, 1688, 1704) being published in London. The works of Ray, and other naturalists after him, would begin to focus on the anatomy of plants.

As the nature of botanical thinking changed in England, so did the frontispiece. Parkinson's *Theatrum Botanicum* was the only other herbal to follow *The Herball* in the 17th century and its design shows a continuation of elements from Payne's frontispiece. The largest similarities would be the overall structure and the sparse use of plants. The changes between the two Parkinson frontispieces could also be reflected on, with both similar and contrasting elements. Each design has notably similar flora featured, including plant-animals. The depiction of Adam shows more contrast as his two versions are on displays between the frontispiece: Adam in Eden and after the fall. However, these works are not completely within the same genre, as *Paradisi* is more considered to be a horticultural book as opposed to an herbal. An additional analysis could be done to further understand the relationship between the two genres of gardening books and herbals in England through the use of similar and contrasting visuals. *The Herball*'s 1633 frontispiece had influence on not only Parkinson's later work, but also on an early 18th century London-published botanical work *Botanologia* (1710) by William Salmon (**Fig.38**). This frontispiece takes sections from three designs, two most notable sources being the 1633 edition of *The Herball* and Breyn's

[115] Browne 1672, pp. 165, 101.

Exoticarum aliarumque. The figures of Dioscordes and Theophrastus are taken after Payne's engraving, however, the names have been traded. While the examples in England are limited after Johnson's edition of *The Herball*, the botanical frontispiece did not disappear as a whole. Other works such as the extended version of Dodoens' *Cruydt-boeck* by Clusius in 1608 would give a figure-less design, with a garden and small portrait of the contributing authors (**Fig.39**). With the 1633 design taking more inspiration from continental works, it is not surprising to see a continuation of this style in later continental herbals. The overall elements of the design follow the realistic tone to plant and garden depictions which has shown to be popular in frontispieces in the early 17th century. With the hiatus of botanical frontispieces in England during the second half of the 17th century and the small number of herbals before the end of the 16th century, the frontispieces to *The Herball* give a visual glimpse to the change in botanical thinking during this prominent time of change. Other English works, outside of the genre of herbals, could be analyzed to explore the visual understanding of plants and gardens, such as the examples from John Parkinson. However, *The Herball* best explores the early transition of botany into a more scientific study as it is understood today.

Conclusion

Much can be understood when reflecting on the original question presented in this research: What can the 1597 and 1633 frontispieces for John Gerard's *The Herball* tell us about the visual understanding of botany in the late 16th and early 17th century England? Both versions of *The Herball* were started due to publisher commissions but ultimately reflected the visions and botanical thinking of the selected authors. Botany in England had a slightly slower development compared to other areas of Europe of its time, but the shift from the 16th to the 17th showed an increased progression of botany as an academic field. The two publications of *The Herball* came out at contrasting times, as 1597 saw the beginnings of change where 1633 embarked on a more dramatic shift in thinking about the natural world. The 1597 design highlights a fantastical element to the understanding of nature, with the largely disproportionate plants and insects and the figures in multiple costumes holding plants like props. While the overall design has a fictionalized feel, the opening the garden shows the reality as a raised-bed garden, being tended to and admired although there are still unrealistic proportions with the snails. The 1633 design sheds the unrealistic elements, creating a more structured and grounded design. The design is not completely placed within reality, as there are still plants from differing seasons and locations impossibly blooming together. The fictional groupings of plants in the vases highlights the Garden of Eden at the top, showing a small microcosm of nature, embodying the seasons along with both the Old and New World. The lack of names on the 1597 design reflects the lack of consistency within these early herbal frontispieces. The addition of names and the Hebrew word for God denotes a conformation in the design, as both of these elements become more popular motifs for 17th century frontispieces. The lack of language on the earlier design reflects a more open atmosphere as an herbal for readers outside of the academic realm, such as the author himself. The later design opts to give a verse in Latin, making some intentions for this work more defined such as creating a more academic presence. With the academic shift in botany starting the early 17th century, Johnson edited the text of *The Herball* to reflect the more modern thinking in botany with the denial of mythology while adding new research and discoveries. The toned-down proportions of plants and the use of language reflects this more scientific thinking. The modernization of the design is amplified through the use of flower vases instead of a literal garden, taking a visual reference from the new popular genre of flower still life painting from the continent. To summarize: the 1597 design

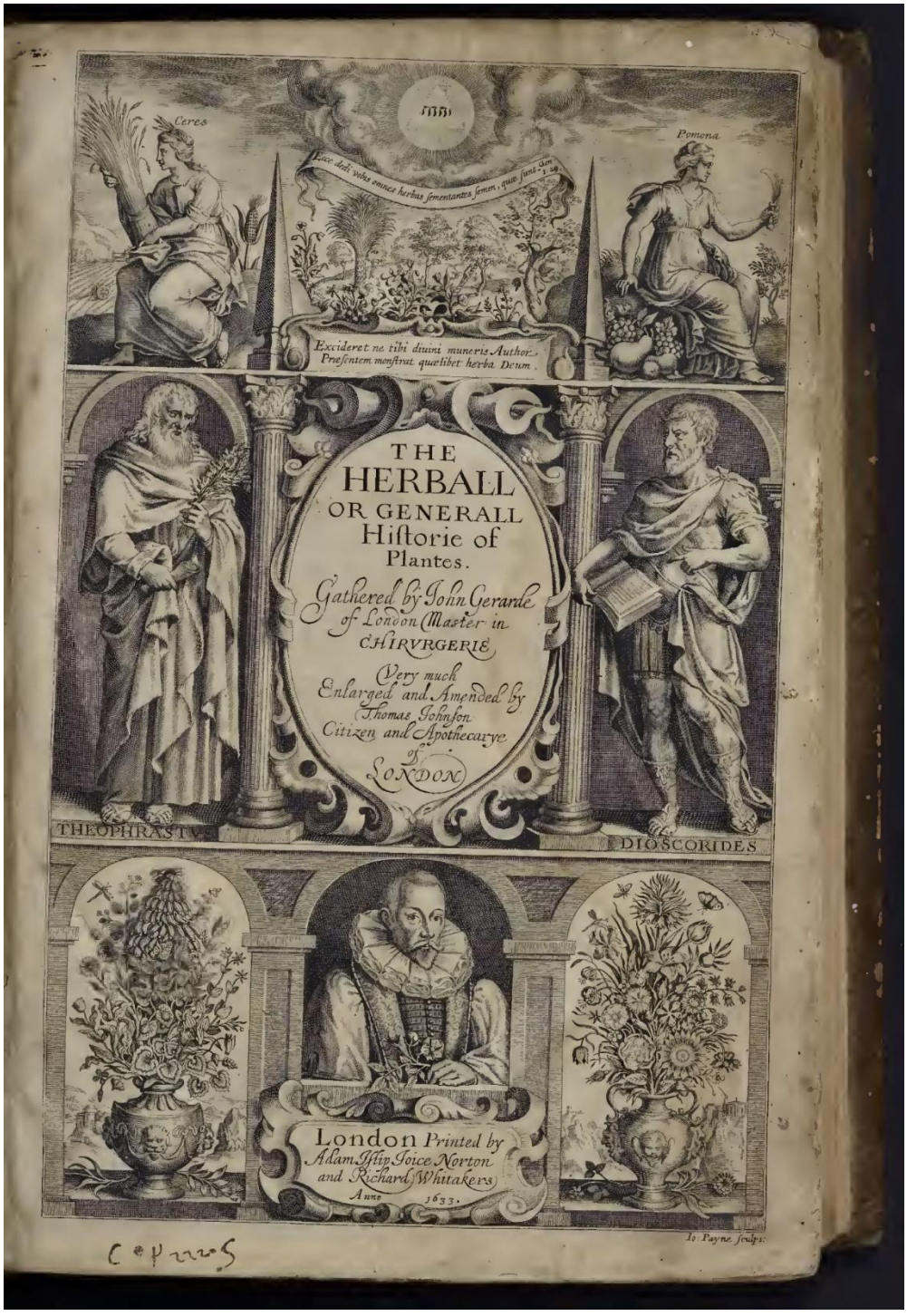
displays botany as a relationship between organized gardens and unorganized nature, using unnamed figures to visually depict different aspects of botany (gardener, classical authors, etc.) without the use of a textual language to keep the design open to a wide audience. The 1633 design shows the shift towards botany as an academic pursuit through the use of language while taking visual influence from the increasingly naturalistic depictions of plants in painting and engravings. The entire design visually reflects the theme of progression while the edits made by Johnson reflects this progression through the deletion of myth and the addition of new plants.

This case study provides an example of the depth of these frontispieces, especially of the frontispieces of scientific works. This method of analysis can be applied to other frontispieces of varying genres, as the study of these designs is still open for further research. The frontispiece is a dynamic element that visually introduces the reader to the themes and ideas of a text, even when being removed from the text itself. These designs can aid in the understanding of science, literature, and art in Early Modern Europe, where they were used frequently. The changes shown between these two frontispieces can be seen in other examples, such as in the Dodoens' *Cruijdeboeck* and *Stirpium historiae pemptades sex, sive libri XXX* frontispieces, which both reflect a shift from mythological references to more a more grounded design of botany. This method of analysis can be used to further explore frontispieces as objects for individual study. If a larger study on frontispiece development was done within a specific category – such as botany or natural history – it is likely that the designs will show a development in thinking through visual means alone. Images held a strong power in Early Modern thought and understanding of the world as the creation and viewing of images was equivalent to knowledge for a long period.[116] The frontispiece is a visual meeting place for art, text, literature, and science and can greatly reflect the visual thinking of its time. The aim of this study was to see what can be read from these designs and after analysis it can be concluded that both versions of *The Herball*'s frontispiece show a reflection on the state of botany in England during their respective times, creating a visual guide into the shift of botanical thinking into the latter half of the 17th century.

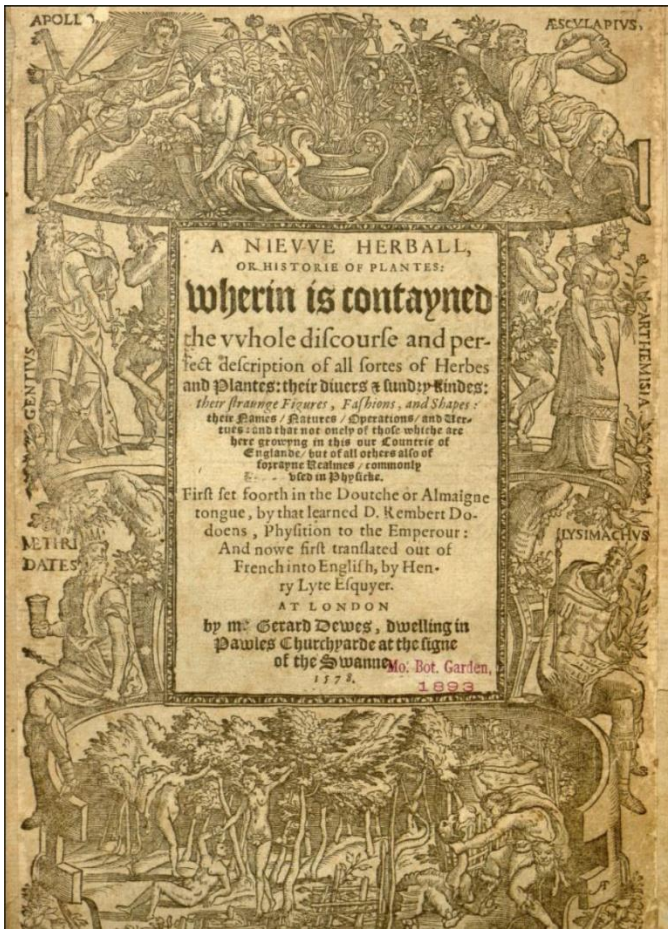
[116] Smith, 2006, p. 95.

List of Illustrations

[Fig.1] William Rogers, Frontispiece to *The Herball*, 1597, Linda Hall Library LHL Digital Collections, http://lhldigital.lindahall.org/cdm/ref/collection/emblematic/id/177

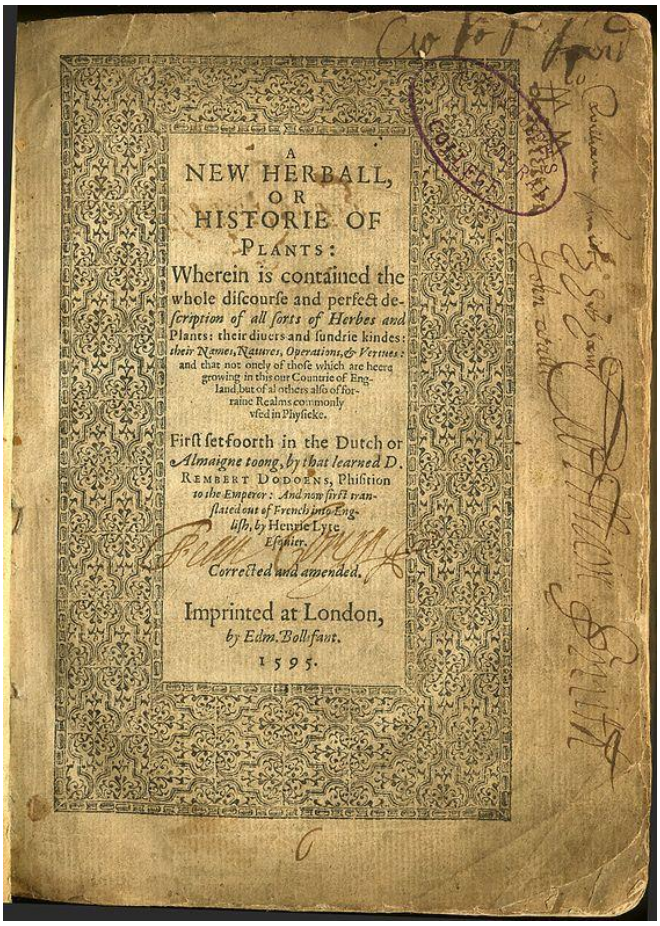


[Fig.2] John Payne, Frontispiece to *The Herball*, 1633, Linda Hall Library LHL Digital Collections, http://lhldigital.lindahall.org/cdm/ref/collection/emblematic/id/168



[Fig.3] *(left)* Frontispiece to *A nievve herbal*, 1578, archive.org, no. QK41. D6314 1578, https://archive.org/details/mobot31753000811155

[Fig.4] *(right)* Arnaud Nicolaï, after Pieter van der Borcht (I), Frontispiece to *Cruijdeboeck* (colored), 1567, Rijksmuseum, Amsterdam, no. RP-T-1948-118, http://hdl.handle.net/10934/RM0001.COLLECT.369563



[Fig.5] *(left)* Title-page to *A nievve herbal*, 1595, University of Massachusetts, Amherst, no. QK41. D6 1595, http://scua.library.umass.edu/exhibits/herbal/8.jpg

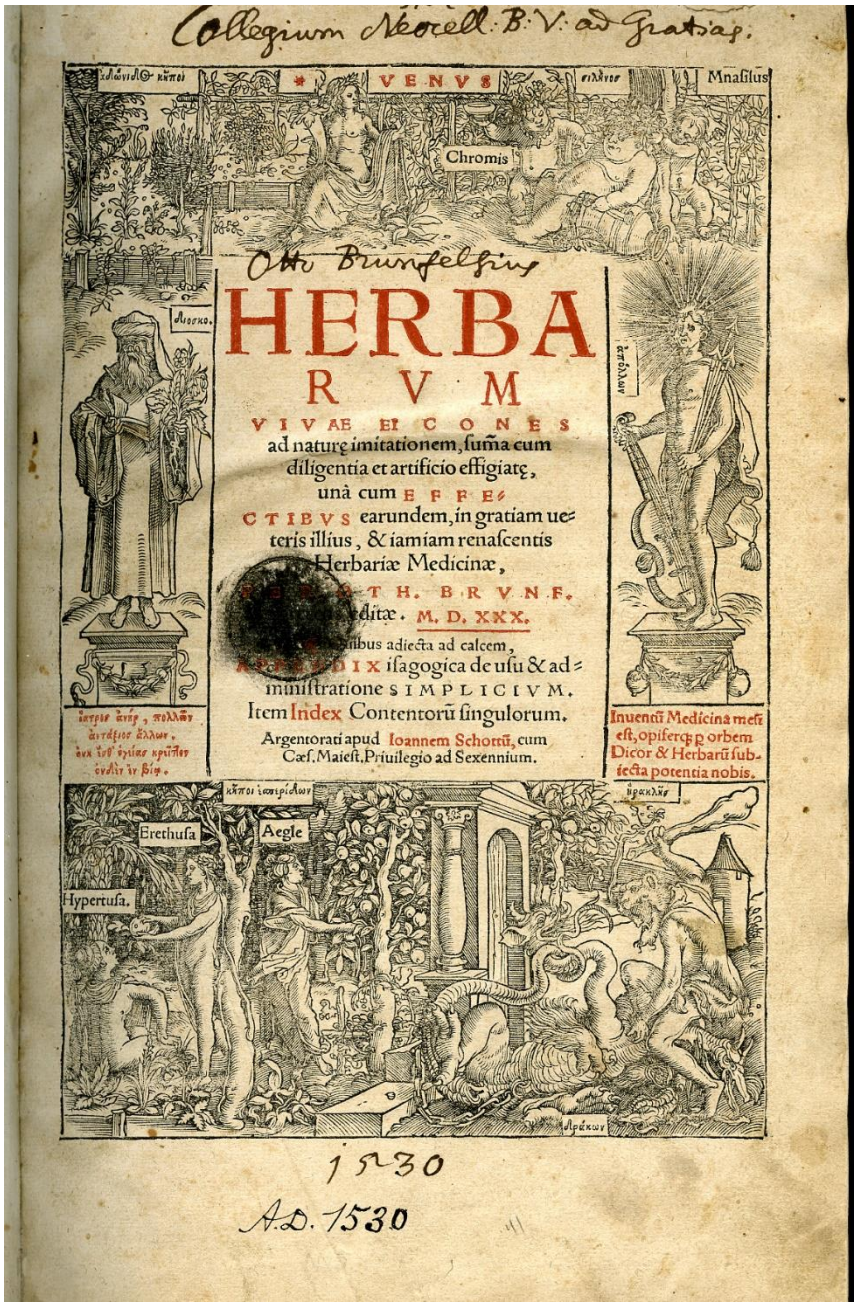
[Fig.6] *(right)* Title-page to A New Herbal, 1995 reprint of 1551 edition, taken from *A New Herball: Part I* edited by George T.L. Chapman and Marilyn Tweddle

[Fig.7] *(left)* Detail of upper-left figure on *The Herball*, 1597

[Fig.8] *(right)* Detail of bottom-left figure on *The Herball*, 1597

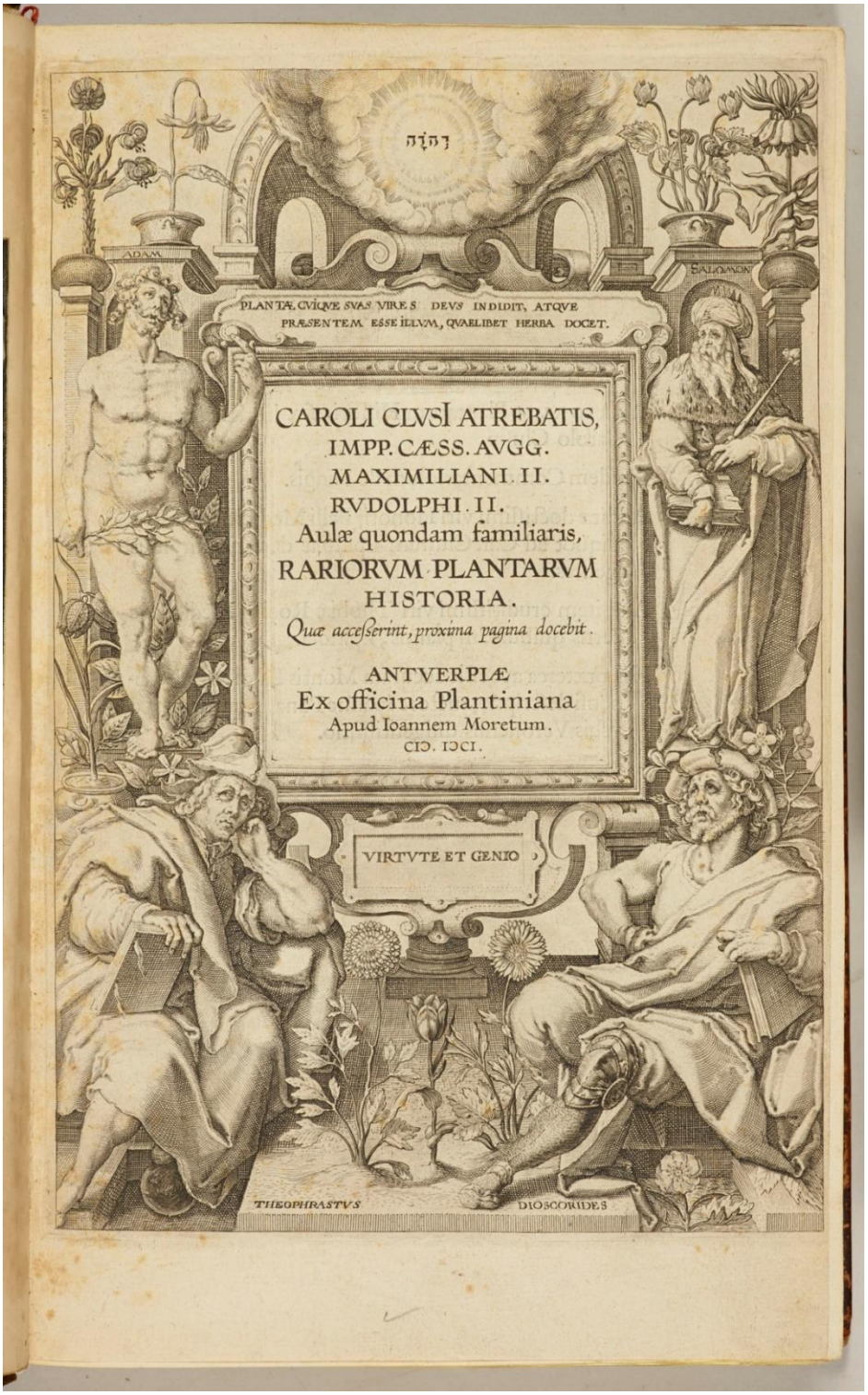
[Fig.9] *(left)* Detail of upper-right figure on The Herball, 1597

[Fig.10] *(right)* Detail of bottom-right figure on The Herball, 1597



[Fig.11] Title-page to *Herbarum vivae eicones*, 1530, University of Massachusetts, Amherst, no. QK41.B8 v. 1+., http://scua.library.umass.edu/exhibits/herbal/17.jpg

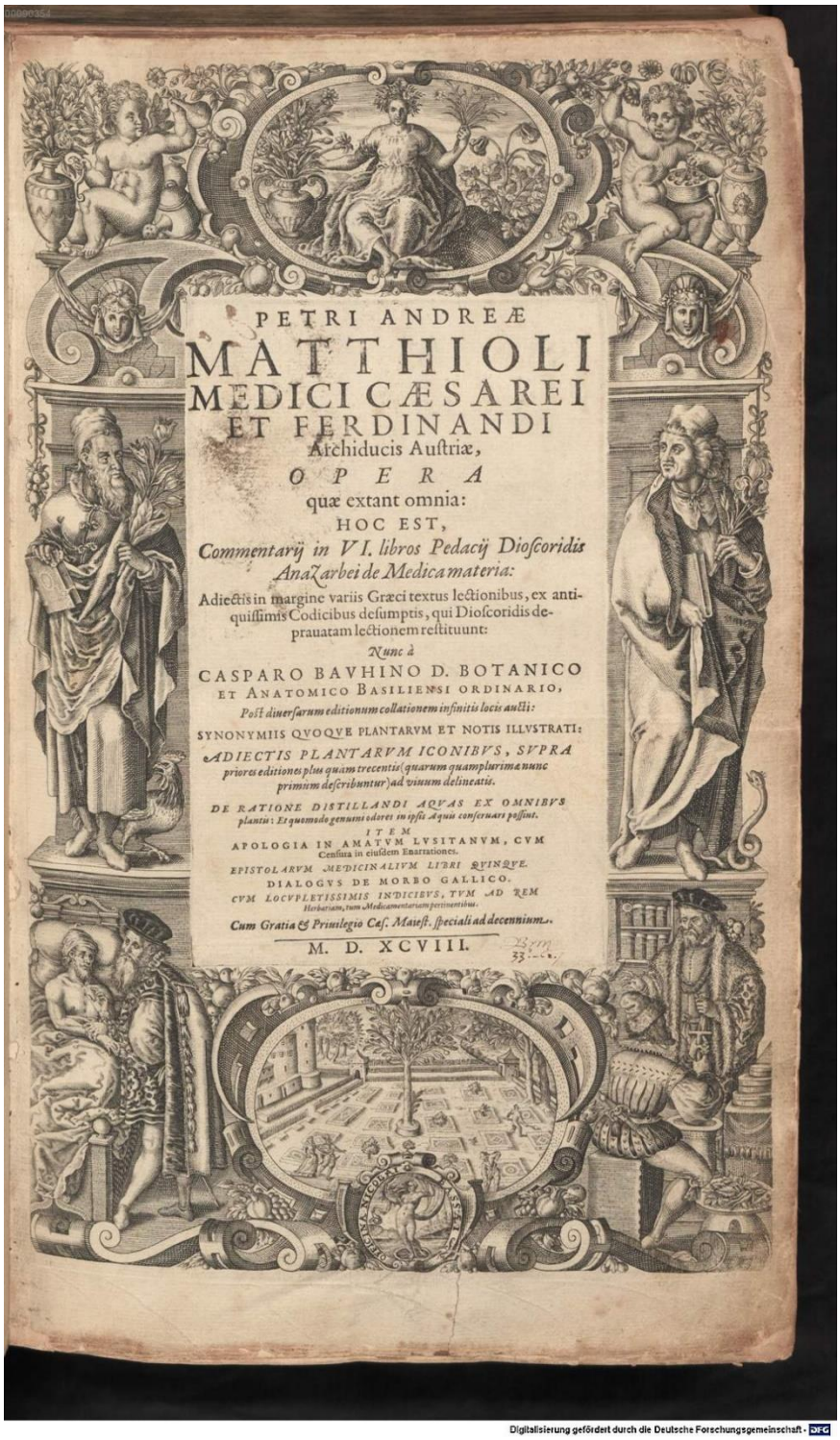
[Fig.12] Frontispiece to *Hortus Sanitatis*, 1485, Linda Hall Library LHL Digital Collections, http://lhldigital.lindahall.org/cdm/ref/collection/nat_hist/id/5967



[Fig.13] Frontispiece to *Rariorum plantarum historia*, 1601, Royal Collection Trust, London, RCIN 1057452

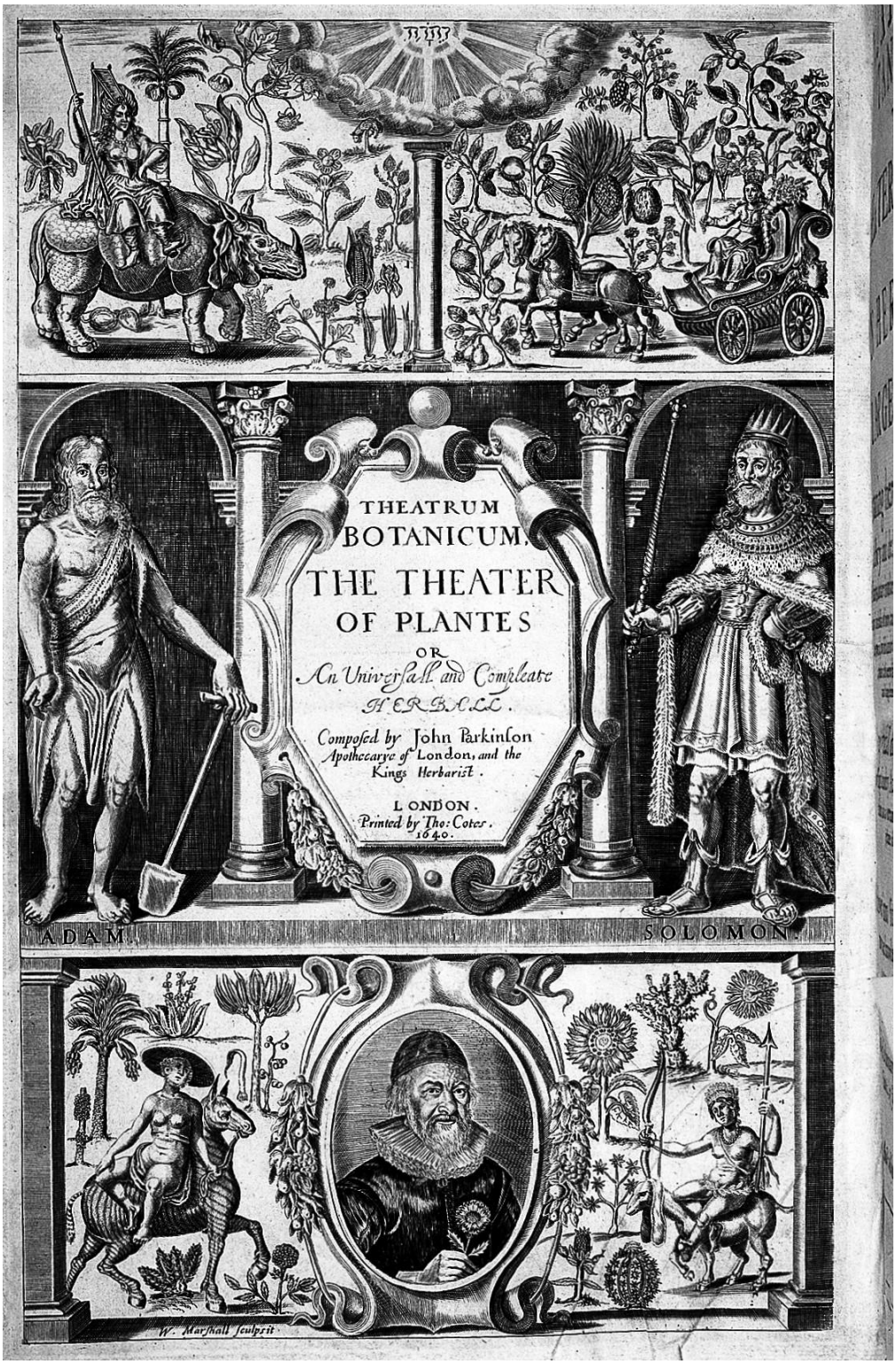
[Fig.14] Frontispiece to *Exoticarum aliarumque minus cognitarum plantarum centuria prima,* 1678, Dumbarton Oaks Research Library and Collection, Washington, DC, no. 001013626

[Fig.15] Lucas van Leyden, *Kings David, Solomon and Jeroboam*, 1518 – 1522, print on paper, 327 × 500 mm, Rijksmuseum, Amsterdam, no. RP-P-BI-6236B



[Fig.16] Frontispiece to *Petri Andreae Matthioli Opera quae extant omnia*, 1589, Münchener DigitalisierungsZentrum (MDZ), VD16 M 1611, http://daten.digitale-sammlungen.de/bsb00090354/image_9

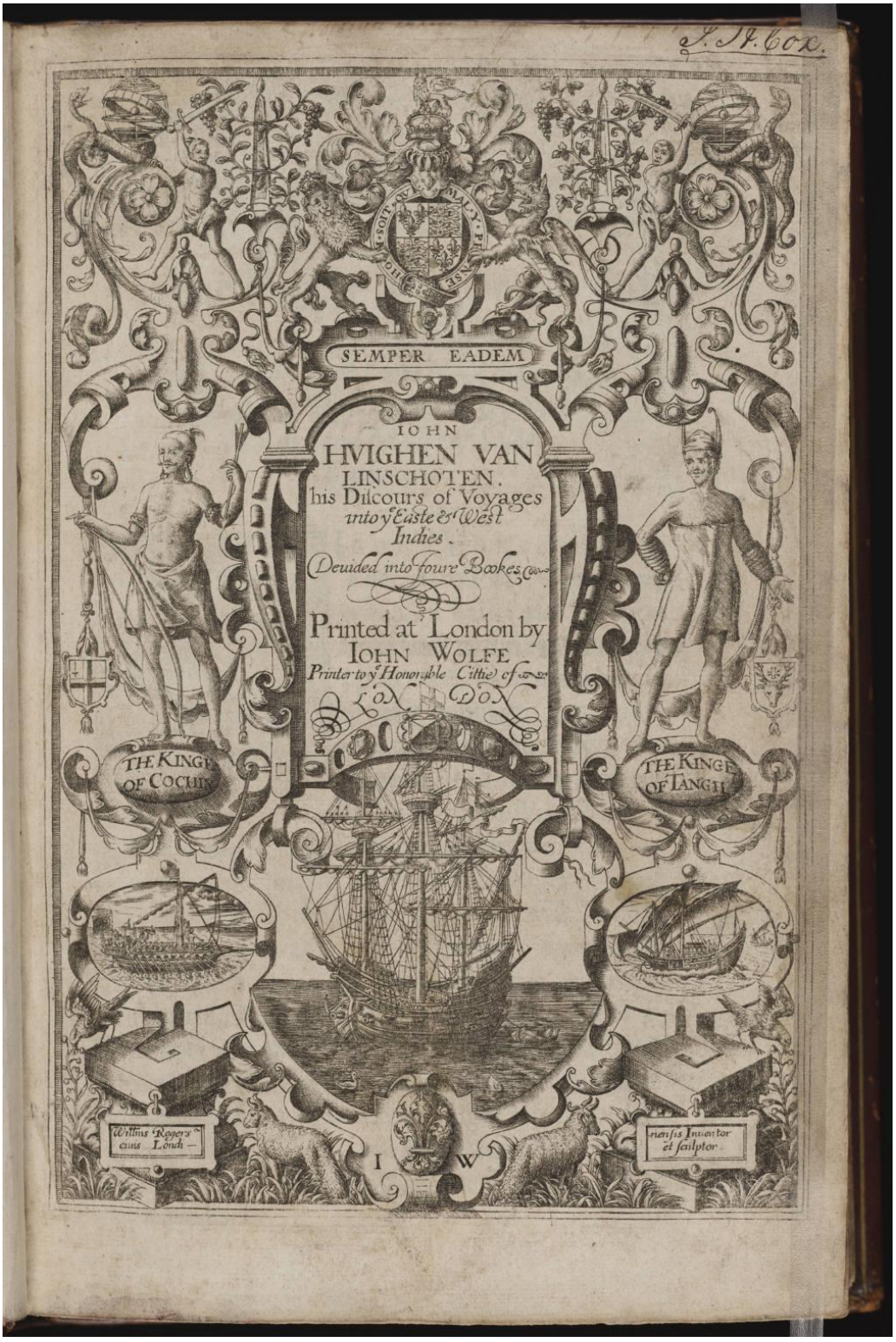
[Fig.17] Albrecht Dürer, *Adam and Eve*, 1504, engraving on paper, 265 x 209 mm, The Morgan Library and Museum, New York



[Fig.18] Frontispiece to *Theatrum Botanicum*, 1640, Wellcome Library, London, no. b11150026

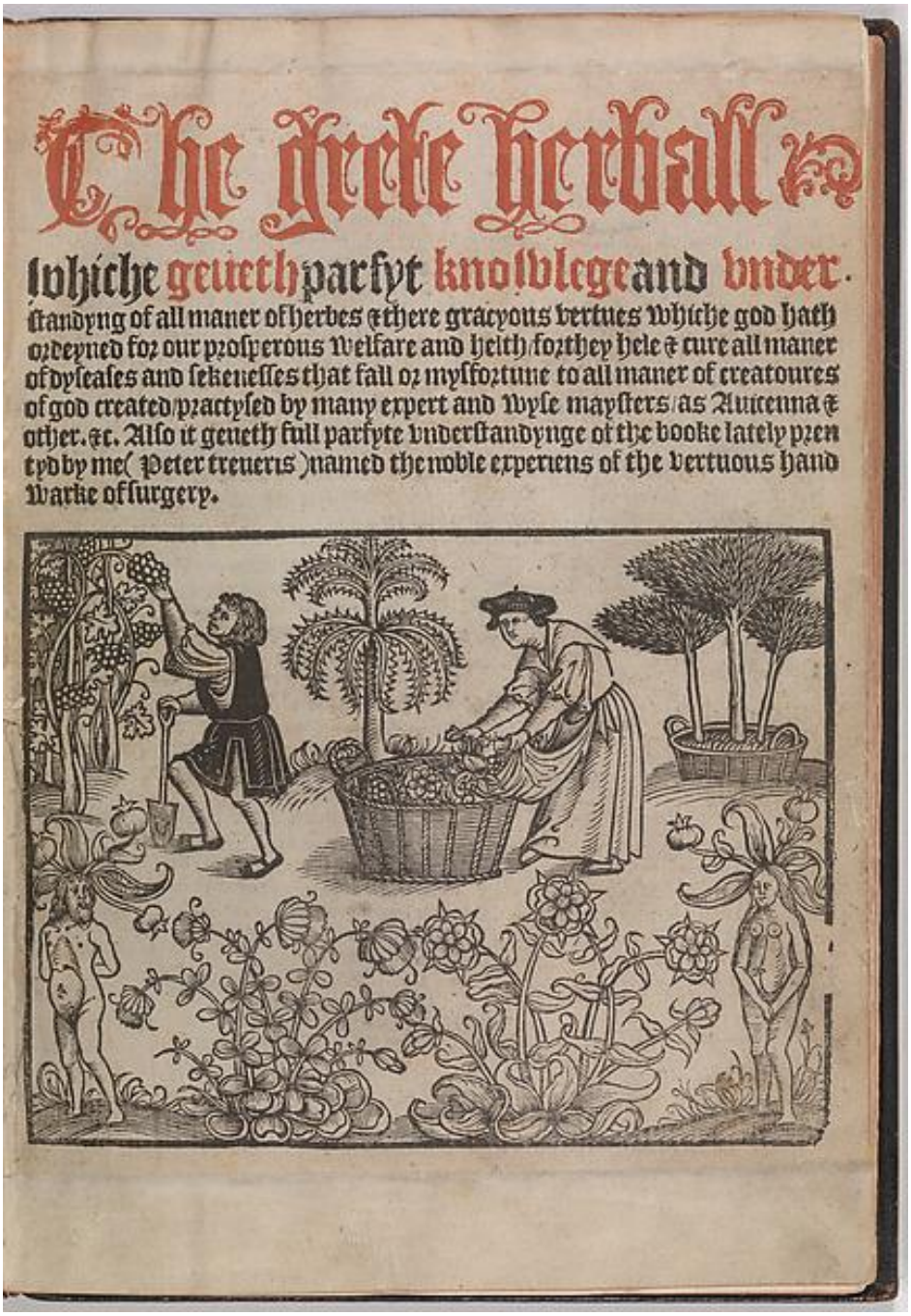
[Fig.19] Lucas van Leyden, *Adam en Eva na de verdrijving uit het paradijs*, 1510, print on paper, 163 × 119 mm, Rijksmuseum, Amsterdam, no. RP-P-OB-1579

[Fig.20] William Rogers, *Rosa Electa*, 1590 – 1600, engraving on paper, 229 x 169 mm, The British Museum, London, no. 1922,1212.2

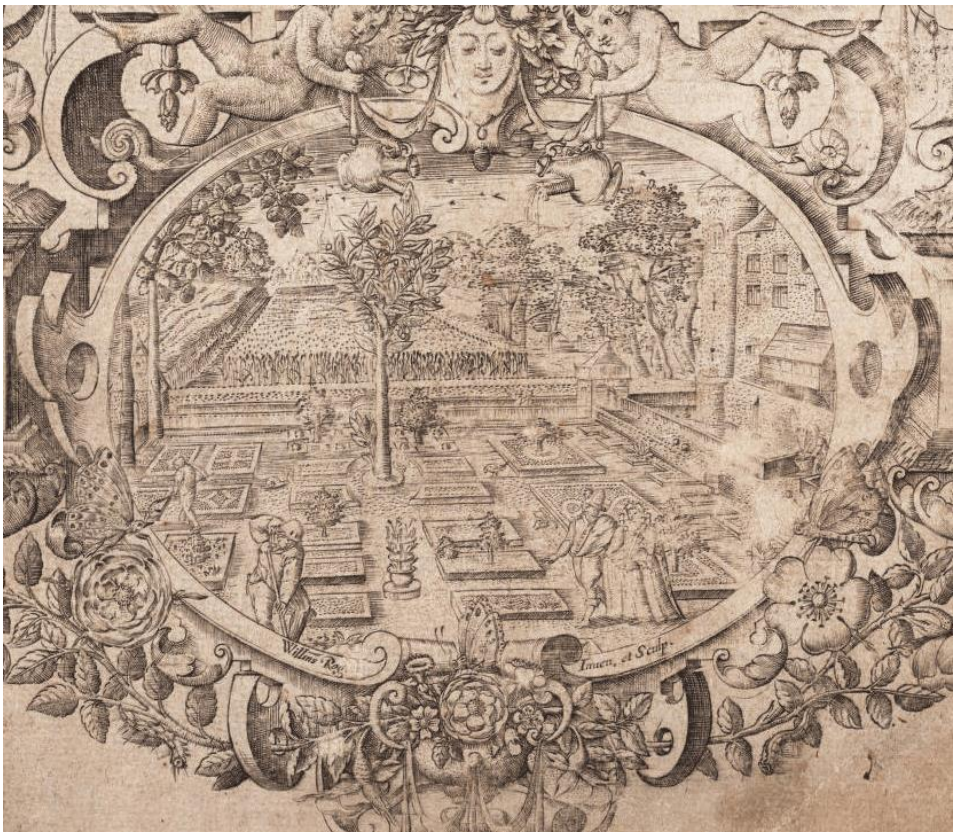


[Fig.21] William Rogers, frontispiece to *Iohn Huighen van Linschoten, his Discours of Voyages into ye Easte & West Indies* ..., 1598, Beinecke Rare Book & Manuscript Library, New Haven, CT, no. 2036083

[Fig.22] Adriaen Collaert after Hans Bol, *April*, 1578 – 1582, engraving on paper, 144 x 308 mm, Rijksmuseum, Amsterdam, http://hdl.handle.net/10934/RM0001.collect.97014



[Fig.23] Title-page to *The Grete Herball*, 1526, woodcut, 273 x 191 mm, The Metropolitan Museum of Art, New York, no. 44.7.44



[Fig.24] Detail of *The Herball* frontispiece, 1597

[Fig.25] Detail of *Petri Andreae Matthioli Opera quae extant omnia* frontispiece, 1589

[Fig.26] Detail of *The Herball* frontispiece, 1597

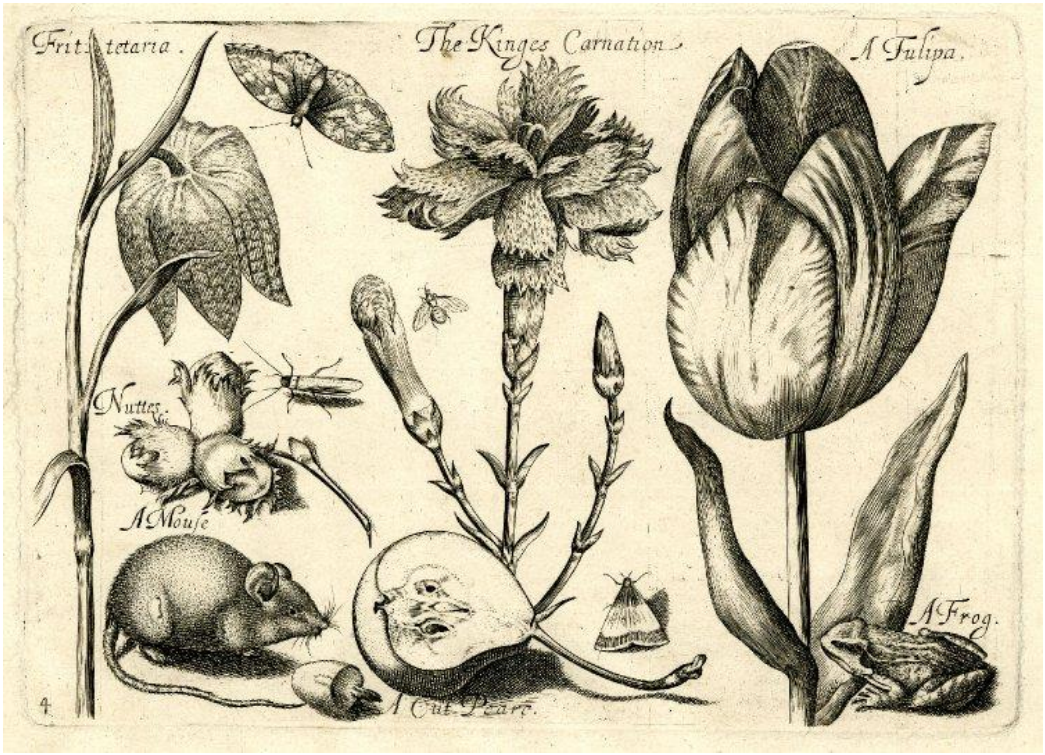
[Fig.27] Detail from *Plantarum seu stirpium historia*, 1576, p. 322

[Fig.28] Detail from *The Herball* frontispiece, 1597 p. 612

[Fig.29] *(left)* Frontispiece to *Apiaria Universae Philosophiae Mathematicae*, vol.2, 1642, Linda Hall Library LHL Digital Collections, http://lhldigital.lindahall.org/cdm/ref/collection/emblematic/id/406

[Fig.30] *(right)* Frontispiece to *Lexicon mathematicum*, vol.2, 1690, Linda Hall Library LHL Digital Collections, http://lhldigital.lindahall.org/cdm/ref/collection/emblematic/id/1369

[Fig.31] John Payne, title-page to *Flora*, 1620, engraving on paper, 149 x 207 mm, British Museum, London, no. Gg,6.6.1



[Fig.32] John Payne, plate 4 from *Flora*, 1620, engraving on paper, 141 x 200 mm, British Museum, London, no. Gg,6.6.4

[Fig.33] Frontispiece to *Paradisi in Sole Paradisus Terrestris*, 1629, woodcut, 358 x 226 x 45 mm, The Metropolitan Museum of Art, New York, no. 46.117.14

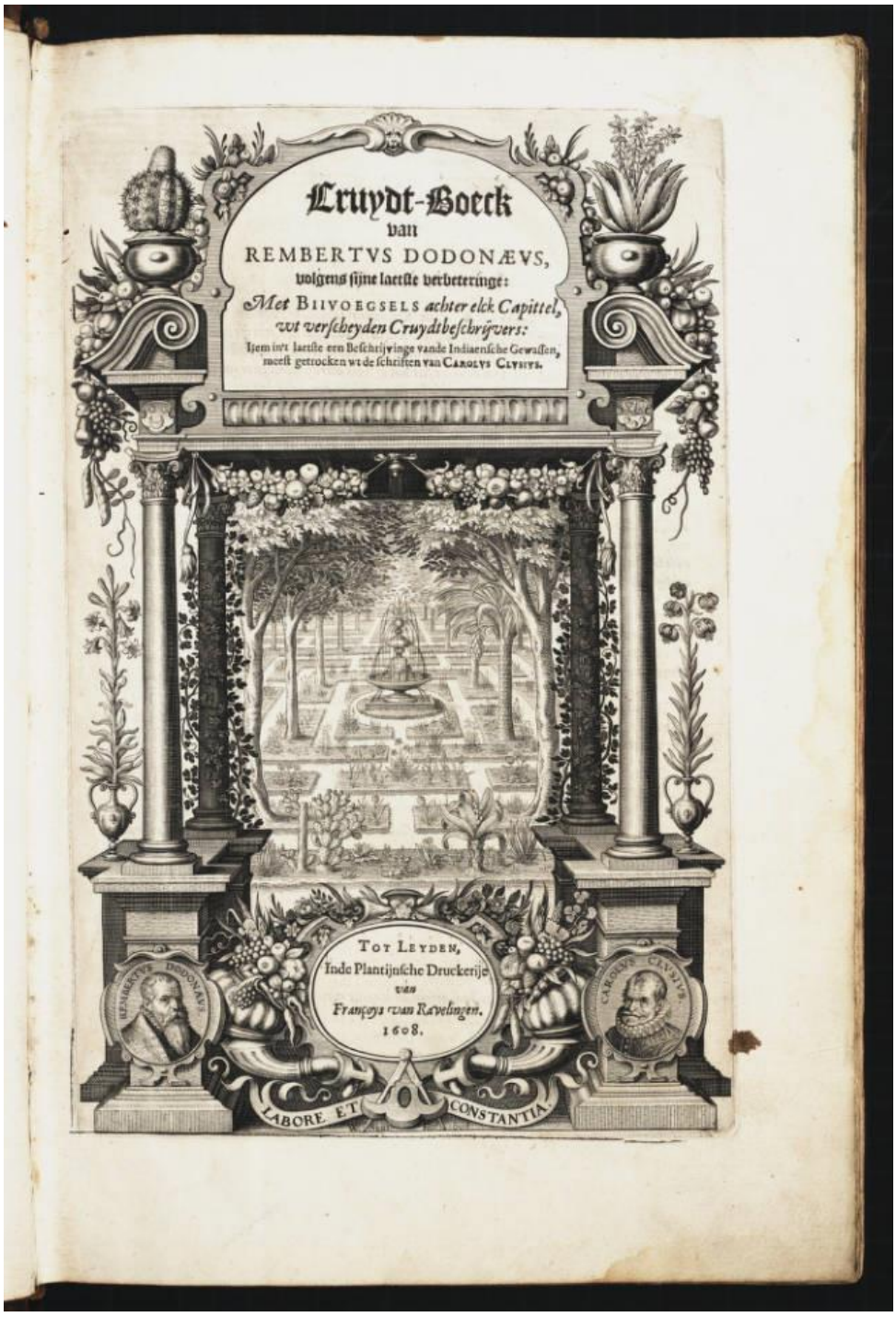
[Fig.34] Ambrosius Bosschaert, *Vase of Flowers in a Window*, 1618, oil on panel, 640 x 460 mm, Mauritshuis, Den Haag, no. 679

[Fig.35] *(left)* Frontispiece to *Theatrum florae*, 1622, Bibliothèque national de France, Paris, ark:/12148/bpt6k1511032x

[Fig.36] *(right)* Garden scene from *Theatrum florae*, 1622, Bibliothèque national de France, Paris, ark:/12148/bpt6k1511032x

[Fig.37] Peter Paul Rubens and Jan Brueghel, *Sense of Sight*, 1617-18, oil on panel, 647 x 1095 mm, Museo Nacional del Prado, Madrid, no. P001394

[Fig.38] Frontispiece to *Botanologia*, 1710, archive.org, https://archive.org/details/mobot31753003488134



[Fig.39] Frontispiece to *Cruydt-boeck*, 1608, Linda Hall Library LHL Digital Collections, http://lhldigital.lindahall.org/cdm/ref/collection/emblematic/id/175

Bibliography

Primary

Browne, Thomas. *Pseudodoxia Epidemica, Or, Enquiries into Very Many Received Tenents and Commonly Presumed Truths Together with the Religio Medici.* The Sixth and Last Edition, Corrected and Enlarged by the Author .... ed. Early English Books Online. London: Printed by J.R. for Nath. Ekins, 1672.

Clusius, Carolus. *Caroli Clusii Atrebatis Rariorum aliquot stirpium per Pannoniam, Austriam, & vicinas quasdam provincias observatarum historia, quatuor libris expressa ....* Antverpiae: Ex officina Christophori Plantini, 1583. http://archive.org/details/mobot31753000811379.

Gerard, John. *The Herball, or, Generall Historie of Plantes /Gathered by John Gerarde of London, Master in Chirurgerie.* Imprinted at London By Iohn Norton, 1597. http://archive.org/details/mobot31753000817749.

Lyte, Henry. *A New Herball, or, Historie of Plants : Wherein Is Contained the Whole Discourse and Perfect Description of All Sorts of Herbes and Plants : Their Diuers and Sundrie Kindes : Their Names, Natures, Operations, & Vertues : And That Not Onely of Those Which Are Heere Growing in This Our Countrie of England, but of All Others Also of Forraine Realms Commonly Used in Physicke, First Set Foorth in the Douch or Almaigne Toong / by That Learned D. Rembert Dodoens ... and Now First Translated out of French into English, by Henrie Lyte, Esquier.* London: Imprinted by Ninian Newton, 1586., 1586. http://archive.org/details/mobot31753000811148.

Johnson, Thomas. *The Herball or Generall Historie of Plantes*. London: printed by Adam Islip Joice Norton and RichWhitakers, 1633.

Turner, William. *A New Herball. Pt. 2 and 3*. Cambridge: Cambridge University Press, 1995.

Secondary

Anderson, Frank John. *An Illustrated History of the Herbals*. New York [etc.]: Columbia University Press, 1977.

Arber, Agnes Robertson. *Herbals: Their Origin and Evolution: A Chapter in the History of Botany, 1470-1670*. Cambridge: University Press, 1912.

Baigrie, Brian S. *Picturing Knowledge : Historical and Philosophical Problems Concerning the Use of Art in Science.* Toronto: University of Toronto Press, Scholarly Publishing Division, 1996. eBook Collection (EBSCOhost), EBSCOhost.

Barnard, John. "Politics, Profits and Idealism: John Norton, the Stationers' Company and Sir Thomas Bodley." *Earnshaw R., Vince J. (eds) Digital Convergence – Libraries of the Future*, London: Springer, 2008. https://doi.org/10.1007/978-1-84628-903-3_24.

Berger, Susanna. *The Art of Philosophy: Visual Thinking in Europe from the Late Renaissance to the Early Enlightenment*. Princeton: Princeton University Press, 2017.

Blunt, Wilfrid, and Sandra Raphael. *The Illustrated Herbal*. London: Lincoln [etc]; Weidenfeld & Nicolson, 1979.

Brandis, G. Brender à, and Patrick Lima. *Portraits of Flowers*. The Porcupine's Quill, 1995.

Bushnell, Rebecca W. *Green Desire: Imagining Early Modern English Gardens*. Ithaca, NY: Cornell University Press, 2003.

Corbett, Margery. *The Comely Frontispiece: The Emblematic Title-Page in England, 1550-1660*. London [etc.]: Routledge and Kegan Paul, 1979.

----------. "The Engraved Title-Page to John Gerarde's Herball or Generall Historie of Plantes, 1597." *Journal of the Society for the Bibliography of Natural History* 8, no. 3 (November 1, 1977): 223–30. https://doi.org/10.3366/jsbnh.1977.8.3.223.

Croft, Pauline. *Patronage, Culture and Power: The Early Cecils*. Studies in British Art ; 8 136221580. New Haven, CT [etc.]: Yale University Press, 2002.

Daston, Lorraine, Katharine Park, and American Council of Learned Societies. Wonders and the Order of Nature, 1150-1750. ACLS Humanities E-Book. New York : Cambridge, Mass.: Zone Books ; Distributed by the MIT Press, 1998.

Elliott, Brent. “The World of the Renaissance Herbal.” *Renaissance Studies* 25, no. 1 (February 1, 2011): 24–41. https://doi.org/10.1111/j.1477-4658.2010.00706.x.

Folkard, Richard. *Plant Lore, Legends, and Lyrics Embracing the Myths, Traditions, Superstitions, and Folk-Lore of the Plant Kingdom*. Library of Alexandria, 2015.

Forbes, Stephen J. "Collections and Knowledge: Constancy and Flux in a Sixteenth-century Botanic Garden." *Studies in the History of Gardens & Designed Landscapes* 36, no. 4 (2016): 245-60.

Genette, Gerard. *Paratexts: Thresholds of Interpretation.* Cambridge Core, March 1997. https://doi.org/10.1017/CBO9780511549373.

Gilmour, J. S. L. “Thomas Johnson, Botanical Journeys in Kent and Hampstead.” *Thomas Johnson, Botanical Journeys in Kent and Hampstead.*, 1972. https://www.cabdirect.org/cabdirect/abstract/19721609088.

Goody, Jack. *The Culture of Flowers*. Cambridge; New York: Cambridge University Press, 1993.

Hind, Arthur Mayger. *Engraving in England in the Sixteenth and Seventeenth Centuries: A Descriptive Catalogue with Introductions. Pt. I: The Tudor Period.* Cambridge: The University Press, 1952.

----------. *Engraving in England in the Sixteenth and Seventeenth Centuries: A Descriptive Catalogue with Introductions. Pt. III: The Reign of Charles I*. Cambridge: The University Press, 1964.

Hoffmann, Frank, and Martin J. Manning. *Herbal Medicine and Botanical Medical Fads*. Routledge, 2014.

Hoyles, Martin. *Gardeners Delight: Gardening Books from 1560 to 1960*. London; Boulder, Colo: Pluto Press, 1994.

Knight, Leah. *Of Books and Botany in Early Modern England: Sixteenth-Century Plants and Print Culture*. Ashgate Publishing, Ltd., 2009.

Kuwakino, Koji. "The great theatre of creative thought: the *Inscriptiones vel tituli theatri amplissimi …* (1565) by Samuel von Quiccheberg", *Journal of the History of Collections*, Volume 25, Issue 3, 1 November 2013, Pages 303–324, https://doi.org/10.1093/jhc/fhs025

Murray, John J. "The Cultural Impact of the Flemish Low Countries on Sixteenth- and Seventeenth-Century England." *The American Historical Review 62*, no. 4 (1957): 837-54.

Niekrasz, Carmen and Claudia Swan. "Art" The Cambridge History of Science Vol. 3. Cambridge [etc.]: Cambridge University Press, 2006.

Ogilvie, Brian W. *The Science of Describing Natural History in Renaissance Europe.* Chicago: University of Chicago Press, 2006.

Pavord, Anna. *The Naming of Names: The Search for Order in the World of Plants*. 1st edition. New York, NY: Bloomsbury USA, 2005.

Phillips, Henry. *Flora Historica: Or, The Three Seasons of the British Parterre Historically and Botanically Treated; with Observations on Planting, to Secure a Regular Succession of Flowers, from the Commencement of Spring to the End of Autumn. To Which Are Added, the Most Approved Methods of Cultivating Bulbous and Other Plants, as Practised by the Most Celebrated Florists of England, Holland, and France*. E. Lloyd, 1824.

Plomer, Henry Robert. *A Dictionary of the Booksellers and Printers Who Were at Work in England, Scotland and Ireland* ... Bibliographical Society, 1907. http://archive.org/details/adictionarybook00plomgoog.

Pollard, Alfred W. *A Short History of English Printing, 1476-1898*. Library of Alexandria, 1900.

Rees, Graham, and Maria Wakely. *John Norton, and John Bill: International Trade*. Oxford University Press, 2009. http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199576319.001.0001/acprof-9780199576319-chapter-11.

Remmert, Volker R. *Picturing the Scientific Revolution*. Early Modern Catholicism and the Visual Arts Series; v. 4. Philadelphia: Saint Josephs University Press, 2011.

Rohde, Eleanour Sinclair. *The Old English Herbals*. Repr. London: Minerva, 1974.

Savage, Frederick G. *Flora & Folk Lore of Shakespeare*. Cheltenham [etc.]: Burrow, 1923.

Smith, Pamela. "Art, Science, and Visual Culture in Early Modern Europe." *Isis* 97, no. 1 (2006): 83–100. https://doi.org/10.1086/501102.

Swan, Claudia. *Art, Science, and Witchcraft in Early Modern Holland : Jacques De Gheyn II (1565-1629)*. Cambridge Studies in Netherlandish Visual Culture 186638922. Cambridge [etc.]: Cambridge University Press, 2005.