

'PYGMALION'S FRENZY': THE ORGANIC OPULENCE OF ROMANCE IN EARLY
MODERN ENGLAND

A Dissertation

Presented to the Faculty of the Graduate School

of Cornell University

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

by

Sara Joan Schlemm

August 2018

© 2018 Sara Joan Schlemm

'PYGMALION'S FRENZY': THE ORGANIC OPULENCE OF ROMANCE IN EARLY
MODERN ENGLAND

Sara Joan Schlemm, Ph. D.

Cornell University 2018

This dissertation examines the persistence of romance in early modern England. An ancient literary genre defined by its magical and wondrous themes, romance became increasingly discredited with the rise of Protestant attacks on superstition. The new science of Francis Bacon and his successors also attacked the core subject matter of the romance genre. Despite these developments, romance persisted in early modern England both as a genre and as a formal principle. This formal principle of romance expressed itself in opulent literary style, which Bacon famously decried as "Pygmalion's frenzy," as well as in the formation of knowledge from everyday organic phenomena. I connect this formal principle of romance to the nurture of magic and Aristotelian science in texts that sought to discredit them. In these ways, romance became an opulent repository of lapsed forms from which poets and scientists drew.

This dissertation focuses on four organic phenomena and their fabulous history in early modern England. In Chapter 1, I show how crystals, the "clear and pellucid" mediums of Newtonian optics, had a far earthier history that emphasized the fact that they grow in the soil and are prone to breakage. Romance helps us understand how these aspects of crystals yielded useful knowledge, just as their Newtonian clarity did. In Chapter 2, I discuss the literary and scientific reception of another "clarifying" organism: the mythical herb moly, which Homer's Ulysses uses to resist Circe's enchantments in *The Odyssey*. This chapter examines how the afterlife of moly showcases the vegetable power of the original myth in which it was fostered. In Chapter 3, I I discuss how enticing food and succulent language alike were targets for early modern attacks on

idolatry. These attacks, however, often ended up reaffirming the value of the knowledge to be gained from eating. Chapter 4 studies how roses became historically knowing icons in both literary texts and experimental science. The iconicity of roses endowed texts with visual opulence and supersitious content. In sum, romance may have survived in early modern England because of its persistent affinities with the organic realm.

BIOGRAPHICAL SKETCH

Sara Schlemm earned her B.A. in History from Yale University and her M.A. in English Language and Literature from Cornell University. Her research focuses on the relationship between literature and science in early modern England.

For my family

ACKNOWLEDGMENTS

Thank you to my Cornell graduate committee, Jenny Mann, Amanda Jo Goldstein, Rayna Kalas, and Philip Lorenz. Every member of my committee has provided me with extremely generous support, wonderful advice, and ample inspiration. I am grateful to my committee members for their detailed comments on every aspect of the dissertation, their wonderful insights during my exams, and their willingness to have long discussions about subtle points of the project. I wish to particularly thank my chair, Jenny Mann, for steering my dissertation and being an unparalleled mentor throughout my time in graduate school.

I feel very fortunate to have been able to complete my Ph.D. in Cornell's English department. I have benefited from the instruction and advice of many outstanding faculty members, including Cathy Caruth, Cynthia Chase, Elisha Cohn, Jonathan Culler, Debra Fried, Andrew Galloway, William Kennedy, Neil Saccamano, and Samantha Zacher. I feel fortunate to have been able to study with Maureen Quilligan and Benjamin Parris during their visits to Cornell. I would like to thank Stuart Davis for being a wonderful teaching advisor to me. I am grateful also to the English department office, especially to Kara Peet, Michele Mannella, Karen Kudej, and Vicky Brevetti, for their generous assistance with all research and teaching matters. In finishing my dissertation work I was honored to be supported by the Alan Young-Bryant Graduate Award in Poetry as well as the Martin Sampson Teaching Fellowship. My undergraduate students at Cornell have also been a constant source of insight and support, and I am grateful to have had a chance to work with them.

I also feel lucky to have been supported for three years at Cornell by a Graduate Resident Fellowship in Flora Rose House. Living and working in Rose House was invaluable for my professional development. Garrick Blalock, Jarrett Anthony, and Geoffrey Hill were exceptional bosses. I would also like to thank the other Graduate Resident Fellows as well as the

undergraduate Student Assistants with whom I worked on the Rose House staff, who are great friends and colleagues.

My graduate work would not have been possible without the kindness and support of many other individuals, including my inspirational mentors from my undergraduate years at Yale, especially Harold Bloom and Theodore Bromund. David White was my boss prior to my arrival at Cornell and a generous supporter of my return to academic work. During my graduate school years I benefited from the friendship of many terrific people, including Christina Black, Evan Bruno, Cara and Adam Wolkoff, Brian and Samantha Rose, Robin Wang, and Catherine Stewart.

Finally, I would like to thank my wonderful family, who have cheered me on every step of the way: my parents Sally and Anton and my siblings Amanda, Anton Jr., and Elsa.

TABLE OF CONTENTS

Biographical Sketch	iii
Dedication	iv
Acknowledgements	v
Introduction	1
Chapter 1: Organic Crystals and the Persistence of Romance	29
Chapter 2: The Reception of Homer's Moly in Early Modern England	53
Chapter 3: 'A Spice of Idolatry': Food and Bacon's Idols of the Market-place	77
Chapter 4: Roses, Icons, and Efflorescent History	111
Conclusion: Spenser's Pastorella and Bacon's Tree Castles	133
Works Cited	139

Introduction

My dissertation is a chronicle of the unexpected persistence of romance during the early modern period, an era in which the genre seemingly lost much of its authority. The romance genre, defined capaciously, began with ancient Greek novels, continued into the medieval period with the Arthurian cycle, flourished in lengthy Italian and English narratives of the sixteenth century, found Jacobean expression in Shakespeare's later plays, and perhaps even survives in modern romance and fantasy novels. Claiming such a broad historical and geographical classification for romance necessarily entails a great deal of diagnostic flexibility on the part of literary critics. One clue that could help us spot a romance is its fabulous thematic content. This content includes chivalric quests, magic, witchcraft, folklore, doomed or taboo love relationships, miracles, religious syncretism, courtly intrigue, sensory indulgence, and improbable endings. Indeed, romance's themes thrive on their glorious distance from reality as we know it. Another clue as to romance's distinctiveness lies in the fact that the genre's fabulous themes often find expression in a similarly outlandish and opulent literary style. Erich Auerbach captures this parallel between style and content when he characterizes "romance, or *fabula milesiaca*" as "so crammed with magic, adventure, and mythology, so overburdened with erotic detail, that it cannot possibly be considered an imitation of everyday life as it existed at the time—quite apart from the unrealistic and rhetorical stylization of its language."¹ The thematic and stylistic extravagance of the romance genre, in other words, makes it unlikely that the genre

¹ Erich Auerbach, *Mimesis: The Representation of Reality in Western Thought*, (Princeton, N.J.: Princeton University Press, 2003), 30.

could lead to reliable knowledge about the everyday world, let alone to the advancement of learning.

And yet, medieval romances like *Le roman de la rose* were stylistically sumptuous poems that, in addition to exploring the magical thematic content discussed above, included encyclopedic accounts of scientific phenomena. To take *Le roman de la rose* as an example, Nature herself even appears as an allegorical personage, linking the poem with the great scholastic debates about the place of the realm of creation in relation to the realm of grace. The world of medieval romance was big enough to include truths of many kinds, including scientific ones. During the 1580s and 1590s, English writers, inspired by medieval traditions, produced beautiful romances, such as Sir Philip Sidney's *Arcadia* and Edmund Spenser's *The Faerie Queene*. But by the early seventeenth century, romance was beginning to fall into disrepute. In his *Of the Dignity and Advancement of Learning*, Francis Bacon even compares the superstitious and overly bookish state of experimental science, when considered as "natural magic," to the excesses of the medieval romance genre:

For as for that natural magic which flutters about so many books, embracing certain credulous and superstitious traditions and observations concerning sympathies and antipathies, and hidden and specific properties, with experiments for the most part frivolous, and wonderful rather for the skill with which the thing is concealed and masked than for the thing itself; I will not be wrong to say that it is as far differing in truth of nature from such a knowledge as we require, as the story of King Arthur of Britain, or Hugh of Bordeaux, and such like imaginary heroes, differs from Caesar's Commentaries in truth of story. For it is manifest that Caesar did greater things in reality than those imaginary heroes were feigned to do, but he did them not in that fabulous manner. (4.367).²

² Francis Bacon, *The Works of Francis Bacon*, ed. James Spedding, Leslie Ellis, and Douglas Denon Heath, (London: Longman, 1861-1879), 14 vols. All citations of Bacon's work in this dissertation refer to this edition. Parenthetical references cite volume and page number.

This passage draws a link between the debased state of experimental science and the improbable deeds of romance heroes. The "many books" to which Bacon refers are likely the extravagant quests of "empirics," including alchemists, as suggested by Bacon's attacks on philosophical "Idols of the Theatre" in the *New Organon* (4.65). Bacon criticizes the experiments of natural magicians as being more remarkable for the manner in which they are conducted than for the knowledge they yield. Bacon then invokes tales of medieval chivalry which, according to him, show a similar rift between the "fabulous manner" in which they are recounted and their "truth of story." (The second of the books to which Bacon refers is the French romance of *Huon of Bordeaux*, widely available in early modern England in a translation by Lord Berners). It is important to be precise, for it does not seem as though Bacon sees the style in which these romances are written as being incommensurate with their narrated content; indeed, both are "fabulous." Instead, both the style and the content of medieval romances are vain and misleading in relation to the "truth." This passage indicates that the debased nature of "the natural magic which flutters about so many books" makes it essential that Bacon furnish the experimental mind with reformed matter, "such a knowledge as we require." Bacon implicitly compares the sober truth of Caesar's *Commentaries* to similarly authoritative knowledge about natural phenomena. Bacon's experimental works, indeed, are designed to furnish such authoritative knowledge to the reformed intellect of the natural philosopher. And yet, Bacon's discussion of natural magic is also intended to help rehabilitate the term "magic" by distinguishing "the true kind from the false and ignoble." (4:368). Bacon's aim is to recuperate the useful findings of natural magic and to incorporate them into his experimental method. Even in attacking magic (and romance), therefore, Bacon leaves open a place for such things in his project lest they lead to useful knowledge by accident.

As we remember the broader goals of Bacon's *Great Instauration*, we come to a fuller understanding of the fact that the extravagant experiments in natural magic that Bacon discredits in the passage above were among the casualties of his broader overhaul of the Aristotelian syncretism that pervaded medieval science. We can also see from the passage above that part of Bacon's critique of bookish natural magic involved the ostentatious manner in which it was conducted. Elsewhere in Bacon's writings, such bookish superstition is equated with an indulgence in copious rhetoric for its own sake. "Pygmalion's frenzy," to use Bacon's pejorative phrase in *The Advancement of Learning*, included not only the scholastic habit of relying too heavily on textual authority and copious rhetoric, but also the romantic tales that went hand-in-hand with such bookish habits. In addition to being attacked by early modern natural philosophers, romance's excesses became fertile targets for religious iconoclasts as well as writers dismissive of old wives' tales. Ben Jonson, for example, called Shakespeare's *Pericles, Prince of Tyre* a "mouldy" tale. One could argue that romance as a genre became "mouldy" over the course of the early modern period, more reliant on consciously antique figures for its poetic value.

Despite these developments, I argue in this dissertation that early modern romances acquired a new kind of power over scientific and religious texts that tried to dismiss them. This power is particularly important to understand as a unified force affecting both science and religion, as many scholars have argued that the new science sought to become the new metaphysics. Following Northrop Frye's *The Secular Scripture: A Study of the Structure of Romance*, I argue that romance earned its new power by becoming the "lay" environment in relation to which the new science established itself as high "scripture." Romance formed this environment by means of processes that molded such "scriptural" material. I examine how these

processes helped romance insinuate itself into other early modern discourses which founded themselves on the exclusion of the supernatural. In addition to studying these processes, my dissertation argues that scientific texts are organisms that have been fertilized by romantic figures in hitherto understudied ways. Romance is not only a distinct literary genre, but also a formal principle at work in other kinds of texts. This romantic formal principle is marked by fabulous speculation and opulent rhetoric in texts that strive for clear logic and plain style as well as by imaginative encounters with organic phenomena that span nature and culture.

Early modern science could not elude organic romance even as that very science became earth-denying, overly universal, and skeptical about magical content. My four chapters narrate four forms of romantic persistence amidst the emergent tendencies of the new science. In my first two chapters, I consider two kinds of objects that were synonymous with the new science and with disenchantment, respectively: crystals (one of the prisms central to Newtonian optics and Biblical transcendence) and the mythical herb moly (used by Homer's Ulysses to resist Circe's magic). I show how both crystals and moly, despite their deployment as clarifying and disenchanting organisms, had a much earthier history in early modern England than is commonly supposed. These two chapters show how this earthiness could make intangible and otherworldly forces seem local and present. In my third and fourth chapters, I turn to two more romantic objects: delicious food and roses. My goal in these two chapters is to show how the susceptibility of these objects to idolatry and iconicity (respectively) had the effect of ensnaring the senses and giving the scientist and the reader access to accretive cultural history.

In these four chapters, I do not focus on any single primary text or author. Instead, I consider a proliferation of examples from a wide range of texts, mostly from the early modern period, but also from later and earlier texts that speak to the central ideas of the chapters. I

discusses many literary and scientific texts to show how the four phenomena that anchor each of my chapters express themselves in a multitude of local examples. I hope that this approach will help me elucidate meaningful connections between different texts that are themselves organic and even romantic. In other words, my own critical method is informed by my subject matter and is itself a process of accretion and ornamentation. As I consider romance to be a capacious repository of lapsed forms, I aim to give a sense of that repository's breadth and complexity in my range of examples.³

This critical method and my title are inspired by the famous moment in Francis Bacon's *The Advancement of Learning* to which I allude above:

Here therefore [is] the first distemper of learning, when men study words and not matter: whereof though I have represented an example of late times yet, it hath been and will be *secundum majus et minus* in all time. And how is it possible but this should have an operation to discredit learning, even with vulgar capacities, when they see learned men's words like the first letter of a patent or limned book; which though it hath large flourishes, yet it is but a letter? it seems to me that Pygmalion's frenzy is a good emblem or portraiture of this vanity: for words are but the images of matter; and except they have life of reason and invention, to fall in love with them is all one as to fall in love with a picture. (3:284).

This description of the Pygmalion myth, as was current in early modern England in Ovid's *Metamorphoses*, shows clear affinities with Bacon's critique of Arthurian romance and bookish natural magic that I quote above. In this passage, however, Bacon's critique of these matters has zeroed in on an even narrower target: opulent rhetoric. Scholars of Bacon's work have long been captivated by this vivid portrait of Bacon's fear of the seductive pull of rhetoric for its own sake. For example, Brian Vickers notes that passages like this one show that "[t]he priority of *res* over *verba* was an unshakeable principle for Bacon."⁴ Jenny Mann observes how this passage reveals

³ I am grateful to Amanda Jo Goldstein for helping me formulate my sense of romance in this way.

⁴ Brian Vickers, "Bacon and Rhetoric," in *The Cambridge Companion to Bacon*, ed. Markku Peltonen, (New York: Cambridge University Press, 1996), 223.

Bacon's concerns about idolatry: "A devotion to rhetoric causes one to mistake letters on a page as objects of interest in their own right, when in fact 'words are but the images of matter.'"⁵

Pavneet Aulakh, however, while acknowledging the weight of Bacon's critique of rhetoric, suggests that this passage is more deeply rooted in the idolatrous scholasticism of "late times" and is therefore not as much of a "break with the past" than is commonly supposed. Aulakh also points out the irony of the fact that Bacon's chief weapon against overly lush language is the "lively image" of Pygmalion, an affirmation of Bacon's own "regard for the sensuous properties of language."⁶ I follow Aulakh in showing how Bacon's discussion of "Pygmalion's frenzy" demonstrates continuity with the past instead of a modern rupture. My own analysis focuses on different aspects of this passage, however. The words in Bacon's comment that interest me most are "large flourishes" and "vulgar capacities." The "first letter" of a book might forcibly seize the attention of even a general reader, or even an illiterate person who loves images. This dissertation explores how romance, understood as a genre and a formal principle in the way I have described above, allows "vulgar capacities" to glean meaningful knowledge from "large flourishes" of words and things. This passage in Bacon also sums up my own critical method of letting copious examples from romance's vast repository flourish as well as my own sense of romance as a "lay" formal principle. As we saw above, Bacon used "fabulous" romance to illustrate the debased state of experimental "natural magic." In the "Pygmalion's frenzy" passage, we understand why this comparison was not chosen at random. Copious rhetoric enables the persistence of superstitious content in an age of iconoclasm and the reformation of science.

⁵ Jenny C. Mann, "Pygmalion's Wax: 'Fruitful Knowledge' in Bacon and Montaigne," *Journal of Medieval and Early Modern Studies*, May 2015, Vol. 45, No. 2, 379.

⁶ Pavneet Aulakh, "Seeing Things Through 'Images Sensible': Emblematic Similitudes and Sensuous Words in Francis Bacon's Natural Philosophy," *ELH*, Vol. 81, 2014, 1150-1151.

In order to understand more fully how this persistence of superstition and idolatry in the "Pygmalion's frenzy passage" is relevant to my ideas about romance, we must turn to the Pygmalion episode in Ovid's *Metamorphoses* itself. Ovid's beautiful text dresses the ivory statue of Galatea in a way that unfolds her body and her being. The flourishes of Galatea's habit are akin to the flourishes on the opulent letter that Bacon discusses. Galatea's beautiful attire is like the habit of a saint in an old church, calculated to appeal to the eye as well as develop Galatea's being. To give the Arthur Golding translation:

Sumtime (the giftes wherein yong Maydes are wonted to delyght)
 He brought her owches, fyne round stones, and Lillyes fayre and whyght
 And pretie singing birds, and flowres of thousand sorts and hew,
 In gorgeous garments furthermore he did her also decke,
 And peynted balles, and Amber from the tree distilled new.
 And on her fingars put me rings, and cheynes about her necke.
 Riche perles were hanging at her eares, and tablets at her brest.
 All kynd of things became her well. And when she was undrest,
 She seemed not lesse beawtifull. (10.281-289).⁷

In Ovid's Latin text, the last two lines of Golding's passage quoted above are "*cuncta decent; nec nuda minus formosa videtur.*" (10.266).⁸ The word *cuncta* is a neuter plural adjective that means "all things," or everything. There is a sense that the adoring Pygmalion has festooned his ivory maiden with all the fruits of the earth, including flowers of a thousand sorts and colors. (As I will discuss in Chapter 2, the arrangement and sorting of flowers and herbs of different colors is an Ovidian hallmark of Circean magic that finds its way into the genealogy of Homer's supposedly enlightened and rational antidote to that very magic, moly.) Galatea herself is a witch's larder in

⁷ Ovid, *Ovid's Metamorphoses: The Arthur Golding Translation, 1567*, John Frederick Nims, ed., (Philadelphia: Paul Dry Books, 2000), 256-257.

⁸ Ovid, *Metamorphoses*, Frank Justus Miller, trans., G.P. Goold, rev., (Cambridge, Massachusetts and London, England: Harvard University Press, 1984), Vol. 2, 82.

this passage who does not yet know the true nature of her dress. In Chapter 3, I discuss how the mad Ophelia offers us a portal into culinary idols via her story of how "the owl was a baker's daughter;" Galatea, while she has nothing to do with food, is an idol who, to paraphrase Ophelia, "knows what [she is] but not what [she] may be." Galatea, when dressed, comes close to allegorizing all "kind" things indeed, all things subject to the laws of kind, including all of creation itself.

Moreover, when Pygmalion prays to Venus to make his bedfellow a real woman, he resorts to simile and approximation, praying that "If that you Goddess can all things [*cuncta*] give, then let my wife (I pray)/ (He durst not say bee yoon same wench of Ivory, but) bee leeke [*similis*]/ My wench of Ivory." (10.298-300). It is as though Pygmalion's assessment of his own "vulgar capacities," to quote Bacon, makes him timid when speaking to the goddess and conscious of the need to accommodate his speech. And yet "Venus (who was nought at all to seeke/ What such a wish as that did meene) then present at her feast" (10.300-301) grants his true prayer, which is to make the actual maid of ivory his wife. In Latin, "golden" Venus is able to understand Pygmalion's prayer as she is at her local festival herself: "*ut ipsa suis aderat Venus aurea festis.*"(10.277). I argue that romance is the textual genre and form best suited to understanding what happens when transcendent forces, like deities and natural laws, take local forms. When Galatea finally comes to life under Pygmalion's loving touch, Ovid's own text makes that process lively and open to the reader. In sum, the Pygmalion story nested within Bacon's attack on rhetoric contains lively and organic ornaments (Galatea's clothing), an adaptation of vulgar, earthly speech to transcendent capacities, a goddess assuming a local form, and an open revelation of occult natural processes. The flourishes of rhetoric criticized by Bacon may have ontological value if they showcase, explain, and open up processes at work in matter

itself. And as is the case with Pygmalion, desire and imagination are the quickening agents that begin the process. The organic opulence of romance thus reaches through style to reveal matter, including to "vulgar capacities."

In exploring how early modern England experienced the opulent power of romance in these ways, I consider the work of several early modern scientists, but none more so than that of Bacon himself. I am especially interested in the types of subject matter that Bacon considered as starting points for the advancement of knowledge. (As suggested above, beginnings of texts, pages, and projects are particularly fertile places in which "large flourishes" might grow). This subject matter includes resemblances among natural phenomena, the curiously cultural histories of natural objects like flowers, folk tales, abnormal experimental results, and the chronicling of local peculiarities. This subject matter - not coincidentally, the stuff of literary romance - Bacon allowed house room within the *Great Instauration* lest it lead to useful knowledge by chance. Bacon stresses, however, that it is necessary not to linger too long in these enchanted byways. Once their sensory details were chronicled, it was necessary to move beyond them, step by step, with intermediary causes well-defined, until proper axioms could be derived. This approach is crystallized by Bacon's advice that "Nature to be commanded must be obeyed." (4:46). I argue, however, that Bacon's own writing is so enchanted by the romantic subject matter permitted within the *Great Instauration's* vast scope that it becomes ornate of content and style. Traffic with romance makes any kind of text romantic.

As the work of Bacon and other early modern scientists gained ground, its experimental richness contrasting with the plain style of its overt agenda, opulence and romance remained. And when these philosophers were faced with living organisms, their writing shifted and became romantic. The discarded material of the new science - earthiness, local variations, opulent

rhetoric, and persistent vegetable memories - did not disappear. Instead, this material reaffirmed its medieval ties to the organism as such and presented itself once more when that organism was studied in all its complexity. Its survival hinged on the question of whether experimental observation and the rich sensory detail in which that observation was captured in scientific discourse could yield meaningful knowledge about the world. I believe that it did. The philosopher and intellectual historian Stephen Toulmin identified the beginning of modernity with Descartes and Newton's rejection of "particular, concrete, timely, and local details of everyday human affairs" in favor of "a higher, stratospheric plane, on which nature and ethics conform to abstract, timeless, general, and universal theories."⁹ Formal beauty, irregularity, local variation, organic form, and causal complexity gave way to usefulness, geometrical forms, universal natural laws, and efficient causes alone. This dissertation argues that romance was the language in which organisms spoke back to texts that sought to curtail their infinite variety. When literary and scientific texts sought to decouple words from matter and postulate a *tabula rasa* in language and nature, organic materials enabled romance to survive.

Critical Background

My dissertation contributes to a number of critical discussions in early modern studies. First, I draw on the genre-based study of romance. Critics of the romance genre in the early modern period have long noted how romance exists in contradistinction to other genres. Northrop Frye's work has helped me understand how romance is both a distinct genre and a formal principle. In the first respect, in *The Anatomy of Criticism*, Frye writes of romance that it

⁹ Stephen Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (New York: Free Press, 1990), 35.

is "older than the novel, a fact which has developed the historical illusion that it is something to be outgrown, a juvenile and undeveloped form."¹⁰ Once more, it is intriguing to think of romance as a mode that dominates beginnings and leverages its power from always being able to claim greater antiquity than other genres can. Another work of Frye's is even more instructive if we wish to understand how romance is a force affecting other genres. The work in question, as indicated above, is Frye's classic work *The Secular Scripture*, which casts romance as a folkloric, apocryphal intertext which is distinct from, without being subservient to, texts which claim to be true, or scriptural. Frye argues that scripture, broadly defined, claims authority by purporting to be true, while popular romance admits that it is false.¹¹ But the nature of discourse itself, for Frye, makes it impossible for authority to be confined to scripture alone. Indeed, romance is the mode best suited to appreciating the contingency of the truth or falsehood of statements, as well as being the genre in which future literary innovations are most likely to breed.¹²

My reading of Frye's work carries into more contemporary works of literary criticism that deal with the romance genre. If we take a religious reading of this idea of romance as a lay principle, we can see how Frye's work links nicely with more modern efforts like Tiffany Jo Werth's *The Fabulous Dark Cloister: Romance in England After the Reformation* and Velma Bourgeois Richmond's *Shakespeare, Catholicism and Romance*.¹³ These texts and others posit the Catholic elements of romance as forces in the early modern Protestant imagination. What is becoming increasingly of interest is how romance also formed a "lay" principle at work in relation to science. There are parallels between these studies and those that investigate how

¹⁰ Northrop Frye, *The Anatomy of Criticism: Four Essays*, (Princeton, N.J.: Princeton University Press, 1957), 306.

¹¹ Northrop Frye, *The Secular Scripture: A Study of the Structure of Romance* (Cambridge, Mass.: Harvard University Press, 1976), 17–18.

¹² Frye, *The Secular Scripture*, 28.

¹³ For their respective discussions of Frye's *The Secular Scripture*, see Tiffany Jo Werth, *The Fabulous Dark Cloister: Romance in England After the Reformation*, (Baltimore: Johns Hopkins University Press, 2011), 23 and Velma Bourgeois Richmond, *Shakespeare, Catholicism, and Romance*, (New York: Continuum, 2000), 18.

romance works in relation to religious texts. In another interesting recent twist, ecocriticism is giving early modern genre studies an injection of energy. For example, Steve Mentz writes that structural understandings of romance can be reinvigorated by studying how the self-referential aspects of romance pertain to ecology, the latter of which Mentz defines as "a constellation of ideas about the interrelation of humanity and nature that has been codified since the nineteenth century."¹⁴ I follow Mentz in highlighting moments of reflexivity not only within romances, but also within scientific texts in which thematic elements from romance gesture toward formal properties. For his part, Gabriel Egan, one of the foremost critics of Shakespeare from an ecocritical perspective, devotes his volume *Shakespeare and Ecocritical Theory* to a genre-based discussion of the plays, including the late romances.

Second, my assessment of romance as a force in early modern science is greatly indebted to recent explorations of Aristotle reception and the history of English science. These studies, for the most part, do not discuss the genre of romance as a distinct category, but they do excavate lots of texts that happen to be romances and show how new science's assumptions intertwined with other forces in those texts. Most important to my own work is Mary Thomas Crane's *Losing Touch with Nature*. This work explores the complexity of early modern English readings of Aristotle and traces the period's literary laments for the loss of what Crane calls "the core of the 'Aristotelian' understanding of the world [that] coincided with 'intuitive' science, folk theories about the natural world that arise to provide commonsense explanations of ordinary experience."¹⁵ This observation of Crane's is critical for my own work, as it suggests that "folk" elements of culture, perhaps including the themes of romance, might be natural allies with

¹⁴ Steve Mentz, "Shipwreck and Ecology: Toward a Structural Theory of Shakespeare and Romance," *The Shakespearean International Yearbook* 8, 2008, 166.

¹⁵ Mary Thomas Crane, *Losing Touch with Nature: Literature and the New Science in Sixteenth-Century England* (Baltimore, Maryland: Johns Hopkins University Press, 2014), 20.

medieval science. Crane's study is also one of several that teaches the reader to be precise about differences in reception of different parts of the Aristotelian corpus in England. In fact, Crane argues that such "intuitive" early modern English views of nature may have been more indebted to Aristotle's "naturalistic" writings like the *Meteorology* and the *Problems*, the latter of which is now of disputed authorship.¹⁶ I cite both of these Aristotelian texts in this dissertation, as I agree with Crane's assessment that they reveal and amplify the workings of nature and therefore make those processes more legible to the "lay" reader. As outlined by Crane, the growing loss of "intuitive" Aristotelianism in the late sixteenth century was replaced with the seventeenth century's commitment to the expansion of scientific enquiry and control over nature, as chronicled, for example, by Joanna Picciotto's *Labors of Innocence in Early Modern England*. Picciotto's important work suggests, however, that the increasingly ambitious character of early modern science went hand in hand with pressure to make the earth "paradisaal" and to cleanse the senses themselves of deep-rooted error.¹⁷ I am fascinated by the idea that the earth itself had to be purified in order to become available to the almost metaphysical ministrations of the new science. I follow Picciotto by showing that the earth had its own way of replying to these attempts to restore it to its own imaginary origins. I locate this method of reply, as suggested above, in romance's deliberate archaisms and vegetable insinuations, as well as the mutual infiltrations of nature and culture.¹⁸ Significantly, the moments of locality and Aristotelianism that I explore in the early modern imaginations are not occult, pathological, or dependent on

¹⁶ Crane, *Losing Touch with Nature*, 23-24. Crane discusses her categorization of the "naturalistic" writings of Aristotle with reference to the work of Eckhard Kessler.

¹⁷ Joanna Picciotto, *Labors of Innocence in Early Modern England* (Cambridge, Mass.: Harvard University Press, 2010), 36.

¹⁸ Early modern science studies has also taken a turn toward studying how organic forms do cultural work. The work of Bruce R. Smith in *The Key of Green: Passion and Perception in Renaissance Culture* as well as that of Leah Knight in *Reading Green in Early Modern England* and *Of Books and Botany in Early Modern England* shows how natural phenomena and cultural artifacts were all part of the same ambient spaces.

"inwardness" or hermeneutics. As such, I do not discuss alchemy, hermetic magic, or astrology. The ideas about the natural world that are most romantic blossom enticingly before the reader's eyes, which is part of the reason we fall in love with them, like Pygmalion with Galatea. Indeed, Frye also mentions that "[t]he hero of romance moves in a world in which the ordinary laws of nature are slightly suspended."¹⁹ This sense of romance might allow us to link it with the view of nature discussed by Lorraine Daston in her important essay "Preternatural Philosophy." Daston shows that early modern scientists thought that irregular, marvelous or monstrous forms, such as those that might be produced by Frye's "slight suspension" of natural law, were "preternatural," or "beyond nature," but just as worthy of enquiry as their more uniform counterparts. Assigning such a designation to "anomalous phenomena," as Daston demonstrates, was a more inclusive approach than banishing such intricate marvels as "supernatural" or "unnatural" might have been.²⁰ Throughout this dissertation, I explore what it would mean for "the knowledge we require," to quote Bacon, to include a sense of nature big enough to encompass the thematic and formal material of romance.

Third, this project engages with landmark works of intellectual history that explore how the rejection of the earth and the organism, and of forms of knowledge that stem from the soil, is one of the hallmarks of early modernity. Within literary studies, Margreta de Grazia's study of *Hamlet's* antique and non-*proto-modern* properties in *Hamlet without Hamlet* focuses on the play's preoccupation with the earth and the soil. As part of her history of the reception of *Hamlet*, de Grazia quotes Coleridge's sense of Shakespeare's plays as a whole as being "romances," a historically specific marker. For Coleridge, de Grazia writes, "The etymology of the new term

¹⁹ Frye, *The Anatomy of Criticism: Four Essays*, 33. Tiffany Jo Werth also cites this passage from Frye in *The Fabulous Dark Cloister*, 40-41.

²⁰ Lorraine Daston, "Preternatural Philosophy," in *Biographies of Scientific Objects*, ed. Lorraine Daston, (Chicago and London: The University of Chicago Press, 2000), 16.

[*romance*] conferred a new prestige on Shakespeare's drama by assigning it a history. As the neoclassical could trace its mechanical heritage back to antiquity, so the romantic could derive its organic origins from medievalism."²¹ De Grazia's own assessment of *Hamlet's* earthiness at the time of the play's original performance takes a different and less romantic slant from that of Coleridge. That said, I am also interested in de Grazia's sense of how the earthiness of a literary work can give rise to different philological veins over time. Perhaps it is no coincidence that a creative rearward glance at the past, if we remember Frye's thoughts on the perennial anteriority of romance, tends to become romantic.²² My dissertation shows, as de Grazia does, that the periodization questions that govern our discipline rest on a sense of modernity that defines itself in opposition to self-determining organic life. The consequence of defining modernity as the force that imposes itself on the earth may be the foregrounding of the medieval period as that which poses an organic resistance to such an imposition. As suggested above, this idea is drawn in part from Picciotto's work, which reminds us that the earth was not always "pristine"; it had to be made so.

For my part, the medievalisms I discuss in this dissertation do not depend on a certain text's date of composition, but rather on its style. I think of medievalisms as pre-Raphaelite stylistic forces whose organicism is not naïve or simplistic, but sophisticated and historically knowing. I consider how moments in romance that are over-lush, antique, and ripe for iconoclasm are scientific too in enabling aspects of organic intelligence to effloresce. These moments showcase literary ornament, but, as is the case with Pygmalion's Galatea herself, these

²¹ Margreta de Grazia, *Hamlet without Hamlet*, (Cambridge, U.K.: Cambridge University Press, 2007), 14.

²² In another essay, "The Modern Divide" de Grazia demonstrates how intellectual history has tended to give the medieval period short shrift in its attempts to date the beginnings of modernity to "novel" and innovative breakthroughs. See "The Modern Divide: From Either Side," *Journal of Medieval and Early Modern Studies*, Vol. 37, No. 3, Fall 2007, 458.

ornaments become real and we fall in love with them. Enargeia becomes energeia, and exornation of words indexes and opens up matter (and vice versa). These moments are so drenched in vegetable power that they persist in scientific experiments in which they should have no place. Archaism and desire and opulence seduce new scientific thinking into preserving its "local habitations," to quote *A Midsummer Night's Dream's* Theseus. In so doing, they strew Newtonian law with peacock feathers and bruised flowers (two startling background images from Newton's *Opticks*, a text I discuss in Chapter 1). These moments also preserve something of the value of surface reading or the appeal to "vulgar," "lay" capacities in a way that honors the great romance cycles of the Middle Ages, both formally and thematically. The ornamental quality of romance also bears witness to the exciting insight that the most refined cultural materials, including literature itself, may be the result of non-human semiotic richness and may even increase that richness, fusing nature and culture.

The sophistication and historical consciousness of earthly matter in romance, however, is morally neutral. Hannah Arendt's seminal work *The Human Condition* chronicles how modern science has become increasingly in thrall to the ancient desire for an "Archimedean point," which Arendt describes as "a point outside the earth from which to unhinge the world."²³ Arendt's sensitive work shows that the more we seek to deny the evidence of our senses, our earth-boundedness, and the dark forces at work in nature, the more the mastery promised by the new science risks its own self-destruction and the annihilation of all life in the bargain.²⁴ For Arendt, that destruction, in a further twist, may be the result of the unwise liberation in the social and public sphere of the "growth element inherent in all organic life" itself from "the processes of

²³ Hannah Arendt, *The Human Condition: Second Edition*, (Chicago and London: The University of Chicago Press, 1998), 262.

²⁴ Arendt, *The Human Condition*, 3.

decay by which organic life is checked and balanced in nature's household."²⁵ Arendt's words are in my mind as I discuss organic phenomena that burst outward and seduce the viewer and the reader in literary romances and in science. Nature's household, to use Arendt's term, may be a haunted house, or even an enchanted palace.

Three Examples of the Cultural Desires of Vegetable Life

To explore what I mean by the organic opulence of romance in practice, I analyze three key moments that revel in the romantic entanglement of cultural and natural forms in a vegetable landscape. First, I discuss *Sir Gawain and the Green Knight*. This medieval poem survived in a single manuscript and was likely unknown to many of the early modern writers on whom I focus. Nevertheless, this "green" poem is exemplary in showcasing the romantic, organic opulence I discuss in this dissertation. Indeed, *Sir Gawain and the Green Knight* is emblematic of the pre-Raphaelite vegetable intelligence that originates in literary romance and insinuates itself into other kinds of texts.

The titular knight appears in the court of King Arthur at Christmastime. The knight's appearance provokes intense attention,

For wonder of his hwe men hade
 Set in his semblaunt sene
 He ferde as freke was fade,
 And overal enker grene
 And al graythed in grene this gome and his wedes... (147-151).²⁶

²⁵ Arendt, *The Human Condition*, 47.

²⁶ *Sir Gawain and the Green Knight: A New Verse Translation*, trans. Simon Armitage, (New York; London: W.W. Norton & Company, 2007), 28, 30. All references to this poem are to this edition. Parenthetical citations refer to line numbers.

The knight's clothing and armor are a reliable indicator of the vegetal color of his flesh, as indicated by the last line of the above-cited passage and emphasized in the subsequent line "alle his vesture verayly was clene verdure" (161). The alliteration of the line links "verayly" with "vesture" and "verdure," tying together truth, clothing, and greenness. The veracity of the knight's trappings (which reveal the truth of both his skin color and of his name) is not expressed via plain dress. Instead, the knight's costume is ornate and made up of silk, white ermine, and rich, bright gold and embroidered with images of birds and butterflies. The white and gold trimmings of the knight's costume become greener by association. Even the knight's horse and axe are green. The knight has a reasonable claim to embody all verdant things in nature, a claim advanced and expressed in his costly garments. The embroidery and the workmanship of the knight's apparel, like those of Galatea's garb, amplify his being.

Throughout the poem, we are aware that the flip side of the knight's ultra-refined courtesy is vegetable rot. The intricacies of rotting greenery verge always on the trceries of beautiful architecture and clothing. Romance writers, including the *Gawain* poet, exploit such similarities. The members of Arthur's court are accustomed to intricate iconography (Gawain's shield bears the image of the Virgin Mary) and beautiful embroidery, but the "semblaunt" of this knight is new for them: "That a hathel and a horse might such a hwe lach/ As growe grene as the gres and greener hit semed/ Then grene aumayl on golde growande bryghter." (234-236). Interestingly, the marvel for Camelot is that the man and his horse might "grow" green, assuming that the color has flourished gradually over time, much as grass does. The growth of the greenness in this passage has made the text itself grow green before our eyes. But the knight and his apparel are even brighter than grass, brighter even than a culturally produced substance ("grene aumayl

[enamel] on golde glowande...") The knight's appearance therefore calls up grass, enamel, and gold at once. There is a sense at this moment that enamel and gold enrich the greenness and brightness of grass, and therefore of the knight himself. At many points in this dissertation, and especially in Chapter 4, I show how both literary writers and scientists revelled in the ability of vegetation to mimic cultural artifacts, and vice versa. In so doing, vegetable stuff, like the out-of-control letters of scholastic rhetoric, exploited affinities that had nothing to do with occult sympathies or alchemical correspondences. Instead, the resemblances were those that were born in idolatrous romances, tricks of the eye and the memory that cause classes of objects to be grouped together according to the forces of material desire.

The knight also bears a single sprig of holly, the plant "grattest in greene when greves are bare" (206). Presumably the "greves" (or branches) are bare at the time of year at which the poem begins (the twelve days of Christmas). The knight tells Arthur that he "may be siker bi this braunch that I bere here/ That I passe in pes." (265-266). The holly branch, like the green knight's clothing in relation to his skin, has an iconic legibility. There is no semiotic slippage here. The metaphysical assumptions of this poem would permit an enterprising natural philosopher to examine the outward ornament of this courtly scene and infer accurate things about the phenomena at work in that very scene.

The onlookers at Arthur's court, moreover, attribute the knight's appearance to "fantoum and fayryye" (240), a pairing that Simon Armitage renders in modern English as "miracle or magic." What is at stake in posing these two sources of the knight ("fantoum and fayryye") as alternatives rather than as a complementary pair? If we accept the original manuscript's "and" at face value, in this medieval text, we can already see that the work of Christian miracle and of folklore are mingled, perhaps beyond extrication. Which realm (that of Christian miracle or that

of fairy transformation) has the greater share in the mode of the knight's appearance? This question might have been more pressing to an early modern person than to a medieval person. Throughout this dissertation (and especially in Chapter 3), I explore how readers of early modern romances had a hunger to perform philology and trace the origins (Catholic, fairy, daemonic, elemental) of organic phenomena whose medieval appearances entangled these different strains, often ineradicably so.

It is possible that the Green Knight's appearance is summoned up by Arthur's restless desire for a story; "sum adventurus thyng an uncouth tale/ Of sum mayn mervaile" (93-94). After the knight's arrival, the poet observes that the Green Knight "has Arthur of adventurus on fyrst/ In yonge yer, for he yerned yepyng to here." (491-492). The questions we ask about reality affect the answers we receive. The Green Knight's challenge forms a perfect lay Yule-tide entertainment, an event with local significance, a pre-Reformation feast day. Is the Green Knight only green at Christmastime, and is that why he gives Gawain a year and a day to seek him? During the rest of the year, is he all the luscious colors of his paper castle (which is discussed later in the poem)? After all, his hue grows and is the greenest thing in a green landscape, like the sprig of holly he carries, which is superfluous, ornamental, yet expressive of a legible meaning (peace). Did Arthur's desire mold the timing and the details of the knight's green materialization? Did greenness make itself a knight, a horse, and an axe because Arthur wanted a tale "of alderes of armes, of other adventures," or, in other words, a chivalric romance? The perfect timing and chivalric details of the knight and the poem have been shaped by the formal principle of romance itself.

Indeed, in this "green" poem, romance is both a cache of tales and the formal principle that molds the vegetable matter of those tales into knights, horses, axes, holly, and castles. It is

critical to consider this process as one of call and response. What part of greenness longed to become a knight, or a castle, or (as is the case with the Green Knight's dwelling place) a chapel? A possible answer comes when Gawain has left Camelot to fulfill his quest of receiving a blow in return from the Green Knight. In response to a prayer to the Virgin Mary to be sheltered by a place in which mass is read, Gawain sees a forest with a canopy of entangled hazel and hawthorn give way, seemingly out of nowhere, to a beautiful and hospitable castle. As Gawain draws closer he sees that the castle is so perfect "[t]hat pared out of papure hit semed." (802). Another tree product (paper) is associated with the knotted trees glimpsed by Gawain earlier, perhaps a clue that this castle is only an expression of the desires of the canopy in which it finds a local habitation as well as a place that Gawain's image of the Virgin Mary, like Ovid's Venus at her festival, would find appropriate for her worship.

Of course, the story hinges on the fact that Gawain's gracious host in the castle is none other than the Green Knight himself, a truth only revealed at the end of the poem once we have seen what his accustomed dwelling, the green chapel, actually looks like. The green chapel appears to Gawain, who has just been warned of the Green Knight's bloodthirstiness by a servant, like a ghostly cathedral. Indeed, Gawain, who is clearly familiar with ecclesiastical architecture, takes the word "chapel" and applies the architectural features typical of such a building to the pile of moss in front of him. Gawain calls this heap of decaying moss a "chapel of mischance" and the "corsesdest kyrk that ever com I inne." (2195-2196). Gawain muses that his own "fyve wyttes" (2193) tell him that something sinister is lurking in this vegetable heap.

The poem ends with the promised meeting of Gawain and the Green Knight. Gawain is wearing a green girdle given to him by the Green Knight's wife. The girdle is "gered... with grene sythe and with golde schaped " (1832) and supposedly will make Gawain invulnerable to

the blow he has promised to receive, perhaps by color-based sympathetic magic. This "luf-lace" (1874) is secretly stowed aside at first, then on his final journey laced around the outside of his clothes. Like the girdle that will one day unmask Spenser's false Florimell, this girdle makes hidden sin and surfeit evident. The green girdle is the price of Gawain's blood being spilled, for it represents a remainder, a gift with which Gawain did not requite his host. After Gawain surrenders it freely, the Green Knight returns it to him: "And I gif the, sir, the gurdel that is golde-hemmed/ For hit is as grene as my gowne/...this a pure token/ Of the chaunce of the grene chapel at chevalrous knyghtes." (2395-2399). By Gawain's willing surrender of it, the girdle has been "pured as clene" as Gawain's soul and now can serve as a token or emblem (2393). The green matter of the poem has presented itself once more and changed its meaning and shape. The clarity of this girdle-token is linked with the fact that it is a part of the knight's gown by simile. Gawain vows to honor it as a sad "syngne of my surfet/...remorde to myselven/ The faut and the fantasye of the flesche crubbed." (2434-2436). The green girdle signifies a perennial openness and defiance of secrecy. It is a "token of untrawthe," (2509), a sign that "non may hyden his harme" (2511), and finally becomes part of the regalia of the Knights of the Round Table. The purpose of this whole poem has been to explain a heraldic strip of green. For proof of the long-lasting honor accruing to this device, the poet directs us to "the best boke of romaunce" (2521). As suggested earlier and as confirmed by the last lines of the poem, romance is both the explicit source of the subject material of the *Gawain* poem and its dominant formal principle, that of organic growth through courtly ornament (and vice versa). The archaic nature of this principle is evident in the increasing tendency of modernity to define itself as that which resists earthy ornamentation's autonomous intelligence in favor of treating earth and matter as passive and inert.

In sum, *Sir Gawain and the Green Knight* develops the vegetable history implicit in the matter of Britain more generally. Far from presenting the knight's courtliness as an imposition of alien culture on a reluctant nature, the *Gawain* poet seems interested in coaxing into open view the romantic desires of vegetable matter as well as those of humans. Such desires are not only apparent in courtly romance. They may also suggest themselves to those who go for walks in the woods. For Ralph Waldo Emerson in his essay "History:"

The Gothic church plainly originated in a rude adaptation of the forest trees with all their boughs to a festal or a solemn arcade, as the bands about the cleft pillars still indicate the green withes that tied them. No one can walk in a road cut through pine woods, without being struck with the architectural appearance of the grove, especially in winter, when the bareness of all other trees shows the low arch of the Saxons. In the woods in a winter afternoon one will see as readily the origin of the stained glass window, with which the Gothic cathedrals are adorned, in the colors of the western sky seen through the bare and crossing branches of the forest. Nor can any lover of nature enter the old piles of Oxford and the English cathedrals, without feeling that the forest overpowered the mind of the builder, and that his chisel, his saw, and plane still reproduced its ferns, its spikes of flowers, its locust, elm, oak, pine, fir, and spruce. The Gothic cathedral is a blossoming in stone subdued by the insatiable demand of harmony in man. The mountain of granite blooms into an eternal flower, with the lightness and delicate finish, with the lightness and delicate finish, as well as the aerial proportions and perspective, of vegetable beauty.²⁷

Emerson shows us that the most refined ornaments in architecture may have blossomed from the consciousness of the forest itself and not from "the mind of the builder." In other words, the artists crafting the cathedrals did not impose what they saw on passive material. Rather, a process at work in vegetation found its fullest expression in these devotional monuments of stone.

Emerson even suggests that Gothic churches, proverbially icon-soaked to the Protestant reformer, are "rude adaptation[s]" of even more refined forms in nature itself. The vegetable flourishes in stone present a reliable history of themselves, and Emerson presents ocular evidence as proof of the accuracy of his history (rather than bookish accounts of the cathedrals'

²⁷ Ralph Waldo Emerson, *Essays and Lectures*, (New York: Literary Classics of the United States: Distributed by the Viking Press, 1983), 245-246.

construction). What would Emerson have said about similarly Gothic flourishes in *Sir Gawain and the Green Knight*? Can poems, as well as architecture, allow green stuff its fullest and most open expression? We can also trace a consideration of different architectural styles and their counterparts in the woods, from the extraordinary greenness of winter pine groves, which are Saxon, to the Gothic stained glass of winter sunsets framed by bare branches, and finally, even more particularly, to the Oxford and English cathedrals, which revel in the variety of a summer meadow. Going on a walk in the woods might therefore educate people about human culture by outer affinity of forms. Once more, the miraculously accurate yet opulent history of organic matter provokes in its readers an impulse to philology, to discover styles or strains that hint at origins. At many moments in my dissertation, however, I show how localities and the ingredients of nurture, such as those at work in the earth, may be more relevant than origins. Indeed, the reason for Emerson's meditation on the Gothic desires of vegetable matter is to show that "[i]n like manner, all public facts are to be individualized, all private facts are to be generalized. Then at once History becomes fluid and true, and Biography deep and sublime."²⁸ An Emersonian philologist might study how things universally known (including the tales of the Homeric gods as well as Newtonian laws, perhaps) are enriched by traffic by those particularly or privately known, as well as vice versa. Such a philology is interested in what organic matter has to say about its own efflorescence.

To conclude my three examples, consider Tom Stoppard's play *Arcadia*, in which the young genius mathematician Thomasina plays with what will one day be called iterative algorithms in her quest for an understanding of organic form. Thomasina fancifully calls her

²⁸ Emerson, *Essays and Lectures*, 246.

work a "New Geometry of Irregular Forms."²⁹ Bantering with her tutor Septimus, Thomasina wonders why equations only seem to capture mechanisms and simple geometry:

Thomasina: God's truth, Septimus, if there is an equation for a curve like a bell, there must be an equation for one like a bluebell, and if a bluebell, why not a rose? Do we believe nature is written in numbers?

Septimus: We do.

Thomasina: Then why do your equations only describe the shapes of manufacture?

Septimus: I do not know.

Thomasina: Armed thus, God could only make a cabinet.³⁰

In considering the problem, Thomasina contrasts the complexity of the math required to draw roses and bluebells with the Newtonian equations that would only yield cabinets and steam-engines. The true implications of Thomasina's discoveries are voiced by a relative of hers, Valentine, who is also a mathematician, who finds her "New Geometry" in the 20th century.

Valentine explains that Thomasina's equations, iterated thousands of times, would gradually start to draw irregular forms, perhaps even that of a leaf. He pains to stress that the result of this practice "wouldn't *be* a leaf, it would be a mathematical object."³¹ And yet, Thomasina's work might solve a modern mystery:

Valentine: People were talking about the end of physics. Relativity and quantum looked as if they were going to clean out the whole problem between them. A theory of everything. But they only explained the very big and the very small. The universe, the elementary particles. The ordinary-sized stuff which is our lives, the things people write poetry about- clouds- daffodils- waterfalls- and what happens in a cup of coffee when the cream goes in- these things are full of mystery, as mysterious to us as the heavens were to the Greeks.³²

²⁹ Tom Stoppard, *Arcadia*, (New York: Faber & Faber, Inc., 1993), 47.

³⁰ Stoppard, *Arcadia*, 41

³¹ Stoppard, *Arcadia*, 51.

³² Stoppard, *Arcadia*, 52.

This rich middle ground and its organic subject matter form the terrain of pastoral romance, as suggested by the title of Stoppard's play, as well as that of poetry in general. Thomasina and Valentine's work revives the lingering question of how we can describe organic phenomena in a rigorous manner that does not do interpretive violence to their glorious abundance. It is also intriguing to consider whether a romance reader might argue that the "mathematical object" yielded by Thomasina and Valentine's efforts might share part of its being with the leaf it describes. Remembering Bacon and the Pygmalion story, the work of discourse (literary and scientific) might actually amplify the being of the objects it describes.

Thomasina and Valentine's ideas are also important to a study of romance and the new science. The history of seventeenth-century thought could be read as a story of the rose turning into the steam engine. As I endeavor to show throughout this dissertation, roses are better than steam engines at engaging with our senses to endow us with scientific knowledge via icons, locality, and linguistic sensitivity. When we examine the new science in terms of what it sought to discard in addition to that which it embraced, we find a mass of organic material with its own delicate history. Romance had long ago saturated such material, so its persistence and intellectual usefulness to the new science gave romance a longer life in the midst of challenges to it. An equation capable of representing a rose might also produce a rose, and in so doing manifest the lingering and outwardly intelligible links between word and thing.

To show how the organic opulence of romance is a concern for literary critics as well as for literary writers and scientists, and how my own critical method is a form of "Pygmalion's frenzy," I turn once more to Northrop Frye. In *Anatomy of Criticism*, Frye argues for a critical practice focused on poetics rather than misplaced hermeneutics:

It is projected metaphor to say that a flower 'knows' when it is time for it to bloom, and of course to say that 'nature knows' is merely to import a faded mother-goddess cult into biology. I can well understand that in their own field biologists would find such teleological metaphors both unnecessary and confusing, a fallacy of misplaced concreteness. The same would be true of criticism to the extent that criticism has to deal with imponderables other than consciousness or logically directed will. If one critic says that another has discovered a mass of subtleties in a poet of which that poet was probably quite unconscious, the phrase points up the biological analogy. A snowflake is probably quite unconscious of forming a crystal, but what it does may be worth study even if we are willing to leave its inner mental processes alone.³³

While I agree with Frye's emphasis on letting "inner mental processes" of organic phenomena alone, I wonder why those same organic phenomena give rise to such rich fantasies about themselves in their most sensitive observers. In this dissertation, I am interested in bringing to light the ways in which biological forms themselves may actually nurture - if not originate - "projected metaphors" like "faded mother goddess cult[s]" in those who study them. As the *Gawain* poet brought into full view the courtly desires of green life at the heart of the matter of Britain; as Emerson's winter woods yearned for Gothic cathedrals; and as Stoppard's Thomasina and Valentine coaxed the laws of mathematics into locally useful and ornate forms, romance fosters the cultural aspirations of nature.

³³ Frye, *Anatomy of Criticism: Four Essays*, 82.

Chapter 1: Organic Crystals and the Persistence of Romance

Crystals were one of the most powerful instruments of the new science in early modern England. The science of optics, seen in the work of Kepler, Descartes, and Newton, harnessed crystal prisms to study the refraction and reflection of light rays. This chapter narrates how early modern English crystals had a different history from that at work in Newtonian optics, one far more in common with Aristotelian meteorology. Far from being pristine facilitators of disembodied enquiry, crystals were deeply implicated in the soil that grew them. First, early modern observers noted that crystals grew in the earth and possessed a miraculous, intricate form, which gave the appearance of being the outgrowth of an intelligence surpassing that of human jewelers. Second, these same early modern writers viewed crystals as breakable, muddy, unclear, and easily bruised, perhaps in keeping with their place of nurture. Third, crystals "refracted" (in the etymological sense of breaking open, or breaking again) reality itself, giving forth reliable, precise knowledge in the process. These three behaviors all bore witness to the materiality of crystals. I argue that this earthy history acts as a romantic infiltration of Newtonian crystals, which were supposed to be regular, clear, and pristine in their guise as prisms.

This infiltration is romantic in two senses. First, it stems from the literary genre of romance. Readers of romances encounter crystal palaces, magical crystal stones, and crystal glass in interior décor. Crystals are also used in these texts as a basis of metaphor, as their beauty and clarity made them widely known. I argue that one of the reasons why crystals were so popular as an ornament and an image for romance writers is precisely the same reason why they were popular with scientists: their ability to refract light. I argue that crystals also refract reality in early modern texts by breaking it open and demonstrating to the naked eye that matter has

mind. The geometric perfection of crystals and their ability to disseminate colors show a shaping intelligence in the soil. Crystals were not only the product of this intelligence, but also capable of brought this intelligence to the "surface" of the soil and the text.

These observations about crystal behavior can be found in works of early science like Aristotle's *Meteorology* and Pliny's *Natural History*, which were popular in early modern England. These texts and others gave ample imaginative fodder to the idea that the mineralogical forces at work were continuous with the human intellect, a continuity to which the literal and figurative work of crystallization bore witness. But the scientific and literary incarnations of crystals I describe became increasingly dissonant with early modern attempts to use crystals as clean scientific instruments, as prisms that could be used to study colors that transiently passed through them. Newton's *Opticks* is the fullest expression of this later theory of crystals. I argue that romance is both the literary genre in which crystals found their fullest pre-Newtonian expression as well as the illustrative force by which crystals presented themselves on the surface of the ground and of text to the early modern scientific gaze. In other words, crystals show that romance is both a genre and an organic force that works through the earth to dazzle the eye with surface luster and surface meaning.

In order to understand the importance of this romantic pre-history, we must first understand that Newton had a great deal vested in crystals being reliably "uniform, pellucid mediums."³⁴ His *Opticks* includes a table classifying different "refracting bodies," including "island crystal" and "crystal of the rock" according to their densities and refractive power.³⁵ After all, Newton's definition of color involves the degree of refrangibility of light rays, rather than

³⁴ Isaac Newton, *Opticks: Or, A Treatise of the Reflections, Refractions, Inflections and Colours of Light. The Third Edition, Corrected. By Sir Isaac Newton, Knt* (London: Printed for William and John Innys, 1721), 222.

³⁵ Newton, *Opticks*, 247.

inherent properties of bodies. Newton shows how even bodies archetypally associated with certain colors could be endowed with others. In speaking of light rays as "colorific" rather than colorful,³⁶ Newton writes: "Colours in the Object are nothing but a Disposition to reflect this or that sort of Rays more copiously than the rest; in the Rays they are nothing but their Dispositions to propagate this or that Motion into the Sensorium, and in the Sensorium they are Sensations of those Motions under the forms of Colours."³⁷ This color theory stems from Newton's sense that it is difficult to speak of colors without a necessary oversimplification of language to which Newton himself must succumb in order to be intelligible: "And if at any time I speak of Light and Rays as coloured or endued with Colour I would be understood to speak not philosophically and properly, but grossly, and according to such Conceptions as vulgar People seeing all these Experiments would be apt to frame."³⁸ I argue that the "Disposition" of bodies to reflect certain colorific rays "more copiously" than others is a remainder of a more romantic optics and a remnant of a time in which colors were "real" and had more in common with earthy material things than with disembodied light rays. I am also interested in Newton's sense that he must speak "grossly" and according to the standards of "vulgar People" in order to be intelligible. As is the case with Bacon's observations about the "vulgar capacities" of those captivated by the idolatry of copious rhetoric, there is a sense that conveying everyday ideas in common speech requires a romantic accommodation. In reading Newton's words, we can see how even language had to be made "clearer" against the grain of everyday experience of color.

³⁶ Newton, *Opticks*, 140.

³⁷ Newton, *Opticks*, 109.

³⁸ Newton, *Opticks*, 108–9.

Consider the contrast between Newton's sense of "uniform, pellucid mediums" and the mineralogy of Aristotle (potentially including the study of rock crystals) in his *Meteorology*. In this text, Aristotle observes a coincidence between an object's form and its function:

What a thing is is always determined by its function: a thing really is itself when it can perform its function; an eye, for instance, when it can see. When a thing cannot do so it is that thing only in name... The parts of plants, and inanimate bodies like copper and silver, are in the same case. They all are what they are in virtue of a certain power of action or passion... But we cannot state their definitions accurately, and so it is not easy to tell when they are really there and when they are not unless the body is thoroughly corrupted and its shape only remains.³⁹

A functional analysis of mineral form thus involves a complex appreciation of mineral temporality. During the time in which a mineral (like a crystal) is able to perform its proper function, it possesses its identity in full. When a mineral ceases to be able to perform this function and becomes corrupted in body, it is no longer fully "itself." Paradoxically, this corruption of a mineral's body, which eviscerates its organic form, may enable greater definitional exactitude with respect to its "mere shape" and perhaps make the mineral more useful to a scientist. Understanding a mineral's form therefore entails a complicated attention to process and to product, to the two poles of *natura naturans* and *natura naturata* between which form can oscillate. To follow Aristotle's theory is to suggest a mode of analysis of crystals that is attuned to their epi-phenomena and their behavior over time. If we follow Newton's lead and seek to reduce the glorious variety of crystals to a few easily classifiable types, trusting in their univernally calculable degrees of refrangibility, we are missing a huge swathe of what crystals are and what they can do. In other words, treating crystals as mere prisms may be the most definitionally accurate and scientifically powerful approach, but it ignores, perhaps, the mineral

³⁹ Aristotle, *The Complete Works of Aristotle: The Revised Oxford Translation*, ed. Jonathan Barnes (Clayton, Ga: InteLex Corporation, 1992), Vol. 1, 624.

"action(s) or passion(s)" at work in the soil. My aim in this chapter is to follow Aristotle's lead by studying crystals in their full texts and contexts to arrive at a richer definition of their organic form.

Crystal Growth and the Power of Earthly Nurture

As I discuss above, the early modern period was interested in the fact that crystals grow in the earth. Such an interest may have stemmed from one of the clearest treatments of rock crystal available to the Renaissance reader, that of Pliny the Elder's *Natural History*. Book 37, Part 9 of Pliny's encyclopedia explores the properties of crystal [*crystallum*], which modern translators render as "rock crystal."⁴⁰ The passage indicates that forces of cold within the earth cause liquids to congeal into crystal forms of a disturbing regularity. In Philemon Holland's translation *The Naturall Historie of the World*, Pliny notes of rock crystal that "straunge it is, that it should grow as it doth, six angled: neither is it an easie manner to assigne a sound reason thereof, the rather for that the points bee not all of one fashion, and the sides betweene each corner are so absolute even and smooth, as no lapidarie in the world with all his skill can polish any stone so plaine."⁴¹ This passage's sense of form is different from that of Aristotle's *Meteorology*, as quoted above. Pliny suggests that the earth itself has a formal intelligence, sculpting uniform objects with an ease that a human would covet. Pliny's interest in crystal time is also different from Aristotle's sense of the temporality of mineral form. In the passage above, Pliny is most interested in the disconnect between the even and smooth edges of the naturally

⁴⁰ Pliny, *Natural History*, trans. W.H.S. Jones, vol. 6 (Cambridge, Mass.: Harvard University Press, 1991), 180–86.

⁴¹ Pliny, *The Historie of the World: Commonly Called, the Naturall Historie of C. Plinius Secundus*, trans. Philemon Holland (London: Adam Islip, 1601), 604.

polished crystals and the effort (and perhaps the time) that it would take a human lapidary to achieve a similar effect. Pliny also stresses that crystals "grow," which suggests that they possess organic form like the flowering metals of the great alchemical treatises.⁴² For Pliny, therefore, crystals bear witness to a mysterious formal intelligence in matter that is revealed gradually over time. The influence of this point of view was evident in Renaissance travel narratives that featured mined crystals in their catalogues of the riches that lay beyond the ocean. A notable example is Sir Walter Raleigh's *The Discoverie of the Large, Rich and Bewtiful Empyre of Guiana*. Raleigh tells us that a local people promised to bring him "to a mountaine, that had of them verye large peeces growing Diamond wise: whether it be Christall of the mountaine, *Bristol Diamond*, or *Saphire* I doe not yet knowe."⁴³ It is interesting to consider that Raleigh, like Pliny, stresses that these gems "grow." As I discuss in Chapters 2 and 4, Renaissance accounts of the New World often stumbled across truths about organic phenomena that lay close to home as well as in the ancient past.

The gradual revelation of the formal intelligence at work in Pliny's sense of crystals has deep implications for the scientist as well as the travel writer. In her discussion of early uses of crystals and glasses as "prospective glasses," Joanna Picciotto writes that "virtuosi actually imputed to the lens the power of conquering time but they made this power dependent on the work of rational reconstruction...to uphold the ideal of progressive discovery through the cultivation of facts, it was essential that the effort to see time *take* time, that optical instruments

⁴² For example, Paracelsus describes the crystal in his *Coelum philosophorum* as "a white stone, transparent, and very like ice. It is sublimated, extracted, and produced from other stones." In *Liber meteorum*, Paracelsus writes: "The origin of Crystals is to be referred to water. They contain within them a spirit of coagulation whereby they are coagulated, as water by the freezing and glacial stars." Like all precious stones, crystals, for Paracelsus, ought to be analyzed for their celestial and metallurgical affinities than for the precise spot in the earth in which they were found. Paracelsus, *The Hermetic and Alchemical Writings*, trans. Arthur Edward Waite, Vol. 1 (New Hyde Park, NY: University Books Inc., 1967), 18.

⁴³ Walter Raleigh, *The Discoverie of the Large, Rich, and Bewtiful Empyre of Guiana* (Norman: University of Oklahoma Press, 1997), 177.

not offer instantaneous illumination to their users."⁴⁴ I see a link to Pliny's sense of the progressive growth of crystals in Picciotto's comments. Did the gradual work of growing crystals ultimately express itself by slowing down the work of scientists using those crystals as instruments? If so, perhaps early modern optics experiments bore inadvertent witness to the slow power of the soil.

In a different way, the power of Pliny's imagery of crystal growth was a problem for Robert Boyle's later study of crystals, which was extremely mechanistic. Boyle's account of mineral growth, he writes, anticipates

a main Objection, that may be argued urged against the Doctrine we have been proposing. This is taken from the Figuration of some Gems (and especially the Prismatical one of Christal) and seems the more fit to be urg'd against us, because we our selves have, in the Second of the above-recited Arguments, given several Instances of it. For it seems scarce possible, that so curious a shape should be so Uniformly produc'd in such a multitude of Christals, great and small, unless there were some seminal and plastick power to fashion the matter after so regular and Geometrical a manner.

Boyle refutes this objection by attributing the "curious" shape of crystals to "Motion of the Fluid" and by pointing out that salt, too, can be urged by motion to produce shapes similar to those of crystals (7:28-29).⁴⁵ But the "objection" that Boyle is trying so hard to refute, the presence of a "seminal and plastick power" in matter, would be a big problem to a Cartesian and a mechanistic philosopher. What seems to indicate the presence of this strange power is the fact that crystals possess both uniformity and "curious" shapes, hinting at an orderly yet artistic force. If we take the natural form of crystals to be just as purposive as the work of jewelers, what does

⁴⁴ Joanna Picciotto, *Labors of Innocence in Early Modern England* (Cambridge, Mass.: Harvard University Press, 2010), 211–12.

⁴⁵ Robert Boyle, *The Works of Robert Boyle*, ed. Michael Hunter and Edward Bradford Davis (London [England]: Pickering & Chatto, 1999). All citations of Boyle's work refer to this edition, and parenthetical references indicate volume and page numbers.

that tell us about jewelry design? This passage in Boyle links up nicely with my overall argument the ability of organic materials to give us the impression that they themselves have brought about their cultural refinements.

I end this exploration of the early modern awareness of crystal growth with an example from literary romance. I have long been interested in the crystal palace Panthea in Edmund Spenser's *The Faerie Queene*. Located in the capital of the land of Faerie, Cleopolis, Panthea is a temple in which the earthly deeds of Gloriana's knights are commemorated. Panthea's Greek-derived name means, according to Michael J. Murrin, "the best of sights"⁴⁶ as well as, potentially, "all the goddesses." Isabel G. Rathborne, whose *The Meaning of Spenser's Fairyland* is still the most authoritative work of criticism on Panthea, notes that the building is "the highest ideal possible to the man who lives under the law of nature" as well as an allusion to Rome's Pantheon, a temple to Cybele and all the other gods.⁴⁷ In other words, Panthea is the apex of worldly achievement, a place in which men can be turned into gods, and the most beautiful object accessible to the natural senses.

These attributes of Panthea are evident when the building is first mentioned in *The Faerie Queene*. The Redcrosse Knight, accompanied by the allegorical figure Contemplation, has an ecstatic vision of the New Jerusalem. He sees angels descending and ascending from the city to the sky (1.10.56). Marvelling at the city's beauty, the future St. George says:

Till now...I weened well,
That great Cleopolis, where I haue beene,
In which that fairest Fary Queene doth dwell,
The fairest Cittie was, that might be seene;
And that bright towre all built of christall clene,

⁴⁶ Michael J. Murrin, "Panthea," in A. C. Hamilton, ed., *The Spenser Encyclopedia* (Toronto: University of Toronto Press, 1990), 528.

⁴⁷ Isabel Elisabeth Rathborne, *The Meaning of Spenser's Fairyland* (New York: Russell & Russell, 1965), 38, 34-35.

Panthea, seemd the brightest thing, that was:
 But now by prooffe all otherwise I weene;
 For this great Citty that does far surpas,
 And this bright Angels towre quite dims that towre of glas. (1.10.58)⁴⁸

By referring to a "towre of glas," the Redcrosse Knight introduces the possibility that Panthea is made out of either crystal glass or rock crystal. But, rock or glass, why is Panthea crystal as opposed to the numerous other precious gems which feature in both the Scriptural New Jerusalem and in fairy palaces of medieval texts? In order to answer this question, we must look at the larger narrative context of Canto 10. In a telling moment, the canto's first stanzas include a literal reference to crystal refraction. The Redcrosse Knight's recovery in the House of Coelia is led by her daughter Fidelia, whose "Christall face" throws light off "[l]ike sunny beames." (1.10.12).⁴⁹ Fidelia (in white), Speranza (in blue), and Charissa (in yellow), like colored rays of light, have joined efforts to improve the Redcrosse Knight's spiritual well-being. These three maidens show triple formal aspects of a single function (heavenly virtue). After the Redcrosse Knight has partially recovered, Mercy escorts him to a hospital of seven brothers who exercise earthly heavenly works. These earthly responsibilities, which include the dispensing of food and drink as alms as well as the laying out of dead people, is a way-station between the House of Holinesse and the domain of Contemplation. It is important to consider why the Redcrosse Knight must undergo such earthly works before he experiences his heavenly vision. Is it so that the earth can keep him tethered to the correct order of his own history, resisting his impulses to jump ahead? Mercy, when making the introductions, reveals that "the keyes [to the New Jerusalem] are to thy hand" (1.10.50) given by Fidelia herself, who has requested that

⁴⁸ Edmund Spenser, *The Faerie Qveene*, ed. A. C. Hamilton, Hiroshi Yamashita, and Toshiyuki Suzuki (New York: Longman, 2001), 134. All references to *The Faerie Queene* are to this edition.

⁴⁹ James Nohrnberg reads this moment as a reference to "the Old Testament glory...that transfigured the face of Moses. Being 'Christall,' Fidelia's faith is also a glass or mirror, that glass in which the face of Christ is beheld typically in the Old Testament, and interiorly in the New..." *The Analogy of The Faerie Queene* (Princeton, N.J.: Princeton University Press, 1976), 155.

Contemplation show the Redcrosse Knight what lies ahead. Contemplation calls the Redcrosse Knight "thou man of earth" before they set out on their journey, an allusion to the fact that the knight is called George. This fact will be revealed after the heavenly vision - another element of earth surrounding and molding the New Jerusalem itself.⁵⁰

If Canto 10's beginnings show a figurative refraction of time and meaning, as it progresses, a different crystalline quality rises to the fore: gradual growth that mediates between earth and heaven. The place from which the Redcrosse Knight and Contemplation experience their vision is "the highest Mount", a place that the poet compares in turn to Mount Sinai, the Mount of Olives, and Mount Parnassus (1.10.53-54). The poet poses these comparisons as alternatives to one another. Is the reader of *The Faerie Queene* being asked to choose his own poetic mode and lineage - that of Old Testament law, Psalmic poetry, or classical verse? The poem offers all three as possible ancestral modes of expression. How would the New Jerusalem vary according to the type of "mount" from which it is experienced? The crystalline quality of the New Jerusalem's precursor may refract its experience into different literary-historical modes of approach which fuse sacred and profane poetry.

When the vision itself finally arrives, Contemplation tells the Redcrosse Knight that the New Jerusalem is a place whose sole occupants are saints who are "[m]ore deare vnto their God, then younglings to their dam." (1.10.57). The Redcrosse Knight himself is destined to join this company of saints one day, but not before he learns who he truly is. Contemplation reveals that "thou faire ymp [is] sprong out from English race,/ How euer now accompted Elfins sonne" (1.10.60). In this passage, it is important to stress the time marker "euer now," which anticipates

⁵⁰ Thomas P. Roche writes of the Redcrosse Knight and Contemplation's exchange that "Faeryland is the best that earth offers, but in the Christian view it is only midway to the heavenly city. Nevertheless they are validly distinct realms and in Spenser's time did not present contradictory views of man." *The Kindly Flame: A Study of the Third and Fourth Books of Spenser's Faerie Queene* (Princeton, N.J.: Princeton University Press, 1964), 43.

the Redcrosse Knight's later observation that "till now" Cleopolis was the most beautiful place he had seen. Canto 10 is interested in *gradual* growth and revelation that has a fixed sequence. If Cleopolis and its crystal tower may represent an evolving form immanent in matter (as suggested by Pliny's analysis), crystals may condition the reception of the New Jerusalem by preventing the heavenly city from having appeared *till now*. This canto of *The Faerie Queene* has a built-in clock that cannot be speeded up. The Redcrosse Knight, enraptured by the New Jerusalem, wishes to visit it immediately, but is told that he must wait, "ne maist [he] yet" forsake helping Una, the "virgin desolate" mentioned above (1.10.63). The Redcrosse Knight begrudgingly agrees to turn his attention back to his quest, hoping to complete it "soone" in order that he be able to "shortly back return vnto this place." (1.10.64). As we saw in Pliny, crystals bear witness an earthly check on formal development. Having seen Panthea may keep the Redcrosse Knight to a pre-ordained timetable.

Implicitly, if that is true, the Redcrosse Knight's sequence is the one assigned to him in Cleopolis, as proposed in the *Letter to Raleigh*. If Panthea is supposed to be the place in which the twelve quests outlined in the *Letter* are intended to be commemorated, including perhaps that of the Redcrosse Knight, why does the New Jerusalem not make this earthly process redundant? In other words, why is the Redcrosse Knight's quest destined for twofold honors - earthly and heavenly? A clue might lie in the fact that the Redcrosse Knight's name is *Georgos*, which was given to him in honor of the "heaped furrow" in "Faery lond" in which he was found as a baby, as well as the "ploughman's estate" in which he was raised (1.10.66). Could it be that this particular knight, despite the heavenly honors awaiting him in the New Jerusalem, also has a claim to be honored by the fairy realm whose soil gave him his name? If so, then Panthea may also be on the verge of insinuating itself into the New Jerusalem's company of saints by means of

its English foster child. These passages introduce complex questions about how *The Faerie Queene* negotiates between the place of Redcrosse Knight's birth (England) and the environment in which he was nurtured (Faerie). Service to England may grant him heavenly honors, but Faerie keeps him on earth.

This section has explored how the fact that crystals grow in the soil may mold "higher" forces (both scientifically and metaphysically) that pass through those very same crystals. The Redcrosse Knight is keen to pursue transcendence, and yet the ultimate significance of his heavenly vision is to remind him of his own earthly timetable as well as his own persistent debts to the soil that gave him his nurture and his name. The fact that this particular soil is Faerie suggests that this very English knight's implied destiny has a folkloric strain. In Chapter 3, I will discuss (with reference to *Cymbeline*) how a philologist attempting to make sense of precise origins in romance might wind up ensnared in romance him or herself. The fact that the Redcrosse Knight wants to circumvent his own fate by belittling a temple of earthly fame, the finest of all earthly sights, by turning crystal into glass brings me to the topic of my next section: the refraction of crystals.

Refraction: Breakage, Pollution, Breaking Open.

The second part of my chapter takes its cue of crystal behavior from the etymology of the word "refraction" itself. The *Oxford English Dictionary* traces the verb "refract" to the past participle of the Latin verb *refringere*, which meant "to break, to deflect the course of (light rays), to break open, to repel."⁵¹ In physics, refraction's most common definition involves the

⁵¹ "refract, v.," *OED Online* (Oxford University Press), accessed November 16, 2017, <http://www.oed.com/view/Entry/161028#eid26149774>.

ability of light to mediate between different realms: "The phenomenon whereby a ray of light...is diverted or deflected from its previous course in passing from one medium into another, or in traversing a medium of varying density." (A less common, figurative meaning of refraction is that of "mediation, alteration, or distortion of something, usually something pure or absolute, arising from the medium of expression, personal perspective, social context, etc...")⁵² The word "refraction" became increasingly popular in the English language in the seventeenth century, as there are relatively few references to the word in texts printed in England prior to 1600. Two important exceptions assign the name of refraction to a phenomenon described in literary and scientific texts in other terms for centuries. The first example is William Fulke's discussion of meteors, which defines an "apparition" as "an *Exhalation* in the lowest or hyghest region of the ayre, not verely burning, but by refraction of lyght, either of the sunne or the Moone, séemeth as though it burned. Whiche appearaunce of collour, ryseth only of y^e falling of light vpon shadowe."⁵³ The second example is Thomas Hill's treatise on comets, which indicates that rainbows "are caused of the refraction or breaking againe of the Sunne beames, from the clowde made bright and couloured by the first, that is, the inner Rainebow into the néerer clowde."⁵⁴ Hill's etymology for refraction suggests that it possesses an important temporality. To "break" light "again" indicates that rainbows, or even the refracted light spectrum visible in a prism or a crystal, have a history. Later, scientists in the seventeenth century would draw on early observations like those of Fulke and Hill to employ crystals in many experiments, some involving refraction. To cite an important fictionalized example, in Francis Bacon's *New Atlantis*,

⁵² "refraction, n.," *OED Online* (Oxford University Press), accessed November 16, 2017, <http://www.oed.com/view/Entry/161038>.

⁵³ William Fulke, *A Goodly Gallerye* (London: [Printed by William Griffith], 1563), 16. The *OED* entry for "refraction" cites Fulke's text as an early instance of the English use of the word.

⁵⁴ Thomas Hill, *A Contemplation of Mysteries* (London: By Henry Denham, 1574), 31.

the scientists at Salomon's House conduct visual experiments in "perspective houses" that include "all manner of reflexions, refractions, and multiplications of visual beams of objects." The perspective houses are well-stocked with precious gems, including crystals.⁵⁵

These examples show the richness of the word "refraction"'s etymology and early modern use. For our purposes, when we consider the later utility of crystals as prisms and perspectives for scientists like Bacon and Newton, the history of the word refraction opens up troubling questions about the accuracy of crystals. Far from being unpolluted and perfect scientific instruments, they were prone to distortion, mediation, and above all, breakage of their own. I am interested in how crystals could "break" intransitively (shatter or be polluted themselves) as well as in how crystals could in turn break open or break again other things. This section takes up these etymologically inspired interests in earnest.

Crystals are associated with breakage in poetry. An example is Spenser's *Amoretti* 9, in which the poet says that his lady's eyes cannot be fairly compared to a range of celestial and precious substances, as they are immeasurably greater than those substances: "nor to the Diamond: for they are more tender;/ nor unto Christall: for nought may them sever; nor unto glasse: such basenesse mought offend her." (10-12). The Yale editors of Spenser's poems identify the crystal in this sonnet as "probably rock-crystal, or quartz."⁵⁶ Crystals, in other words, can be severed. In Robert Greene's *Ciceronis amor, or Tullies Love*, Archias notes that those who have "searched into the deepest Aphorismes of *Anacreon*, or pried into the principles that *Ouid* sette downe in his volumes, find Loue to be such a pure passion of the mind, as like ye Christal, it admitteth no bruse without a cracke." The crack may mark the space that crystals allow for the

⁵⁵ Francis Bacon, *The Major Works*, Brian Vickers, ed., (Oxford: Oxford University Press, 2002), 484-485.

⁵⁶ Edmund Spenser, *The Yale Edition of the Shorter Poems of Edmund Spenser*, ed. William A. Oram (New Haven: Yale University Press, 1989), 606.

arrival of novelty even when reading old texts (Anacreon or Ovid). As Greene's *Frier Bacon and Frier Bungay* suggests, even magical crystals were not immune to breakage, as Robert Greene showed when he presented a crystal infused with "Nigromancie" as a "prospective glass," (1964) which is easily broken.⁵⁷ According to Deborah Harkness, "Most natural philosophers interested in the occult sciences during the early modern period, and specifically those interested in communicating with angels and spirits, tended to use crystal stones" instead of mirrors, which were favored by scryers and common magicians.⁵⁸ If even a privileged natural philosopher's chosen instrument was subject to breakage, how could anyone trust a baser model? In these passages, there is a sense that crystals look invulnerable but are, in fact, apt to shatter.

Part of the reason why crystals could break is that they could, in fact, be glass, as the Redcrosse Knight's comments about Panthea suggest. During the English Renaissance, refraction was a commonly noted behavior of both rock crystal and crystal glass. The most frequently mentioned function of crystal glass is reflection, not refraction as such. As Rayna Kalas writes, crystal glass was known to Renaissance writers as a source of mirrors. Kalas notes that "by 1570, crystal mirrors were being produced in Venice, Antwerp, and Rouen and imported by goldsmiths into England."⁵⁹ The clarity of crystal glass and its use in mirrors makes it an attractive candidate for many early modern references to crystals. Indeed, Spenser, for one, was aware of the difference between the two substances and sometimes qualified his mentions of crystal accordingly. For example, in *The Faerie Queene* Florimell's visage is described as being "as cleare as Christall stone" (3.1.15), while a river's waves "[glitter] like Christall glas" (4.11.27).

⁵⁷ Robert Greene, *The Life and Complete Works in Prose and Verse of Robert Greene*, ed. Alexander Balloch Grosart ([London and Aylesbury]: Printed for private circulation only, 1881), Vol. XIII, 91. All citations of Greene's work refer to this edition.

⁵⁸ Deborah E. Harkness, *John Dee's Conversations with Angels: Cabala, Alchemy, and the End of Nature* (Cambridge, U.K.: Cambridge University Press, 1999), 118.

⁵⁹ Rayna Kalas, *Frame, Glass, Verse: The Technology of Poetic Invention in the English Renaissance* (Ithaca: Cornell University Press, 2007), 108.

Spenser's *Amoretti* 45 implores a lady to "leave...in your glasse of christall clene,/ Your goodly selfe for evermore to vew." And yet, the beautiful image is susceptible to distortion: "And were it not that through your cruelty,/ With sorrow dimmed and deformed it were:/ The goodly ymage of your visnomy,/ Clearer then christall would therein appere." (9-12). The crystal mirror of this poem possesses retentive qualities, and yet its paradigmatic clarity is polluted by the lady who looks into it. This poem therefore shows that even reflective crystal glass could also refract its imagery. In his *Epithalamion*, Spenser entreats the nymphs of Mulla and those who "keepe the rushy lake" (60) to

Bynd up the locks which hang scatterd light,
 And in his waters which your mirror make,
 Behold your faces as the christall bright,
 That when you come whereas my love doth lie,
 No blemish she may spy. (62-66).

These passages show how Spenser knew that crystal glass was both superlatively clear and prone to breakage and distortion. The "christall bright" of the *Epithalamion's* river suggests the possibility that it would reflect any "blemish" within range. As suggested by the etymology of "refraction," I argue that some such blemishes could represent "breaks" and therefore open up a portal between mirrors and rock crystals.

Even more figurative blemishes could also stain and break crystals. In Shakespeare's *The Rape of Lucrece*, the title character embarks on a chain of images of female minds which moves from their "waxen" ability to absorb male impressions (1240) to the fact that, "like a goodly champaign plain" (1247), any fault is strikingly obvious. From this sinister vision of a beautiful landscape in which "little wormes" (1248) stand out, Lucrece moves to an idea of the feminine mind as a crystal palace: "In men, as in a rough-grown grove, remain/ Cave-keeping evils that

obscurely sleep. Through crystall walls each little mote will peep" (1249-1251).⁶⁰ I see a fascinating transition between seeing women's minds as wax and seeing them as crystals. These two analogies carry with them very different ideas about matter and its ability to give rise to form. The wax analogy famously calls up Aristotle's reference to the passivity of matter being akin to the impressibility of wax in *On the Soul*.⁶¹ Such an understanding of matter makes it very difficult to think about how it might disclose its own formal preferences. In contrast to this sense of wax, as I have demonstrated above, Pliny emphasizes that crystals could grow and develop their formal properties under the guidance of forces in the soil. Aristotle's *Meteorology*, too, is full of material variety, plastic exhalations, and, in the passage I quote above, functional form. The latter two texts, as different as they are, might allow Lucrece to modulate her assessment of feminine culpability in sin. For if women's minds are wax, they are not responsible, surely, for the masculine press of the signet ring (to use *On the Soul's* analogy for form). On the other hand, the "clear and pellucid" nature of crystals, if we adopt Newton's sense of them as mediums, could perhaps bear a greater responsibility for the motes that use those crystals to come into view. Finally, the key link in the transition between wax and crystals, significantly, is an earthy landscape full of worms. Here I see the soil growth of crystal contributing to its pollution and fallibility.

The association with crystal fallibility with femininity can also be found in Spenser's translation of Joachim Du Bellay's *Un Songe ou Vision* (*The Visions of Bellay*). This poem includes a crystal palace which, like Panthea, is excessively bright as well as ultimately breakable:

⁶⁰ William Shakespeare, *Lucrece* (London: Printed by Richard Field, for Iohn Harrison, 1594), 64.

⁶¹ Aristotle, *Complete Works*, Vol. 1, 674.

On high hills top I saw a stately frame,
 An hundred cubits high by just assize...
 Nor brick, nor marble was the wall in view,
 But shining Christall, which from top to base
 Out of her womb a thousand rayons threw...
 O worlds vainnesse. (15-26).

Spenser has preserved Du Bellay's mention of the "thousand rayons" ("mille rayz" in the original) but has translated the French "ventre" as "womb."⁶² Spenser's crystal "stately frame" is thus a place of generation rather than a mere conduit through which light passes unaltered. In his translation, Spenser shifts Du Bellay's crystal into an organic, feminine realm of growth and change. This glorious crystal structure is dismissed as "worlds vainnesse" and even collapses in an earthquake. The "shining Christall" in the passage quoted above is shortly succeeded by another vision, one of a "triumphall Arke" with "fryses christall." (45-46). A quality of Spenser and Du Bellay's "earthy" crystal building survives in its heavenly successor, as is the case with Panthea in *The Faerie Queene*, as I have shown above. The breakage and reconstitution of the "shining Christall" in *The Visions of Bellay* suggests that earthy materials might be breakable, but still be assimilable to the higher vision (either spiritual or scientific) that succeeds it.

Be they glass or rock, crystals, as I have argued above, are a popular object in the genre of romance. Indeed, crystal palaces were a stock figure in medieval romances, including some that Spenser and other early modern writers likely had read. M. Pauline Parker notes that "Spenser could hardly have read anything in romance and folk-lore without meeting such a structure. It was the proper thing to have."⁶³ One of the most widely recognized analogues for Spenser's Panthea, for example, in the romance tradition lies in the thirteenth century French

⁶² Joachim du Bellay, *The Regrets, with The Antiquities of Rome, Three Latin Elegies, and The Defense and Enrichment of the French Language*, ed. Richard Helgerson (Philadelphia: University of Pennsylvania Press, 2006), 281.

⁶³ Pauline Parker, *The Allegory of The Faerie Queene* (Oxford: Clarendon Press, 1960), 32.

romance *Huon de Bordeaux* (accessible to Spenser and other early modern readers in the 1534 translation by Lord Berners).⁶⁴ Rosemond Tuve notices that Spenser's Cleopolis in *The Faerie Queene* has clear affinities with Oberon's "otherworld" palace in *Huon*, including a crystal tower.⁶⁵ Berners' colorful translation of *Huon*, which Andrew King notes is "fairly faithful" to the French version, features crystals in many objects, including altars, domestic interiors, and the forecastle of a great ship.⁶⁶ The white castle of Adamant is so lustrous that "it semyd a far of to be of fyne christal, it was so clere shynynge," and yet it is filled with nothing but human bones.⁶⁷ These texts tend to emphasize the superlative clarity and brightness of crystals as well as their attractiveness as building materials and interior décor. The widespread availability in early modern England of the medieval romance tradition may therefore have deepened the period's knowledge of the beauty of crystals, but also of the fragility of that beauty. Like Lucrece's ideas about the crystalline feminine mind and Spenser and Du Bellay's crystalline womb, the more lustrous the crystal palace, the more susceptible it was to pollution and breakage.

The crystals I have discussed until this point in this section are, as we have seen, deeply unsuitable as scientific instruments, even as they are attractive as romance figures. But in the last example I discuss in this section, romance and science find an unlikely crystalline marriage, one which might just break open reality itself. This episode occurs in Guillaume de Lorris's portion of *Le roman de la rose*. In this French romance, two beautiful crystals (often viewed as eyes) that dwell at the bottom of the fountain of Narcissus. To give the Chaucerian translation of Guillaume

⁶⁴ Richard A McCabe, *The Pillars of Eternity: Time and Providence in The Faerie Queene* (Blackrock [Ireland]: Irish Academic Press, 1989), 97.

⁶⁵ Rosemond Tuve, *Essays by Rosemond Tuve: Spenser; Herbert; Milton* (Princeton [N.J.]: Princeton University Press, 1970), 44.

⁶⁶ Andrew King, *The Faerie Queene and Middle English Romance: The Matter of Just Memory* (Oxford: Clarendon, 2000), 99.

⁶⁷ John Bouchier Berners, *The Boke of Duke Huon of Burdeux, Done into English by Sir John Bouchier, Lord Berners, and Printed by Wynkyn de Worde about 1534 A.D.*, ed. Sidney Lee (London: Pub. for the Early English text society by N. Trübner & co., 1882), 369, <http://catalog.hathitrust.org/Record/002646577>.

de Lorris' French text, a marvelous phenomenon of refraction takes place when the sun shines on the crystals:

For whanne the sonne, cler in sighte,
 Cast in that well his bemys brighte,
 And that the heete descendid is,
 Thanne taketh the cristall stoon, ywis,
 Agayn the sonne an hundrid hewis,
 Blew yelow, and red, that fresh and newe is. (1574-1579).⁶⁸

I am interested in how this translation describes the temporality of the garden's light. The passage says that the crystals both "taketh...*Agayn* the sonne" into a hundred colors (suggesting refraction, rather than reflection), and yet the beautiful colors themselves are "fresh and new." Are the crystals bending light in hundreds of new paths? If so, what has become of the original bright beams that penetrated the surface of the pool? Furthermore, the crystals are able to reproduce the entire contents of the garden, not just the objects that might be conventionally in reflecting range:

Yii hath that merveilous cristall
 Such strengthe that the place overall,
 Bothe flour and tree and leves grene
 And all the yerd in it is seene...
 For ther is noon so litil thyng
 So hid, ne closid with shittynge,
 That it ne is sene, as though it were
 Peyntid in the cristall there. (1580-1660).

⁶⁸ Geoffrey Chaucer, *The Riverside Chaucer*, ed. Larry Dean Benson, 3rd ed. (Oxford: Oxford University Press, 2008), 703.

The crystals in the pool are capable of not only capturing the big landscape, but of penetrating the nature of closed small objects.⁶⁹ The behavior of these crystals thus anticipates the use of crystal in Renaissance magic, as well as the later scientific uses of crystals as "prospective glasses" and even as Newtonian prisms. In fact, these crystals may be said to surpass the finest prism or even the finest microscope, as they show the full contents of the "yard." When we consider that the yard in question includes a full train of allegorical figures as well as a romantic castle (which is explored in the continuation of the poem by Jean de Meun), we must marvel at what these crystals are capable of making visible. What would we say about a microscope that could open up every closed flower, make that flower visible alongside all of its counterparts, and incarnate disembodied allegorical forces in that same garden? The crystals in the fountain therefore more than suggest a formal intelligence nested in the heart of matter itself. As such, the crystals in this French romance show affinities with the regular gems of Pliny as well as the functional forms of Aristotle's *Meteorology*. They may also surpass the instruments of Newtonian optics in power and imaginative complexity.

Blake's *The Crystal Cabinet* and "Another England"

I conclude this chapter with a discussion of William Blake's poem *The Crystal Cabinet*, which shows how the pre-Newtonian muddy, breakable, and breaking crystal had a powerful afterlife. The poem is narrated from the perspective of a mysterious figure who has been "caught...in the Wild" (1) by a maiden and housed in a crystal cabinet of curiosities:

⁶⁹ Emmanuele Baumgartner points out that the fountain of Narcissus' crystals reflect "an ordered world, perceived in its entirety." "The Play of Temporalities; or, The Reported Dream of Guillaume de Lorris," in *Rethinking the Romance of the Rose: Text, Image, Reception*, Kevin Brownlee and Sylvia Huot, eds., (Philadelphia: University of Pennsylvania Press, 1992), 33.

This Cabinet is formed of Gold
 And Pearl & Crystal shining bright
 And within it opens into a World
 And a little lovely Moony Night

Another England there I saw
 Another London with its Tower
 Another Thames & other Hills
 And another pleasant Surry Bower (5-12).⁷⁰

This observer sees, like Lucrece, a landscape that is near (or encased in) crystal. Like the crystals in *Le roman de la rose*, the cabinet "opens into" this landscape, a whole world. The contents of the cabinet might be arranged in a diorama. But it is an oddly totalizing one. Despite the fact that Blake describes the night in the cabinet as being "little," the other locations are merely "another," not necessarily inferior or less complete than their originals in the "Wild." The reader of this poem is left with a sense that the England in this cabinet, even though it is not described, might tell us something interesting about the England outside the cabinet. Or perhaps the England in this cabinet might be a portal into the England of Blake's own intricate mythology, a place in which Albion himself might dwell. The inclusion of a "Surry Bower" fuses a real English place with the stuff of Spenserian romance, too. But the viewer of these marvels in the cabinet is not left to contemplate them in tranquility for long. The maiden who entrapped him has a counterpart (or a reflection) in the cabinet also:

Another Maiden like herself
 Translucent lovely shining clear
 Threefold each in the other cload
 O what a pleasant trembling fear

O what a smile a threefold Smile

⁷⁰ William Blake, *The Complete Poetry and Prose*, David V. Erdman, ed., (New York: Anchor Books, 1988), 488.

Filled me that like a flame I burned
 I bent to Kiss the lovely Maid
 And found a Threefold Kiss returned (13-20).

This passage is strangely disturbing to read. For which maiden did the speaker of the poem aim when he bent to bestow his kiss? Did he try to kiss one of the triplicate reflections of the maiden? The maiden herself is perhaps in the position of Lucrece after her assault. Or did he catch a glimpse of the maiden outside the cabinet herself and direct his attentions to her? The fact that this cabinet is made of "bright" crystal along with other precious materials raises the question of how "translucent" the cabinet itself is. As this chapter has shown, crystals can be fallible and breakable when they are used as containers or instruments. Blake's cabinet is no exception to this rule:

I strove to seize the inmost Form
 With ardor fierce & hands of flame
 But burst the Crystal Cabinet
 And like a Weeping Babe became

A weeping Babe upon the wild
 And Weeping Woman pale reclined
 And in the outward Air again
 I filled with woes the passing Wind. (21-28).

The sin of the speaker of the poem seems to have been that he broke the crystal by trying to "seize the inmost Form" thereby ensuring his own miserable return to the "outside" and "the wild." But when he was inside the cabinet, as I show above, the boundaries between inside and outside appeared much more fluid or even continuous. Functional form and mineralogical form, perhaps, eludes easy distinctions between form and matter, as I explored with reference to *Lucrece*. The speaker's breakage of the cabinet in Blake's poem has also, interestingly, made him return figuratively to infancy, as he becomes "like a Weeping Babe." An overhasty and unwise

engagement with a crystal cabinet has resulted in a manipulation of time and an exile to a landscape that is now hostile to him. The earthy roots and breakability of the crystals I have discussed in this chapter show that even the most progressive of scientific instruments might subject unwary users to the same fate.

In conclusion, this chapter has explored how appreciating the organic form and earthly affinities of crystals can affect how we assess their deployment in scientific contexts as well as Biblical ones. These crystals, while they may be muddy and breakable, still yield meaningful knowledge about the world. If we consider crystals as romantic organisms, an attribution that is in keeping with their literary genealogy in the romance genre as well as their romantic behavior, crystals give the lie to attempts to discard the knowledge gleaned from romance more generally.

Chapter 2: The Reception of Homer's Moly in Early Modern England

In Book 10 of Homer's *Odyssey*, Hermes gives the magical herb moly to Ulysses to help him resist the enchantments of Circe. The herb itself, apart from its virtue as an antidote to magic, has three remarkable traits. First, it possesses a white flower and a black root. Second, we are told that the gods themselves have named it "moly" in their own divine language. Third, moly grows in the earth, and yet it is very difficult to extract by anyone but the gods. Early modern readers were fascinated by this passage and in moly's strange attributes. In this chapter, I discuss moly's appearances in the works of many English authors, including Edmund Spenser, Christopher Marlowe, and John Milton. Part of moly's fascination for these writers lay in the possibility that the herb could be physically located and even used in the present day, making it a popular point of reference in not only poems, but also in works of natural philosophy. But such creative natural histories, which locate moly in a realistic, contemporary English setting, inadvertently reenact the plot of Homer's myth by transplanting the herb from its native environment to a new place. In doing so, they bear witness to the fact that moly, and perhaps all figures from myths, are hard to remove from their setting. Indeed, the power of the environment that nurtured a figure can last through time.

Indeed, by attempting to construct botanical histories that forge living links between their own present day and classical antiquity, early modern English writers, far from "uprooting" myth, reaffirm its strange power by repeating its basic gestures. By extracting moly from Homer and into their own gardens, these writers repeated the motions of Hermes himself. By assigning moly other names, the same writers recall the fact that moly is a name that derives from a mysterious language. And by paying attention to moly's white flower and black root, early

modern English instances of moly reception bear witness to a distinction-without-separation that bridges their own use of this "flower" of classical poetry and this flower's own attachment to its native soil. As I show throughout this chapter, this reception history is actually more indebted to Circe (the intended target of moly's counterenchantments) than is commonly supposed. The afterlife of Homer's moly shows how the black root of moly ramifies and elaborates itself into a witch's knot. I conclude this chapter with a discussion of John Milton's *A Masque Presented at Ludlow Castle (Comus)*, which offers the fullest development of the themes traced by the chapter as a whole while decisively transplanting moly from the realm of Homeric epic to the form of courtly romance. By telling this story, I offer an example of how literary history looks very different from the garden than it does from the library.

In order to understand the moly story in full as it would have appeared to early modern readers, we must first understand its meaning in Homer and in the antique authors who followed him. Even during the classical period, we can see that moly's reception is a curiously vital one. To turn first to the George Chapman translation of the *Odyssey*, Ulysses recounts a conversation with Hermes about the enchantress Circe in Book 10. Hermes warns Ulysses that Circe "will spice thy bread/With flowrie poysons." It is interesting that the bestial transformations that Circe visits upon Ulysses' companions have a floral source. It is appropriate, therefore, that their antidote also be a flower. Hermes reassures Ulysses that he will be protected: "yet vnaltered/ Shall thy firme forme be, for this remedy/ Stands most approu'd, gainst all her Sorcery." Moly therefore has a tried and true nature, a hidden experimental history that does not surface in the text of Homer's tale. (The question of how this herb's effects are known is one addressed more fully by Milton in *Comus*, as I discuss below.) Once Hermes has finished giving Ulysses a set of clear instructions as to how to behave to Circe, he gives him the flower:

This said, he gaue his Antidote to me
 Which from the earth he pluckt; and told me all
 The vertue of it: With what Deities call
 The name it beares. And *Moly* they impose
 For name to it. The roote is hard to loose
 From hold of earth, by mortals: but Gods powre
 Can all things do. Tis blacke, but beares a flowre
 As white as milke.⁷¹

Hermes, being a god, is able to extract moly from "the earth." Presumably, the earth in question was soil that Ulysses himself could see. In other words, the herb itself is earthly, but the *process* of extracting it is divine. (Chapman's translation's note that "Gods powre/ Can all things do" is in keeping with some readings of moly which linked it to rue, or "herb of grace.")⁷² Another divine element of the herb is, of course, its name. By telling Ulysses what the gods call the plant, Hermes opens a tantalizing window on a language not otherwise known. The divine action of extracting the plant is thus accompanied by an act of generous translation. Does knowing moly's true name inoculate Ulysses (and the *Odyssey's* reader) against Circe's charms? Jenny Clay explains that moly's difficulty of extraction, its divine name, and the privileged divine knowledge with which it is associated are linked: "The white flower is visible to all, but the black root can only be seen once the herb has been picked from the ground- an easy task for the gods, as Hermes has just demonstrated. Its *physis*, however, encompasses both flower and root and hence can be known only to the gods." In this Homeric passage, Clay reads *physis* as "visible form or appearance."⁷³

⁷¹ Homer, *Homer's Odysseys. Translated According to Ye Greeke by. Geo: Chapman* (London: By Rich. Field [and W. Jaggard], for Nathaniell Butter, 1615), 152–53.

⁷² Examples from the early modern period include Joshua Silvester's 1611 translation of Guillaume Du Bartas's work, which defines moly as "an herbe brought from heauen by Mercury to Vlysses, supposed to be our Rue, or herbe-grace." (Guillaume de Salluste Du Bartas, *Du Bartas His Deuine Weekes and Workes Translated: And Dedicated to the Kings Most Excellent Maiestie by Iosuah Syluester* (London: By Humfrey Lounes [and are to be sould by Arthur Iohnson at the signe of the white horse, neere the great north doore of Paules Church,] 1611).

⁷³ Jenny Clay, "The Planktai and Moly: Divine Naming and Knowing in Homer," *Hermes* Vol. 100, No. 2 (1972): 130. Dennis J. Schmidt links the millenia-long quest to find moly's real-life counterpart, a quest he terms "amusing,"

Even more mysterious is what exactly Ulysses does with the herb once he possesses it. Does he eat it? Or smear it over his eyes? Or merely have it with him? We know that he refrains from eating the "spiced" bread, but why is moly necessary if he does not ingest poison? There is a sense in the Homeric myth that, when it comes to fighting Circean magic, superfluity is the name of the game. Even though moly is a symmetrical antidote to the "flowrie poysons" Circe wants Ulysses to ingest, its ambiguous mode of application suggests that it may be efficacious against any enchantments that might be in the air. The account of moly's appearance makes it sound severe, monochrome, and very much like the kind of flower that would resist colorful trickery. I read the blackness of the flower's root as a reference to its environment of nurture. Even though the plant is being taken by Ulysses into Circe's palace, it bears the moldy signs of its place of breeding. Its white flower is thus linked to its own chromatic opposite and relies on that opposite for its nourishment and memory. Subsequent authors remembered these traits of moly as they embroidered the herb's meaning and embedded it into their own texts by means of the faculties that moly might be said to augment.

Early modern English readers do homage to the original story of moly by assigning it different names that corresponded to their own environment. Indeed, the textual history of Homer's *Odyssey*, thanks to George Chapman, contains a tantalizing hint that moly might be found in the real world, not just in the mythical one. On the same page as his translation of the moly passage in Homer's Book 10 (which I have quoted above), Chapman adds an interesting marginal note: "The herbe Moly with which Vlysses whole Narration, hath in chiefe an Allegorical exposition. Notwithstanding I say with our Spondanus, *Credo in hoc vasto mundi ambitu extare res innumeras mirandae facultatis. adeo, vt ne quide ista quae ad transformanda*

to the fact that we only know the plant's divine name and not its human one, which sets moly apart from other Homeric terms. "From the Moly Plant to the Gardens of Adonis," *Epoché*, Vol. 17, No. 2, (2013), 169.

corpora pertinet iure e mundo eximi possit, &c." Sarah van der Laan translates this quotation from Spondanus, which occurs in the latter's own Homeric commentary, as "I believe firmly that countless instances of strange powers exist in the vast compass of the world; I submit that not even this matter that pertains to the transformation of bodies can justly be excluded from the world."⁷⁴ Chapman therefore quotes Spondanus to support his argument that moly's usefulness to a contemporary reader should not be confined to the moral lessons and abstract concepts it may signify.⁷⁵ By leaving open the possibility that his own world was big enough to contain Circean transformation (and, by inference, its antidote), Chapman creates the impression that Homeric myth might infiltrate seventeenth-century England by means of the herb garden. I am also interested in the methodological implications of Chapman's note. A mode of reading Homer focused on allegorical exposition might be primarily interested in what moly means. But another way of reading might link moly to other plants, a capacious floral intertext that shows that the world is indeed big enough to foster both roses and mythical plants. As I will discuss below, a range of early modern readers of Homer showed an interest in linking moly to other plants, and the gradual, vegetable accretion of these examples may be an understudied mode of classical reception.

Homer's moly was mentioned in a natural history proper when Theophrastus wrote about it in his *Enquiry into plants*:

All-heal grows in great abundance and best in the rocky ground about Psophis, moly about Pheneos and on Mount Kyllene. They say that this plant is like the moly mentioned by Homer,

⁷⁴ Sarah Van der Laan, "Circean Transformation and the Poetics of Milton's Masque," *The Seventeenth Century; Durham* 31, no. 2 (2016): 144.

⁷⁵ There has been some dispute among Milton scholars as to whether Milton, as well as Chapman, had access to Spondanus' commentary on Homer, building on a claim made in Harris Fletcher, *Milton's Homer, The Journal of English and Germanic Philology*, Vol. 38, No. 2 (Apr. 1939), 229-232. See John B. Dillon and Gordon Teskey, "Milton's Homer," *PMLA*, Vol. 101 (1986), No. 5, 857-858.

that it has a round root like an onion and a leaf like squill, and that it is used against spells and magic arts, but that it is not, as Homer says, difficult to dig up." (9.15.6).⁷⁶

Theophrastus thus supplies supposedly real-life locations for moly as well as posits that its root is actually round. It is also interesting that Theophrastus does not believe that the root is difficult to extract. As moly is mentioned more and more often, does it loosen its hold in the soil? Perhaps its extraction becomes more difficult not because it requires divine strength, but because it requires magical cunning.

Such an idea would have been of interest to a reader of Pliny the Elder's *Natural History*.

In the Philemon Holland translation, *The Historie of the World* (25.4), we learn that:

Homer is of opinion, That the principall and soveraigne hearb of all othes, is Moly; so called (as hee thinketh) by the gods themselves. The invention or finding of this hearbe hee ascribeth unto *Mercurie*: and sheweth that it is singular against the mightiest witchcraft and enchauntments that bee. Some say, that this hearbe Moly, even according to *Homer's* description, with a round and black bulbous root to the bignesse of an onion, and with a leafe or blade like that of Squilla, groweth at this day about the river or lake Peneus and upon the mountaine Cylleum in Arcadia; also that it is hard to be digged out of the ground. The Grecian Simplists describe this Moly with a yellow flower, whereas *Homer* hath written, that it is white. I met with one Physician, a skillfull Herbarist, who affirmed unto me, That this Moly grew in Italie also: and in very truth he brought and shewed me a plant which came out of Campain, about the digging up whereof among hard and stonie rocks, he had been certaine daies: but get hee could not the entire root whole and sound, but was forced to breake it off, and yet the root which he shewed me was thirtie feet long.⁷⁷

Pliny's analysis of moly takes care to cite Homer's emphasis that the name "moly" is a vestige of an (inaccessible) god-like language. But after summarizing Homer faithfully, Pliny quickly begins to expand moly's meaning when he writes the sentence that begins "Some say..." (As is evident from the passage above, Pliny's moly suggests some familiarity with the account of

⁷⁶ Theophrastus, *Enquiry into Plants: And Minor Works on Odours and Weather Signs* (London: W. Heinemann, 1916), Vol. 2, 295.

⁷⁷ Pliny, *The Historie of the World: Commonly Called, the Naturall Historie of C. Plinius Secundus*, trans. Philemon Holland (London: Adam Islip, 1601), 213–14.

Theophrastus). Pliny thus takes a myth and endows it with even more superstition and magic, much as the simple black root of moly in Homer (which becomes a round bulb in Theophrastus) expands to more than thirty feet in length here. Pliny's encounter with someone who had actually seen moly in then present-day Italy makes moly seem more mythical and extravagant, not less. There is an excitement about this passage as Pliny writes that moly "groweth at this day," a living link with a lost world. Much like the exegetical labor of extracting flowers from old texts, Pliny's physician friend tells him that moly's extraction (from inhospitable, stony soil) is incomplete, difficult, and ongoing. But the vitality of a mythical vegetable is an encouragement to endure such labor.

If Theophrastus and Pliny amplify the root of moly, Ovid embroiders its flower. Ovid mentions moly in Book 14 of *Metamorphoses*. Macareus tells the story of Ulysses and Circe, including Hermes' gift of moly. Golding's translation renders the Book 14 passage as "The peaceprocurer *Mercurie* had giuen too him a whyght fayre flowre whose roote is black, and of the Goddes it Moly hyght."⁷⁸ The Sandys text translates these lines as "Peace-bearing *Hermes* gaue him a white flowre/ Call'd *Moly* by the Gods; of wondrous power / Sprung from a Sable root."⁷⁹ (Ovid's text reads in Latin: "*pacifer huic dederat florem Cyllenius album:/ moly vocant superi, nigra radice tenetur.*"⁸⁰ We may reflect that Ovid describes Hermes as Cyllenius, which suggests a link with one of the "real" places where Theophrastus and Pliny believe that moly is supposed to grow: Mount Cyllene in Arcadia. It is appropriate that Ovid uses this local name for Hermes when describing him in his guise as moly-giver). Ovid's greatest expansion on the

⁷⁸ Ovid, *Shakespeare's Ovid: Being Arthur Golding's Translation of the Metamorphoses*, [1st American ed.] (Carbondale: Southern Illinois University Press, 1961), 281.

⁷⁹ Ovid, *Ovid's Metamorphosis Englished, Mythologized, and Represented in Figures*, trans. George Sandys (Lincoln: University of Nebraska Press, 1970), 628.

⁸⁰ Ovid, *Metamorphoses*, vol. 2 (Cambridge, Mass.: Harvard University Press, 1977), 320.

Homeric moly myth comes earlier in Book 14. Circe is depicted in the process of sorting plants with four nymph companions. (The *Odyssey* describes these four handmaids, but they only appear as they present Ulysses with luxurious refreshments after he has overcome Circe). To give the Golding translation, which is itself lavish with knotty vegetable imagery throughout:

They sorted herbes, and picking out the flowers that were mixt,
 Did put them into mawnds, and with indifferent space betwixt
 Did lay the leaves and stalks on heapes according to theyr hew,
 And shee herself the woork of them did oversee and vew.
 The vertue and use of them right perfectly shee knew,
 And in what leaf it lay, and which in mixture would agree.
 And so perusing every herb by good advysement, shee
 Did wey them out.

Circe later slips some of the juices of these flowers into the beverages she gives to Ulysses' companions. In the scene as Ovid translates it above, Circe is an accomplished natural magician. As she and her attendants sort flowers into different heaps according to "theyr hew", we may wonder whether moly, which may be said to lack "hew", features at all in this magical array. Ovid's gloss and expansion of Homer expresses a (moly-inspired?) desire to resist commingling confusions of form (like the ones that Circe's potions cause) by showing Circe sorting herbs. But the fact that it is Circe herself who is organized and knowledgeable about the virtues of each plant (just as Hermes is in Homer) suggests that knowledge of plant virtue is more morally neutral than it might appear. In other words, in Homer, Circe's floral magic is associated with the loss of clear form. But in Ovid, she is permitted a scene in which it is shown that her magic, far from being promiscuously applied, is highly controlled, perhaps even rational in its use. The faculties that moly might be supposed to enhance (including reason) are therefore potentially

Circean, too. As I mention in my Introduction, the sorting and arrangement of flowers could be viewed as an expression of a formal romantic principle in other kinds of texts.

Renaissance commentaries on Ovid's *Metamorphoses* also were fascinated with the possibility that moly had present-day applications. In his dedication to the Earl of Leicester of his translation of *Metamorphoses*, Arthur Golding extracts moral lessons out of the fifteen books of the poem. In his lesson drawn from Book 14, Golding asks "what else is herbe Moly than the gift of stayednesse/ And temperance which dooth all fowle concupiscence repress?"⁸¹ George Sandys' commentary on Book 14 of his translation of *Metamorphoses* is an even fuller and richer history of moly that encompasses not only Homer and Ovid's text, but also a broader natural history of the herb:

Circe naturally signifying the circumvolution of the Sun, whose heat and director beames do quicken whatsoever is vegetive; and therefore aptly seated in this place, producing such a number of Plants and hearbs of different vertue...But she could not prevaile over the person of *Ulisses*, secured by the hearb Moly, which was given him by *Mercury* (a more cunning Magician, and inuenter of that art) who forced her to restore their former shapes to his servants. For as the earth produceth malignant simples, so doth it Antidotes to resist their virulency...especially this Moly, which growes most naturally in *Aegypt*, and was lately brought from thence into Italy by one *Guillandinus* a Phisitian of *Padoa*; as reported by Earle *Bothwell*, unto whom he show'd it, which is not to be extirped by man; in that deadly, as they say, unto those who attempt it; or rather in the roote thereof, according to *Pliny*, is thirty foot long. [Sandys then quotes a Latin translation of moly's appearance in Book 10 of the *Odyssey*.] As there are remedies in nature against naturall evils; so are there charmes against the malice of charmes: one which undoing what another hath done (whom they commonly call wise-women) as here *Circe* her selfe disinchants the Mates of *Ulisses*.⁸²

Sandys' commentary turns Ovid's story into a colorful piece of natural history that extends to his own present day. Sandys also shows how Circe herself is allegorically linked with plants (as well as by birth, as she is traditionally the daughter of Apollo in his sun-like guise). Therefore, to

⁸¹ Ovid, *Shakespeare's Ovid*, 6.

⁸² Ovid, *Ovid's Metamorphosis Englished, Mythologized, and Represented in Figures*, 652–53.

engage in vegetable magic of any sort - even to use herbs for disenchantment - is to play on Circe's turf. Sandys, for his part, seamlessly draws moly from its supposed place of origin in Egypt to Italy (and perhaps to the place in which Pliny observed it). Sandys is going beyond Ovid's moly to stir up and quote other antique sources for the herb, including Pliny and Homer, therefore showing an urge to supply its history. This account ends with a startling report of a then-contemporary, the Earl Bothwell, who had supposedly seen the herb himself thanks to a mysterious Paduan physician. From the depths of classical antiquity to the supposedly authoritative eyewitness account from a British source, Sandys has shown how a living herb can travel across countries and across time.

It is also important to note that Sandys' thoughts on moly show a clear knowledge of Natale Conti's account of the herb in his widely read *Mythologiae*. Conti, who is also relying on Book 14 of *Metamorphoses*, identifies moly in a list of poison antidotes that, like Sandys' list, includes jasper (as well as "starfish of the sea, jasper stone, buckthorn, willow, *pulicaria* [fleabane].")⁸³ Conti, like Sandys, is interested in the Ovidian passage in which Circe gathers herbs with her four maidens, and both commentators identify the maidens with the four elements.⁸⁴ Conti, however, also amplifies the story of moly to give its pre-Ulysses history. He does so by arguing that Circe is in fact the daughter of Hecate (who is sometimes called Perseis by other authors) and that Hecate herself grew moly. As such, Conti shows why the herb might have been "approv'd" by the time that Hermes gave it to Ulysses. After quoting an account of Hecate's rites by Apollonius of Rhodes, Conti writes:

Immediately after those sacrifices had been properly enacted, some visions would appear (they called them 'Hecatean') which kept changing themselves into different shapes. Moly (some

⁸³ Natale Conti, *Natale Conti's Mythologiae*, vol. 2 (Tempe, Ariz.: ACMRS, 2006), 473.

⁸⁴ Conti, *Mythologiae*, 2:474.

identified it with the herb rue), laurel, psyllium, buckthorn, willow tree, starfish, and jasper were supposed to be impervious to magic...⁸⁵

In other words, Hecate herself may have planted moly in its earthly bed. Conti's influential text therefore taught the Renaissance that the sovereign effects of moly, supposedly rational and prudent, stem from its original place of nurture in a witch's garden. It is no wonder that Sandys stresses that Hermes is a magician too, only a more powerful one than Circe, one who also uses "charms" to achieve his effects. Once more, Hecate seems to reign supreme, and the process of extracting moly in the Renaissance Ovid might owe more to earthly witchcraft than to Olympian feats of strength, as in Homer.

Early modern readers in England did not have to rely only on ancient poems or commentaries for knowledge of moly. Indeed, several contemporary herbals also mentioned moly, most notably that of John Gerard. Gerard devotes a chapter of his herbal to moly, to which he gives the epithet of "the Sorcerers Garlick." Gerard writes at great length about the herb, then remarks sardonically: "If any be desirous to heare of their charming qualities, wherewith the Circes and magicians haue vsed to bring to passe their diabolicall incantations, let them read Homer touching that matter in the twentie chapter of his *Odysses*, and there shall they finde matter scarce woorth the reading."⁸⁶ Gerard thus describes (and provides an illustration of) "Homer's Moly" and sends the reader to the *Odysey* should he wish to learn more about the plant's magical virtues, although he predicts that the exercise will be fruitless. Leah Knight, whose *Of Books and Botany in Early Modern England* provides the fullest modern treatment of Gerard's herbal, observes of the passage I quote above that Gerard "cannot resist directing his

⁸⁵ Natale Conti, *Natale Conti's Mythologiae*, vol. 1 (Tempe, Ariz.: ACMRS, 2006), 202.

⁸⁶ John Gerard, *The Herball or Generall Historie of Plantes. Gathered by Iohn Gerarde of London Master in Chirurgerie* (Imprinted at London: by [Edm. Bollifant for [Bonham Norton and] Iohn Norton, 1597), 143–45.

reader" to Homer's description of moly, poetic and fanciful as it might be, "with a remarkably precise reference."⁸⁷ Even a skeptical reader of moly like Gerard, therefore, might be tempted to repeat the geature of the moly myth by giving the otherworldly herb a local habitation (in this case, a literal place in a book).

I have quoted these instances of the reception of ancient references to moly at such length in order to show how moly's flower and root continued to expand the texts that nurtured the herb grew themselfe in longevity and authority. Other appearances of moly in early modern English literature show a similar inclination to invent glorious genealogies for the herb. For example, Christopher Marlowe's thirty-sixth Ovidian elegy invokes moly in order to provide classical precedent for the delights of tobacco:

Homer of Moly, and Nepenthe sings,
 Moly the Gods most soueraigne hearbe diuine.
 Nepenthe Helens drinke with gladnes brings,
 harts grieve expells, & doth the wits refine.
 but this our age an other worlde hath founde,
 from whence an hearb of heauenly power is brought,
 Moly is not so soueraigne for a wounde,
 nor hath Nepenthe so great wonders wrought.⁸⁸

As in Pliny, moly appears to possess a "sovereign" power, this time a purely medicinal one. If one were to read Marlowe's elegy and then reread *The Odyssey*, one might be newly interested in whether Ulysses is more "wound[ed]" by Circe's charms than the poem initially indicates.

Marlowe suggests that moly is the best herb available to the gods themselves, thus stressing the value of Hermes giving it to a mortal. But in the middle of this passage, the classical herbs moly

⁸⁷ Leah Knight, *Of Books and Botany in Early Modern England: Sixteenth-Century Plants and Print Culture* (Farnham, England: Ashgate, 2009), 104.

⁸⁸ Sir John Davies and Christopher Marlowe, *Epigrammes and Elegies by I.D. and C.M.* (Middleborough, 1599).

and nepenthe are compared to a real and readily available plant, one found in "an other worlde." This herb, too, has a "heavenly power." In Marlowe's poem, tobacco can be productively likened to Homer's herbs not only in its pleasing and medicinal effects, but also in its having been brought from a faraway place. This elegy therefore treats Homeric antiquity as another world comparable to that of the Americas, a world that can be reached by means of virtuous plants. If tobacco can claim moly as a poetic and vegetable ancestor, enjoying it can perhaps mean that smoking is a portal into classical myth.

Like Marlowe, Edmund Spenser embeds moly in a catalogue of real-life vegetables in *Amoretti* 26. Interestingly, the sonnet flirts with both modes of floral reading that I mentioned with respect to Chapman's note from Spondanus above: allegorical exposition and significant accretion. The sonnet lists a number of "sweet" plants (roses, junipers, eglantine, furbloom, cypress, nuts, and broom-flowers) that have surprisingly unpleasant attributes. The list concludes with a mythical turn: "sweet is Moly, but his root is ill."⁸⁹ The moral lesson in the last quatrain and concluding couplet show that moly was an apposite choice to summarize the English flora preceding it, as they emphasize that moly is difficult to extract but is worth the effort:

So euey sweet with soure is tempred still,
 that maketh it be coueted the more:
 for easie things that may be got at will,
 most sorts of men doe set but little store.
 Why then should I accoumpt of little paine,
 that endless pleasure shall vnto me gaine.

These lines show that the root of moly, "ill" as it may be, is dwarfed by the value of its flower.

Spenser's reworking of moly shows that the white flower is all the more valuable because its root

⁸⁹ Edmund Spenser, *Amoretti and Epithalamion* (London: Printed [by P. S[hort]] for William Ponsonby, 1595).

is difficult to extract from the earth. The "little paine" caused by trying to dig out moly only amplifies the "endlesse pleasure" to be had as a reward. The "sour" elements of moly and other plants may thus be inferior in power to their "sweet" counterparts. If we think of moly as an antidote to Circe's "flowrie poysons," we may wonder whether its sweet and sour components contribute in like numbers to Ulysses' rational strength. Does Ulysses ingest both root and bloom? *Amoretti* 26 prompts this question by drawing its reader's attention to the mutually reinforcing quality of both aspects of moly.

Such a notion was a commonplace in Spenser's era. For example, as Syrithe Pugh points out, Gabriel Harvey mentions moly in one of his letters to Spenser in a context that shows that "[t]he essential kit for a young traveller is Homer's moly, allegorized as god-given reason, to protect him being corrupted by foreign vice." Pugh then cites Roger Ascham's *The scholemaster* as one of the sources of this popular association of moly.⁹⁰ Ascham's text itself describes moly as "sower at the first, but sweete in the end: which, Hesiodus termeth the study of vertue, hard and irksome in the beginnyng, but in the end, easie and pleasant."⁹¹ Timothy Kendall's collection of epigrams quotes Ascham as saying of moly: "No mortall man, with sweat of brow, or toile of minde:/ But only God, who can do al, that herbe doeth finde."⁹² These moralistic encouragements of hard work seem very different from the spirit of Spenser's sonnet, in which effort matters but the pleasant reward is extravagantly emphasized. John Lyly's ideas about moly are perhaps more likely candidates for Spenser's sources. *Euphues* notes that "as the hearbe *Moly* hath a floure as

⁹⁰ Syrithe Pugh, *Spenser and Ovid* (Aldershot, Hants, England: Ashgate, 2005), 99–100.

⁹¹ Roger Ascham, *The Scholemaster or Plaine and Perfite Way of Teachyng Children, to Vnderstand, Write, and Speake, the Latin Tong but Specially Purposed for the Priuate Brynging vp of Youth in Ientlemen and Noble Mens Houses, and Commodious Also for All Such, as Haue Forgot the Latin Tonge* (London: Printed by Iohn Daye, dwelling ouer Aldersgate, 1570), 25.

⁹² Timothy Kendall, *Flowers of Epigrammes, out of Sundrie the Moste Singular Authours Selected, as Well Auncient as Late Writers. Pleasant and Profitable to the Expert Readers of Quicke Capacitie* (London: [By John Kingston] in Poules Church-yard, at the signe of the Brasen Serpent, by Ihon Shepperd, 1577).

white as snow, and a roote as black as inck, so age hath a white head shewing pietie, but a blacke heart swellyng with mischief."⁹³ In Lyly's *Gallathea*, Diana tells Lurissa that she "should thinke loue like Homers Moly, a white leafe & a blacke roote, a faire shewe, and a bitter taste." (3.4.)⁹⁴ This floral intertext shows that moly's twofold appearance and unified substance made it a useful allegory for traits that were seemingly opposite, yet always to be found in the same place. But as Spenser's poem suggests, this seeming harmony is not always lasting. As in Pliny and Ovid, the root and the flower of moly vie for critical amplification. The choice of which receives more attention reveals as much about the inspired poet as it does about the original myth. And when moly is included in a list of other plants, it redirects the critic's attention to what those same plants share and do not share, rather than which ones are real and which ones are mythical.

Natural histories that aimed at studying and uprooting superstition and magic present additional material on moly that inadvertently reaffirms its power. These natural histories, like those of Pliny, link moly with real herbs. For example, Reginald Scot's *Discovery of witchcraft*, in his section on charms that can identify witches, gives some alternatives for moly's place in the encounter between Ulysses and Circes: "Apuleius saith, that Mercury gave to Ulysses, when he came neer to the inchantresse Ciree, an herb called Verbascum, which in English is called Mullein, or Tapsus barbatus, or Longwoort; and that preserved him from the inchantments. Otherwise. Item Pliny and Homer both do say, that the herb call'd Moly is an excellent herb against inchantments, and say all, that thereby Ulysses escapes Circes her sorceries, and

⁹³ John Lyly, *Euphues and His England Containing His Voyage and His Aduentures, Myxed with Sundrie Pretie Discourses of Honest Loue, the Discription of the Countrey, the Court, and the Manners of That Isle. Delightful to Be Read, and Nothing Hurtfull to Be Regarded: Wherein There Is Small Offence by Lightnesse Giuen to the Wise, and Lesse Occasion of Looseness Proffered to the Wanton*. (London: [By T. East] for Gabriell Cawood, dwelling in Paules Church-yard, 1580), 4.

⁹⁴ John Lyly, *Gallathea As It Was Playde before the Queenes Maiestie at Greene-Wiche, on Newyeeres Day at Night. By the Chyldren of Paules* (London: At London : Printed by Iohn Charlwoode for the widdow Broome, 1592).

inchantments."⁹⁵ (In his romance *Endimion and Phoebe*, Michael Drayton mentions a catalogue of flowers that includes "[t]he Moly, which from sorcery doth defend."⁹⁶) Sir Thomas Browne's *Pseudodoxia epidemica* contains entries on moly. Browne also quotes Homer on moly's difficult extraction. Browne also writes of antidotes: "although unto every poyson men have delivered many Antidotes, and in every one is promised an equality unto its adversary; yet doe wee often finde they faile in their effects: Moly will not resist a weaker cup than that of Circe..."⁹⁷ It is intriguing to consider what moly would do if it were faced with weaker enchantments than those of Circe. Would it overbalance itself and result in a too-severe disenchantment? While other early modern writers felt that moly was inherently medicinal, the possibility that it could be pernicious if not used in moderation raises important questions about whether Golding was right to align the herb as a whole with temperance in his Ovidian commentary.⁹⁸

Even as moly expanded its realm of reference in the texts I have discussed above, there were signs that it was starting to lose its currency. In an English translation of Francesco

⁹⁵ Reginald Scot, *Scot's Discovery of Witchcraft Proving the Common Opinions of Witches Contracting with Divels, Spirits, or Familiars ... to Be but Imaginary, Erronious Conceptions and Novelities : Wherein Also, the Lewde Unchristian* (London: Printed by R.C. and are to be sold by Giles Calvert, 1651), 192.

⁹⁶ Michael Drayton, *Endimion and Phoebe Ideas Latmus. Phoebus Erit Nostra Princeps et Carminis Author*. (London: Printed by Iames Roberts, for Iohn Busbie, 1595).

⁹⁷ Sir Thomas Browne, *Pseudodoxia Epidemica, or, Enquiries into Very Many Received Tenents and Commonly Presumed Truths* (London: Printed by T.H. for E. Dod, 1646), 378.

⁹⁸ Thomas Lodge, for example, was interested in moly's medicinal properties. Lodge writes in *Scillaes metamorphosis* (1589) that Themis, in order to cure her son's malady, "[o]n hillie toppes the wonderous Moly found,/ Which dipt in balmie deaw she gan to straine,/ And brought her present to recure his wound." (Thomas Lodge, *Scillaes Metamorphosis: Enterlaced with the Vnfortunate Loue of Glaucus Whereunto Is Annexed the Delectable Discourse of the Discontented Satyre: With Sundrie Other Most Absolute Poems and Sonnets. Contayning the Detestable Tyrannie of Disdaine, and Comicall Triumph of Constancie: Verie Fit for Young Courtiers to Peruse, and Coy Dames to Remember*. (London: By Richard Ihones, and are to be sold at his shop neere Holburne bridge, at the signe of the Rose and Crowne, 1589).) In Lodge's *The complaint of Elstred* (1593), the speaker says of Locrinus that "Each kisse I lent him, breathed Indian balme/ To cure his woundes, to breake affections cheines/ He had Loues Moly growing on my pappes,/ To charme a hell of sorrow and mishappes." (Thomas Lodge, *Phyllis: Honoured Vvith Pastorall Sonnets, Elegies, and Amorous Delights VVhere-Vnto Is Annexed, the Tragical Complaynt of Elstred* (London: Printed [by James Roberts] for Iohn Busbie, and are to be sold at his shoppe, at the west-doore of Paules, 1593).) In a similar vein, Thomas Heywood's poem *Troia Britanica* (1609) asks "Who taught the poore beast hauing poison tasted/ To seeke th' hearbe Cancer, and by that to cure him?...*Achilles* [found] Yarrow, and great *Hermes*, Moly." (Thomas Heywood, *Troia Britanica: Or, Great Britaines Troy A Poem Deuided into XVII. Seuerall Cantons, Intermixed with Many Pleasant Poeticall Tales. Concluding with an Vniuersall Chronicle from the Creation, Vntill These Present Times*. (London: Printed by W. Iaggard, 1609), 81.)

Colonna's *Hypnerotomachia*, or *The Strife of loue in a dreame*, the hero longs to "finde the *Mercurial Moli* with his blacke roote, for my helpe and remedie." In the margin of the text is a note indicating the flower's meaning: "Moly, an herb greatly commended of Homer, and thought to be soueraigne against inchauntments of modern authors altogether vnknowne."⁹⁹ This last part of the marginal note (and perhaps a mental insertion of an implied comma before "of modern authors") suggests that moly, sovereign in antiquity, is tending toward obsolescence at its ages. Moly was rescued from this neglect, to the extent that it existed, by John Milton's beautiful *Comus*. I conclude this chapter with a reading of Milton's chaste masque, a romantic setting in which moly itself loses its name and subsumes itself in a new flower. Milton refers to moly in the lineage of his own newly invented herb haemony in his masque.¹⁰⁰ The Attendant Spirit speaks of a shepherd lad who had given him a magical herb that might defend the brothers against the enchantments of *Comus* as they go to rescue their sister. I will discuss this passage in full. But in order to understand it, we must first appreciate how the broader poetics of *Comus* evoke the themes of the moly myth that we have traced above, including a pervasive interest in locality, a strangely attractive root, and a Circean lineage.

First, for a courtly masque, *Comus* is unusually earthy. Like moly itself, it has a strong black root that belies the lustrous blooms of its masque machinery. The Attendant Spirit begins the masque by lamenting that he has been compelled to visit "this dim spot/ Which men call

⁹⁹ Francesco Colonna, *Hypnerotomachia*. = *The Strife of Loue in a Dreame* (London: Printed [by Abell Jeffes, John Charlewood, and Eliot's Court Press] for Simon Waterson, 1592), 8.

¹⁰⁰ Milton also mentions moly in his *Elegy 1* for Charles Diodati: "But I, while the indulgence of the blind boy permits, am preparing to leave these happy walls as soon as possible, and to leave far behind the infamous halls of faithless Circe, using the aid of divine moly [*Ast ego, dum pueri sinit indulgentia caeci, / Moenia quam subito linquere fausta paaro; Et vitare procul malefidae infamia Circes / Atria, divini Molyvos usus ope.*]" (John Milton, *The Complete Poetry and Essential Prose of John Milton*, ed. William Kerrigan, John Peter Rumrich, and Stephen M. Fallon, Modern Library ed., 1st ed. (New York: Modern Library, 2007), 175.) For a discussion of this passage in Milton's elegy, see Brendan Prawdzik, "'Look on Me': Theater, Gender, and Poetic and Identity Formation on Milton's Maske," *Studies in Philology*, Vol. 110, No. 4 (2013), 825.

earth" (5-6).¹⁰¹ The Spirit then announces that it is only the worthiness of his errand that has enticed him to "soil these pure ambrosial weeds/ With the rank vapors of this sin-worn mold." (16-17). The prospect that a pure spirit could be contaminated by contact with earthly aspects is intriguing, as it suggests that the world of *Comus* has deities who can also be physically propitiated and nourished. Indeed, the semi-divine villain of the piece, the enchanter Comus, even shows a propensity to have sex with mortals, thus indicating that there is no Faustian prohibition against touching beings from other realms. The woods in which the masque unfolds are full of knotty branches, low huts, "rushy-fring'd banks," and intertwined branches. The masque also takes place in the realm of Circean magic, as Milton describes Comus as the son of Circe and Bacchus. Comus has wandered far, "[r]oving the Celtic and Iberian fields," and has at last wound up in the precincts of Ludlow Castle itself (60-61). Like the line of Trojan kings in Geoffrey of Monmouth and the fallen angels in *Paradise Lost*, Comus has entered historical Britain from classical antiquity without missing a step. But the wood he has entered is a Spenserian place of error, even of romance. We may wonder what happens to epic figures when they are uprooted from their place of nurture and redeployed in a folkloric setting. Milton's sense of haemony, as will be shown below, indicates his awareness of the herb's entire literary history, from Homer through Pliny to Ovid and Renaissance commentaries. His romantic deployment of moly, in its sensitivity to the herb's literary transmission, suggests how allegorical exposition and floral accretion can be productively combined.

Comus falls in love with the Lady as he listens to her song (which is about flowers), he asks: "Can any mortal mixture of earth's mold/ Breathe such divine enchanting ravishment?" (244-245). In what is by no means the only proof that Milton was remembering Ovid's Circe in

¹⁰¹ Milton, *The Complete Poetry and Essential Prose*, 65. All references to *Comus* follow this edition.

this masque, the Lady's song is compared favorably to the one sung by Comus' mother as she was gathering herbs:

My mother Circe with the Sirens three,
 Amidst the flow'ry kirtled Naiades
 Culling their potent herbs and baleful drugs,
 Who as they sung, would take the prisoned soul,
 And lap it in Elysium...
 Yet they in pleasing slumber lulled the sense,
 And in sweet madness robbed it of itself,
 But such a sacred and home-felt delight,
 Such sober certainty of waking bliss
 I never heard till now. (253-264).

Circean enchantments by song were either soporific or deranging (with the added assistance of the Sirens).¹⁰² Milton's reworking of Ovid may tell us something about why and how moly was efficacious for Ulysses. Did it help him resist not only the form-stripping drugs in his food and drink (which he did not consume), but also the songs in the air? In a masque that is filled with seductive music and beautiful atmospheres, haemony, when it appears, may fortify the nerves by presenting its own rival poetic aura in miniature. Just as the Lady's flower song is more efficacious than that of Circe, haemony will prove to be more powerful than its own Circean antecedent. John Guillory writes that haemony "functions *against* illusion-making power. The relationship of haemony to moly suggests Milton's revisionary stance toward his classical sources; his acceptance of archaizing plot devices such as magical flowers is by no means easy. Moly defends against the Circe that *is* classical literature, and haemony is turned against the power of a more immediate voice."¹⁰³

¹⁰² Mandy Green has noted the intriguing connections between Ovid's Circe and Milton's Eve before the Fall in *Milton's Ovidian Eve*, Farnham, England; Burlington, VT: Ashgate Pub. Company, 2009, 173.

¹⁰³ John Guillory, *Poetic Authority: Spenser, Milton, and Literary History* (New York: Columbia University Press, 1983), 78–79.

The Attendant Spirit, as described above, fortifies the Lady's brothers to enter "the necromancer's hall" to rescue their sister. Cedric Brown notes that in receiving haemony the Lady's brothers are given "a means of knowing, which exposes and renders ineffective the pernicious deceptions of evil."¹⁰⁴ The Attendant Spirit presents the brothers with this gift in the form of the following herb, which he himself received from a shepherd lad:

...a small unsightly root
 But of divine effect, he culled me out;
 The leaf was darkish, and had prickles on it
 But in another country, as he said,
 Bore a bright golden flower, but not in this soil (629-634)

This herb seems to have exchanged root for flower. Its leaf resembles moly's black root, and its prickles suggest that there is more to it than might meet the eye, much like the woods of the masque in general always threaten to turn into a chamber in a castle. It is interesting to consider that what is "divine" about this herb is not its process of extraction (the country lad has pulled it out of his "leathern scrip", which bears "simples of a thousand names"), but its medicinal qualities. The divine realm, much like the Attendant Spirit itself, is within reach and may even be alterable by earthly actions. The bright golden flower that the herb is capable of bearing (perhaps a suggestion that Milton was thinking of Pliny rejecting the "Grecian simplists" who thought that moly's flower was yellow) is rendered impossible by its nurture in an inhospitable soil. The question of which country might be capable of coaxing it into golden blossom is an open one. As in Marlowe's elegy, might haemony's other country be the New World, rather than a divine realm

¹⁰⁴ Cedric C Brown, *John Milton's Aristocratic Entertainments* (Cambridge [Cambridgeshire]: Cambridge University Press, 1985), 104.

or a distant place in time? As the passage continues, we learn more about this herb and see startling affinities with moly:

Unknown, and like esteem'd, and the dull swain
Treads on it daily with his clouted shoon,
And yet more med'cinal is it then that Moly
That Hermes once to wise Ulysses gave;
He called it Haemony, and gave it me,
And bade me keep it as of sov'reign use
'Gainst all enchantments, mildew blast, or damp
Or ghastly Furies' apparition (634-641)

The etymology of the word "haemony" itself has spawned theories citing different linguistic strains, including Greek and Hebrew.¹⁰⁵ The first part of this passage may remind us of the note about moly in the margins of the English translation of Colonna's *Hynerotomachia* that I cited above. Haemony, perhaps like some forgotten yet still vital aspects of classical antiquity, is little regarded. Blaine Greteman notes that the herb, "despite its endlessly disputed meaning, certainly offers an antidote to Circean enchantments through the transfer of knowledge, just like Ascham's description of education-as-moly." Greteman concedes, however, that haemony does not work as universally as the Attendant Spirit promises in the closing two lines of the speech quoted above.¹⁰⁶ The fact that haemony is of "sov'reign use" suggests, once more, its affinities with Pliny's moly. When moly finally appears by name, it is as an inferior herb, less "med'cinal" than haemony. But haemony's own effects are so similar to those of moly (and so reliant on moly's literary history) that the moly myth retains its power over this passage. The name haemony is of

¹⁰⁵ Among other detailed studies of the etymology of "haemony," including as an ancient alternative name for Thessaly, a notoriously witch-haunted location, see John M. Steadman, "Milton's Haemony: Etymology and Allegory," *PMLA*, Vol. 77, No. 3 (Jun. 1962), 200-207 and Sacvan Bercovitch, "Milton's 'Haemony': Knowledge and Belief," *Huntingdon Library Quarterly*, Vol. 33, No. 4, (Aug. 1970), 351-359.

¹⁰⁶ Blaine Greteman, "'Perplex't Paths': Youth and Authority in Milton's Mask," *Renaissance Quarterly*; Chicago 62, no. 2 (Summer 2009): 438.

Milton's own invention, and by "imposing" a special name on his creation, he is doing what Hermes did to moly in Homer. The final part of this passage suggests even more links with the Homeric myth:

I purs't it up, but little reck'ning made,
 Till now that this extremity compell'd,
 But now I find it true; for by this means
 I knew the foul enchanter though disguis'd
 Enter'd the very lime-twigs of his spells,
 And yet came off: if you have this about you
 (As I will give you when we go) you may
 Boldly assault the necromancers hall. (642-649).

The temporality of the Attendant Spirit's experience of haemony is important. After being given the herb, he does not reckon it, but "now" he finds it true. The question of how Hermes knew that moly would work when he gave it to Ulysses resurfaces here. We are supposed to believe that merely carrying haemony in this masque enables the Spirit to see through disguises and enchantments, to enter the "lime-twigs" of a pretended wood and see that he is in fact in a castle. The lime-twigs themselves may be sticky because they bear the traces of the floral sources that Milton used to make his own herb seem new. Like the invented Hecate pre-history and the suggestion that Circe herself may have grown moly, haemony has apparently been proven before the masque spectators' own eyes - an illusion worthy of Circe's son himself. But as was the case with its moly predecessor, haemony's efficacy may be borrowed from the place it intends to "boldly assault." Instead of being a beacon of reason, haemony's own history, as shown by its embodiment of moly's signal traits, points us to different and darker points of nurture.

The reading of haemony that, in my opinion, is truest to the moly lineage that I have traced in this chapter is that of Charlotte F. Otten, who, while not disavowing classical and

allegorical readings of the herb, thinks it very likely that haemony had a real-life counterpart in Milton's England. Otten writes: "For Milton to have invented a plant in an age when botanic enthusiasm was matched by the availability of numerous herbals is unlikely." After an exhaustive exploration of seventeenth century evidence, Otten finally identifies Milton's herb with "*andros-haemon*[y]", which she describes as "a plant whose botanical features, stamped with the signature of the sun, enabled it to quell the forces of darkness...the most potent plant available, a plant that anyone in his day would have used."¹⁰⁷ Heather Dubrow considers the relationship of the haemony dispensing to the pastoral genre as such: "Comus also recuperates pastoral by associating both the natural world and the genre in question with cure no less than disease: haemony may be more beautiful in another country, but it is accessible even in this one, and the pharmacist in question is, tellingly, a shepherd who dispenses many other healing herbs as well."¹⁰⁸ I like Otten and Dubrow's large claims for the significance of haemony, as they are historically sensitive and attuned to the genre-based implications of haemony's operations. The work of pastoral and the work of the masque could both be viewed as offshoots of the work of the genre of romance, broadly defined. In the case of *Comus* in particular, the ability of haemony to bring classical Greece to the full courtly view of the assembled company at Ludlow Castle is also a fulfillment of the formal principle of romance that I trace throughout this dissertation. This formal principle makes organic phenomena blossom in such a way that is accessible to the "vulgar understanding" but that also makes literary and cultural history legible and attractive. Haemony, by taking moly and redoubling its local power, bears witness to the power of this process.

¹⁰⁷ Charlotte F. Otten, "Milton's Haemony," *English Literary Renaissance* Vol. 5, No. 1, 1975. 82–83, 95.

¹⁰⁸ Heather Dubrow, "The Masquing of Genre in *Comus*," *Milton Studies*, no. 44 (2005): 62–83.

In conclusion, this chapter narrates and compiles appearances of moly, and in so doing shows that the herb's literary history bears a resemblance to the rudiments of its own myth. The white-and-black appearance of moly, its difficulty of extraction, and its godly name, as I have demonstrated, are three earthy vegetable traits that do not always lend themselves to a single, clear moral. Herbal lists and the accretion of examples are themselves a worthwhile critical method of exposition. As was shown above, early modern English readers themselves coupled allegorical ways of reading moly with a propensity to weave the plant into their own immediate texts and surroundings. I have aimed to demonstrate that this latter method is not inconsistent with hermeneutics. As we come to understand what kind of world would be capacious enough to include moly, we learn more about that world's meaning, boundaries, and temporality. This world is large enough to include vital links between the past, the unexplored terrain of the new world, and perhaps even the dwellings of the gods themselves. As readers of early modern English literature ourselves, it is interesting to consider what reading practices might accommodate and nurture our appreciation of vegetable texts and floral histories.

Chapter 3: 'A Spice of Idolatry': Food and Bacon's Idols of the Market-place

When I think of books read in childhood they come to my mind's eye in violent foreshortening and framed by a precarious darkness, but at the same time they glow somehow with an almost supernatural intensity of life that no adult book could ever effect. I remember a little book of *The Lives of the Saints* that was given to me about age five. In this book the various flowers composing the crowns of the martyrs were so lusciously rendered in words and paint that I had to be restrained from eating the pages. It is interesting to speculate what taste I was expecting from those pages. But maybe the impulse to eat pages isn't about taste. Maybe it's about being placed at the crossing-point of a contradiction, which is a painful place to be and children in their natural wisdom will not consent to stay there, but mystics love it.

Anne Carson, *Decreation*¹⁰⁹

This chapter explores how Francis Bacon's "Idols of the Market-place" in *New Organon* (which result from misleading, corrupt language) manifested themselves as food in the early modern imagination. By Bacon's time, idolatry was no longer to be found as frequently in literal images, but rather in texts. I argue that early modern literary texts made corrupt, unreformed, and over-copious language seem edible and delicious (a connection as old as Plato's *Gorgias*, which compared rhetoric to cookery). In fact, early modern rhetoric was sometimes so opulent that it excited in its readers a never-ending hunger similar to what Bacon diagnosed as "Pygmalion's frenzy." But Bacon also argued that Idols of the Market-place laid bare the occult history of words, the accumulated errors and superstitions that operate at their mouthwatering surface to corrupt the human understanding. This corruption often became apparent when readers succumbed to the temptation to consume words, literally or figuratively. These enticing and corrupting effects of rhetoric were dramatized in early modern literary texts as actual encounters with food. This chapter examines culinary scenes that had an idolatrous charge as a result of their invocation of folkloric superstitions or of Catholic imagery. These moments of sensory delight and magical history are characteristic of romance in the capacious sense that I use the term

¹⁰⁹ Anne Carson, *Decreation: Poetry, Essays, Opera* (New York: Knopf, 2005), 175.

throughout this project, as they present themselves as a source of knowledge very different from that of Bacon's new science. The scenes of food that I discuss remember the poems and metaphors that previously enriched them. In other words, Bacon's concern about Idols of the Market-place are well-founded, as the imprecise use of delicious words in science and Protestant writing corrupts those very works with their own luscious histories. Such idols tend, indeed, to mold the manner of their own iconoclasm.

Bacon's Idols of the Market-place, Pygmalion's Frenzy, and Gorgian Cookery

In *New Organon*, Bacon describes the Idols of the Market-place "as the most troublesome of all: idols which have crept into the understanding through the alliances of words and names. For men believe that their reason governs words; but it is also true that words react on the understanding; and this it is that has rendered philosophy and the sciences sophistical and inactive." (4:61). By mentioning sophistry, Bacon gives us the cue to look back at Plato's *Gorgias*. But before turning to the line of thinking about rhetoric, it is important to consider what it means for "words to react on the understanding." It is crucial that the Idols of the Market-place are not themselves words, but *produced* by words. The histories of those words and the variety of subject matter with which words have been "allied" fertilize the human understanding with the superstitions nested within words from the past. Reading can therefore be a portal to the past, but to a suspicious or perhaps even a romantic past, one in which linear chains of cause and effect are not intelligible. We must also picture the idols *creeping* into the understanding like thieves in the night.

We then learn that Idols of the Market-place are of two varieties: "either names of things which do not exist...or they are names of things which exist, but yet confused and ill-defined, and hastily and irregularly derived from realities." (4:61). Bacon argues that it is far more easy to banish the first class of idols, "because to get rid of them it is only necessary that all theories should be steadily rejected and dismissed as obsolete." (4:61). It is tempting to consider this first class of idols to include those drawn from the literary genre of romance, which, as I discuss in my Introduction, was increasingly obsolete and bookish at the time of Bacon's writing. The second variety of Idols of the Market-place, Bacon writes,"which springs out of a faulty and unskilful abstraction, is intricate and deeply rooted." Bacon cites the example of the word "humid" and explores "how far the several things which the word is used to signify agree with each other; and we shall find the word *humid* to be nothing else than a mark loosely and confusedly applied to denote a variety of actions which will not bear to be reduced to any constant meaning." (4:61-62). The second variety of Idols of the Market-place may also be found in romance, as may Bacon's own method. Just as a person's likeness (for example, those of Spenser's Una and Florimell) may apply magically to more than one being, Bacon's method of excavating occult processes that nestle beneath the mark of a single word is akin to that of a questing romance hero (perhaps like the Redcrosse Knight) encountering a terrain riddled with error. It is interesting that Bacon, instead of saying that the word "humid" has a large number of meanings, he says that it "denote[s] a variety of *actions*" (emphasis mine.) What would a taxonomy of function and process, not necessarily the results of chemical analysis, look like as a guide to linguistic form?

Indeed, at this point the *New Organon* crosses paths with an even more formidable adversary than the one contained in the word "humid." Bacon argues that "[t]here are... in words

certain degrees of distortion and error. One of the least faulty kinds is that of names of substances, especially of lowest species and well-deduced (for the notion of *chalk* and of *mud* is good, of *earth* bad); a faulty kind is that of actions, as *to generate, to corrupt, to alter.*" (4:62) In this passage, we glimpse the fact that the earth itself, for Bacon, is a Spenserian wood of error. It is nested with entanglements of mind and matter that the errors of the schoolmen have imposed on the landscape. To use a word like "earth" is to invoke all the mythical material and faulty philosophy associated with it in prior centuries. Joanna Picciotto's *Labors of Innocence in Early Modern England*, which I discuss in my Introduction, shows that the English soil had to be made paradisaical. Picciotto's work traces the ways in which the new "experimental paradise" created new spaces for the pursuit of intellectual labor. As a result, "[c]leansed of idolatrous attachment to concrete externals of place and time, paradise was regained through the work of estrangement, or discovery: the production of alien experiences of the known world."¹¹⁰ In Bacon's England, paradise may never have existed before the process described by Picciotto occurred. I am also interested in Bacon's identification of *corrupt* as a faulty word, as it seems to be a master term for the state of nature as his new science has found it.

Understanding why not only words considered independently but also rhetorical style were dangerous for Bacon requires returning to his discussion of "distempers of learning" in *The Advancement of Learning*. Bacon attacks the schoolmen for their logocentrism and fetishization of beautiful texts. I discuss the passage that follows in my Introduction, but it is worth returning to it here to consider it in a new context:

Here therefore [is] the first distemper of learning, when men study words and not matter: whereof though I have represented an example of late times, yet it hath been and will be

¹¹⁰ Joanna Picciotto, *Labors of Innocence in Early Modern England* (Cambridge, Mass.: Harvard University Press, 2010), 12.

secundum maius et minus in all time. And how is it possible but this should have an operation to discredit learning, even with vulgar capacities, when they see learned men's works like the first letter of a patent or limned book; which though it hath large flourishes, yet it is but a letter? It seems to me that Pygmalion's frenzy is a good emblem or portraiture of this vanity: for words are but the images of matter; and except they have life of reason and invention, to fall in love with them is all one as to fall in love with a picture. (3:284).

Bacon's enchanting picture of medieval texts, lavishly ornamented with images and large letters, is almost mouthwatering, especially if we have the reaction that Anne Carson does to her childhood reading in the passage I use as my epigraph. The reason why food is an important instance of this kind of "Pygmalion's frenzy," as opposed to visual art, is that we become what we eat. We do not become what we see, hear, smell, or touch in quite the same way. In fact, one of the contributions of this chapter is to show that visuality may be over-emphasized in considerations of "Pygmalion's frenzy" and Bacon's sense of iconoclasm more generally. And yet, the visual allure of foodstuffs is at the heart of the ability of culinary idols to attract readers and idolaters. Is eating idols the logical conclusion of admiring the appearance of words too voraciously? If we put together Pygmalion's frenzy and the Idols of the Market-place, we can see that, for Bacon, language is visually enticing yet able to corrupt the understanding with its own mass of associations.

In order to understand more fully how Bacon's meditations on over-opulent language might relate to cookery, we must also consider what he thought of the latter art itself. Bacon's attitude toward cookery as a discipline was, as Wendy Wall writes, a mixed one. In *Recipes for Knowledge*, which includes a thorough account of early modern culinary icons, Wall notes that "[a]lthough the technical acts of making recorded by recipes often relied on the inductive mode that Bacon admired in artisanal crafts, Bacon saw them as an insufficient basis for the

reformation of knowledge."¹¹¹ It is possible that cookery was one of the "mechanical arts" that Bacon viewed as flourishing, a sign perhaps of the comparative decadence of other areas of human learning. Indeed, in his *Parasceve* to his experimental histories, Bacon lists cookery as one of the arts that ought to be studied diligently for their ability to "[exhibit] things in motion, and [lead] more directly to practice." (4:257). Bacon also lists baking, confectionery, and other culinary arts as among the histories that his experimental project intends to cover (4:269). But I believe that cookery was deliberately part of the "outside" of the *Great Instauration*. In his plan of the work, Bacon plans a fifth part that will be "temporary" in nature and include "such things as I have myself discovered, proved, or added, - not however according to the true rules and methods of interpretation, but by the ordinary use of the understanding in inquiring and discovering." Bacon likens the things gleaned in this way to "wayside inns, in which the mind may rest and refresh itself on its journey to more certain conclusions." (4:32). This part of the reformation of learning seems to hinge on the presence of nourishments both produced by Bacon himself in idle moments and resting "outside" the project, just as the repast served at wayside inns would exist outside the quests of the grand heroes of romance. Be it a mechanical art or a source of solace to the weary scientist in need of leisure, cookery may have escaped the *Great Instauration* unreformed.

As we have seen, the delicious nature of opulent rhetoric is a feature of the discipline known at least as far back as the dialogues of Plato. Plato's associations between rhetoric and cookery are extremely rich and imaginative, inviting the later reader and the later text to consume them. In *Gorgias*, Socrates tells Polus that rhetoric and cookery are alike in being parts of the practice of flattery: "This practice, as I view it, has many branches, and one of them is

¹¹¹ Wendy Wall, *Recipes for Thought: Knowledge and Taste in the Early Modern English Kitchen* (Philadelphia: University of Pennsylvania Press, 2016), 220.

cookery; which appears indeed to be an art but, by my account of it, is not an art but a habitude or knack. I call rhetoric another branch of it, as also personal adornment and sophistry- four branches of it for four kinds of affairs" (463A-B).¹¹² Socrates views cookery as "flattery disguised as medicine," and yet he believes that the cook would persuade boys and foolish men that he knew the truth of harmful foods more effectively than a doctor would (464D). This moment in *Gorgias* was known to Bacon, and curiously (in light of his opposition to opulent rhetoric in the "Pygmalion's frenzy" passage), he finds it to be unjust. Bacon writes in *Of the Dignity and Advancement of Learning* that cookery "did as much to spoil wholesome meats, as by variety and delicacy of sauces to make unwholesome meats palatable," and that therefore rhetorical ornament alone is not a guarantee of an "unwholesome" subject matter (4:456). As befitting the author of *Colours of Good and Evil*, Bacon's objection to the *Gorgias* identification of rhetoric with cookery shows an awareness that rhetoric's relationship to its underlying subject matter is more supple than the blanket condemnation of rhetoric in *Gorgias* would warrant.

Early modern theorists of rhetoric and poetics picked up on Plato's portrait of Gorgias by highlighting connections between opulent rhetoric, idolatry, and food. For example, Thomas Wilson's *The Arte of Rhetorique* instructs orators to aim to delight their listeners much in the same way as a cook does when "he dresseth a good dishe of meate."¹¹³ In a similar vein, in his *Apologie for Poetrie* Sir Philip Sidney observes approvingly that Plato and Boethius borrow "the masking rayment of Poesie" to make their philosophy "delight." The subtlety with which this "masking rayment" attracts those who wish to be delighted prompts Sidney to bring in a reference to cookery: "euen those harde harted euill men, who thinke vertue a schoole name,

¹¹² Plato, *Lysis; Symposium; Gorgias*, trans. W.R.M. Lamb (Cambridge, Mass.: Harvard University Press, 1914), 313. All references to these dialogues refer to this edition.

¹¹³ Thomas Wilson, *The Arte of Rhetorique: For the vse of All Suche as Are Studious of Eloquence, Sette Forth in English, by Thomas Wilson* ([[London]: Richardus Graftonus, typographus regius excudebat], 1553).

knowe no other good, but *indulgere genio*, and therefore despise the austere admonitions of the Philosopher, and feele not the inward reason they stand vpon; yet will be content to be delighted...and so steale to see the forme of goodnes (which seene they cannot but loue,) ere themselues be aware, as if they tooke a medicine of Cherries."¹¹⁴ Just as Sidney is perhaps thinking of Plato's own imagined contest between a cook and a doctor in *Gorgias*, I am interested in Sidney's link between the sweetness of cherries and "masking rayment," as it suggests that poetic flourishes in philosophy had a function of concealment and performance. For the philosopher, unpalatable truths could be cloaked and sweetened with poesy. For his part, Sir Thomas Elyot's dictionary links Gorgias to idolatry, reporting the tradition that Gorgias became so wealthy as a rhetoric teacher that he was the first to honor Apollo with an "ymage of gold" at Delphi.¹¹⁵

George Puttenham's *The Art of English Poesy* surpasses Wilson, Sidney, and Elyot in linking a certain kind of poesy to confectionery. Puttenham describes poems that were part of cooked dishes:

There be also other like epigrams that were sent usually for New Year's gifts or to be printed or put upon their banqueting dishes of sugarplate, or of marchpane, and such other dainty meats as by the courtesy and custom every guest might carry from a common feast home with him to his own house, and were made for the nonce. They were called *nenia* or *apophoreta*, and never contained above one verse, or two at the most, but the shorter the better. We call them posies and do paint them nowadays upon the backsides of our fruit trenchers of wood, or use them as devices in rings and arms and about such courtly purposes.¹¹⁶

¹¹⁴ Philip Sidney, *An Apologie for Poetrie. VVritten by the Right Noble, Vertuous, and Learned, Sir Phillip Sidney, Knight* (At London: Printed [by James Roberts] for Henry Olney, and are to be sold at his shop in Paules Church-yard, at the signe of the George, neere to Cheap-gate, 1595).

¹¹⁵ Thomas Elyot, *Bibliotheca Eliotæ: Eliotis librarie* (Londini: In officina Thomae Bertheleti, 1542).

¹¹⁶ George Puttenham, *The Art of English Poesy*, ed. Frank Whigham and Wayne A. Rebhorn, (Ithaca: Cornell University Press, 2007), 146.

In Puttenham's account, posies might be prepared for special feasts and special purposes. Puttenham places this sentence in the past tense, which suggests that posies might be part of the old feasts, maybe even Catholic saints' days. Their small size and proximity to sweet foods suggests that they might be mobile and delectable tropes. Frank Whigham and Wayne A. Rebhorn note in their commentary on this passage that *nenia* was a genre that included nursery songs as well as magical incantations.¹¹⁷ In other words, the subject matter of posies delved into the domain of romance. These examples show that rhetoric, cookery, and idolatry swirled together in texts that put themselves forward as treasuries of tropes or as candy shops of ready-made *bon mots*.

I wish to conclude this section with a consideration of how two modern female writers understood the relationship between language and cookery. Barbara Johnson's reading of Baudelaire's two versions of *L'invitation au voyage* - the first in lyric verse, the second in prose - shows that Baudelaire's critics view a new reference to cookery in the prose version "as the intrusion of a novelistic or realistic code in a poetic context." The prose version of *L'invitation* describes the "pays de Cockaigne" as a place "where the cooking itself is poetic, rich and stimulating at once." [Johnson's translation.] Johnson comments on the critical disdain for this passage as follows:

Considered either as a lapse in taste or as a new stylistic spice, the unexpected presence of these culinary images within a 'poetic' text has always given rise to the same question, Can cooking really be poetic? This, however, is precisely the question the text does not allow us to ask, since it has already answered: Cooking itself is poetic. Rather than the status of the word *cooking*, it is the status of the word *poetic* that is at stake.¹¹⁸

¹¹⁷ Puttenham, *The Art of English Poesy*, 146n.

¹¹⁸ Barbara Johnson, *The Critical Difference: Essays in the Contemporary Rhetoric of Reading* (Baltimore: Johns Hopkins University Press, 1980), 24–25.

A definition of poetry that might give more weight to cooking is interesting to contemplate. Would such poetry be as succulent and rich and stimulating as proper practice of the culinary arts? The fact that this definition is presented to us in a prose passage marks the advent of a "prosaic" or everyday imaginative code into a more refined discourse, as Johnson suggests. But it might also suggest that poetry can literally nourish us.

Anne Carson's attitude toward mouthwatering language in the passage from *Decreation* that I quoted as my epigraph is very different and seems to run up against an imaginative boundary that is seductively absent from Johnson's evocation of the "pays de Cockaigne." Carson's recollection of her childhood desire to eat the colorful painted images and words in a book of saint's lives would have been familiar - though anathema - to an early modern iconoclast. I am interested in Carson's observation that children hate to live at "the crossing-point of a contradiction." This observation sounds like a revision of her own history, as the young Anne Carson seems to have been just as entranced by the barrier separating her from eating a text as mystics might be. The occasion for Carson's memory (which is written in prose) is her account of the self-starvation of the twentieth-century mystic and philosopher Simone Weil. Carson's homage to a contemporary mystic is a portal to her own personal and literary past. Access to this portal is facilitated by food that masks as words and words that mask as food. Carson and Johnson therefore throw down the gauntlet to critics to consider what happens when readers are invited to literally consume texts. As I will show in the next section, early modern romances abounded with such invitations.

Idolatrous Food in Early Modern Romance

Romance in all its forms features episodes of magical food. My definition of romance throughout my project is deliberately expansive. In this section, I group my material according to the particular process at work in its food stories. My aim in this part of my chapter is not to draw new literary-historical connections between literary romances and Catholic material. That essential connection has been made many times. Most recently, Velma Bourgeois' *Shakespeare, Catholicism and Romance* and Tiffany Jo Werth's *The Fabulous Dark Cloister*, as I mention in my Introduction, have demonstrated how early modern romance became increasingly associated with Catholic imagery and meaning. In my own analysis, I want to show how this shared mass of discredited material (both fairy and Catholic alike), which is part of my expansive definition of "romance" in this project, advanced knowledge that relied upon moments of sensory indulgence. At such moments, a single word or metaphor could activate the appearance of an accumulated mass of tales. As I noted with reference to the philological ambiguities of the Green Knight's appearance in *Gawain*, such knowledge spurs us toward a philology of romance. Instead of an unbroken chain of induction with intermediary steps carefully defined, the goal of Bacon's new logic, these romantic interludes and their philological implications are akin to transactions at a goblin market or a fair in old Catholic England. Such transactions, however mysterious, involve corrupted food and corrupted words that reveal their superstitious histories when used in more conventionally authoritative contexts.

I will begin with a discussion of two food stories in early modern drama that have a clear affinity with Catholicism. They also share a common preoccupation with bakeries. The first is to

be found in Ophelia's mad songs in *Hamlet*. One song alludes to a medieval episode from English folklore: the story that the "owl was a baker's daughter." First, let us consider the folkloric source. Katharine Briggs identifies two variants of the tale in *A Dictionary of British Folk-Tales*. In one, which Briggs reports is from Gloucestershire:

Our Saviour went into a baker's shop where they were baking, and asked for some bread to eat. The mistress of the shop immediately put a piece of dough into the oven to bake for him: but was reprimanded by her daughter, who, insisting that the piece of dough was too large, reduced it to a very small size. The dough, however, immediately afterwards began to swell, and presently became of a most enormous size. Whereupon, the baker's daughter cried out, 'Heugh, heugh, heugh,' which owl-like noise probably induced our Saviour for her wickedness to transform her into that bird.¹¹⁹

This short tale has the atmosphere of a Biblical miracle but takes place in an English bakery. Owing to the Saviour's presence, the miraculous bread is of course possible to read as a reference to the Host. But as this bread is intended for the Saviour himself to eat, can it only be his body? The bread dilates until it is bigger than it originally was. The Saviour works with the materials at hand to produce a more nourishing repast for himself. The baker's daughter sins by being ungenerous.

But in a second version of the story in Briggs' collection, which Briggs traces to Herefordshire, the Saviour is nowhere to be found. Instead, it is a female fairy who visits the baker in search of cake, not bread.¹²⁰ In this second tale, the mother has disappeared, and the baker's daughter is entirely in charge. Her increasingly stinting portions of dough undergo three progressively more ample expansions in the oven thanks to the fairy's magic. Instead of just one act of baking, there are three, as the fairy gives her three chances, as is sporting. In this version, it

¹¹⁹ Katharine Mary Briggs, *A Dictionary of British Folk-Tales in the English Language: Incorporating the F. J. Norton Collection* (Bloomington: Indiana University Press, 1970), Part A, Vol. 1, 124.

¹²⁰ Briggs, *A Dictionary of British Folk-Tales*, Part A, Vol. 1, 443.

is both the roundness of the girl's eyes and her stuttered "Whos" that give the fairy the idea to turn her into an owl. In this story, Christ and the fairy perform identical functions. What does not change is the bakery itself. As in the *Wife of Bath's Tale*, in which "lymytours" tread the same castles, towns, and dairies as fairies once did, Christ and fairies can hallow the same ground.¹²¹

Ophelia's own allusion to this folkloric theme undergoes an ungenerous shrinking and dilation over the course of the surviving texts of *Hamlet*. In the first quarto of 1603, the maiden sings: "There is fennell for you, I would a giu'n you some violets, but they all withered, when my father died: alas, they say the owle was a Bakers daughter, we see what we are, but can not tell what we shall be. For bonny sweete Robin is all my ioy." (TLN 2783-2787).¹²² In the second quarto of 1605, in the form in which it was included in the First Folio of 1623, when Claudius asks her how she is, Ophelia replies: "Well good dild you, they say the Owle was a Bakers daughter, Lord we know what we are, but know not what we may be. God be at your table." Claudius interprets this enigmatic statement as a "[c]onceit vpon her Father." (TLN 2783-2787 in second quarto).¹²³ The references to fennel and violet and sweet Robin have been moved to a later speech, in which Ophelia discusses other flowers and herbs.

In other words, Ophelia's earlier baker's daughter speech might be a fairy tale (and a love story), while the later one is a reference to Christ (and perhaps to Ophelia's own departed father). Has Ophelia's rhetoric been euhemerized in reverse, granting fairy attributes to the Saviour? Or has its superstitious content merely found a more pious and less folkloric vehicle? *Hamlet* as a

¹²¹ Geoffrey Chaucer, *The Riverside Chaucer*, ed. Larry Dean Benson, 3rd ed. (Oxford: Oxford University Press, 2008), 117.

¹²² William Shakespeare, *The Tragicall Historie of Hamlet Prince of Denmarke*, (London: Printed for N.L. and John Trundell, 1603), accessed via University of Victoria Internet Shakespeare Project, April 16, 2018, http://internetshakespeare.uvic.ca/Library/facsimile/book/BL_Q1_Ham/50/?zoom=550.

¹²³ William Shakespeare, *The Tragicall Historie of Hamlet Prince of Denmarke*, (London: Printed by I.R. for N.L. and are to be sold at his shoppe vnder Saint Dunstons Church in Fleetstreet, 1605), accessed via University of Victoria Internet Shakespeare Project, April 16, 2018, http://internetshakespeare.uvic.ca/Library/facsimile/book/BL_Q2_Ham/73/?work=ham&ln=2783&zoom=500

whole is not a romance. Ophelia's songs, however, are like the medieval letters described by Bacon, large enough to act as windows into a romantic world of songs, fairies, saints' days, and odd bits of folklore. In one of the best modern readings of Ophelia's mad songs, Alison A. Chapman, who also cites Briggs' first version of the "owl" story, links the maiden's "old lauds" to Catholic hagiography. Chapman observes that the "owl" story "is characteristic of medieval religion not only in what the Reformation would later deem its superstitious, extrabiblical element (especially the girl's transmogrification) but also in its anachronistic depiction of Christ walking into what seems to be a medieval European shop."¹²⁴ The mouthwatering boundary between Ophelia's idolatrous imagination and the present day of *Hamlet's* performance is best exemplified by a bakery.

Why a bakery might be a convenient place for idols to lurk can be understood by reading Ben Jonson's *Bartholomew Fair*, which explores food-related idolatry in great depth. It does so by means of the gluttonous Puritan hypocrite, Zeal-of-the-land Busy. Against the backdrop of a Catholic fair at which decadent foods (like gingerbread) and folkloric objects are sold, Busy targets the ability of food to be idolatrous. And yet, Busy himself is associated with food and enraptured by it. As Busy uses decadent food imagery to target idolatrous thinking and rhetoric, he is also seduced by that same food imagery. Ultimately, he has to eat.

Busy is introduced as, intriguingly, a former baker who renounced his old profession because of his newfound religious fervor:

Littlewit. He was a baker, sir, but he does dream now, and see visions; he has given over his trade.

¹²⁴ Alison A. Chapman, "Ophelia's 'Old Lauds': Madness and Hagiography in Hamlet," *Medieval & Renaissance Drama in England*; *Cranbury* 20 (2007): 114.

Quarulous. I remember that too - out of a scruple he took, that (in spiced conscience) those cakes he made were served to bridals, maypoles, morrises, and such profane feasts and meetings. (I.iii.110-114).¹²⁵

Busy is courting the widow Purecraft, whose daughter Win (whose Puritan name is Win-the-fight) is pregnant and excited about the delights of Bartholomew Fair. As the fair approaches, Winwife has an inconvenient pregnancy craving, one that her supposedly Puritan mother is just as eager to banish as though it were a Catholic image. Win would like to eat a delicious pig at the fair, and her husband Littlewit is eager to oblige her. When Busy arrives, Purecraft seeks his advice as to whether it is lawful to satisfy her daughter's longing for pig-flesh. Busy tells her that:

Verily, the disease of longing, it is a disease of longing, it is a disease, a carnal disease, or appetite, incident to woman; and as it is carnal, and incident, it is natural, very natural. Now pig, it is a meat, and a meat that is nourishing, and may be longed for, and so consequently eaten; it may be eaten; very exceeding well eaten. But in the Fair, and as a Barthol'mew-pig, it cannot be eaten, for the very calling it a Barthol'mew pig, and to eat it so, is a spice of idolatry, and you make the Fair no better than one of the high places. (I.vi.45-53).

This passage reveals that words and context have the power to turn a permitted indulgence into an act of profane worship. A Bartholomew pig is one of the Idols of the Market-place. When Littlewit and Purecraft ask him to reconsider (out of the fear that Win will have a miscarriage if her pregnancy cravings are not satisfied), Busy softens his verdict:

Surely it may be otherwise, but it is subject to construction- subject, and hath a face of offence with the weak, a great face, a foul face, but that face may have a veil put over it, and be shadowed, as it were. It may be eaten, and in the Fair, I take it, in a booth, the tents of the wicked. The place is not much, not very much; we may be religious in midst of the profane, so it be eaten with a reformed mouth, with sobriety and humbleness; not gorged in with gluttony or greediness; there's the fear: for, should she go there, as taking pride in the place, or delight in the

¹²⁵ Ben Jonson, *Bartholomew Fair* (New Haven: Yale University Press, 1963), 45. All references to this play refer to this edition.

unclean dressing, to feed the vanity of the eye or the lust of the palate, it were not well, it were not fit, it were abominable, and not good. (I.vi.63-75).

Busy therefore grants Win (and himself) permission to eat a Bartholomew Pig, but only if the visual opulence of the fair is shrouded from view. Pygmalion's frenzy, when understood as a matter of the eye, is still taboo. It is also intriguing to consider how eating with a "reformed mouth" might be distinguished from indulging the "lust of the palate." Would the eye itself, with all its reculant tendencies, be the ultimate arbiter of this question? Finally, the party agrees on a compromise: they will seek out the least idolatrous booth in the fair to eat pig. At the fair itself, Ursula, the pig-woman, has a booth that entices the group.¹²⁶ Busy, smelling the delicious odors from the pig, argues that "it were a sin of obstinacy, great obstinacy, high and horrible obstinacy, to decline or resist the good titillation of the famelic sense, which is the smell." (III.ii.75-77). After they eat, however, Littlewit, itching to explore the fair, encourages his wife to "long" for its marvelous sights, including hobby-horses as well as a "bull with five legs" and a "great hog," Win replies that for her, longing is still a matter of eating, not of looking: "But we sha' not eat o'the bull and the hog, John: how shall I long then?" Her husband tells her that "you may long to see as well as taste." (III.vi.5-12). When a well-fed Busy emerges from the booth himself and hears where Win has gone, he tells her mother to have her flee immediately lest she be tainted by the "pitch" of the Fair. As an aside, Jordan Knockem, a horse-courser, echoes the audience's thoughts when he comments on Busy's hypocrisy: "He eats with his eyes as well as his teeth."

¹²⁶ Jay Zysk notes that Ursula's amplitude is both textual and corporeal: "As both pig and human, Ursula is both grapheme and phoneme, and the language she produces is both physical matter and linguistic *materia*." "You Are What You Eat: Cooking and Writing Across the Species Barrier in Ben Jonson's *Bartholomew Fair*," *The Indistinct Human in Renaissance Literature*, Jean E. Feerick and Vin Nardizzi, eds., (New York; Palgrave Macmillan, 2012), 79.

(III.vi.47-48). This passage and the scene it is in show us that looking can be a form of eating at this particular fair.

But pig is not the only food served at the fair. One of the first people we meet at the fair is Joan Trash, who sells gingerbread. Lantern Leatherhead, who sells hobby-horses and is worried that his products will not attract sufficient customer attention, threatens Trash, whom he calls "Lady o' the Basket," that if she does not sit further back with her "gingerbread progeny," he will let it slip what her wares are made of. When Trash protests that her gingerbread is only made of "wholesome" stuff, Leatherhead retorts that it is in fact made out of "stale bread, rotten eggs, musty ginger, and dead honey." (II.ii.3-9). The gingerbread looks much more enticing than it tastes, perhaps, for it is covered in gilt and bears the images of young women, as the gamester Quarlous compares Trash to "Ceres selling her daughter's picture in gingerwork" (II.v.10-11). The individual ingredients of Trash's gingerbread have passed their due dates, but through the alchemy of cookery, their antique substances are transformed into eye-catching idols. In fact, the gingerbread stand may be one of the most Catholic places in the entire fair. (Earlier in the play, Quarlous notes that the fair's gingerbread stand is set up in a former cloister (I.ii.33).)

Do Trash's gingerbread cookies taste as good as they look? Can their moldy ingredients still be detected beneath the gilt surface that harbors them? The play itself places a great deal at stake in the answers to these questions, as the "Lady of the Basket" Trash and Busy are on a collision course. After he has feasted on Ursula's pig, Busy revives his hypocritical attacks on the fair and unleashes his ire on Leatherwood and Trash. He calls Trash's gingerbread "provender that pricks...up" the Beast himself. Busy continues, saying to Trash: "Hence with thy basket of popery, thy nest of images, and whole legend of ginger-work." (III.vi.66-68). (In the Yale edition of the play, Eugene M. Waith glosses the term "images" here as "gingerbread in the shape of St.

Bartholomew.")¹²⁷ Overcome with rage, Busy overturns the gingerbread display, heaping curses on "this idolatrous grove of images, this flasket of idols!" (III.vi.90). Busy's own history with pastry (which perhaps predates his Puritan conversion) may have helped make him extraordinarily sensitive to the recusant allure of this gingerbread.

In fact, near the end of the play Busy is converted to the delights of the fair (and maybe more) by the persuasive rhetoric of a puppet in an improvised play. Based on *Hero and Leander*, the play is the brainchild of the fair's namesake, the gullible young rich man Bartholomew Cokes. (Cokes has even purchased Trash's gingerbread to furnish the feast for his plans for a masque.) During the play, Busy bursts in, calling the actors and their puppets profane idols and saying that they have "no calling." The actor bearing a puppet called Dionysius (one of Leatherhead's hobby-horses) retorts: "Is bugle-maker a lawful calling? or the confect-maker's? such you have there; or your French fashioner? You'd have all the sin within yourselves, would you not?" (V.v.80-83)? The professions and goods listed by the puppet Dionysius (music, confectionery, fashion) are Gorgian trades, all intensely flattering in their aims. As the puppet points out, the type of sin fostered by such trades molds the sinner himself, perhaps to such a great extent that the sin and the sinner become indistinguishable from one another. We have seen that Busy, gluttonous and over-indulgent in his speech, has a problem with pastry (and perhaps with other sweet food-stuffs, such as confectionery). Is that because his own past is Catholic and a place in which the transubstantiated host was consumed? In the earlier scene in which Bartholomew's pig was discussed, there are references to Jewish proscriptions on eating pork, which Busy himself goes on to violate cheerfully. Busy himself is also sometimes called "Rabbi

¹²⁷ Jonson, *Bartholomew Fair*, 118. In her discussion of food-based iconoclasm, Wendy Wall also comments on this passage of Jonson's play: "While the play undercuts Busy's objection, it points to the close association that culinary icons could have with Catholicism." *Recipes for Knowledge*, 93.

Busy." Can the conflict between pig and pastry suggest something about the way that Busy himself is torn between perverse reactions to Old Testament (and Puritan) dietary rules, on the one hand, and New Testament (and Catholic) pastry shops, on the other?

Ultimately, the matter is decided by another process entirely. The puppet then asks Busy whether a puppet is worse than the fruits of these professions, and Busy replies that puppets are indeed worse because of their fondness for cross-dressing. In the stage directions, the puppet then "takes up [its] garment" in order to prove that Busy's "old, stale argument against the players...will not hold against puppets; for we have neither male nor female amongst us. And that thou may'st see, if thou wilt, like a malicious purblind zeal as thou art!" (V.v.91-95). Such ocular proof converts Busy, who says that he is "confuted; the cause hath failed me." He agrees to let the masque proceed, for he is "changed, and will become a beholder with you!" (V.v.101-105). Busy has succumbed to Pygmalion's frenzy and is content to feed his eyes on an outdated puppet show, but only perhaps because of his earlier history with antiquated foodstuffs. After all, his copious argument against the players (that they loved cross-dressing) is as "stale" as the ingredients that make Trash's gingerbread. He is ultimately converted by images, but those images are similar to those encountered earlier on Trash's pastries and appear in a play-within-a-play under the patronage of a living, breathing Bartholomew (the young Cokes). In other words, these images appear to span the visual and culinary realms. It would be appropriate if Busy were to return to being a baker after his experience at Bartholomew Fair. The play of *Hero and Leander* itself has made a mythical story incarnate and present to the viewer, or, as Littlewit puts it, "a little easy and modern for the times," turning the Hellespont into the Thames, Hero into a "wench o'the Bankside," and Leander into "a dyer's son." (V.iii.111-114). The authority that ultimately matters in *Bartholomew Fair* is that of romance, a mode that privileges the direct

evidence of the senses, particularly that of the hungry eye examining an unreformed edible pastry.

The baked goods of Ophelia and *Bartholomew Fair* therefore engage with both Catholicism and medieval folklore and show that attempts to separate the two strains in a clear (Protestant?) manner might ensnare the philologist in madness or recusant fantasies. I wish to turn now to fairy food proper, which, as we have seen, is one of the philological possibilities of Ophelia's song (but is largely absent from *Bartholomew Fair*.) The work of Shakespeare as well as of Michael Drayton and Robert Herrick presents us with several scenes of fairies eating. By examining the form and content of their feasts, we encounter not only Gorgias-worthy descriptive language, but a yawning chasm between that language and the substances it describes. But that chasm is also a fruitful and retentive void in which food absorbs its own history. These behaviors of fairy food suggest that they are true Idols of the Market-place.

The first moment of supposed fairy eating I would like to highlight is in *Cymbeline*. Imogen, disguised as a boy named Fidele, ventures into a deserted cave in search of food. The cave contains cold meat, which has been left behind by Belarius (a former lord of her father's court in exile, bearing the supposed name Morgan) and her own two brothers, Arviragus and Guiderius (who bear the supposed names Cadwal and Polydore). The men return to find the disguised maiden eating their food:

Belarius: Stay, come not in,
 But that it eats our victuals, I should think
 Here were a fairy.
 Guiderius: What's the matter, sir?
 Belarius: By Jupiter, an angel! or, if not,
 An earthly paragon! Behold divineness

No elder than a boy! (3.7.12-17).¹²⁸

This passage shows that fairies, angels, the pagan gods (like Jupiter) and "earthly paragons" were all part of the same pantheon of early modern romance. The question of which marks might allow observers to distinguish between these beings is an interesting one. Just as Busy's hypocritical attitude toward Bartholomew pigs found it permissible to eat such a feast with a "reformed mouth," observers of Imogen eating might deny she was a fairy because they saw the food disappearing. Katharine Briggs connects this part of *Cymbeline* to earlier fairy lore recorded in Robert Kirk's later seventeenth-century *The Secret Commonwealth of Elves, Fauns, and Fairies*. According to Briggs, Kirk discusses "the story of *The Tacksman's Ox*, in which the fairies feed on the foyson of grain or of elf-shot cattle, not altering the appearance of their food, but taking the substance out of it." Briggs notes that the inference that Imogen is not a fairy because they can see her eating shows "that the princes share Kirk's opinion that fairies feed fine by sucking into pure air and spirits..."¹²⁹ This connection is fascinating, not least because it suggests that early modern Protestant attacks on the Catholic doctrine of transubstantiation may have been absorbed into the bloodstream of folklore (or even the other way around.)

Could early modern otherworldly beings be sorted into neat taxonomies according to how they interacted with food? A representative text that could help answer this question is Thomas Heywood's *The hierarchie of the blessed angells*. Heywood's very long and copious exploration of the nine angelic orders is also a compendium of attacks on idolatry as well as a treasure hoard of folklore, which he groups under the appropriate angelic rank according to subject matter.

¹²⁸ William Shakespeare, *The Arden Shakespeare Complete Works*, ed. G. R. Proudfoot, Ann Thompson, and David Scott. Kastan, Rev. ed. (London: Arden Shakespeare, 2001), 274. Unless otherwise noted, all references to Shakespeare's plays refer to this edition.

¹²⁹ Katharine Mary Briggs, *The Anatomy of Puck: An Examination of Fairy Beliefs among Shakespeare's Contemporaries and Successors* (London: Routledge and Kegan Paul, 1959), 29, 52.

When discussing the order of archangels (and lower pagan gods), Heywood records an account of magical feasts furnished by nymphs. We learn that a certain Roman, Numa Pompilius, "neuer made us of market" to deliver delicious food to his feasts, as he had a nymph, Egeria, for his caterer. This "nymph" is curiously fairy-like. (Magically-provided food, while convenient, might not always be nourishing. Heywood also describes a tale of Scotus Parmensis, whose feasts were legendarily delicious but whose guests found themselves more hungry after they left than they were before.¹³⁰) When otherworldly feasts appear, they seem to spur exegetes, like Belarius, to identify the nature of the being who provided them or partakes in them. And yet, such labels are prone to evoke others, expanding the discourse in question as magically as Christ (and the fairy) do in the "owl was a baker's daughter" story. Scholarly attempts to form taxonomies of otherworldly beings, to distinguish fairies from angels, may only excite a never-to-be-satisfied hunger.

To return to *Cymbeline*, I am also interested in the connection between the false names that all four participants bear, on the one hand, and in the reference to fairy eating, on the other. At this point in Shakespeare's British romance, these characters' names are not reliable indexes as to the identities of their bearers. Although Imogen is certainly as faithful to her husband (and as fond of cross-dressing) as her later avatar Leonore in Beethoven's *Fidelio*, the three men have exchanged their Latinate names for Welsh ones (and, in the case of Polydore, a humanist one). *Cymbeline* itself is not only a romance of the incarnation (as attested by the Geoffrey of Monmouth tradition that Cymbeline ruled Britain when Christ was born), but a delightfully syncretic play whose religious atmosphere is typical of romance as a genre. Minglings of Latin and British traditions and languages and religions occur throughout the work. Unravelling those

¹³⁰ Thomas Heywood, *The Hierarchie of the Blessed Angells: Their Names, Orders and Offices. The Fall of Lucifer with His Angells* (London: Printed by Adam Islip, 1635), 507.

threads as a Shakespeare critic is perhaps to occupy the position of the princes and Belarius vis-à-vis the eating Imogen. As I have suggested above, we wonder which literary and religious strands are most appropriate for the romance even as we marvel that the food it consumes vanishes before our eyes. Food, in this scenario, is an index of corporeality but also prompts us with a Sisphyean hunger to know which vein of folklore has us in its grips.

Another Shakespearean romance, *The Tempest*, uses magical food to suggest that sensory experience has a complicated relationship to the advancement of knowledge. In Act 5, Prospero, who has revealed himself to his guests, wishes to embrace his faithful old counselor Gonzalo:

Prospero: First, noble friend,
 Let me embrace thine age, whose honour cannot
 Be measured or confined.
 Gonzalo: Whether this be
 Or be not, I'll not swear.
 Prospero: You do yet taste
 Some subtleties o'th' isle that will not let you
 Believe things certain. (5.1.120-126).

Prospero's comment puns on the meaning of "subtlety" as a term from cookery dating back to medieval usage that the *Oxford English Dictionary* defines as "[a]n ornamental figure, scene, or other design, typically made of sugar, used as a table decoration or eaten between the courses of a meal."¹³¹ This speech is possible to understand in light of another culinary moment earlier in the play.

In Act 3, Gonzalo is one of the witnesses to a fairy banquet orchestrated by Prospero (with the aid of Ariel and his attendant spirits). At first, the dazzled spectators see a host of strange people interacting in dumb show with a luscious banquet. Sebastian calls the scene "a

¹³¹ "subtlety, n., 4b." *OED Online* (Oxford University Press), accessed April 15, 2018, <http://www.oed.com/view/Entry/193191>.

living drollery!", so fantastic that now he is willing to believe "[t]hat there are unicorns; that in Arabia/ There is one tree, the phoenix' throne, one phoenix/ At this hour reigning there." (3.3.21-24). For Sebastian, the fairy banquet is so convincing that it has made other romantic extravagances more conceivable. Gonzalo, however, is more ambivalent about the authority of the fairy banquet: "If in Naples/ I should report this now, would they believe me?" (3.3.27-28). Gonzalo observes that the strange participants in the feast are "of monstrous shape" but have gentler manners than most of "our human generation." From these observations, we might surmise that the banqueters are not shaped like the beautiful fairies of high Spenserian romance, but perhaps like more earthly spirits, and that part of their strangeness stems from the gap between their bestial appearance and their courtly gestures. (The food itself may be of a courtly nature, as subtleties seem to be a perfect Jacobean aristocratic dessert.) Prospero, watching the scene in secret, heartily seconds Gonzalo's opinion, as "some of you there present/ Are worse than devils." (3.3.35-36). At Prospero's command, the banqueters vanish, but their "viands" remain (3.3.41). Sebastian encourages the others to taste the food, but Alonso is reluctant. Gonzalo, however, is enticed by the food's magical appearance and encourages the others not to be afraid to eat it, referring in a famous speech to monstrous flourishes from early modern travel narratives.

Just as Gonzalo has convinced Alonso and they advance to consume the food, Ariel accosts Alonso, Sebastian, and Antonio in the form of a harpy. But Gonzalo, who is innocent and whom Prospero means to spare, does not see the harpy and is mystified by the other characters' behavior. Does Gonzalo, who must be hungry by this time, eat the food while the other characters are preoccupied with Ariel? If Prospero's comforting address to him in Act 5 is to be believed, Gonzalo previously "taste[d] some subtleties o'the isle." Did he only see the food, or

did he also eat it? This question shows how the most conventionally authoritative and reliable person on the island may have been the only one who consumed fairy food. But Gonzalo's measured response to his repast - whether it was merely of the eye or whether it involved actual eating - shows that he may be reluctant to tell those back in Naples about the romantic feast. This moment in *The Tempest* gives us a glimpse into the very heart of folklore and the origin of tall tales. Eating a fairy feast may, as suggested by Sebastian, make you more likely to believe stories about phoenixes and unicorns, creatures from medieval bestiaries. Gonzalo's more cautious embrace of the feast and his uncertainty as to whether Prospero himself is real is an odd echo of the mad Ophelia, who "know[s] what we are, but not what we may be." He does not know "whether this be, or not be." The ultimate effect of culinary Idols of the Market-place on those corrupted by them may be a lasting uncertainty as to the nature of knowledge. Can knowledge be properly gleaned from a first-hand, lavishly described account of a marvelous event? Or does knowledge only result from repeatable experiments and carefully defined language? As I discuss in my Introduction, romances present earlier and broader conditions of possibility for knowledge formation than the overt arguments of the new science do.

These questions strike at the heart of the conflict between romance and science in the early modern period. To answer them more fully, I turn now to the accounts of fairy food in Michael Drayton's "Eighth Nymphall" (in his *Muses Elizium*) and Robert Herrick's "The Fairie Temple, or Oberons Chappell" and "Oberons Feast." These poems are interesting because, to an even greater extent than Spenser's fairy lore, which clearly inspires them, they revel in over-sweet, Gorgian rhetoric. Like words that produce Idols of the Market-place, Drayton and Herrick show how fairy food may be opulent in form but corrupt (and corrupting) in substance. The two writers achieve this effect, however, in different ways. The occasion of Drayton's fairy feast is

the wedding of the tiny fairy "Tita" (we can safely call her Titania, perhaps) to a "noble Fay." A group of nymphs sing her epithalamium and prepare her for the wedding by means of flowers and all the finery that feminine intelligence can supply. The wedding feast itself is described the nymphs as follows:

Claia: But when to dyne she takes her seate
 What shall be our Tita's meate?
 Mertilla: The Gods this Feast, as to begin,
 Have sent of their Ambrosia in.
 Cloris: Then serve we up the strawes rich berry,
 The Respas, and Elizian Cherry:
 The virgin honey from the flowers
 In Hibla, wrought in Flora's Bowers:
 Full Bowles of Nectar, and no Girle
 Carouse but in dissolved Pearle. (195-204).¹³²

On the surface, this feast is certainly more appetizing than the wares at Bartholomew Fair and would suit the fairy banquet in *The Tempest*. And yet, what is its meaning and content? This passage is drenched in what Sidney calls "a medicine of cherries," but the philosophical message usually obscured by the taste of the cherries is nowhere to be found. Drayton's poetry in this passage, as well as his diminutive and gorgeously arrayed fairies, leave a cloying taste behind. Poetic devices at work in terms like "the strawes rich berry" are as sweet to the ear as they would be on the tongue. Perhaps the accumulated meaning behind these food words is that of played-out literary references. Honey from Hyblas was proverbially sweet as well as a sweet proverb. For example, in the first quarto of 1598 of *Henry IV Part I*, Hal observes that the hostess of the

¹³² Michael Drayton, *Works*, (Oxford: Published for the Shakespeare Head Press by Blackwell, 1961), Vol. 3, 315. All references to Drayton's poetry are to this edition.

tavern is as sweet as "the hony of Hybla" (TLN 152).¹³³ Could this reference have been so common at the time Drayton used it that it became overripe? It is appropriate that Flora herself is mentioned in this passage, as this feast is evocative of overblown classical sensuality. The gods are dispensing their nectar freely to the decadent fairies they have now become. The syncretism at work in *Cymbeline's* reference to fairy food and in Heywood's folkloric angelology is perhaps at work in Drayton's poem as well. Drinking pearls is appealing to the eye yet lethal to the taste (just ask *Hamlet's* Gertrude). Overall, this fairy feast suggests Spenser's *Epithalamion*, but only if Spenser's wedding song had been steeped in *The Faerie Queene's* distilled honey for too long. The literary ingredients that went into Drayton's recipe may have been on the shelf too long, just like those that make up Trash's gingerbread in *Bartholomew Fair*. And yet, the literary history of the passage suggests itself to a reader with a disturbing immediacy, bearing witness to the idolatrous ability of food imagery to disclose its own antiquated origins under a picturesque new appearance.

Herrick's poems, on the other hand, do more to suggest what fairy food might taste like to humans. He also links fairy food to fairy belief. If Drayton's fairy poetry is comparable to that of an over-ripe Spenser, Herrick's flirts with the grotesque and is worthy of Arcimboldo. "The Fairie Temple, or Oberons Chappell," is a place in which fairies observe their own proper religion which, as Herrick tells us, is "[p]art Pagan, part Papisticall."¹³⁴ This "Temple of Idolatry" is decorated with images of numerous fairy saints and features human food in bizarre configurations, like changelings of the larder. Herrick's temple includes "Codlin's skin" (or apple

¹³³ William Shakespeare, *The Historie of Henrie the Fourth*, (London: Printed by P.S. for Andrew Wise, dwelling in Paules Churchyard at the signe of the Angell, 1598), accessed via University of Victoria Internet Shakespeare Project, April 16, 2018, http://internetshakespeare.uvic.ca/Library/facsimile/book/BL_Q1_1H4/7/?zoom=600

¹³⁴ Robert Herrick, *Complete Poetry*, ed. J. Max Patrick, ([New York]: New York University Press, 1963), 128. All references to Herrick's poetry and Patrick's notes are to this edition.

skin); "Shew-bread" (which J. Max Patrick's notes gloss as "unleavened bread placed by Israelite priests before Yahweh on a table beside the altar of incense"); "Beads of Nits" (or nuts) as a rosary; "An Apples-core" as a bell; "chives of Saffron"; and, most intriguingly, in place of the Virgin Mary, "The Lady of the Lobster," whom Patrick notes is "part of a lobster's digestive apparatus slightly resembling a seated female figure." Many of these objects are outer casings or decayed remnants that formerly encased nourishing food for humans but serve as decayed relics in this new fairy context. If we recall that Bacon cautions against the ability of words like "humid" to be misleading signs if dragged out of their context, this rich still life sets up decayed human food as idols of a disturbing nature. The accumulated history of Herrick's culinary relics is not that of their literary antecedents, as perhaps in Drayton, but rather that of the life-cycle of human food. The logic by which these corrupted foods have been re-deployed is that of the eye. If we accept Patrick's gloss of the Lady of the Lobster, a poet afflicted with Pygmalion's frenzy may have seen a visual resemblance between a lobster part and a seated woman and made a new metaphor accordingly. The effect of this metaphor is to enrich both the associations of both lobsters and Ladies. When we turn to another of Herrick's fairy poems, "Oberons Feast," the process is reversed: the food itself has never been edible, but its outer contours flirt with the conventions of sophisticated cookery. In a moment evocative of Drayton, Oberon drinks pearls (but of dew) presented in a violet cup. Here the resemblance ends, for Oberon's feast includes "hornes of paperie Butterflies," "Cuckoes spittle," "[a] little Fuz-ball pudding," "the pith/ Of sugred Rush," "the sagge/And well bestrutted Bees sweet bag," "Emits eggs," "Beards of Mice," "a Newt's stew'd thigh," a moth fattened on "withered cherries," and more in this vein. Many of these repulsive foodstuffs are like a witch's ingredients. Insofar as they have any life whatsoever, it is that of the ability of dead things to generate new life and new taste. Perhaps like the fairy

feast in *The Tempest*, there is a gap between the grotesque (in this case, the substances of the food) and the courtly (in this case, the manner in which the ingredients are cooked and presented). The feast concludes, however, with a more poetical dish:

The broke-heart of a Nightingale
 Ore-come in musicke; with a wine
 Ne're ravisht from the flattering Vine,
 But gently prest from the soft side
 Of the most sweet and dainty Bride...

This passage is oddly moving after the catalogue of objectionable dishes that precedes it. This nightingale is as dense with literary allusion as that of Keats. I imagine that Shakespeare's Lucrece and the early modern Philomela in all the glory of her Ovidian intertext are somehow present at this feast in effigy. Can the poetry that ravished it to death be detected in how the nightingale tastes? The wine (which Patrick's note identifies as made of herbs, either bridewort or meadowsweet) is a fitting accompaniment to a bird whose history (and flavor) are redolent with poetic history. Perhaps the wine is not as "flattering" as Gorgian rhetoric, but its process of extraction hints at an herbal wedding and is therefore poetical. Herrick's fairy temple and fairy court therefore give rise to a complex approach to food and literary history. Culinary idols are to be found everywhere, and yet the ultimate way to experience them might be by understanding their stories. When I read these passages in Drayton and Herrick, I am struck by how romance might teach us how to read literary history in unexpected ways and by unexpected means. Romance is unquestionably present in the subject matter of these poems (fairies, magic, Catholicism) but it is also present in how these poems unfold their sources and intertexts by means of their glimmering surface gloss. The authority to be gained from a linear philology or a study of the dissemination of texts might be productively weighed against more opulent and

nurturing methods of reading, methods that fairies, psychics, mystics, and lovers of baked goods might find sympathetic.

I conclude this section with an angelic feast that hints at culinary Idols of the Marketplace. In Book 5 of Milton's *Paradise Lost*, a scene of divine hospitality takes place. When Adam spies Raphael coming to visit, he instructs Eve to make hospitable preparations for their angelic guest and to be generous when doing so. After all, as he reminds her, "well we may afford/ Our givers their own gifts, and large bestow/ From large bestowed, where nature multiplies/ Her fertile growth, and by disburd'ning grows/ More fruitful, which instructs us not to spare." (5.316-320).¹³⁵ To what extent does this paradisaal fruit bear traces of the labor that it took to ease it from its stalks? Eve vows to select the best products from her store, as her treasury of food from "all seasons, ripe for use hangs on the stalk" (5.323). In so doing, Eve's aim as a hostess is to make the angel "confess that here on Earth/ God hath dispensed his bounties as in Heav'n." (5.329-330). Eve plans a menu of creams, berries, wine, and scents the room with roses and shrub odors. (5.344-349). These offerings reflect "[w]hatever Earth all-bearing mother yields" from the Indies to "Pontus or the Punic coast." (5.338-340). All seasons and all lands are magically represented in Eve's larder.¹³⁶

Much to the surprise of Adam and Eve, Raphael is able to eat - and enjoy - their earthly food, complimenting it for the "new delights" which which God has "[v]aried his bounty." (5.430-431). As Raphael eats his meal, we glimpse a strange aspect of Milton's divine hospitality: the fact that the gods can be nourished by human and earthly food.

¹³⁵ John Milton, *The Complete Poetry and Essential Prose of John Milton*, ed. William Kerrigan, John Peter Rumrich, and Stephen M. Fallon, (New York: Modern Library, 2007), 427. All references to Milton's poetry are to this edition.

¹³⁶ Another notable feast in Milton's oeuvre suggests a philological richness similar to that of the fairy feasts I describe in this chapter. In *Paradise Regained*, Satan tempts Christ with a "table richly spread" attended by Naiads and "ladies of th'Hesperides, that seemed/ Fairer than feigned of old, or fabled since/ Of fairy damsels met in forest wide..." (2.340-357-359).

So down they sat,
 And to their viands fell, nor seemingly
 The angel, nor in mist, the common gloss
 Of theologians, but with keen dispatch
 Of real hunger, and concoctive heat
 To transubstantiate; what redounds, transpires
 Through spirits with ease; nor wonder, if by fire
 Of sooty coal the empiric alchemist
 Can turn, or holds it possible to turn
 Metals of drossiest ore to perfect gold
 As from the mine. (5.433-443).

Just as Gorgian rhetoric and cookery drench good matter in layers of confectionery, which might make it more palatable, the alchemist's gold has a history that is hidden to he who enjoys it. The scientist who wishes to restore Eden has to reckon with the fact that earth is choked with "common gloss[es]" already. What comes last is a superstitious translation of heavenly matter into earthly language in such a way that privileges the earthly stuff itself. In exchange for his food and entertainment, Raphael entertains his human hosts with tales of wars in heaven. But in order to do so (and, of course, to fulfill his primary errand, to warn them that Satan is coming), Raphael must convert his discourse into earthly terms. It will be difficult to do so:

... what surmounts the reach
 Of human sense, I shall delineate so,
 By lik'ning spiritual to corporal forms,
 As may express them best, though what if Earth
 Be but the shadow of Heav'n, and things therein
 Each to other like, more than on Earth is thought? (5.571-576)

If we remember Newton's hesitation to speak of colors as truly belonging to objects in his *Opticks*, as I discuss in Chapter 1, we can see how Raphael sounds like Bacon or Newton in this passage, trying to assess how the transcendent truths he wishes to convey can be accommodated

to the "vulgar capacities" of his listeners. Furthermore, if we recollect that Bacon considers "earth" to be an idol-making word, the significance of Raphael's efforts to bridge the linguistic gap between earth and heaven becomes important. "Corporal" food and language are the ground on which this banquet takes place. How does Raphael know which "corporal" forms to use for his translation? After all, paradise and humanity are still in their infancy, so he is presumably not acquainted with the full range of paradisaic materials through careful study. It is tempting to ask whether Eve's creamy and sweet feast has supplied Raphael with the earthy likenesses in which he couches his heavenly tale. The angelic authority on the wars in heaven could owe some of its material force to the romantic feast which may have supplied Raphael with some of his best imagery.

I wish to conclude with a modern example of romance in which rhetoric, cookery, magic, Catholicism, and idolatry all coalesce. In *The Comedian as the Letter C*, Wallace Stevens writes of Crispin, a creature determined to banish romance and embrace more prosaic sources of authority.¹³⁷ Crispin, though he has seemingly renounced poetic views of the world on his voyage to America, muses that:

The melon should have apposite ritual,
 Performed in verd apparel, and the peach,
 When its black branches came to bud, belle day,
 Should have an incantation. And again
 When piled on salvers its aroma steeped
 The summer, it should have a sacrament
 And celebration. Shrewd novitiates
 Should be the clerks of our experience.

As was the case with the prosy Baudelaire (and his critics) as analyzed by Barbara Johnson,

¹³⁷ Patricia A. Parker brings Stevens' poetry into conversation with early modern romance in *Inescapable Romance: Studies in the Poetics of a Mode* (Princeton, N.J.: Princeton University Press, 1979).

cookery (represented here by the fruit) is meant to be realistic for Crispin. His worship of fruit, as keen as that of Bosch, is earthy and future-focused, not mystical. And yet, the melon and the peach have prompted Crispin to remember a joyous world of sensuous Catholic ritual, even that of Chaucerian clerks. Were he to conduct an experiment using either of these fruits, their "incantations" might interfere with his clean induction. The poem's narrator then observes sardonically that

These bland excursions into time to come,
 Related in romance to backward flights,
 However prodigal, however proud,
 Contained in their afflatus the reproach
 That first drove Crispin to his wandering.

Even among earthy American vegetation, facing the future and being pulled back into old-world romances amount to the same overblown impulse. Crispin has come to America on a romantic quest to avoid "counterfeit" things, the "masquerade of thought," the "hapless words/ That must belie the racking masquerade, /With fictive flourishes..." In fact, Crispin "[prefers] text to gloss."¹³⁸ Crispin might have found Bacon's meditations on Pygmalion's frenzy and *Idols of the Market-place* to be excellent cautionary tales about the idolatrous tendencies of words and sensuous images. But the gloss has sought him out in the garden all the same, perhaps just as "common gloss[es]" plague Raphael's reading of his own angelic nature. A peach can retain its visible qualities while many meanings pass through it. By the same token, the word "peach" must do the idolatrous work of accommodating so many instances of itself. Crispin's solution to these conundrums also lies in fruit form.

¹³⁸ Wallace Stevens, *Collected Poetry and Prose* (New York: Library of America, 1997), 31–32. All references to Stevens' poetry are to this edition.

He first, as realist, admitted that
 Whoever haunts a matinal continent
 May, after all, stop short before a plum
 And be content and still be a realist.
 The words of things entangle and confuse.
 The plum survives its poems. It may hang
 In the sunshine placidly, colored by ground
 Obliquities of those who pass beneath,
 Harlequined and mazily dewed and mauved
 In bloom. Yet it survives in its own form,
 Beyond those changes, good, fat, guzzly fruit.
 So Crispin hasped on the surviving form,
 For him, of shall or ought to be in is.

Crispin's solution to Pygmalion's frenzy, his most satisfactory theory of form, involves "hasp[ing]," a word likely meaning "fastening" or even "clasping."¹³⁹ The plum avoids the fate of the idolatrous melon and peach of the earlier passage by being captured by Crispin in some way. Does Crispin actually eat the plum, or merely file it away in his memory? Regardless of the method of "hasp[ing]," the plum clearly becomes part of what Crispin himself "shall or ought to be." Crispin might also have comforted the mad Ophelia by not becoming a skeptical owl, the other likely fate of a realist who refuses to confront the wondrous world before him. "The words of things" do indeed "entangle and confuse," as Bacon's readers know. But what kind of a survival does the plum have vis-à-vis its poems if it becomes part of the poet? Romance is the mode best suited to answering such questions.

¹³⁹ "hasp, v.," *Oxford English Dictionary*, online edition, accessed June 28, 2018, <http://www.oed.com.proxy.library.cornell.edu/view/Entry/84464?rskey=sjEasX&result=2&isAdvanced=false#eid>

Chapter 4: Roses, Icons, and Efflorescent History

Everything that we have hitherto sought to understand through imagination and intellect alone, we find most clearly exemplified in the perfoliate rose... The stalk keeps on growing, thorns even appear on it again; the individual colored petals that follow become smaller, and finally are transformed before our eyes into half-red, half-green stem leaves; a succession of regular nodes is formed, from the buds of which there again emerge little rosebuds - albeit imperfect ones.

- Goethe, *Metamorphosis of Plants*¹⁴⁰

This chapter discusses the persistence of iconic roses in English experimental science in the early modern period. As I have discussed throughout this dissertation, "Pygmalion's frenzy" expresses itself in organic, flourishing imagery that appeals to "vulgar capacities." Such flourishing imagery presents the senses with useful knowledge of the world in an opulent manner. I argue that romance is both a literary genre that nurtures such meaningful organic opulence and a formal principle that makes other kinds of texts "lay," intuitively accessible, and even antiquated. In this chapter, I consider how these aspects of "Pygmalion's frenzy" apply to icons. Icons are figures that are not only accessible to "vulgar capacities" but also draw on romantic reservoirs of lapsed forms for their own illustration and incarnation.

I use the term "icon" in a precise sense drawn from George Puttenham's *The Art of English Poesy*: the first step in the three-step process of homeosis, a figurative schema known to medieval rhetoricians. Rita Copeland and Ineke Sluiter define homeosis (whose three steps are icon, parable, and paradigm) as "the illustration of something less known through its likeness (*similitudo*) to something better known."¹⁴¹ Homeosis uses that which is widely (and perhaps even "vulgarly") known to bring that which is "less known" (or that which, to paraphrase the

¹⁴⁰ Johann Wolfgang von Goethe, *Goethe's Botanical Writings*, trans. Bertha Mueller, (Woodbridge, CT: Ox Bow Press, 1989), 73.

¹⁴¹ Rita Copeland and Ineke Sluiter, eds., *Medieval Grammar and Rhetoric: Language Arts and Literary Theory, AD 300 -1475* (Oxford: Oxford University Press, 2009), 622n. Copeland and Sluiter discuss homeosis in this passage with reference to the *Ars maior* of the medieval grammarian Donatus.

passage from Goethe above, has hitherto been understood only through "imagination or intellect") into incarnate being. What enables homeosis is a resemblance between the less known and the more known things, and at the icon stage the more known things give the appearance of being antique and shopworn, even if the resemblance is new. Indeed, icons bring disembodied desires and ideas into traffic with things that are already in circulation. The historical contingency of this traffic with things that are "better known" makes icons a historically knowing species of similitude. When understood as the first step of homeosis, therefore, icons are not merely illustrative, but also materially intelligent, drawing transcendent and new knowledge into being on their own terms. In my first section, I show how roses have long embodied this iconic process in literature and science, including in a famous episode in *Le roman de la rose* itself that shows the persistent iconic power of that which is "commonly known."

In my second section, as a precise case study of how historically knowing and incarnate icons infiltrated English experimental science, I consider the damask rose (sometimes called the "rose of Castile" or even the "incarnate rose.") This kind of rose was studied experimentally by Francis Bacon, Robert Boyle, Robert Hooke, and Isaac Newton, among others, but also infiltrated the discourses of these scientists by means of its persistent iconicity. Damask roses are exemplary instances of icons because they seem to demand traffic with "lay" culture (or that which is commonly known) for their imagistic power and even their proper biological development. Damask roses therefore reveal that experimental science cannot assume an Adamic purity of soil nor of language in its most lively examples. Instead, "proper" scientific ideas and names, on the one hand, and those which are already known and "common," on the other, work together to incarnate natural laws in scientific discourse. Romance fertilizes this incarnation both as a literary genre (in which damask roses thematize the iconic stage of homeosis) as well as a

formal principle (shaping the ways in which damask roses blossom in experimental scientific texts).

This chapter engages with a moment in Ovid's Pygmalion story in *Metamorphoses* that I discuss in my Introduction: the character Pygmalion's use of simile in his prayer to Venus. Afraid to ask for what he actually wants (to have his ivory maiden as his wife,) Pygmalion asks for a wife who is "like" his ivory maiden. This moment in Ovid's text is iconic in bridging the lavishly adorned statue with the living woman she will soon become. By acknowledging the distance between his own understanding and that of the divine realm, Pygmalion is perhaps being courteous. But Venus understands Pygmalion's true wish and grants it. How would the story have been different if Pygmalion had uttered his true prayer out loud? By first acknowledging the distance between flesh and ivory with an iconic similitude, Pygmalion creates an opportunity for that distance to be bridged. As a result, his lavishly ornamented statue becomes flesh before his (and the reader's) eyes, a transformation facilitated by Pygmalion's decorous prayer. The roses I discuss in this chapter seem to have studied existing cultural riches, like the adorned ivory body of Galatea, in order to incarnate themselves in a similarly meaningful manner.

Before proceeding, I wish to distinguish the kinds of rose icons I discuss in this chapter from the popular early modern collections of "posies" and "flowers" used to ornament discourses, such as George Gascoigne's *A Hundreth Sundry Flowers*, Henry Peacham's *The Garden of Eloquence*, and Clement Robinson's *Handefull of Pleasant Delites*. These collections contain excerpts from poems that, like flowers in a garden, could be sampled and re-used in other texts. These "posies" reaffirm the power of the humanist metaphor of the reader as a bee drawing honey from many floral texts. The reason I view the roses in this chapter as working differently from these "flowers of rhetoric" is that I emphasize their *resistance* to being sampled without

regard for their previous environment. These roses' resistance takes the form of remembering the contexts in which they were nurtured and presenting that honeyed history whenever sampled in new contexts. In other words, these roses are certainly as mobile as the ones in posies, but, like Homer's moly, they bring their roots along with them on their journeys.

Icons and the Efflorescence of the "Commonly Known"

Roses show how romance is not only a literary genre that raises philosophical questions similar to those of science and is often ornate in style, but is also a formal principle at work in other kinds of texts and defines itself as "lay," earthy, and accretive in quality. As discussed in my Introduction, I draw some of my ideas about romance's authority from the work of Northrop Frye, who, in his pivotal study of romance *The Secular Scripture*, cites Goethe's *Metamorphosis of Plants*. Frye writes that Goethe's botanical meditations "link the conception of evolution to that of the secular scripture, and introduce some of the traditional ascent motifs, connecting straight-line ascent with the symbolically 'male' and spiral ascent with the symbolically 'female.'"¹⁴² Frye discusses these structural motifs with reference to the patterns in texts that belong to the romance genre. My own emphasis on the "romance" aspects of Goethe's biology in the passage that forms my epigraph is slightly different. In the passage from Goethe that I quote above, the perfoliate rose is romantic in its expression of the formal principle I mention above and trace throughout this dissertation. Goethe has found the fullest expression of the things that he has been trying to understand through his "imagination" and "intellect" alone not in a purely mental object, but in a material rose. This curious moment might cause us to wonder how many

¹⁴² Northrop Frye, *The Secular Scripture: A Study of the Structure of Romance* (Cambridge, Mass.: Harvard University Press, 1976), 184.

of Goethe's own fantasies are being imposed on the rose from the outside, and how many of these fantasies may have originated from the rose itself.

Goethe's rose is so vital that it seems to be developing through and by Goethe's own textual description of it. Did the perfoliate rose want Goethe to study it? Or to put the matter another way, perhaps the rose of Goethe's intellectual speculations made use of an abundantly known organic object that resembled it to become better known. In her *Philosophy in a New Key*, Susanne Langer observes that images "have an inalienable tendency to 'mean' things that have only a logical analogy to their primary meanings. The image of a rose symbolizes feminine beauty so readily that it is actually harder to associate roses with vegetables than with girls."¹⁴³ The things that Goethe has hitherto been able to access via "the imagination and the intellect alone" might include aspects of rose lore that are not strictly botanical. After reading Goethe and Langer, it is possible to imagine the cultural associations with feminine beauty clustering around roses to such an extent as to confuse a botanist attempting to classify them. If we remember that Goethe's perfoliate rose is the fulfillment of all his imaginative aspirations, we can see why a scientist attempting an exact portrait of roses would be hard put to omit the things to which, as Langer puts it, it possesses "only a logical analogy." Instead, the cultural and imaginative lore that surrounds organic phenomena like roses envelops such phenomena in an iconic penumbra, one that is accretive and difficult to remove.

As I mention above, understanding why Goethe's rose and others are iconic entails a study of the process of homeosis. George Puttenham's *The Art of English Poesy* calls roses iconic because they were an ornamental figure that worked by resemblance to denote redness. The Icon or Resemblance by Imagery, according to Puttenham, is a fundamentally human likeness, as

¹⁴³ Susanne Langer, *Philosophy in a New Key: A Study of the Symbolism of Reason, Rite, and Art*, 3rd ed. (Cambridge, MA; London, England: Harvard University Press, 2009), 145.

when we compare "a human person to another in countenance." Puttenham continues: "And this manner of Resemblance is not only performed by likening of lively creatures to one another, but also of any natural thing bearing a proportion of similitude, as to liken yellow to gold, white to silver, red to the rose, soft to silk, hard to the stone, and such like."¹⁴⁴ Puttenham's meditations on the trope of resemblance extend beyond the icon to the parable and the paradigm, a three-step process which he calls "Omiosis." (In this section, Puttenham is drawing on earlier rhetoricians like Susenbrotus, according to Wayne A. Rebhorn and Frank Whigham)¹⁴⁵ As I have written above, the process of homeosis is interesting because it suggests that the work of culture - that is, making some things better known than others - can affect the figurative treatment of natural phenomena. Homeosis is therefore a sequence of literary ornament that is knowledgeable about cultural history. For instance, if over time another red object became better known than roses, that object would, under the logic of homeosis, make itself more attractive to a poet looking to illustrate redness than roses used to be. In other words, icons tell us something about the cultural environment that gives rise to them. This moment in Puttenham's work is also of interest because it goes into such detail about the iconic power of these particular things with which humans share their lives (to paraphrase Stoppard's Valentine in the passage I quote in my Introduction), including roses, gold, silver, silk, and stones, the stuff of Elizabethan courtly life. The relationship between a rose and its redness is an icon because humans have bestowed their attention on the rose.¹⁴⁶

¹⁴⁴ George Puttenham, *The Art of English Poesy*, ed. Frank Whigham and Wayne A. Rebhorn (Ithaca: Cornell University Press, 2007), 329. See Whigham and Rebhorn's note for the provenance of Puttenham's sense of the icon (329n.) Pavneet Aulakh, in his discussion of Bacon's indebtedness to other scholars of language that I quote in my Introduction, cites Puttenham's discussion of the work of resemblance also. See "Seeing Things Through 'Images Sensible,'" 1160-1161.

¹⁴⁵ Puttenham, *The Art of English Poesy*, 326.

¹⁴⁶ Puttenham also refers to Sidney's *Arcadia* as containing an icon of the kind he has in mind, thus tying the work of the icon to the genre of romance. Another romantic parallel can be found in Sir John Harington's 1607 second edition of his translation of Ariosto's *Orlando furioso*, roses are described as being the most precious of their kind in

To understand how Puttenham's sense of rose icons might appeal to a scholastic imagination, I wish to turn to Aristotle's *Problems* (which, as I mention in the Introduction, is considered by Mary Thomas Crane and others as a part of the Aristotelian corpus particularly susceptible to an "intuitive" understanding of nature). The text of *Problems* contains a great deal of interesting rose lore that thrives on the meaningfulness of the outward face of the flower, the part of the flower that would also be most appealing as a pre-Reformation devotional object.¹⁴⁷ The formal properties of a rose are revealed in a question in the *Problems* about odors: "Why do those roses in which the centres are rough smell sweeter than those in which they are smooth? Is it because those roses smell sweetest which partake most of the natural characteristics of the rose? Now the rose is naturally thorny, and so it smells sweeter when its characteristics are more natural."¹⁴⁸ Such a theory of rose scent presupposes that the "natural characteristics" of roses are the knowable universal standard against which individual roses can be evaluated. The book of nature lies open to the nose as well as the eye in the Aristotelian garden. Color and odor, the most poetically redolent attributes of roses, are real bridges between universal roses and particular ones. Can this relationship, the one between the ideal rose and an individual one, be called iconic also? I believe that it can. As is the case with Crispin's plum in *The Comedian as the Letter C* (which I discuss in Chapter 3), ordinary sense experience can yield useful knowledge about the essence of things.

careful series of parallels: "As siluer is to tinne, as gold to brasse,/As roses are to flowres and herbes more base,/As diamonds and rubyes are to glasse." (13.55). Lodovico Ariosto, *Orlando Furioso: In English Heroical Verse, by Sr Iohn Haringto[n] of Bathe Knight*, Now secondly imprinted the yeere. 1607. (London: By Richard Field, for Iohn Norton and Simon Waterson, 1607), 100.

¹⁴⁷ Bacon knew the *Problems* and criticizes its experimental approach in his discussion of "Idols of the Theatre" in *New Organon* as being "a captive" to predetermined conclusions (4:65). In *Of the Dignity and Advancement of Learning*, however, Bacon praises the *Problems* as "noble" for dealing with "doubts" (4.357).

¹⁴⁸ Aristotle, *Complete Works*, Vol. 2, Aristotle, *Complete Works*, trans. Jonathan Barnes (Charlottesville, VA: InteLex Corporation, 1992), 1409.

For Aristotle, however, roses are even stranger than some other organic phenomena because they sometimes seem to bypass the logic of bodily temperance altogether. In the *Problems*, when discussing temperance and its opposite, Aristotle reflects that, unlike the scent of dried fish to a hungry lion, the smell of a rose "is always pleasant" and does not become less so with satiety.¹⁴⁹ Is this fact attributable to the ability of rose scent to span the imaginative and the incarnate realms? A possible answer to this question can be found in *Nicomachean Ethics*, when Aristotle argues that "those who delight in the odour of apples or roses or incense" do not earn the names of "temperate nor self-indulgent," unlike "those who delight in the odour of unguents or of dainty dishes; for self-indulgent people delight in these because these remind them of the objects of their appetite."¹⁵⁰ Apples, roses, and incense, in this passage, do not refer to absent things. While they are just as materially substantial as "unguents" or "dainty dishes," apples, roses, and incense draw the attention of the senses to things locally present, not to absent and desired objects. Indeed, rose scent tends to be perceptible only close by. In Bacon's essay "Of Gardens," he writes: "Roses, damask and red, are fast flowers of their smells; so that you may walk by a whole row of them, and find nothing of their sweetness; yea though it be in a morning's dew." (6:487). As is the case with their thorns, understanding the formal properties of roses requires careful and intimate study. As we saw in Chapter 3, this fact may save those who indulge in rose odors from a certain kind of charge of idol worship. But it is possible that icon worship has different pitfalls and different sins. If we cannot be gluttoned by the scent of a rose, we may be tempted to spend forever smelling it.

In considering this tantalizing passage from *Nicomachean Ethics*, let us appreciate another incarnation of its central image cluster in one of Sappho's hymns. In Aristotle's view,

¹⁴⁹ Aristotle, *Complete Works*, Vol. 2, 1492.

¹⁵⁰ Aristotle, *Complete Works*, Vol. 2, 1765.

enjoying these holy odors does not involve the spectator in the bodily "appetite" at all, as these odors do not call up materially absent things, but rather embroider and enrich that which is already present. I connect these ideas in Aristotle with another moment that makes divine things local by means of apples, roses, and incense. Anne Carson translates a fragment of Sappho which Carson terms "a hymn of the type called 'kletic,' a calling hymn, an invocation to God to come from where she is to where we are." The hymn is to Aphrodite and calls the goddess by her local name "Kypris," summoning her to

...[come] here to me from Krete
to this holy temple where is
your graceful grove of apple trees and altars
smoking with frankincense.

And in it cold water makes a clear sound through apple branches
and with roses the whole place
is shadowed and down from radiant-shaking leaves
sleep comes dropping.¹⁵¹

In this passage of Carson's translation, roses are neither Cretan nor Olympian but seem, by "shadowing," to be somewhere in between the origin and the destination of the goddess. The radiant apple and rose branches enable the mystical sleep that allows the goddess to take a local form. Delight in the smell of roses might therefore not be confined to matter even as it exults in material beauty. Might part of the pleasure of apples, roses, and incense involve a revelation of their linguistic and cultural histories? Smelling a rose might be like reading. I connect these moments in Sappho and Aristotle to the personal presence of Venus at her festival in Ovid's Pygmalion story (as I discuss in my Introduction) as well as to Ovid's calling Hermes

¹⁵¹ Anne Carson, *Decreation: Poetry, Essays, Opera* (New York: Knopf, 2005), 178. Carson's first translation of this poem appears in her *If Not, Winter: Fragments of Sappho*, (New York: Vintage Books, 2002), 2.

"Cyllenius" in his description of the gift of moly. When deities or other transcendent forces must come down to earth, matter gives them a local presence. But such local presences, like pre-Reformation feast days and patron saints, have their own concerns and vest the forces they incarnate with their own material intelligences. It is no coincidence that icons are both a form of imagery that is at home in religious settings that privilege local worship as well as a persistent reminder to scientists to consider the organic intelligence of matter in their experiments.

In order to understand how such locally rich rose icons also have a history in the literary genre of romance, I end this section by considering a moment from *Le roman de la rose* itself. This quintessential "rosy" romance offers a famous example of the iconic work of language. The example in question occurs in Jean de Meun's very long continuation of the poem. The Lover and the allegorized figure of Reason are in discussion with one another about the relationship between words and things. When we remember that reason was the faculty to which scholastic realists entrusted the work of reading the book of nature, this moment acquires a special pungency. The moment arrives when the Lover criticizes Reason for referring to testicles ("coilles"). Reason defends her use of language by arguing that had she used the word "relics" to refer to the same physical object, the Lover would have found that word, too, to be obscene. David F. Hult reads this passage as an "interrogation" of "linguistic nominalism" and points out that "relics" was a commonly used term for female genitalia. Hult also directs our attention to Reason's eventual claim that God left her in charge of assigning names to things.¹⁵² Reason claims that

...il vost que nons leur trovasse

¹⁵² David F. Hult, "Language and Dismemberment: Abelard, Origen, and the Romance of the Rose," in *Rethinking The Romance of the Rose: Text, Image, Reception*, ed. Kevin Brownlee and Sylvia Huot (Philadelphia: University of Pennsylvania Press, 1992), 117–18.

A mon plaisir, et les nommasse
 Proprement et communement
 Pour croistre nostre entendement,
 Et la parole me donna
 Ou mout tres precieus don a. (7087-7092).¹⁵³

[He wanted me to find names according to my own wishes and to name [all things] with words that are proper to those things and in common use in order to grow our understanding, and he gave me the gift of speech, which is a precious gift.]

I am interested in how Reason balances the demands of propriety and those of common use in her assignment of names. Reason's assignment of certain names to certain things might involve a close study of their "real" qualities and a paradisaic match of word with thing. But because Reason, currently incarnated in a medieval allegorical garden, has to do this work continually throughout history, she also must consult the common associations of certain names, a historically conscious endeavor. Negotiating between the proper and the common is the work of the romancer as well as the scientist. The longer the process goes on, the more the "understanding" grows and the more carnally powerful the results become. In the next section, I will show how damask roses deftly engaged with things in "common use" and even gave the suggestion of being more at home in culture than in nature.

A Case Study: Damask Roses

In my second section, I select a particular kind of rose as an example of how the iconic stage of homeosis whose operations I outline in the first section manifested itself in practice. I focus on the damask rose because of its particularly rich cultural associations in early modern

¹⁵³ Guillaume de Lorris and Jean de Meun, *Le Roman de La Rose*, ed. Armand Strubel (Paris: Librairie générale française, 1992), 394–95. The English translation is mine and is based on the Old French as well as Strubel's rendition of this passage in modern French.

England. John Lyly's *Euphues* reports that the damask rose "is sweeter in the still then on the stalke," a claim verified in the examples below, which deploy the rose in cultural contexts as transformative as any distillery might be.¹⁵⁴ Part of the reason why damask roses seemed just as cultural as they were natural to early modern readers was their relative novelty; Bacon notes in *Sylva sylvarum* that damask-roses "have not been known in England above an hundred years, and now are so common" (2.544). This recent arrival may have prepared the ground, literally and figuratively, for readers to imbue this suggestively named rose with many opulent fantasies, fantasies that clung to the rose's folds as it emerged in new contexts. As I hope to show, these fantasies are not the result of the imposition of alien forms on quiescent matter. Instead, the romances of the damask rose seem like dreams of matter made legible by organic form and cultural nurture.

An early allusion to damask roses would have acquainted the early modern English reader with the flower in the context of one of the most famous and magical literary romances. Apuleius' *Golden Ass* presents a holographic rose that stands apart from its object and yet has a necessary relationship with it. The narrator of the romance, Lucius, has been transformed into an ass and has been told that eating a rose will restore him to his old form. He finds himself in gardens, and while longing for red roses, he beholds a shadowy valley in which, to give the 1566 William Adlington translation, Lucius thinks he sees

many flourishinge Roses of bright Damaske colour. And I said within my bestiall minde: verely ye place is the place of Venus & the Graces, where secretely glittereth the royall hewe, of so liuely and delectable a flower: Then I desiring ye helpe of the guide of my good fortune, ranne lustely towards the woodde...but my agilite and quicknes could not preuent the crueltie of my fortune: For when I came to the place, I perceaued that they were no Roses, neither tender, nor pleasant, neither moisted with the heauenly droppes of dew nor celestiaall licour, whiche grewe out of the thicket and thornes there. Neither did I perceauie ye there was any valley at all, but onely the

¹⁵⁴ John Lyly, *Euphues* (London: [By T. East] for Gabriel Cawood dwelling in Paules church-yarde, 1578), 30.

banke of the riuer enuironed with great thicke trees, which had long braunches like vnto Lawrel, & bearinge a flower without any manner of sente, and the common people call them by the name of Lawrell roses [*quos equidem fragrantis minime rurestri vocabulo vulgus indoctum rosas laureas appellant*], whiche be very poyson to al manner of beastes. Then was I so entangled with vnhappy fortune, that I litle esteemed mine own daunger, & went willingly to eate of those Roses, though I knewe them to be present poyson.¹⁵⁵

Consider what causes Lucius' mirage. First, he desires a rose. Second, he thinks he sees an abundant cluster of roses. (As is the case with the letters Bacon describes in his account of "Pygmalion's frenzy," they are flourishing.) Third, upon verification, Lucius discovers that a folkloric name has tricked him. The name of the laurel rose, in this section, is powerful enough to bring in its train a vision of a Venusian rose grove. As is the case with *Sir Gawain and the Green Knight*, the thicket and the thorns have been replaced by (perhaps even transformed into) a far more enticing kind of vegetation. An empirical psychologist might argue that Lucius subliminally saw the "laurel roses" accurately at first and then, because of a mechanical association of ideas, conjured up damask roses instead. All the same, how can we account for the sensory richness of the delusion? Indeed, Lucius eats the rose not for its taste or its sustenance, but for the savor of its mythological and cultural associations. He may be hoping that some of the promised magic of the rose antidote will work through imagination to cure his plight. I would argue that damask roses, because they were more visually familiar to Lucius than laurel roses, facilitated his knowledge of laurel roses via iconic homeosis. Indeed, the very name "laurel roses" is the coinage of "common" people who know roses better than they know laurel. The vulgar name of this vegetable matter is close enough to the name of the rose that Lucius eats it

¹⁵⁵ Apuleius, *The Xi. Bookes of the Golden Asse: Conteyninge the Metamorphosie of Lucius Apuleius, Enterlaced with Sondrie Pleasaunt and Delectable Tales, with an Excellent Narration of the Mariage of Cupide and Psiches, Set out in the. Iiii. v. and vj. Bookes. Translated out of Latine into Englishe by William Adlington* (London: In Fleetstrete, at the signe of the Oliphante, by Henry Wykes, 1566), 34. The Latin text is from the open-source Latin Library edition of Apuleius, <http://www.thelatinlibrary.com/apuleius/apuleius4.shtml>, accessed June 4, 2018.

anyways, perhaps hoping that via sympathetic magic a vulgar nickname will be sufficient to cure him. As is the case with Milton's Raphael in Chapter 3, this passage in Apuleius affirms likenesses between things and words in a manner that acknowledges its own imprecision. Finally, this passage's association of damask roses with "the place" of Venus also ties this moment together with the instances of local worship I discuss above. In sum, this moment in a literary romance shows the cultural currency of damask roses and their ability to disclose a cache of folkloric knowledge about themselves by molding that which they are not.

To show how Lucius' illusion of damask roses reverberated in early modern England, I explore a couple of different icon clusters associated with the flower. The first icon cluster exploits the name of damask to make this particular variety of rose more at home with cultivated luxury goods like textiles than with other vegetable forms. As Susanne Langer notes in the passage I quote above, the preponderance of such associations may have made it difficult to assess damask roses without thinking of clothing, jewels, or other consumer goods. These examples, indeed, exploit the imaginative power of the fabric damask itself that Bruce R. Smith describes as follows: "In the psyche of a Renaissance perceiver, antic/antique work, grotesquery, arabesques, boscage, and damask are the stuff of fancy."¹⁵⁶ Of course, we might think of how damask, like other fabrics, could be a figure for rhetorical ornament; Ben Jonson speaks of what it means to "embroyder or damaske" discourse in *Cynthia's Revels*.¹⁵⁷ More material kinds of ornament, however, predominate. In *The Winter's Tale*, for example, Autolycus advertises "Lawne as white as driuen Snow,/ Cypresse blacke as ere was Crow,/ Gloues as sweete as

¹⁵⁶ Bruce R. Smith, *The Key of Green: Passion and Perception in Renaissance Culture* (Chicago: University of Chicago Press, 2009), 149.

¹⁵⁷ Ben Jonson, *The Fountaine of Selfe-Loue. Or Cynthia's Reuels* London: [By R. Read] for Walter Burre, and are to be solde at his shop in Paules Church-yard, at the signe of the Flower de-Luce and Crowne, 1601).

Damaske Roses" among his wares (TLN 2044-2046).¹⁵⁸ In Michael Drayton's *Poly-olbion*, a bride is crowned with a garland which has, instead of gems, three kinds of roses: "The Red, the dainty White, the goodly Damask Rose,/ For the rich Ruby, Pearle, and Amatist, men place/ In Kings Emperiall Crownes, the circle that enchase."¹⁵⁹ These two examples show that damask roses can either replace similarly valuable and beautiful goods (like amethysts) or serve, when absent, to make the "sweet[ness]" of gloves more iconically evident. If we remember Puttenham's sense of homeosis, it is evident that Shakespeare and Drayton, like Apuleius, were comfortable using damask roses (which were widely known) to illustrate things that were less well known (the particular amethysts or the particular gloves being sold by Autolycus).

Aside from luxurious textiles, early modern writers took up Lyly's hint more broadly and started to describe damask roses in contexts that pointed to the fact that these roses seemed to find their perfection in artifice. A startling example of this tendency emerges in travel narratives, in which explorers of new lands ran into a flower that was new to England. Of these narratives, the most interesting appearance of damask roses is in Samuel Purchas' text *Purchas his Pilgrimes*. In a chronicle of a voyage to Brazil, the local inhabitants have access to many roses, including "Damaske Roses, whereof they distill great store of Rose-water, and Conserue of Roses for the purge, and not to purge, for of the other they haue not, they see the Damaske Roses in water, and straining them they make Conserue of Roses very good wherewith they doe not purge."¹⁶⁰ Many English books of housewifery make reference to very similar uses of damask roses, so this account would not of been of novel practical use to Purchas' reader. What

¹⁵⁸ William Shakespeare, *Mr. William Shakespeares Comedies, Histories, & Tragedies: Published According to the True Originall Copies* (London: Printed by Isaac Iaggard, and Ed. Blount [at the charges of W. Iaggard, Ed. Blount, I. Smithweeke, and W. Aspley], 1623), 293.

¹⁵⁹ Michael Drayton, *Poly-Olbion* (London: Printed [by Humphrey Lownes] for M Lownes. I Browne. I Helme. I Busbie, 1612), 241.

¹⁶⁰ Samuel Purchas, *Purchas His Pilgrimes: In Fiue Bookes* (London: Printed by William Stansby for Henrie Fetherstone, and are to be sold at his shop in Pauls Church-yard at the signe of the Rose, 1625), 1319.

interests me, however, is how Purchas takes this English practices of distilling and conserving damask roses and "reads them into" a New World setting. As is the case with Marlowe's elegy conflating moly with tobacco that I discuss in Chapter 2 and Raleigh's "crystal of the mountain" in Chapter 1, finding ancient and valuable organic matter and cultural processes in the New World tended to burnish the value of that matter and those processes. To remember Spondanus' comment on the moly episode in Homer, quoted by Chapman as a marginal note, the world is big enough to include refined cultural practices in unexpected settings.

Another image cluster is even more interesting and relevant to the plight of *The Golden Asse's* Lucius because it takes a confusion of language and applies it to damask roses in reality. The nature of this confusion, too, is important: it conflates damask roses with flesh. If the first icon cluster I describe in this section associates damask roses with objects conventionally thought of as signifiers (clothing, etc), this second image cluster yokes the flowers to something conventionally associated with signifieds (flesh). In my Introduction I wrote about how the Green Knight's attire is a reliable expression of his flesh. It is fitting that I conclude my last chapter with another vegetable image, damask roses, which combines "clothing" and that which clothing covers into an opulent, unified symbolic field. The notion that flesh, particularly ladies' cheeks, could be "damask" reminds us most forcibly of Shakespeare's work. In *Twelfth Night*, Viola's famous "Patience on a monument" speech refers to how a woman (Viola's father's daughter, and implicitly herself), suffering from unconfessed love "let concealment like a worme i' the budde/Feede on her damaske cheeke."¹⁶¹ In *Love's Labour Lost*, damask roses are the source of a pun. A boy tells the Queen that the masked ladies will return and "Blow like sweet Roses, in this summer aire." The Queen asks "How blow? how blow? Speake to bee vnderstood."

¹⁶¹ Shakespeare, *Mr. William Shakespeares Comedies, Histories, & Tragedies: Published According to the True Originall Copies*, 263.

The boy replies: "Faire Ladies maskt, are Roses in their bud: Dismaskt, their damaske sweet commixture showne,/ Are Angels vailing clouds, or Roses blowne." (TLN 2215-2220).¹⁶²

Shakespeare's fondness for calling female flesh damask has its counterpart in Italian romances available in early modern England in translation. For example, Ariosto's *Orlando furioso* depicts the naked Angelica as being devoid of "vaile of lawne... To shade the damask rose and lillies white" of her body,¹⁶³ while Colonna's *Hypnerotomachia* describes a scantily dressed nymph whose "white smocke seemed as if it had couered damaske Roses."¹⁶⁴ What unites such literary examples is not only the association of damask roses with flesh, but the tendency of this association to "speake to bee vnderstood" through intervening veils of "concealment." I observe above that the fact that early modern writers used damask roses as an icon linking flesh and fabric seems to shore up the veracity of the fabric. But perhaps this fact also bears witness to the ability of flesh, and other signifieds, to tinge their modes of expression with their own being.

If this argument is accurate, we can see the effect of damask roses becoming flesh in the tendency of some writers, including scientists, to refer to damask roses as "incarnate roses," which is the source of the confusion of language I mention in my previous paragraph. One of the reasons why damask roses were called incarnate roses may have been the discussion of roses in John Gerard's herbal, which tells us that "The Damaske Rose is called of the Italians *Rosa incarnata*."¹⁶⁵ Edward Phillips' *New World of English Words*, which defined "incarnadin colour," a French-derived word, as being "a flesh colour, or the colour of a Damask Rose."¹⁶⁶ The most

¹⁶² Shakespeare, *Mr. William Shakespeares Comedies, Histories, & Tragedies*, 139.

¹⁶³ Ariosto, *Orlando Furioso*, 79.

¹⁶⁴ Francesco Colonna, *Hypnerotomachia*. = *The Strife of Loue in a Dreame* (London: Printed [by Abell Jeffes, John Charlewood, and Eliot's Court Press] for Simon Waterson, 1592), 78.

¹⁶⁵ John Gerard, *The Herball or Generall Historie of Plantes. Gathered by Iohn Gerarde of London Master in Chirurgerie Very Much Enlarged and Amended by Thomas Iohnson Citizen and Apothecarye of London*, (London: Printed by Adam Islip Ioice Norton and Richard Whitakers, 1636), 1263.

¹⁶⁶ Edward Phillips, *The New World of English Words, or, A General Dictionary Containing the Interpretations of Such Hard Words as Are Derived from Other Languages* (London: Printed by E. Tyler for Nath. Brooke, 1658).

striking example of the damask rose becoming "incarnate," however, comes from the work of Robert Boyle. Boyle relates a story of an apothecary who used to love roses but who was so glutted with their smell in the course of his work that he could no longer tolerate rose-bushes when he encountered them in nature. Boyle tells us that "the odour of roses (I mean Incarnate-Roses, which we commonly call Damask-Roses, though they be not the true ones)" made the apothecary cough and his eyes so sore that "during the season of Roses, when quantities of them are brought into his House, he is oblig'd for the most part to absent himself from home." (7:270). Boyle's apothecary friend has spent so much time coaxing damask into artful forms (perhaps like conserves and rosewater) that the meaning of natural rose bushes has changed for him. Instead of being an icon for feminine beauty or luxurious fabric, the apothecary's own flesh has been tainted by the "incarnate rose." Even though Boyle describes this appellation as a mistaken one, the broader context of this romantic experimental tale shows just as clearly as *The Golden Asse* does that names can create compelling sensory illusions. The more rich the cultural history of the illusion, the greater its power.

Another scientific incarnation of the damask rose bears witness to the iconic power it exercises even in a state of decay. Robert Hooke's *Micrographia* can be read as an icon-loving work of experimental science, a hyperbolic excess of visuality. In one record of his microscopic observations, Hooke notes the presence of unusual tiny buds growing on the yellowing undersides of moldy damask rose leaves.¹⁶⁷ The question of whether these moldy excrescences are part of the damask rose or another species altogether provides Hooke with the occasion to reflect on putrescent generation in vegetable and animal life more generally. For Hooke, the seminal aspect that produces the small secondary plants on rotting leaves may be a part of the

¹⁶⁷ Robert Hooke, *Micrographia: Or Some Physiological Descriptions of Minute Bodies Made by Magnifying Glasses, with Observations and Inquiries thereupon*, (London: John Martyn and James Allestry, 1664), 121.

original plant and therefore a force linking secondary growths to the original plant. Hooke writes: "If therefore the *putrifying* body, on which any kind of seminal or vital principle chances to be cast, become somewhat more than merely a nursing and fostering helper in the generation and production of any kind of Animate body, the more neer it approaches the true nature of a Womb, the more power will it have on the by-blow it incloses."¹⁶⁸ This dissertation contains several examples of environments of nurture that seem more powerful than environments of birth, including the Faerie soil in which the Redcrosse Knight was raised in *The Faerie Queene*, the philologically entangled roots of haemony in *Comus*, the fairy-ridden landscapes of *Cymbeline*, and other idolatrous and icon-soaked sites. The undersides of a damask rose leaves, while not unique for Hooke in harboring "by-blows," form another such environment, as they provide a ground in which matter and maternity can shape new species. These rotting damask rose leaves are also iconic in the sense of having their buds quickened into being by a microscope and by visually ornate writing, much like Goethe's perfoliate rose. As is the case with distillery and textiles, writing and microscopic observation are means of perfecting the damask rose.

For Isaac Newton, damask roses mean redness and are a token of the rubrific power of the Sun's rays deep under the ocean. An experiment, related in the *Opticks*, illustrates the ability of red-making rays to penetrate through thick liquids:

Of this kind is an Experiment lately related to me by Mr. *Halley*, who, in diving deep into the Sea in a diving Vessel, found in a clear Sunshine Day, that when he was sunk many Fathoms deep into the Water, the upper part of his Hand on which the Sun shone directly through the Water and through a small Glass Window in the Vessel, like that of a Damask Rose, and the Water below and the under part of his Hand illuminated by Light reflected from the Water below look'd green. For thence it may be gather'd, that the Sea Water reflects back the violet and blue-making Rays most easily, and lets the red-making Rays pass most freely and copiously to great depths. For

¹⁶⁸ Hooke, *Micrographia*, 123.

thereby the Sun's direct Light at all great depths, by reason of the predominating red-making Rays, must appear red; and the greater the depth is, the fuller and intenser must that red be.¹⁶⁹

This experiment is interesting because it is related to Newton at second hand, which gives it an air of a folkloric tale or a suspect report. And yet it is iconically vivid; we can glimpse Halley's hand being tinted the color of a damask roses beneath the ocean as clearly as if it was presented to us in stained glass. Newton, who is so conscious of the difficulty of discussing color without resorting to vulgar imprecisions of language (as I discuss in Chapter 1), may have found in the damask rose an object that is so copiously rubrific in nature and in its cultural associations that it begs to be called, simply, red.

I end this chapter by considering two experiments using damask roses in Bacon's *Sylva sylvarum*.¹⁷⁰ Both experiments show damask roses interacting with domestic scenes and offering up new knowledge purely as a result of their development in those cultural settings. The first experiment instructs the reader to do the following:

Take damask roses, and pull them; then dry them upon the top of an house, upon a lead or terrace, in the hot sun, in a clear day, between the hours (only) of twelve and two, or thereabouts. Then put them into a sweet dry earthen bottle, or a glass, with narrow mouths, stuffing them close together, but without bruising: stop the bottle or glass close, and these roses will retain not only their smell perfect, but their colour fresh, for a year at least...Note, that these roses, when you take them from the drying, have little or no smell; so that the smell is a second smell, that issueth out of the flower afterwards. (2:462-463).¹⁷¹

Damask roses in this experiment have a preservative function even as they are preserved in their turn. They have a strong preference for being dried not at the ground level of a dwelling, but on

¹⁶⁹ Newton, *Opticks*, 160-161.

¹⁷⁰ Powdered damask roses also feature as an ingredient in Bacon's receipt for "a certain ointment, which his Lordship called *Unguentum fragrans, sive Romanum*, the fragrant or Roman unguent," as memorialized in his *Medical Remains* (3:835).

¹⁷¹ A simplified version of this experiment is also preserved in Bacon's *Medical Remains* (3:828).

top of a house ("lead" or "terrace"). The "second scent" that issues from the preserved damask rose is produced entirely by culture and not by nature. The second experiment serves as proof of the ability of water to accelerate the nourishment of plants. The damask rose in this experiment seems to favor a dark chamber for its nourishment to a bright garden:

For a standard of a damask rose with the root on, was set in a chamber where no fire was, upright in an earthen pan full of fair water without any mixture, half a foot under the water, the standard being more than two feet high above the water: within the space of ten days the standard did put forth a fair green leaf, and some other little buds, which stood at a stay, without any shew of decay or withering, more than seven days. But afterwards that leaf faded, but the young buds did sprout on; which afterward opened into fair leaves, in the space of three months; and continued so a while after, till upon removal we left the trial. But note that the leaves were somewhat paler and lighter-coloured than the leaves use to be abroad. Note that the first buds were in the end of October; and it is likely that if it had been in the spring time, it would have put forth with greater strength, and (it may be) to have grown on to bear flowers. By this means you may have (as it seemeth) roses set in the midst of a pool, being supported by some stay; which is matter of rareness and pleasure, though of small use. (2:477-478).

As is the case with the strange buds growing on the underside of damask rose leaves in Hooke's *Micrographia*, cultural engagement via "trial" has unearthed a new developmental possibility in these flowers. Like Goethe's perfoliate rose, Bacon's damask roses bear the traces of having been iconically manipulated by man. Its leaves are paler, it produces new kinds of smells indoors, it tentatively presents its flowers in October instead of the spring. And like Goethe's rose, the rose in Bacon's experiment produces "little buds," ornaments on the surface which betoken new flowers, perhaps quickened by the very process of reading them. This experiment of Bacon's seems contrary to the spirit of the entire *Great Instauration*, as it promises "rareness and pleasure" but "small use." Bacon's own experimental writing is just as visually rich as that of Goethe, and we can picture the rose in the pool in a dark chamber so vividly that it holds our attention like a local icon of a forgotten saint. The damask roses I discuss in this section are as

closely associated with the stuff of "common use" as Autolycus' wares are. But they also illustrate, in an iconic manner, the historical contingency of incarnation and make such contingency legible to the lay as well as the educated reader. I claim these moments as characteristic of romance, and it has been my task in this chapter to show how they blossom in other kinds of texts. In conclusion, iconic roses coax into view elements of experimental science that lay bare their romantic nurture, always remembering where they have been.

Conclusion: Spenser's Pastorella and Bacon's Tree Castles

In this brief conclusion, I consider two passages from the texts that have been the most important to me in writing this dissertation. One of these texts is a literary romance: Spenser's *The Faerie Queene*. The other is a work of experimental science: Bacon's *Sylva sylvarum*. These two passages showcase the organic opulence of romance, both as a genre-based allegory (in Spenser) and as an expression of the wishes of organisms themselves (in Bacon). I end with these passages because they illustrate the romantic processes I have discussed throughout. Both passages, as we shall see, show how organic matter can become more reliable, not less, as it becomes more ornate. These moments therefore show that the knowledge yielded by what Bacon calls "Pygmalion's frenzy" fosters the persistence of romance in unexpected places.

In Canto 12 of Book 6, the end of Spenser's six-book *The Faerie Queene*, we encounter a story of loss and restoration. The maiden Pastorella, who has suffered exile and imprisonment, is on the verge of being found again. The epigraph to the Canto indicates that "Fayre Pastorella by great hap her parents vnderstands." Sir Calidore brings Pastorella to the Castle of Belgard (itself suggesting the beautiful crystal "eyes" of the fountain of Narcissus), which Sir Bellamour governs (6.12.3). Sir Bellamour fell madly in love with the beautiful princess, Claribell many years before. Claribell's father, the poem relates, was "The Lord of Many Ilands" (6.12.4-5) and opposed the match, throwing both the lovers in prison. But they managed to visit one another, with the result that Claribell's "wombe vnwist to wight was fraught/ And in dew time a mayden child forth brought." (6.12.6). We learn that the infant was taken away by a maidservant, Melissa. Before giving the child away to be "fostred vnder straunge attyre" (6.12.6), Melissa takes a

moment to look at her. Like Pygmalion's Galatea, the infant Pastorella is revealed fully to the eyes of the reader:

The trustie damzell bearing it abrode
 Into the emptie fields, where liuing wight
 Mote not bewray the secret of her lode,
 She forth gan lay vnto the open light
 The litle babe, to take thereof a sight.
 Whom whylest she did with watrie eyne behold,
 Vpon the litle brest like christall bright,
 She mote perceiue a litle purple mold,
 That like a rose her silken leaues did faire vnfold. (6.12.7).

Melissa's decision to lay the baby Pastorella in "open light" unearths several important ideas that I explore throughout this dissertation. First, the empty fields and open landscape can be read as the medieval face of nature which is fully intelligible to the "lay" or unreformed senses. The text's comparison of the breast of the infant to "christall bright" reminds us of the crystals in Chapter 1. As we saw with reference to Lucrece's ideas about crystalline female minds, this open landscape threatens to turn bright crystal into a more polluted vessel. I am also reminded of Blake's crystal cabinet, which presents a meaningful miniature of nature that threatens to shatter upon unwary investigation. The vividness of this passage and the comparison of the "litle purple mold" to a rose is important, also. Spenser's careful description of this episode is akin to those of Goethe and Bacon in their rose experiments, giving us the impression that the rose is growing before our own "watrie eyne" by means of opulent writing. Furthermore, the mole is so intricately rose-like that its "silken" (perhaps even "damask") leaves unfold over time. The fact that this baby is destined to be fostered and nurtured in a place that is not her own links her, also, with the Redcrosse Knight. As a whole, this moment is so typical of the romance genre (a lost princess with a mysterious birthmark about to be smuggled into hiding) and yet so precise that

Melissa "[marks] it well." When we think back over the course of *The Faerie Queene* more generally, we remember that appearances are often deceptive to Spenser, as is the case with the false Una and the false Florimell. The pairing of visual indulgence with reliable knowledge in the Pastorella episode is therefore atypical of Spenser's interest in the trickery suggested by feminine beauty.

The reliable nature of this episode is revealed when the adult Pastorella reappears after all her ordeals, her parentage is revealed when Melissa "[c]haunst to espy vpon her yuory chest/ The rosie marke, which she remembred well/ That litle Infant had..." (6.12.15).¹⁷² Melissa tells Claribell, who is overwhelmed with doubt. She asks the maidservant how she knows. Melissa replies:

Most certaine markes, (sayd she), do me it teach,
For on her brest I with these eyes did vew
The litle purple rose, which thereon grew,
Whereof her name ye then to her did giue. (6.12.18).

Is Pastorella's real name "Rose"? Like the Redcrosse Knight, again, Pastorella seems to have another name and lineage which can only be unfolded in the due course of time. Claribell, frantic, rushes to her daughter, "Rent vp her brest, and bosome open layd,/ In which that rose she plainly saw displayd." (6.12.19). In breaking open Pastorella's gown, Claribell is figuratively revealing her parentage. She is also repeating (unknowingly) the gesture of her nursemaid in Pastorella's infancy. As is the case with Homer's moly, a moment of disenchantment or

¹⁷² As Maureen Quilligan notes, Pastorella's plight is similar to that of Shakespeare's Perdita. Quilligan writes: "Pastorella is rescued as Perdita was, returned to her aristocratic parents after the traditional birthmark-recognition scene; her story makes her an idealized pastoral Persephone, the almost too-conventional heroine of romance." *The Language of Allegory: Defining the Genre*, (Ithaca: Cornell University Press, 1979), 170. Perdita, of course, is also associated with flowers and is recognized again by her mother's garment and "her jewel about the neck of it," producing a "unity in the proofs." (5.2.33-34). William Shakespeare, *The Arden Shakespeare Complete Works*, ed. G. R. Proudfoot, Ann Thompson, and David Scott. Kastan, Rev. ed. (London: Arden Shakespeare, 2001), 1309.

clarification can inadvertently showcase its own mode of nurture. After rejoicing, Claribell interviews her daughter:

Thou further asking her of sundry things,
 And times comparing with their accidents,
 She found at last by very certaine signes,
 And speaking markes of passed monuments,
 That this young Mayd, whom chance to her presents
 Is her own daughter, her owne infant deare. (6.12.20).

Pastorella's beautiful story is a return of the old, a restoration of a family, and highly characteristic of romance. I argue that the little purple rose that grew on the crystal breast of the infant integrates crystals and roses and therefore reaffirms an organic yet courteous link between the two organisms. But the significance of this mark is only intelligible when looking backward. How did Melissa know that the rose would help her identify the foundling baby many years later as a fully developed adult? Melissa's memory is thus part of the suggestion that prevails throughout *The Faerie Queene* of an invented folkloric past that is somehow more powerful than the recorded history it relates. If Pastorella is indeed the incarnation of pastoral romance, as her alternate name suggests, she comes home again in this passage and presents herself clearly once more.

As I have demonstrated in this dissertation, Bacon's experimental work showcases the ability of organic materials to present a romantic face to the observer. This romantic face shows that organisms bear on their surfaces their own literary and cultural history. Bacon allows a space for the work of vegetable history in his *New Organon*, when he describes the permissible search for "Conformable Instances," which he defines as "*Parallels, or Physical Resemblances*" and "the first and lowest steps toward the union of nature." (4:164). One of his examples of

"Conformable Instances" are roots and branches: "For all vegetable matter swells and pushes out its parts to the surface, as well upwards as downwards." (4:165).¹⁷³ This passage is key, as it reaffirms my central argument of this dissertation: that the surface of things, the outer face of nature, gives us reliable information about forces at work beneath the soil. In Bacon's words, we can see that vegetable matter seems to *strive* and push itself into our view, perhaps even dictating the use that we make of it. In this passage, the resemblances that Bacon detects between roots and branches lies in their shape and behavior.

Bacon's sense of the sophistication of vegetable intelligence, however, finds fullest expression in his experimental writing. As I mention at the beginning of my Introduction, the reformation of experimental matter that Bacon undertakes is in part his effort to excise superstitious "natural magic" and "fabulous" undertakings from natural philosophy. Bacon's own writing, at its opulent best, is not immune to the allure of such suspect tendencies. As I quoted at the end of Chapter 4, Bacon's second damask rose experiment is intended to give pleasure, but little use. As such, it runs counter to the "scriptural" spirit of the *Great Instauration*, but perhaps is part of its "lay" environment, which is useful only by chance. In another set of experiments with vegetable life, Bacon's writing plunges even deeper into the very "Pygmalion's frenzy" he seeks to shun. Consider these three experiments from *Sylva sylvarum*:

503. It is a curiosity to have inscriptions or engravings in fruit or trees. This is easily performed, by writing with a needle, or bodkin, or knife, or the like, when the fruit or trees are young; for as they grow, so the letters will grow more large and graphical. *Tenerisque meos incidere amores/ Arboribus; crescent illae, crescetis amores.*

504. You may have trees appparelled with flowers or herbs, by boring holes in the bodies of them, and putting into them earth holpen with muck, and setting seeds, or slips, of violets, strawberries,

¹⁷³ Lisa Jardine reminds us that detecting physical and linguistic similarities between objects and processes more generally was an important early part of the scientific process for Bacon, but a preliminary and provisional one only. See Jardine, *Francis Bacon: Discovery and the Art of Discourse* (London: Cambridge University Press, 1974), 200–201.

wild thyme, camomile, and such like, in the earth. Wherein they do but grow in the tree as they do in pots; though (perhaps) with some feeding of the trees. It would be tried also with shoots of vines, and roots of red roses; for it may be they being of a more ligneous nature, will incorporate with the tree itself.

505. It is an ordinary curiosity to form trees and shrubs (as rosemary, juniper and the like,) into sundry shapes; which is done by moulding them within, and cutting them without. But they are but lame things, being too small to keep figure. Great castles made of trees upon frames of timber, with turrets and arches, were anciently matters of magnificence. (2:502).

This experiments amplify aspects of vegetable matter in a culturally and historically sensitive manner. In the first experiment, letters inscribed on trees are as sure to flourish as the appealing letters in the medieval books that Bacon mentions in the "Pygmalion's frenzy" passage. The growth of the tree is no mere vanity, therefore, but a use of organic force to amplify a cultural product (the Latin tags inscribed). Is Bacon more amenable to flourishing letters when he encounters them on a tree instead of in a "patent" book? In the second experiment, "earth holpen with muck" can grow in trees when studded with beautiful fruits and flowers, just as easily as it can in a pot. This process helps soil that has accreted beautiful forms to show those forms in a new setting. The resultant tree "apparelled" with flowers would fuse vegetable matter with cultural matter just as surely as damask roses and the other organic forms discussed in this dissertation do. Finally, in the third experiment Bacon presents a nostalgic view of vegetable matter, perhaps thinking of a medieval forest like the one in which the Green Knight had his mossy chapel and paper castle. Timber, turrets, and arches may understand their historic links to one another and help one another grow before the eye of the reader. These three passages, as surely as Pastorella's recovery, show that the organic opulence of romance is far from empty, but rather full of ancient and powerful meaning.

WORKS CITED

Apuleius, *The. Xi. Bookes of the Golden Asse: Conteininge the Metamorphosie of Lucius Apuleius, Enterlaced with Sondrie Pleasaunt and Delectable Tales, with an Excellent Narration of the Mariage of Cupide and Psiches, Set out in the. Iiii. v. and vj. Bookes. Translated out of Latine into Englishe by William Adlington.* London: In Fleetstreate, at the signe of the Oliphante, by Henry Wykes, 1566.

Apuleius, Latin Library, <http://www.thelatinlibrary.com/apuleius/apuleius4.shtml>, accessed June 4, 2018.

Arendt, Hannah. *The Human Condition: Second Edition.* Chicago and London: The University of Chicago Press, 1998.

Ariosto, Lodovico. *Orlando Furioso: In English Heroical Verse, by Sr Iohn Haringto[n] of Bathe Knight, Now secondly imprinted the yeere. 1607.* London: By Richard Field, for Iohn Norton and Simon Waterson, 1607.

Aristotle, *The Complete Works of Aristotle: The Revised Oxford Translation.* Ed. Jonathan Barnes. Clayton, Ga: InteLex Corporation, 1992. 2 vols.

Ascham, Roger. *The Scholemaster or Plaine and Perfite Way of Teachyng Children, to Vnderstand, Write, and Speake, the Latin Tong but Specially Purposed for the Priuate Brynyng vp of Youth in Ientlemen and Noble Mens Houses, and Commodious Also for All Such, as Hauue Forgot the Latin Tonge.* London: Printed by Iohn Daye, dwelling ouer Aldersgate, 1570.

Auerbach, Erich. *Mimesis: The Representation of Reality in Western Thought.* Princeton, N.J.: Princeton University Press, 2003.

Aulakh, Pavneet. "Seeing Things Through 'Images Sensible': Emblematic Similitudes and Sensuous Words in Francis Bacon's Natural Philosophy." *ELH*. Vol. 81, 2014. 1149-1172.

Bacon, Francis. *The Works of Francis Bacon.* Ed. James Spedding, Leslie Ellis, and Douglas Denon Heath. London: Longman, 1861-1879. 14 vols.

du Bartas, Guillaume de Salluste. *Du Bartas His Deuine Weekes and Workes Translated: And Dedicated to the Kings Most Excellent Maiestie by Iosuah Syluester.* London: By Humfrey Lounes [and are to be sould by Arthur Iohnson at the signe of the white horse, neere the great north doore of Paules Church,] 1611.

Baumgartner, Emmanuele. "The Play of Temporalities; or, The Reported Dream of Guillaume de Lorris," in *Rethinking the Romance of the Rose: Text, Image, Reception*. Ed. Kevin Brownlee and Sylvia Huot. Philadelphia: University of Pennsylvania Press, 1992. 22-38.

du Bellay, Joachim. *The Regrets, with The Antiquities of Rome, Three Latin Elegies, and The Defense and Enrichment of the French Language*. Ed. Richard Helgerson. Philadelphia: University of Pennsylvania Press, 2006.

Bercovitch, Sacvan. "Milton's 'Haemony': Knowledge and Belief." *Huntingdon Library Quarterly*. Vol. 33, No. 4, Aug. 1970, 351-359.

Berners, John Bouchier. *The Boke of Duke Huon of Burdeux, Done into English by Sir John Bouchier, Lord Berners, and Printed by Wynkyn de Worde about 1534 A.D.* Ed. Sidney Lee. London: Pub. for the Early English text society by N. Trübner & co., 1882.

Blake, William. *The Complete Poetry and Prose*. Ed. David V. Erdman. New York: Anchor Books, 1988.

Boyle, Robert. *The Works of Robert Boyle*. Ed. Michael Hunter and Edward Bradford Davis. London [England]: Pickering & Chatto, 1999. 14 vol.

Briggs, Katharine Mary. *A Dictionary of British Folk-Tales in the English Language: Incorporating the F. J. Norton Collection*. Bloomington: Indiana University Press, 1970. 4 vols.

Briggs, Katharine Mary. *The Anatomy of Puck: An Examination of Fairy Beliefs among Shakespeare's Contemporaries and Successors*. London: Routledge and Kegan Paul, 1959.

Brown, Cedric C. *John Milton's Aristocratic Entertainments*. Cambridge [Cambridgeshire]: Cambridge University Press, 1985.

Browne, Sir Thomas. *Pseudodoxia Epidemica, or, Enquiries into Very Many Received Tenents and Commonly Presumed Truths*. London: Printed by T.H. for E. Dod, 1646.

Carson, Anne. *Decreation: Poetry, Essays, Opera*. New York: Knopf, 2005.

Carson, Anne. *If Not, Winter: Fragments of Sappho*. New York: Vintage Books, 2002.

Chapman, Alison A. "Ophelia's 'Old Lauds': Madness and Hagiography in Hamlet." *Medieval & Renaissance Drama in England; Cranbury*. Vol. 20, 2007. 111-135.

Chaucer, Geoffrey. *The Riverside Chaucer*. Ed. Larry Dean Benson. 3rd ed. Oxford: Oxford University Press, 2008.

Clay, Jenny. "The Planktai and Moly: Divine Naming and Knowing in Homer." *Hermes*. Vol. 100, No. 2, 1972. 127-131.

Colonna, Francesco. *Hypnerotomachia. = The Strife of Loue in a Dreame*. London: Printed [by Abell Jeffes, John Charlewood, and Eliot's Court Press] for Simon Waterson, 1592.

Conti, Natale. *Natale Conti's Mythologiae*. Tempe, Ariz.: ACMRS, 2006. 2 vols.

Copeland, Rita and Ineke Sluiter, eds. *Medieval Grammar and Rhetoric: Language Arts and Literary Theory, AD 300 -1475*. Oxford: Oxford University Press, 2009.

Crane, Mary Thomas. *Losing Touch with Nature: Literature and the New Science in Sixteenth-Century England*. Baltimore, Maryland: Johns Hopkins University Press, 2014.

Daston, Lorraine. "Preternatural Philosophy." In *Biographies of Scientific Objects*. Ed. Lorraine Daston. Chicago and London: The University of Chicago Press, 2000. 15-41.

Davies, Sir John and Christopher Marlowe. *Epigrammes and Elegies by I.D. and C.M.* Middleborough, 1599.

Dillon, John B. and Gordon Teskey. "Milton's Homer." *PMLA*. Vol. 101, No. 5, 1986, 857-858.

Drayton, Michael. *Endimion and Phoebe Ideas Latmus. Phoebus Erit Nostra Princeps et Carminis Author*. London: Printed by Iames Roberts, for Iohn Busbie, 1595.

Drayton, Michael. *Poly-Olbion*. London: Printed [by Humphrey Lownes] for M Lownes. I Browne. I Helme. I Busbie, 1612.

Drayton, Michael. *Works*. Oxford: Published for the Shakespeare Head Press by Blackwell, 1961. 5 vols.

Dubrow, Heather. "The Masquing of Genre in Comus." *Milton Studies*. No. 44, 2005. 62–83.

Emerson, Ralph Waldo. *Essays and Lectures*. New York: Literary Classics of the United States: Distributed by the Viking Press, 1983.

Egan, Gabriel. *Shakespeare and Ecocritical Theory*. London; New York, NY: Bloomsbury Arden Shakespeare, an imprint of Bloomsbury Publishing Plc, 2015.

Elyot, Thomas. *Bibliotheca Eliotæ: Eliotis librariæ*. Londini: In officina Thomæ Bertheleti, 1542.

Fletcher, Harris. "Milton's Homer." *The Journal of English and Germanic Philology*. Vol. 38, No. 2., Apr. 1939. 229-232.

Frye, Northrop. *The Anatomy of Criticism: Four Essays*. Princeton, N.J: Princeton University Press, 1957.

Frye, Northrop. *The Secular Scripture: A Study of the Structure of Romance*. Cambridge, Mass.: Harvard University Press, 1976.

Fulke, William. *A Goodly Gallerye*. London: [Printed by William Griffith], 1563.

Gerard, John. *The Herball or Generall Historie of Plantes. Gathered by Iohn Gerarde of London Master in Chirurgerie*. Imprinted at London: by [Edm. Bollifant for [Bonham Norton and] Iohn Norton, 1597.

Gerard, John *The Herball or Generall Historie of Plantes. Gathered by Iohn Gerarde of London Master in Chirurgerie Very Much Enlarged and Amended by Thomas Iohnson Citizen and Apothecarye of London*. London: Printed by Adam Islip Ioice Norton and Richard Whitakers, 1636.

von Goethe, Johann Wolfgang. *Goethe's Botanical Writings*. Trans. Bertha Mueller. Woodbridge, CT: Ox Bow Press, 1989.

de Grazia, Margreta. *Hamlet without Hamlet*. Cambridge, U.K.: Cambridge University Press, 2007.

de Grazia, Margreta. "The Modern Divide: From Either Side." *Journal of Medieval and Early Modern Studies*. Vol. 37, No. 3, Fall 2007. 453-467.

Green, Mandy. *Milton's Ovidian Eve*. Farnham, England; Burlington, VT: Ashgate Pub. Company, 2009.

Greene, Robert. *The Life and Complete Works in Prose and Verse of Robert Greene*. Ed. Alexander Balloch Grosart. [London and Aylesbury]: Printed for private circulation only, 1881-1886. 15 vol.

Greteman, Blaine. "'Perplex't Paths': Youth and Authority in Milton's Mask." *Renaissance Quarterly; Chicago*. Vol. 62, No. 2, Summer 2009. 410-443.

Guillory, John. *Poetic Authority: Spenser, Milton, and Literary History*. New York: Columbia University Press, 1983.

Harkness, Deborah E. *John Dee's Conversations with Angels: Cabala, Alchemy, and the End of Nature*. Cambridge, U.K.: Cambridge University Press, 1999.

Herrick, Robert. *Complete Poetry*. Ed J. Max Patrick. ([New York]: New York University Press, 1963.

Heywood, Thomas. *Troia Britanica: Or, Great Britaines Troy A Poem Deuided into XVII. Seuerall Cantons, Intermixed with Many Pleasant Poeticall Tales. Concluding with an Vniuersall Chronicle from the Creation, Vntill These Present Times*. London: Printed by W. Iaggard, 1609.

Heywood, Thomas. *The Hierarchie of the Blessed Angells: Their Names, Orders and Offices. The Fall of Lucifer with His Angells*. London: Printed by Adam Islip, 1635.

Hill, Thomas. *A Contemplation of Mysteries*. London: By Henry Denham, 1574.

Homer. *Homer's Odysses. Translated According to Ye Greeke by. Geo: Chapman*. London: By Rich. Field [and W. Jaggard], for Nathaniell Butter, 1615.

Hooke, Robert. *Micrographia: Or Some Physiological Descriptions of Minute Bodies Made by Magnifying Glasses, with Observations and Inquiries thereupon*. London: John Martyn and James Allestry, 1664.

Hult, David F. "Language and Dismemberment: Abelard, Origen, and the Romance of the Rose." In *Rethinking The Romance of the Rose: Text, Image, Reception*. Ed. Kevin Brownlee and Sylvia Huot. Philadelphia: University of Pennsylvania Press, 1992.

Jardine, Lisa. *Francis Bacon: Discovery and the Art of Discourse*. London: Cambridge University Press, 1974.

Johnson, Barbara. *The Critical Difference: Essays in the Contemporary Rhetoric of Reading*. Baltimore: Johns Hopkins University Press, 1980.

Jonson, Ben. *Bartholomew Fair*. New Haven: Yale University Press, 1963.

Jonson, Ben. *The Fountaine of Selfe-Loue. Or Cynthia's Reuels*. London: [By R. Read] for Walter Burre, and are to be solde at his shop in Paules Church-yard, at the signe of the Flower de-Luce and Crowne, 1601.

Kalas, Rayna. *Frame, Glass, Verse: The Technology of Poetic Invention in the English Renaissance*. Ithaca: Cornell University Press, 2007.

Kendall, Timothy. *Flowers of Epigrammes, out of Sundrie the Moste Singular Authours Selected, as Well Auncient as Late Writers. Pleasant and Profitable to the Expert Readers of Quicke Capacitie*. London: [By John Kingston] in Poules Church-yard, at the signe of the Brasen Serpent, by Ihon Shepperd, 1577.

King, Andrew. *The Faerie Queene and Middle English Romance: The Matter of Just Memory*. Oxford: Clarendon, 2000.

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

Knight, Leah. *Reading Green in Early Modern England*. Farnham, Surrey; Burlington, VT: Ashgate, 2014.

Langer, Susanne. *Philosophy in a New Key: A Study of the Symbolism of Reason, Rite, and Art*, 3rd ed. Cambridge, MA; London, England: Harvard University Press, 2009.

Lodge, Thomas. *Phillis: Honoured Vvith Pastorall Sonnets, Elegies, and Amorous Delights VVhere-Vnto Is Annexed, the Tragicall Complaynt of Elstred*. London: Printed [by James Roberts] for Iohn Busbie, and are to be sold at his shoppe, at the west-doore of Paules, 1593.

Lodge, Thomas. *Scillaes Metamorphosis: Enterlaced with the Vnfortunate Loue of Glaucus Whereunto Is Annexed the Delectable Discourse of the Discontented Satyre: With Sundrie Other Most Absolute Poems and Sonnets. Contayning the Detestable Tyrannie of Disdaine, and Comicall Triumph of Constance: Verie Fit for Young Courtiers to Peruse, and Coy Dames to Remember*. London: By Richard Ihones, and are to be sold at his shop neere Holburne bridge, at the signe of the Rose and Crowne, 1589.

de Lorris, Guillaume and Jean de Meun. *Le Roman de La Rose*. Ed. Armand Strubel. Paris: Librairie générale française, 1992.

Lyly, John. *Euphues*. London: [By T. East] for Gabriel Cawood dwelling in Paules church-yarde, 1578.

Lyly, John. *Euphues and His England Containing His Voyage and His Aduentures, Myxed with Sundrie Pretie Discourses of Honest Loue, the Discription of the Countrey, the Court, and the Manners of That Isle. Delightful to Be Read, and Nothing Hurtfull to Be Regarded: Wherein There Is Small Offence by Lightnesse Giuen to the Wise, and Lesse Occasion of Looseness Proffered to the Wanton*. London: [By T. East] for Gabriell Cawood, dwelling in Paules Church-yard, 1580.

Lyly, John. *Gallathea As It Was Playde before the Queenes Maiestie at Greene-Wiche, on Newyeeres Day at Night. By the Chyldren of Paules*. London: At London : Printed by Iohn Charlwoode for the widdow Broome, 1592.

Mann, Jenny C. "Pygmalion's Wax: 'Fruitful Knowledge' in Bacon and Montaigne." *Journal of Medieval and Early Modern Studies*. Vol. 45, No. 2, May 2015. 367-393.

McCabe, Richard A. *The Pillars of Eternity: Time and Providence in The Faerie Queene*. Blackrock [Ireland]: Irish Academic Press, 1989.

Mentz, Steve. "Shipwreck and Ecology: Toward a Structural Theory of Shakespeare and Romance." *The Shakespearean International Yearbook* 8, 2008. 165-182.

Milton, John. *The Complete Poetry and Essential Prose of John Milton*. Ed. William Kerrigan, John Peter Rumrich, and Stephen M. Fallon. Modern Library ed., 1st ed. New York: Modern Library, 2007.

Murrin, Michael J. "Panthea." In *The Spenser Encyclopedia*. Ed. A.C. Hamilton. Toronto: University of Toronto Press, 1990. 528.

Newton, Isaac. *Opticks: Or, A Treatise of the Reflections, Refractions, Inflections and Colours of Light. The Third Edition, Corrected. By Sir Isaac Newton, Knt.* London: Printed for William and John Innys, 1721.

Nohrnberg, James. *The Analogy of The Faerie Queene*. Princeton, N.J.: Princeton University Press, 1976.

Otten, Charlotte F. "Milton's Haemony." *English Literary Renaissance* Vol. 5, No. 1, 1975. 81-95.

Ovid. *Metamorphoses*. Frank Justus Miller, trans., G.P. Goold, rev. Cambridge, Massachusetts and London, England: Harvard University Press, 1984. 2 vols.

Ovid. *Ovid's Metamorphoses: The Arthur Golding Translation, 1567*. Ed. John Frederick Nims. Philadelphia: Paul Dry Books, 2000.

Ovid. *Shakespeare's Ovid: Being Arthur Golding's Translation of the Metamorphoses*. [1st American ed.]. Carbondale: Southern Illinois University Press, 1961.

Ovid. *Ovid's Metamorphosis Englished, Mythologized, and Represented in Figures*. Trans. George Sandys. Lincoln: University of Nebraska Press, 1970.

OED Online. Oxford University Press.

Paracelsus. *The Hermetic and Alchemical Writings*. Trans. Arthur Edward Waite. New Hyde Park, NY: University Books Inc., 1967. 2 vols.

Parker, Pauline. *The Allegory of The Faerie Queene*. Oxford: Clarendon Press, 1960.

Parker, Patricia A. *Inescapable Romance: Studies in the Poetics of a Mode*. Princeton, N.J.: Princeton University Press, 1979.

Phillips, Edward. *The New World of English Words, or, A General Dictionary Containing the Interpretations of Such Hard Words as Are Derived from Other Languages*. London: Printed by E. Tyler for Nath. Brooke, 1658.

Picciotto, Joanna. *Labors of Innocence in Early Modern England*. Cambridge, Mass.: Harvard University Press, 2010.

Plato. *Lysis; Symposium; Gorgias*. Trans. W.R.M. Lamb. Cambridge, Mass.: Harvard University Press, 1914.

Pliny. *Natural History*. Trans. W.H.S. Jones and D.E. Eichholz. Cambridge, Mass.: Harvard University Press, 1938-1963. 11 vol.

Pliny. *The Historie of the World: Commonly Called, the Naturall Historie of C. Plinius Secundus*. Trans. Philemon Holland. London: Adam Islip, 1601. 2 vols.

Prawdzik, Brendan. "'Look on Me': Theater, Gender, and Poetic and Identity Formation on Milton's Maske." *Studies in Philology*. Vol. 110, No. 4, 2013. 812-850.

Pugh, Syrithe. *Spenser and Ovid*. Aldershot, Hants, England: Ashgate, 2005.

Purchas, Samuel. *Purchas His Pilgrimes: In Fiue Bookes*. London: Printed by William Stansby for Henrie Fetherstone, and are to be sold at his shop in Pauls Church-yard at the signe of the Rose, 1625.

Puttenham, George. *The Art of English Poesy*. Ed. Frank Whigham and Wayne A. Rebhorn. Ithaca: Cornell University Press, 2007.

Quilligan, Maureen. *The Language of Allegory: Defining the Genre*. Ithaca: Cornell University Press, 1979.

Raleigh, Walter. *The Discoverie of the Large, Rich, and Bewitful Empyre of Guiana*. Norman: University of Oklahoma Press, 1997.

Rathborne, Isabel Elisabeth. *The Meaning of Spenser's Fairyland*. New York: Russell & Russell, 1965.

Richmond, Velma Bourgeois. *Shakespeare, Catholicism, and Romance*. New York: Continuum, 2000.

Roche, Thomas P. *The Kindly Flame: A Study of the Third and Fourth Books of Spenser's Faerie Queene*. Princeton, N.J.: Princeton University Press, 1964.

Schmidt, Dennis J. "From the Moly Plant to the Gardens of Adonis." *Epoché*. Vol. 17, No. 2, 2013. 167-177.

Scot, Reginald. *Scot's Discovery of Witchcraft Proving the Common Opinions of Witches Contracting with Divels, Spirits, or Familiars ... to Be but Imaginary, Erronious Conceptions and Novelties : Wherein Also, the Lewde Unchristian*. London: Printed by R.C. and are to be sold by Giles Calvert, 1651.

Shakespeare, William. *Lucrece*. London: Printed by Richard Field, for Iohn Harrison, 1594.

Sir Gawain and the Green Knight: A New Verse Translation. Trans. Simon Armitage. New York; London: W.W. Norton & Company, 2007.

Shakespeare, William. *The Tragicall Historie of Hamlet Prince of Denmarke*, (London: Printed for N.L. and John Trundell, 1603. Accessed via University of Victoria Internet Shakespeare Project, April 16, 2018, http://internetshakespeare.uvic.ca/Library/facsimile/book/BL_Q1_Ham/50/?zoom=550.

Shakespeare, William. *The Tragicall Historie of Hamlet Prince of Denmarke*. London: Printed by I.R. for N.L. and are to be sold at his shoppe vnder Saint Dunstons Church in Fleetstreet, 1605. Accessed via University of Victoria Internet Shakespeare Project, April 16, 2018, http://internetshakespeare.uvic.ca/Library/facsimile/book/BL_Q2_Ham/73/?work=ham&ln=2783&zoom=500.

Shakespeare, William. *The Historie of Henrie the Fourth*. London: Printed by P.S. for Andrew Wise, dwelling in Paules Churchyard at the signe of the Angell, 1598. Accessed via University of Victoria Internet Shakespeare Project, April 16, 2018. http://internetshakespeare.uvic.ca/Library/facsimile/book/BL_Q1_1H4/7/?zoom=600

Shakespeare, William. *The Arden Shakespeare Complete Works*. Ed. G. R. Proudfoot, Ann Thompson, and David Scott. Kastan. Rev. ed. London: Arden Shakespeare, 2001.

Shakespeare, William. *Mr. William Shakespeares Comedies, Histories, & Tragedies: Published According to the True Originall Copies*. London: Printed by Isaac Iaggard, and Ed. Blount [at the charges of W. Iaggard, Ed. Blount, I. Smithweeke, and W. Aspley], 1623.

Sidney, Philip. *An Apologie for Poetrie. VVritten by the Right Noble, Vertuous, and Learned, Sir Phillip Sidney, Knight*. At London: Printed [by James Roberts] for Henry Olney, and are to be sold at his shop in Paules Church-yard, at the signe of the George, neere to Cheap-gate, 1595.

Smith, Bruce R. *The Key of Green: Passion and Perception in Renaissance Culture*. Chicago: University of Chicago Press, 2009.

Spenser, Edmund. *Amoretti and Epithalamion*. London: Printed [by P. S[hort]] for William Ponsonby, 1595.

Spenser, Edmund. *The Faerie Qveene*. Ed. A. C. Hamilton, Hiroshi Yamashita, and Toshiyuki Suzuki. New York: Longman, 2001.

Spenser, Edmund. *The Yale Edition of the Shorter Poems of Edmund Spenser*. Ed. William A. Oram. New Haven: Yale University Press, 1989.

Steadman, John M. "Milton's Haemony: Etymology and Allegory." *PMLA*. Vol. 77, No. 3, Jun. 1962. 200-207.

Stevens, Wallace. *Collected Poetry and Prose*. New York: Library of America, 1997.

Stoppard, Tom. *Arcadia*. New York: Faber & Faber, Inc., 1993.

Theophrastus. *Enquiry into Plants: And Minor Works on Odours and Weather Signs*. London: W. Heinemann, 1916. 2 vols.

Toulmin, Stephen. *Cosmopolis: The Hidden Agenda of Modernity*. New York: Free Press, 1990).

Tuve, Rosemond. *Essays by Rosemond Tuve: Spenser; Herbert; Milton*. (Princeton [N.J.]: Princeton University Press, 1970.

Van der Laan, Sarah. "Circean Transformation and the Poetics of Milton's Masque." *The Seventeenth Century; Durham*. Vol. 31, No. 2, 2016. 139-160.

Vickers, Brian. "Bacon and Rhetoric." In *The Cambridge Companion to Bacon*. Ed. Markku Peltonen. New York: Cambridge University Press, 1996. 200-231.

Wall, Wendy. *Recipes for Thought: Knowledge and Taste in the Early Modern English Kitchen*. Philadelphia: University of Pennsylvania Press, 2016.

Werth, Tiffany Jo. *The Fabulous Dark Cloister: Romance in England After the Reformation*. Baltimore: Johns Hopkins University Press, 2011.

Wilson, Thomas. *The Arte of Rhetorique: For the vse of All Suche as Are Studious of Eloquence, Sette Forth in English, by Thomas Wilson* [[London]: Richardus Graftonus, typographus regius excudebat], 1553.

Zysk, Jay. "You Are What You Eat: Cooking and Writing Across the Species Barrier in Ben Jonson's *Bartholomew Fair*." In *The Indistinct Human in Renaissance Literature*. Eds. Jean E. Feerick and Vin Nardizzi. New York; Palgrave Macmillan, 2012. 69-84.